Technical Appendix

City Centre West

City of Fairfax, Virginia

GOROVE SLADE
Transportation Planners and Engineers

CONTENTS

A. Scoping Document

PRE-SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information				
Consultant Name: Tele: E-mail:	Maria Lashinger, Gorove Slade 703-787-9595 maria.lashinger@goroveslade.com			
Developer/Owner Name: Tele: E-mail:	Christopher Smith, Ox Hill Realty 703-946-5590 csmith@oxhillco.com			
Project Information				
Project Name:	City Center West			
Project Location: (Attach regional and site specific location map) **PLEASE SEE FIGURE 1**	The project is located south of Main Street, west of West Street, and east of Judicial Drive in the City of Fairfax, VA. The site is located in the Old Town Fairfax Activity Center and the Old Town Fairfax Transition Overlay District.			
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	This application is for the proposed City Center West development. The 1.78-acre site consists of three (3) parcels (Parcel IDs 57-4 ((02)) 71, 72, 76). The existing site is currently occupied by a 11,340 SF office, 3,721 SF bank, and 4,408 SF restaurant that are to be removed. The proposed development includes 88 multifamily units, 67,315 SF of general office, 10,835 SF of medical office, 4,634 SF of retail, a 2,702 SF bank, and a 4,634 SF restaurant. The current zoning for the site is CR (Commercial Retail) and CG (Commercial General). Site access is currently provided via four entrances on Main Street. Site access will continue to be provided via Main Street, as well as a new connection via West Street.			
Locality/County:	City of Fairfax, VA			
Proposed Use: (Check all that apply; attach additional pages as necessary)	**Residential** ☐	**Commercial** ☐	**Mixed Use** ☒	**Other** ☐
	Residential # of Units: **Commercial** Use Sq Ft: ITE LU Code(s):		**Mixed Use**: • 88 multifamily units (ITE 221) • 67,315 SF general office (ITE 710) • 10,835 SF medical office (ITE 720) • 4,634 SF retail (ITE 820) • 2,702 SF bank (ITE 912) • 4,634 SF restaurant (ITE 932)	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Traffic Impact Analysis Assumptions			
Study Period	Existing Year: 2022	Build-out Year: 2025	Design Year: N/A
Study Area Boundaries (Attach map) **PLEASE SEE FIGURE 2**	North: Main Street	South: Page Avenue (Fairfax County)	
	East: West Street	West: Judicial Drive	
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	• South Street Extension (not anticipated to be in place by 2025) • Main Street Streetscape Improvements • Chain Bridge Road at Rust Hill Place Sidewalk Improvements (completed) • Fairfax County Judicial Complex – Phase 1		
Consistency With Comprehensive Plan (Land use, transportation Plan)	The site is located in the Old Town Fairfax Activity Center. The Activity Center Place Type applies to locations in the City where pedestrian-oriented, mixed-use development is strongly encouraged.		
Available Traffic Data (Historical, forecasts)	• VDOT AADT Data • Historical Turning Movement Counts (September 2019)		
Trip Distribution (%) (Attach sketch) **PLEASE SEE FIGURE 3**	Please refer to Figure 3.		
Annual Vehicle Trip Growth Rate: **PLEASE SEE TABLE 1**	1.0%	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT
Study Intersections and/or Road Segments (Attach additional sheets as necessary) **PLEASE SEE FIGURE 2**	1. Main Street and Judicial Drive 2. Main Street and Funeral Home Driveway West/Mosby Tower Driveway West 3. Main Street and Funeral Home Driveway East 4. Main Street and 10555 Main Street Driveway West 5. Main Street and 10555 Main Street Driveway East 6. Main Street and 10533 Main Street Driveway/Mosby Tower Driveway East 7. Main Street and 10515 Main Street Driveway 8. Main Street and 10501 Main Street Driveway West/Church Driveways 9. Main Street and 10501 Main Street Driveway East 10. Main Street and West Street 11. Future E/W Road and Site Entrance 1 (future) 12. Future E/W Road and Site Entrance 2/Massey Drive Extended (future) 13. Future E/W Road and West Street (future)		
Trip Adjustment Factors **PLEASE SEE TABLE 3**	Internal allowance: ☒ Yes ☐ No	Pass-by allowance: ☒ Yes ☐ No	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☐ aaSIDRA ☐ CORSIM ☐ VISSIM
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	From list of study intersections above: 1. Main Street and Judicial Drive 10. Main Street and West Street
Improvement(s) Assumed or to be Considered	• South Street Extension (not anticipated to be in place by 2025) • Main Street Streetscape Improvements • Chain Bridge Road at Rust Hill Place Sidewalk Improvements (completed)
Background Traffic Studies Considered	• Fairfax County Judicial Complex – Phase 1
Plan Submission	☐ Master Development Plan (MDP) ☐ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☒ Other Plan type (Final Site, Subd. Plan)
Additional Issues to be addressed	☒ Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☒ Bike/Ped Accommodations ☒ Intersection(s) ☒ TDM Measures ☐ Other ____

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

NOTES on ASSUMPTIONS:

1. Synchro 10.3, HCM 2000 will be used for intersection analysis.
2. A vehicle classification count will be conducted to verify heavy vehicle percentages. The vehicle classification count will include pedestrian and bicycle counts.
3. Peak hour factors will be consistent with VDOT guidelines (VDOT TOSAM v2.0)
    a. Existing peak hour factors by overall intersection (minimum of 0.85) will be used for existing analysis
    b. For future year analysis, the PHF will be 0.92 or existing, whichever is higher
4. Analysis procedures consistent with the VDOT Traffic Operations And Safety Analysis Manual Version 2.0 will be used unless otherwise noted.
5. Signal timings will be obtained from the City of Fairfax and/or VDOT.
6. The TIA will include those items described in the "VDOT Checklist: Evaluation of the Submitted VDOT Traffic Impact Analysis" from the *Updated Traffic Impact Analysis Regulations Administrative Guidelines*, December 2018.
7. LOS D is considered to be an acceptable design standard for non-NHS roadways.
8. The site's traffic impact will be mitigated based on Synchro results. SimTraffic results will be provided for informational purposes only.
9. Transportation Demand Management (TDM) discussion will be provided.
10. The study area will evaluate LOS/queue/delay as far east as West Street/Main Street and propose potential mitigation, if required, to the same. City staff may further evaluate the impact to the full downtown grid and propose a solution to ultimately be implemented by the City.
11. Turning movement counts were collected at the study intersections in May 2022 in order to provide a comparison to the 2019 counts. The data shows that on average, 2022 mainline volumes along Main Street are within 10% of pre-pandemic volumes. Hence, 2022 traffic volumes will be used for analysis. The comparison is shown in Table 4.

AGREED: _____ DATE: 06/09/2022
Applicant or Consultant

PRINT NAME: Maria Lashinger, P.E., PTOE, Gorove Slade Associates, Inc.
Applicant or Consultant

SIGNED: _____ DATE: 8/31/22
City of Fairfax

PRINT NAME: Curt McCullough
City of Fairfax

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

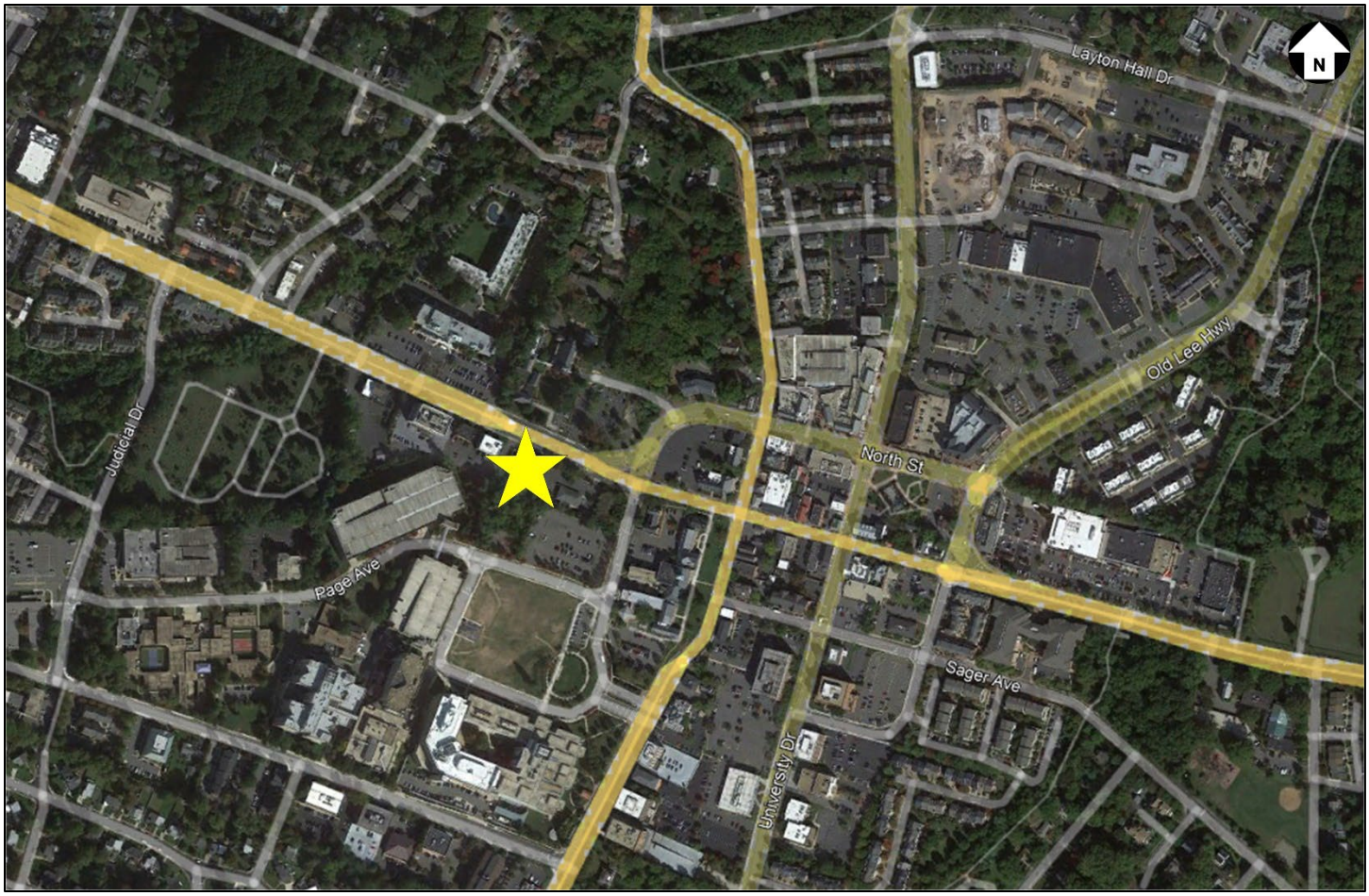


Figure 1: Regional Map

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

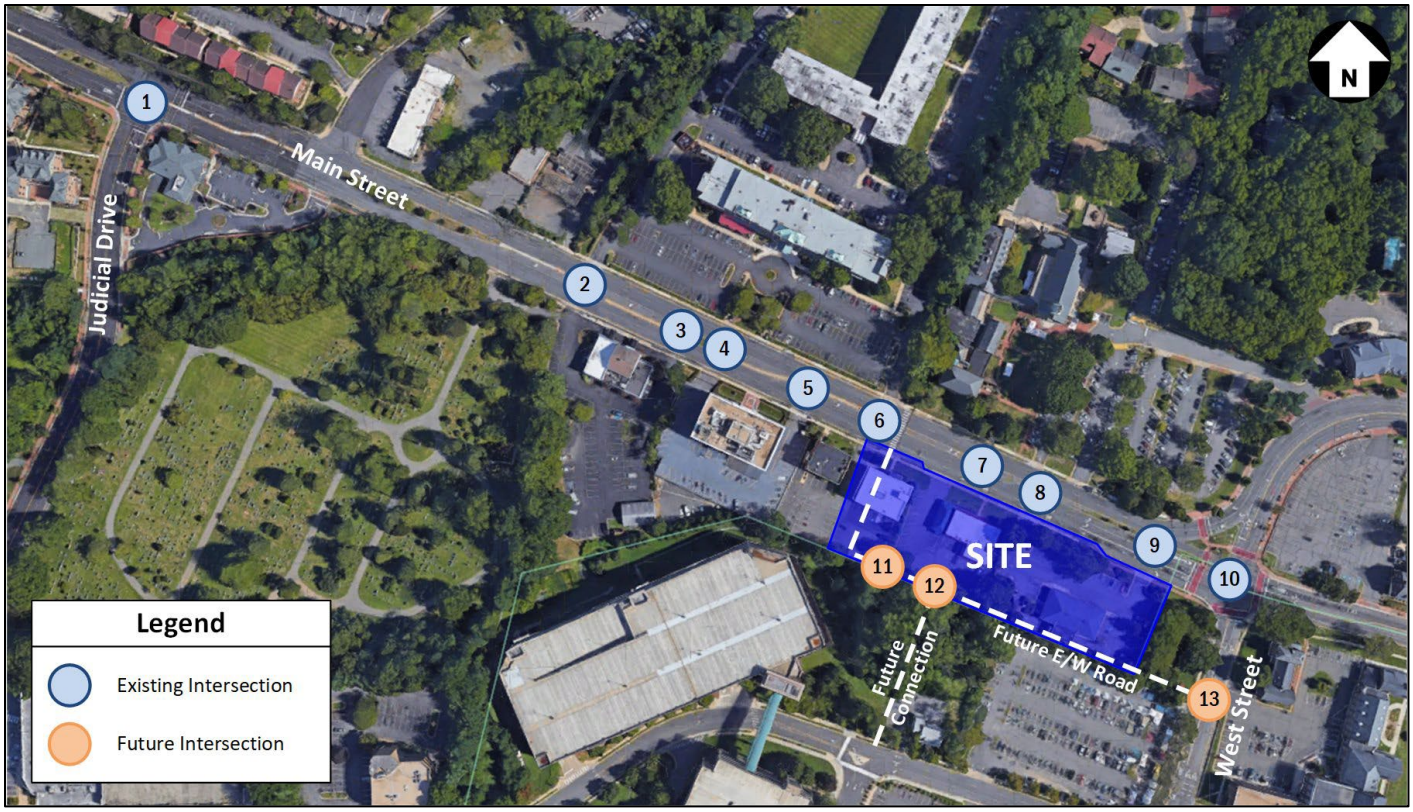


Figure 2: Study Intersections

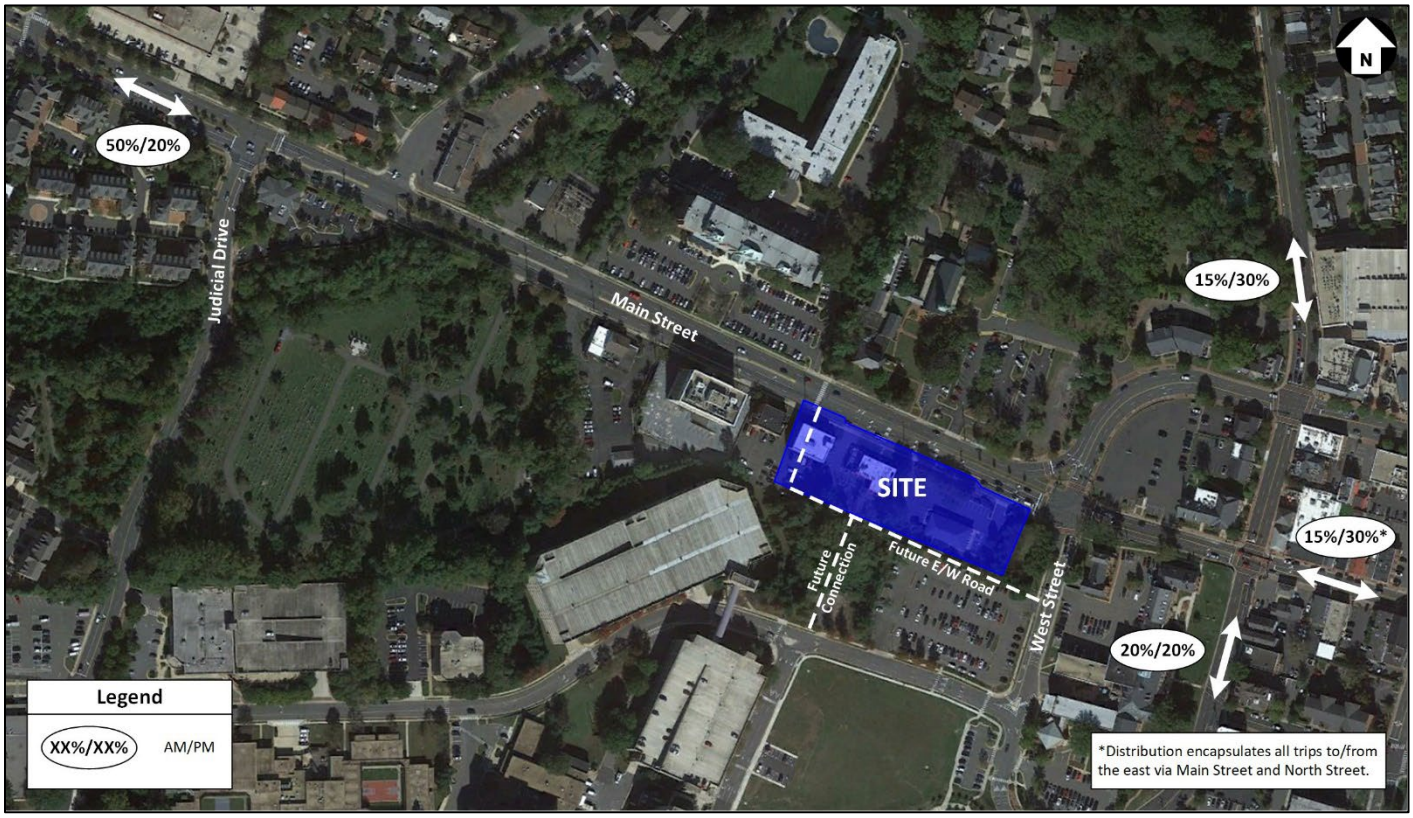


Figure 3: Trip Distribution

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Table 1: Historic AADT Growth

Route	From	To	ADT 2015	ADT 2016	ADT 2017	ADT 2018	ADT 2019	Annual % Change (2015-2019)
Main Street	US 50	West St	35,000	35,000	36,000	38,000	38,000	2.1%

Source: VDOT Traffic Data (http://www.virginiadot.org/info/ct-trafficcounts.asp)

Table 2: Trip Generation - Without Reductions

ITE Land Use Code		*Trip Generation, 10th Ed.*	Quantity	Weekday AM Peak Hour *In*	AM Peak Hour *Out*	AM Peak Hour *Total*	Weekday PM Peak Hour *In*	PM Peak Hour *Out*	PM Peak Hour *Total*	Daily *Total*
By-Right (CR and CG)										
Office	710	General Office Building	339,398 SF	298	48	346	58	306	364	3,472
		Approved Trips		**298**	**48**	**346**	**58**	**306**	**364**	**3,472**
Existing Development to Be Removed										
Office	710	General Office Building	11,340 SF	32	5	37	2	12	14	128
Services	912	Drive-in Bank	3,721 SF	20	15	35	38	38	76	425
Services	932	High Turnover (Sit-Down) Restaurant	4,408 SF	24	20	44	27	16	43	494
		Existing Trips to Be Removed		**76**	**40**	**116**	**67**	**66**	**133**	**1,047**
Proposed Development										
Residential	221	Multifamily (Mid-Rise) (Urban/Suburban)	88 DU	8	22	30	24	15	39	478
Office	710	General Office Building	67,315 SF	77	13	90	12	66	78	723
Office	720	Medical-Dental Offices	10,835 SF	24	7	31	11	28	39	329
Retail	820	Shopping Center	4,634 SF	95	59	154	27	29	56	745
Services	912	Drive-in Bank	2,702 SF	15	11	26	28	27	55	341
Services	932	High Turnover (Sit-Down) Restaurant	4,634 SF	25	21	46	28	17	45	520
		Proposed Development Site Trips		**244**	**133**	**377**	**130**	**182**	**312**	**3,136**
		Net New Trips (Proposed - Existing)		**168**	**93**	**261**	**63**	**116**	**179**	**2,089**

Note: Bank includes 2,702 SF of drive-in bank space (LUC 912) and 12,722 SF of office space (LUC 710).

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Table 3: Trip Generation - With Reductions

ITE Land Use Code				Weekday						
				AM Peak Hour			PM Peak Hour			Daily
Trip Generation, 10th Ed.			Quantity	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*Total*
Existing Development to Be Removed										
Office	710	General Office Building	11,340 SF	32	5	37	2	12	14	128
Services	912	Drive-in Bank	3,721 SF	20	15	35	38	38	76	425
Services	932	High Turnover (Sit-Down) Restaurant	4,408 SF	24	20	44	27	16	43	494
		Existing Trips to Be Removed		**76**	**40**	**116**	**67**	**66**	**133**	**1,047**
Proposed Development										
Residential	221	Multifamily (Mid-Rise) (Urban/Suburban)	88 DU	8	22	30	24	15	39	478
		Internal Capture Residential - Office [2]	*(1)*	*0*	*-1*	*-1*	*-1*	*-1*	*-2*	*-24*
		Internal Capture Residential - Retail [2]	*(2)*	*0*	*-1*	*-1*	*-2*	*-2*	*-4*	*-72*
		Residential With Internal Reductions		*8*	*20*	*28*	*21*	*12*	*33*	*382*
		Mode Split/TDM Reduction	*5%*	*0*	*-1*	*-1*	*-1*	*-1*	*-2*	*-19*
		Residential Subtotal		*8*	*19*	*27*	*20*	*11*	*31*	*363*
Office	710	General Office Building	67,315 SF	77	13	90	12	66	78	723
		Internal Capture Office - Residential [2]	*(1)*	*-1*	*0*	*-1*	*-1*	*-1*	*-2*	*-24*
		Internal Capture Office - Retail [2]	*(3)*	*-3*	*-1*	*-4*	*-1*	*-1*	*-2*	*-36*
		Office With Internal Reductions		*73*	*12*	*85*	*10*	*64*	*74*	*663*
		Mode Split/TDM Reduction	*5%*	*-4*	*-1*	*-4*	*-1*	*-3*	*-4*	*-33*
		Office Subtotal		*69*	*11*	*81*	*9*	*61*	*70*	*630*
Office	720	Medical-Dental Offices	10,835 SF	24	7	31	11	28	39	329
Retail	820	Shopping Center	4,634 SF	95	59	154	27	29	56	745
		Internal Capture Retail - Residential [2]	*(2)*	*-1*	*0*	*-1*	*-2*	*-2*	*-4*	*-72*
		Internal Capture Retail - Office [2]	*(3)*	*-1*	*-3*	*-4*	*-1*	*-1*	*-2*	*-36*
		Retail With Internal Reductions		*93*	*56*	*149*	*24*	*26*	*50*	*637*
		Pass-By Reduction [1]	*25%/34%/25%*	*-23*	*-14*	*-37*	*-8*	*-9*	*-17*	*-159*
		Retail Subtotal		*70*	*42*	*112*	*16*	*17*	*33*	*478*
Services	912	Drive-in Bank	2,702 SF	15	11	26	28	27	55	341
Services	932	High Turnover (Sit-Down) Restaurant	4,634 SF	25	21	46	28	17	45	520
		Proposed Development Site Trips		**211**	**111**	**323**	**112**	**161**	**273**	**2,661**
		Net New Trips (Proposed - Existing)		**135**	**71**	**207**	**45**	**95**	**140**	**1,614**

Note: Bank includes 2,702 SF of drive-in bank space (LUC 912) and 12,722 SF of office space (LUC 710).

[1] The pass by reduction for Shopping Center is based on the ITE Trip Generation methodology, as provided in the Trip Generation Handbook, 3rd Edition. The average rate for Shopping Centers is 34% for the PM Peak. For all other time periods, the default pass by rate is 25%.

[2] The internal reduction is based on the VDOT Updated Administrative Guidelines for the Traffic Impact Analysis Regulations:

(1) residential / office - smaller of 5% of residential trips or 5% of office trips

(2) residential / retail - smaller of X% of residential trips or X% of retail trips; AM: X = 5%, PM: X = 10%, Daily: X = 15%

(3) office / retail - smaller of 5% of office trips or 5% of retail trips

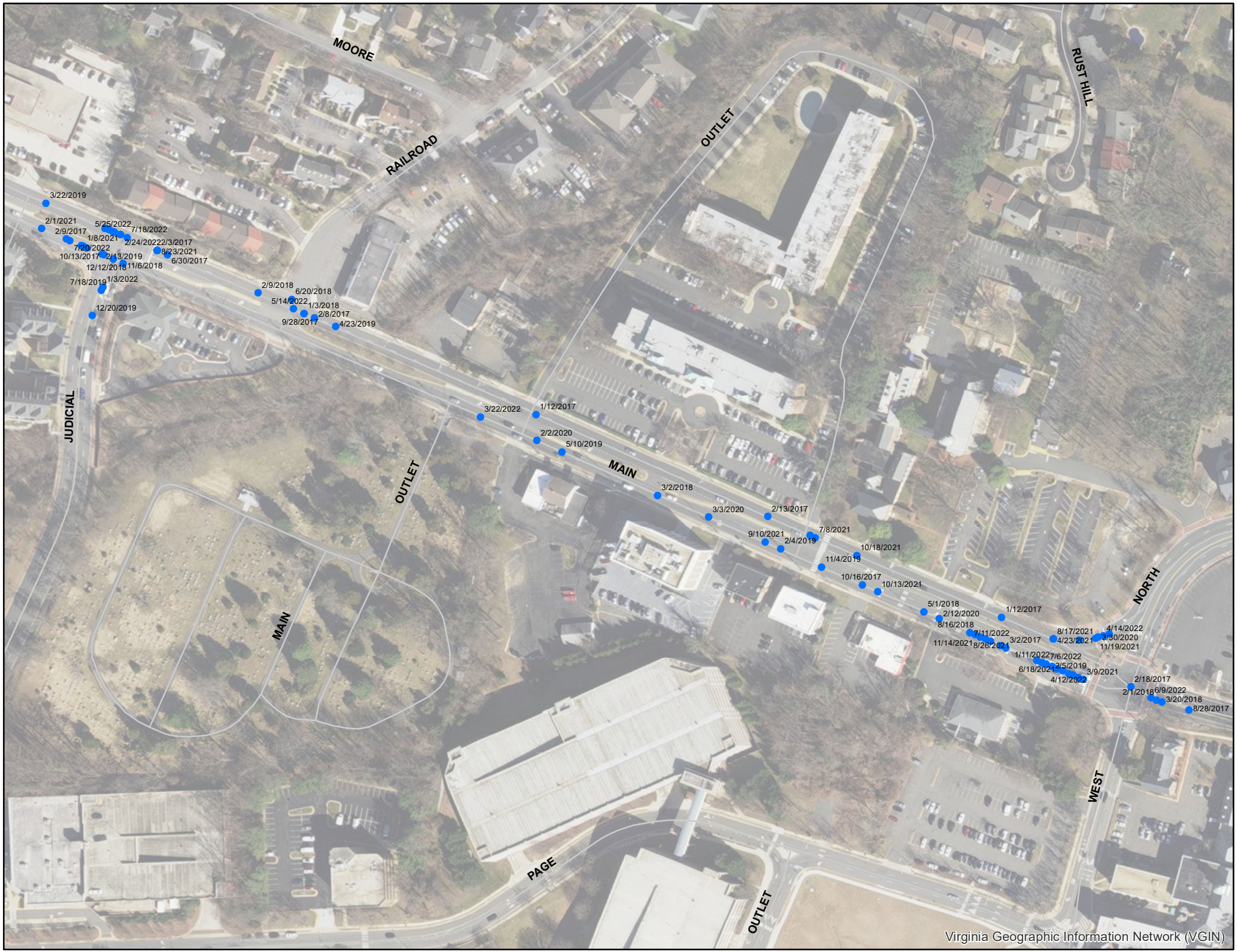
It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Table 4: 2019 to 2022 Traffic Volume Comparison

Location	Mainline Volumes Along Main Street (vph)				Factor (2022 to Pre-pandemic)		
	2019		2022				
	EB	*WB*	*EB*	*WB*	*EB*	*WB*	*Total*
AM Peak Hour							
Judicial Drive	1337	955	1145	858	1.17	1.11	1.14
Main Street	447	174	404	142	1.11	1.23	1.17
10523 Main Street Entrance	1346	977	1163	873	1.16	1.12	1.14
AM Peak Hour Average					**1.14**	**1.15**	**1.15**
PM Peak Hour							
Judicial Drive	941	1378	842	1275	1.12	1.08	1.10
Main Street	315	231	325	236	0.97	0.98	0.97
10523 Main Street Entrance	993	1368	893	1281	1.11	1.07	1.09
PM Peak Hour Average					**1.07**	**1.04**	**1.05**
Total Average							**1.10**

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

B. Crash Data


MOORE
RAILROAD
OUTLET
RUST HILL
JUDICIAL
OUTLET
MAIN
MAIN
NORTH
WEST
PAGE
OUTLET
3/22/2019
2/1/2021
2/9/2017
5/25/2022
7/18/2022
1/8/2021
2/24/20222/3/2017
7/20/2022
8/23/2021
10/13/2017
2/13/2019
6/30/2017
12/12/2018
11/6/2018
7/18/2019
1/3/2022
12/20/2019
2/9/2018
6/20/2018
5/14/2022
1/3/2018
2/8/2017
9/28/2017
4/23/2019
3/22/2022
1/12/2017
2/2/2020
5/10/2019
3/2/2018
3/3/2020
2/13/2017
7/8/2021
9/10/2021
2/4/2019
10/18/2021
11/4/2019
10/16/2017
10/13/2021
5/1/2018
2/12/2020
1/12/2017
8/16/2018
7/11/2022
3/2/2017
11/14/2021
8/26/2021
8/17/2021
4/14/2022
4/23/2021
3/30/2020
11/19/2021
1/11/2022
7/6/2022
6/18/2021
2/5/2019
3/9/2021
4/12/2022
2/18/2017
2/1/2018
6/9/2022
3/20/2018
8/28/2017
Virginia Geographic Information Network (VGIN)

Crash Date	Collision Type	KABCO Severity Code	Secondary Location	Route Or Street Name	Crash Severity
1/12/2017	1. Rear End	Possible Injury (C)	JUDICIAL DR	MAIN ST	injury crash
1/12/2017	1. Rear End	No Injury (O)	NORTH ST	MAIN ST	property damage crash
2/3/2017	1. Rear End	No Injury (O)	MAIN ST	JUDICIAL DR	property damage crash
2/9/2017	1. Rear End	No Injury (O)	JUDICIAL DR	MAIN ST	property damage crash
2/13/2017	1. Rear End	Possible Injury (C)	WEST ST	MAIN ST	injury crash
2/18/2017	1. Rear End	No Injury (O)	WEST ST	MAIN ST	property damage crash
3/2/2017	1. Rear End	Possible Injury (C)	NORTH ST	MAIN ST	injury crash
3/27/2017	9. Fixed Object - Off Road	No Injury (O)	JUDICIAL DR	MAIN ST	property damage crash
4/14/2017	2. Angle	No Injury (O)	North St.	10480 MAIN ST	property damage crash
5/20/2017	4. Sideswipe - Same Direction	No Injury (O)	MAIN ST	NORTH ST	property damage crash
6/30/2017	1. Rear End	No Injury (O)	JUDICIAL DR	MAIN ST	property damage crash
8/28/2017	1. Rear End	Possible Injury (C)	NORTH STREET	MAIN ST	injury crash
9/21/2017	1. Rear End	No Injury (O)	YORKTOWN DR	MAIN ST	property damage crash
10/7/2017	1. Rear End	No Injury (O)		MAIN ST	property damage crash
10/10/2017	9. Fixed Object - Off Road	Non-Incapacitating Injury (B)	NORTH ST	10520 MAIN ST	injury crash

Crash Date	Collision Type	KABCO Severity Code	Secondary Location	Route Or Street Name	Crash Severity
10/13/2017	2. Angle	No Injury (O)	JUDICIAL DR	MAIN ST	property damage crash
10/16/2017	1. Rear End	No Injury (O)	NORTH ST	MAIN ST	property damage crash
10/26/2017	2. Angle	No Injury (O)		10560 MAIN ST	property damage crash
12/14/2017	9. Fixed Object - Off Road	Possible Injury (C)	JUDICIAL DR	MAIN ST	injury crash
2/1/2018	15. Backed Into	Possible Injury (C)	NORTH ST	MAIN ST	injury crash
3/2/2018	10. Deer	No Injury (O)		10565 MAIN ST	property damage crash
3/20/2018	1. Rear End	No Injury (O)	NORTH STREET	MAIN ST	property damage crash
4/10/2018	9. Fixed Object - Off Road	No Injury (O)	West ST	MAIN ST	property damage crash
5/1/2018	1. Rear End	No Injury (O)	West Street	MAIN ST	property damage crash
8/16/2018	1. Rear End	No Injury (O)	WEST ST	MAIN ST	property damage crash
10/9/2018	4. Sideswipe - Same Direction	No Injury (O)	WEST STREET	MAIN STREET	property damage crash
10/15/2018	1. Rear End	Possible Injury (C)	JUDICIAL DRIVE	MAIN STREET	injury crash
11/6/2018	2. Angle	No Injury (O)	JUDICIAL DRIVE	MAIN STREET	property damage crash
12/12/2018	2. Angle	Non-Incapacitating Injury (B)	JUDICIAL DR	MAIN ST	injury crash
12/12/2018	1. Rear End	No Injury (O)	WEST ST	MAIN ST	property damage crash

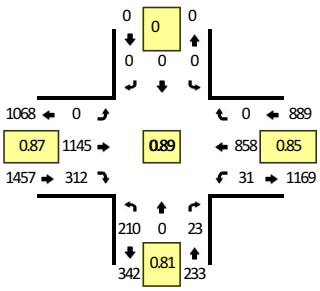
Crash Date	Collision Type	KABCO Severity Code	Secondary Location	Route Or Street Name	Crash Severity
2/4/2019	1. Rear End	Non-Incapacitating Injury (B)	NORTH STREET	MAIN STREET	injury crash
2/5/2019	4. Sideswipe - Same Direction	No Injury (O)	WEST STREET	MAIN STREET	property damage crash
2/13/2019	1. Rear End	No Injury (O)	JUDICIAL DR.	MAIN ST.	property damage crash
3/22/2019	1. Rear End	No Injury (O)	JUDICIAL DR	MAIN ST	property damage crash
5/10/2019	1. Rear End	No Injury (O)	WEST DR	10565 MAIN ST	property damage crash
7/18/2019	1. Rear End	No Injury (O)	ROUTE 236/MAIN ST	JUDICIAL DRIVE	property damage crash
7/25/2019	1. Rear End	No Injury (O)	WEST ST	MAIN ST	property damage crash
11/4/2019	1. Rear End	No Injury (O)	WEST DR	10523 MAIN ST	property damage crash
12/4/2019	2. Angle	No Injury (O)	WEST ST	MAIN ST	property damage crash
12/20/2019	4. Sideswipe - Same Direction	No Injury (O)	MAIN STREET	JUDICIAL DRIVE	property damage crash

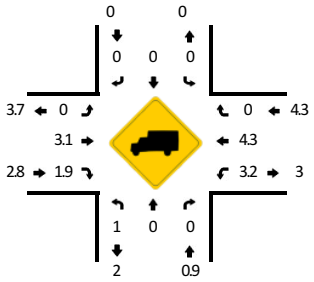
C. Existing Turning Movement Counts

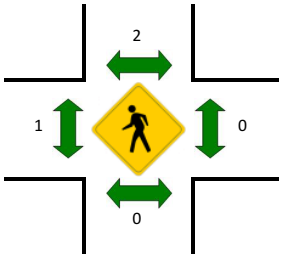
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

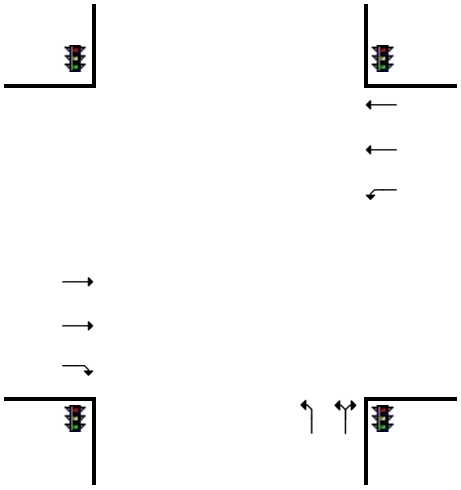
LOCATION: Judicial Dr -- Main St | **QC JOB #:** 15778401
CITY/STATE: Fairfax, VA | **DATE:** Thu, May 5 2022

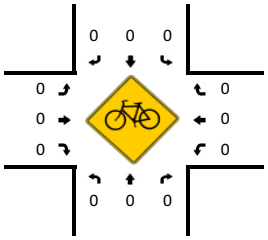
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

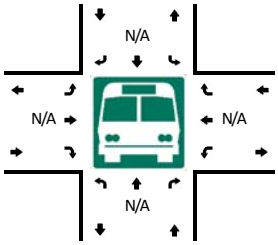


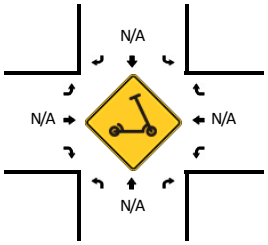












15-Min Count Period Beginning At	Judicial Dr (Northbound)				Judicial Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	24	0	0	0	0	0	0	0	0	60	42	1	2	65	0	0	194	
6:15 AM	24	0	4	0	0	0	0	0	0	81	41	0	1	94	0	0	245	
6:30 AM	18	0	7	0	0	0	0	0	0	103	35	1	0	98	0	0	262	
6:45 AM	27	0	6	0	0	0	0	0	0	141	46	0	0	153	0	0	373	1074
7:00 AM	41	0	7	0	0	0	0	0	0	178	45	0	1	149	0	1	422	1302
7:15 AM	36	0	4	0	0	0	0	0	0	229	72	0	5	164	0	0	510	1567
7:30 AM	44	0	6	0	0	0	0	0	0	284	73	0	5	163	0	0	575	1880
7:45 AM	48	0	7	0	0	0	0	0	0	328	92	0	9	243	0	0	727	2234
8:00 AM	51	0	5	0	0	0	0	0	0	257	70	0	5	255	0	1	644	2456
8:15 AM	67	0	5	0	0	0	0	0	0	276	77	0	11	197	0	0	633	2579
8:30 AM	54	0	12	0	0	0	0	0	0	243	111	0	15	175	0	0	610	2614
8:45 AM	46	0	11	0	0	0	0	0	0	251	106	1	14	198	0	0	627	2514
9:00 AM	53	0	15	0	0	0	0	0	0	227	113	1	13	213	0	0	635	2505
9:15 AM	68	0	9	0	0	0	0	0	0	203	90	0	13	227	0	1	611	2483
9:30 AM	46	0	8	0	0	0	0	0	0	214	95	1	14	202	0	2	582	2455
9:45 AM	68	0	14	0	0	0	0	0	0	188	66	0	9	205	0	3	553	2381

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	192	0	28	0	0	0	0	0	0	1312	368	0	36	972	0	0	2908
Heavy Trucks	4	0	0		0	0	0		0	24	8		4	28	0		68
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

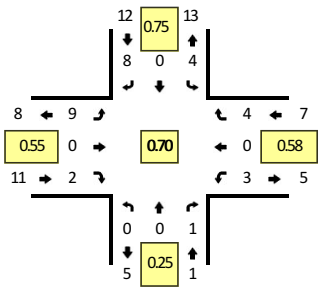
Report generated on 5/19/2022 1:18 PM

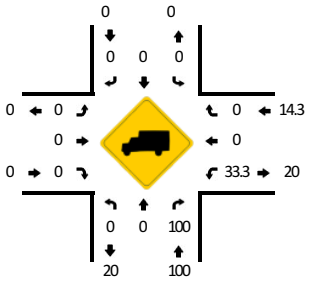
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

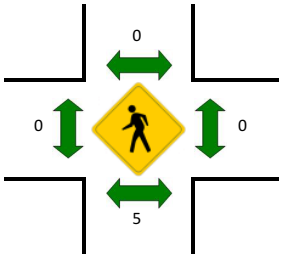
LOCATION: 10565 Main St West Dwy/Mosby Tower Entrance West Dwy -- Main St | **QC JOB #:** 15778415
CITY/STATE: Fairfax, VA | **DATE:** Thu, May 5 2022

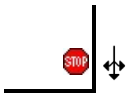
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

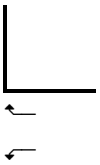


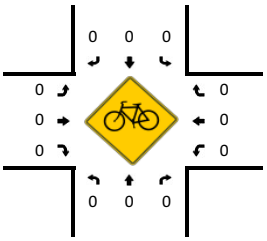


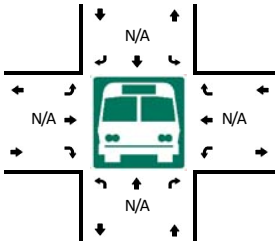
Quality Counts
DATA THAT DRIVES COMMUNITIES

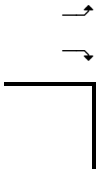


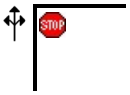


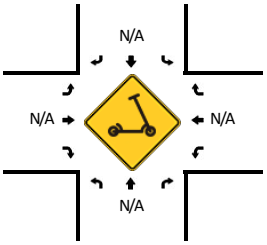












15-Min Count Period Beginning At	10565 Main St West Dwy/Mosby Tower Entrance West Dwy (Northbound)				10565 Main St West Dwy/Mosby Tower Entrance West Dwy (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	
6:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
6:30 AM	0	0	0	0	1	0	2	0	1	0	0	0	0	0	0	0	4	
6:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	3	11
7:00 AM	0	0	0	0	1	0	2	0	1	0	0	0	0	0	0	0	4	13
7:15 AM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4	15
7:30 AM	0	0	0	0	0	0	3	0	1	0	0	0	0	0	3	0	7	18
7:45 AM	0	0	0	0	1	0	2	0	2	0	0	0	0	0	0	0	5	20
8:00 AM	0	0	0	0	1	0	1	0	2	0	1	0	3	0	0	0	8	24
8:15 AM	0	0	1	0	2	0	2	0	4	0	1	0	0	0	1	0	11	31
8:30 AM	0	0	0	0	1	0	2	0	3	0	2	0	0	0	0	0	8	32
8:45 AM	0	0	1	0	1	0	4	0	11	0	2	0	4	0	4	0	27	54
9:00 AM	0	0	0	0	3	0	6	0	11	0	0	0	1	0	2	0	23	69
9:15 AM	1	0	0	0	1	0	4	0	11	0	0	0	0	0	1	0	18	76
9:30 AM	0	0	0	0	1	0	4	0	9	0	0	0	1	0	3	0	18	86
9:45 AM	0	0	0	0	3	0	5	0	6	0	0	0	3	0	2	0	19	78

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	4	0	8	0	8	0	16	0	4	0	0	0	4	0	44
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

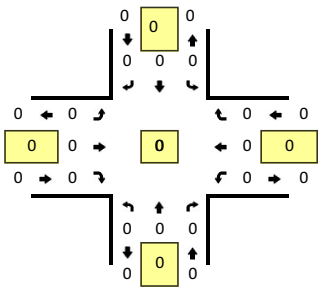
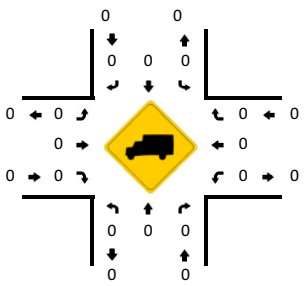
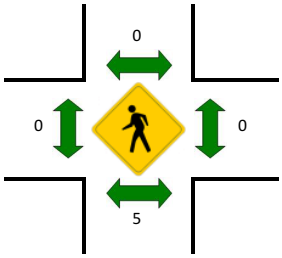
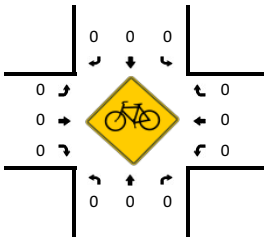
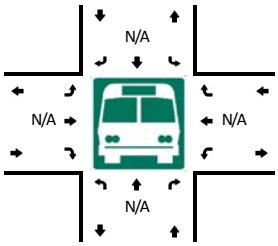
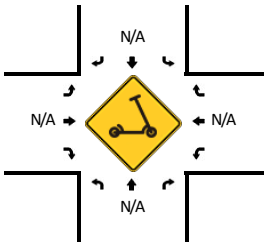
Report generated on 5/19/2022 1:18 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

LOCATION: 10565 Main St East Dwy -- Main St
CITY/STATE: Fairfax, VA

QC JOB #: 15778417
DATE: Thu, May 5 2022

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

15-Min Count Period Beginning At	10565 Main St East Dwy (Northbound)				10565 Main St East Dwy (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
9:15 AM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3	7
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:18 PM

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

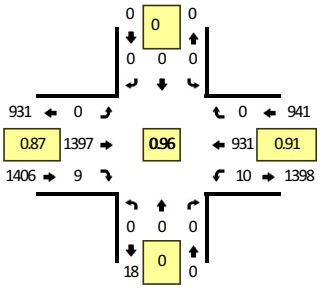
Type of peak hour being reported: User-Defined

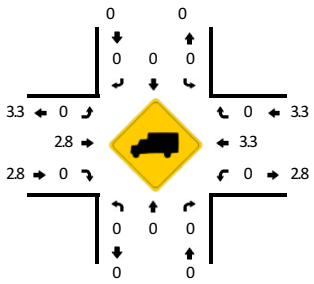
Method for determining peak hour: Total Entering Volume

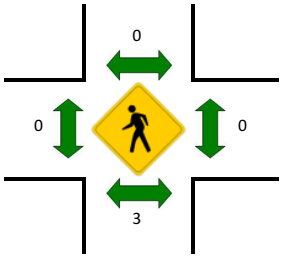
LOCATION: 10555 Main St Dwy West -- Main St
CITY/STATE: Fairfax, VA

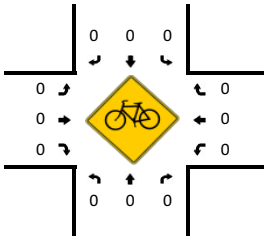
QC JOB #: 15056205
DATE: Tue, Sep 10 2019

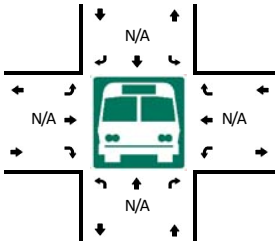
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

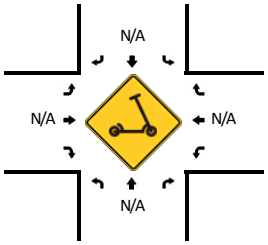












15-Min Count Period Beginning At	10555 Main St Dwy West (Northbound)				10555 Main St Dwy West (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	0	0	0	0	0	0	0	197	0	0	0	106	0	0	303	
6:45 AM	0	0	0	0	0	0	0	0	0	251	1	0	0	163	0	0	415	
7:00 AM	0	0	0	0	0	0	0	0	0	267	0	0	0	172	0	1	440	
7:15 AM	0	0	0	0	0	0	0	0	0	299	1	0	0	216	0	0	516	1674
7:30 AM	0	0	0	0	0	0	0	0	0	400	3	0	0	189	0	0	592	1963
7:45 AM	0	0	0	0	0	0	0	0	0	361	2	0	2	248	0	0	613	2161
8:00 AM	0	0	0	0	0	0	0	0	0	314	2	0	3	255	0	0	574	2295
8:15 AM	0	0	0	0	0	0	0	0	0	322	2	0	4	239	0	1	568	2347
8:30 AM	0	0	1	0	0	0	0	0	0	347	11	0	4	227	0	0	590	2345
8:45 AM	0	0	0	0	0	0	0	0	0	281	5	0	4	194	0	0	484	2216
9:00 AM	0	0	0	0	0	0	0	0	0	337	8	0	0	233	0	1	579	2221
9:15 AM	0	0	0	0	0	0	0	0	0	309	2	0	4	206	0	0	521	2174

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	0	0	0	0	0	1444	8	0	8	992	0	0	2452
Heavy Trucks	0	0	0		0	0	0		0	56	0		0	16	0		72
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/7/2022 1:55 PM

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

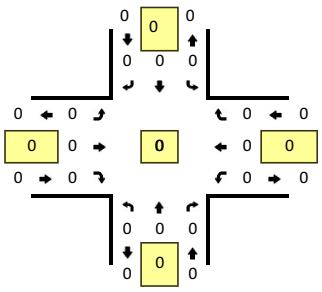
Type of peak hour being reported: User-Defined

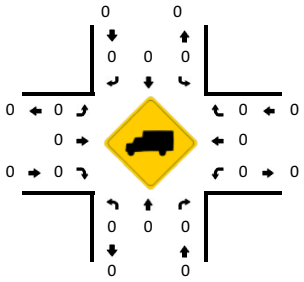
Method for determining peak hour: Total Entering Volume

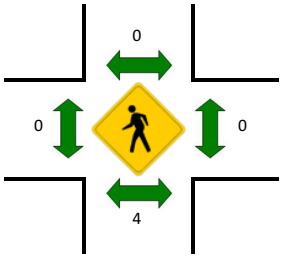
LOCATION: 10555 Main St Dwy East -- Main St
CITY/STATE: Fairfax, VA

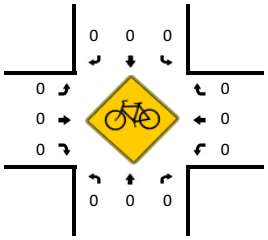
QC JOB #: 15056215
DATE: Tue, Sep 10 2019

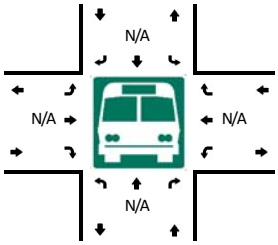
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 6:30 AM -- 6:45 AM

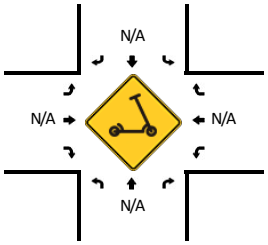












15-Min Count Period Beginning At	10555 Main St Dwy East (Northbound)				10555 Main St Dwy East (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
9:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/7/2022 1:55 PM

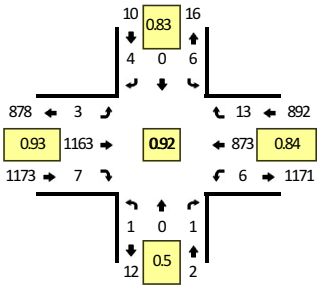
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

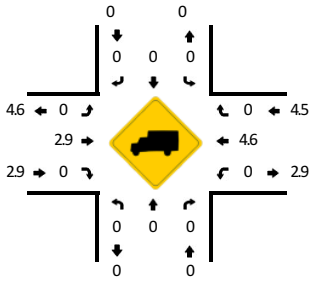
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

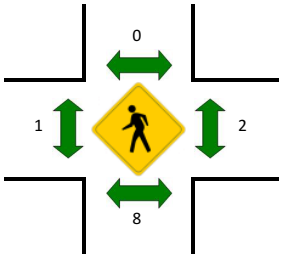
LOCATION: 10523 Main St Entrance/Mosby Tower Entrance -- Main St
CITY/STATE: Fairfax, VA

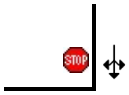
QC JOB #: 15778405
DATE: Thu, May 5 2022

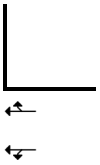
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

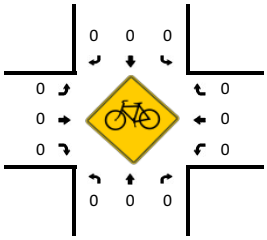


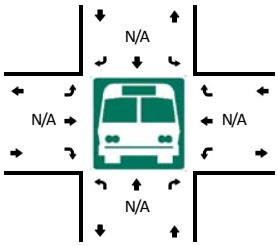


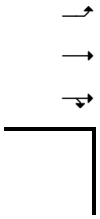


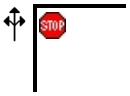


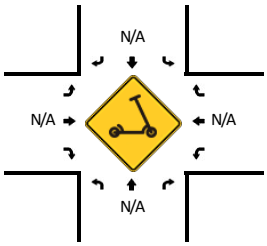












15-Min Count Period Beginning At	10523 Main St Entrance/Mosby Tower Entrance (Northbound)				10523 Main St Entrance/Mosby Tower Entrance (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	1	0	0	0	0	49	0	0	0	64	1	0	115	
6:15 AM	0	0	0	0	1	0	0	0	0	87	0	0	0	94	2	0	184	
6:30 AM	0	0	0	0	4	0	0	0	0	108	0	0	0	94	0	0	206	
6:45 AM	0	0	0	0	2	0	1	0	0	124	0	0	0	144	2	0	273	778
7:00 AM	0	0	0	0	2	0	0	0	1	189	0	0	0	157	0	0	349	1012
7:15 AM	0	0	0	0	0	0	1	0	1	229	0	0	0	158	1	0	390	1218
7:30 AM	0	0	0	0	2	0	0	0	0	294	0	0	0	176	3	0	475	1487
7:45 AM	0	0	0	0	1	0	2	0	0	314	2	0	4	237	2	0	562	1776
8:00 AM	0	0	1	0	2	0	1	0	1	262	3	0	0	261	5	1	537	1964
8:15 AM	1	0	0	0	1	0	1	0	2	293	2	0	1	199	3	0	503	2077
8:30 AM	0	0	1	0	1	0	2	0	0	246	5	0	1	187	4	0	447	2049
8:45 AM	0	0	0	0	2	0	0	0	1	229	1	0	1	211	2	0	447	1934
9:00 AM	1	0	2	0	0	0	0	0	5	227	2	0	0	227	6	0	470	1867
9:15 AM	0	0	1	0	1	0	3	0	2	213	0	0	1	227	8	1	457	1821
9:30 AM	0	0	0	0	0	0	1	0	3	199	0	0	0	210	9	1	423	1797
9:45 AM	0	0	0	0	3	0	3	0	1	209	1	0	0	210	6	0	433	1783

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	4	0	8	0	0	1256	8	0	16	948	8	0	2248
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	36	0		60
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:18 PM

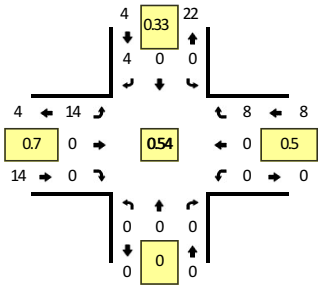
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

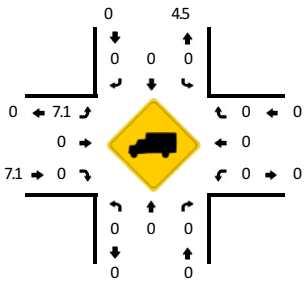
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

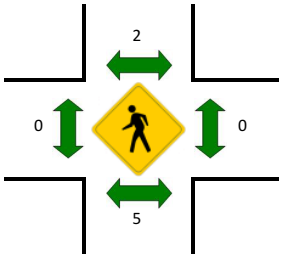
LOCATION: Church Dwys -- Main St
CITY/STATE: Fairfax, VA

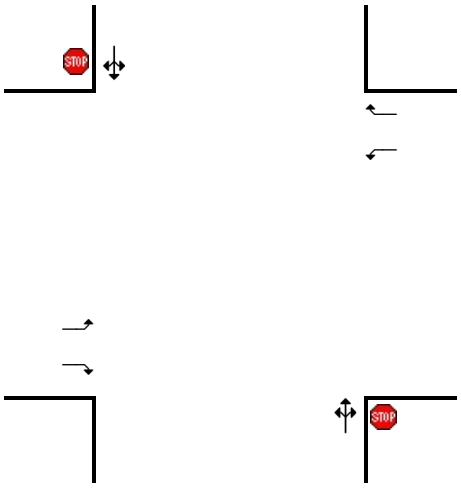
QC JOB #: 15778423
DATE: Thu, May 5 2022

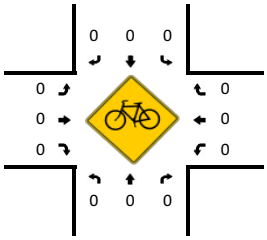
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

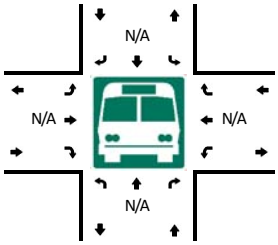


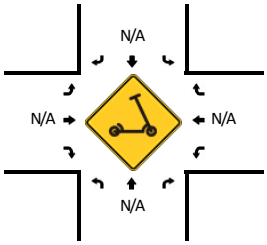












15-Min Count Period Beginning At	Church Dwys (Northbound)				Church Dwys (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	3	4
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	5
7:45 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2	0	6	11
8:00 AM	0	0	0	0	0	0	1	0	4	0	0	0	0	0	2	0	7	17
8:15 AM	0	0	0	0	0	0	3	0	5	0	0	0	0	0	4	0	12	26
8:30 AM	0	0	0	0	1	0	0	0	5	0	0	0	0	0	1	0	7	32
8:45 AM	0	0	0	0	0	0	2	0	16	0	0	0	0	0	6	0	24	50
9:00 AM	0	0	0	0	3	0	17	0	14	0	0	0	0	0	10	0	44	87
9:15 AM	0	0	0	0	0	0	11	0	9	0	0	0	0	0	0	0	20	95
9:30 AM	0	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	9	97
9:45 AM	0	0	0	0	0	0	2	0	4	0	0	0	0	0	2	0	8	81

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	0	0	12	0	20	0	0	0	0	0	16	0	48
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:18 PM

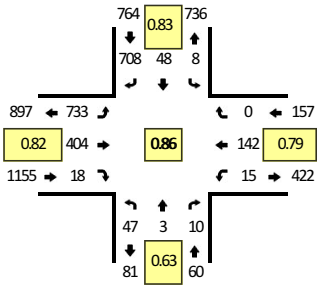
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

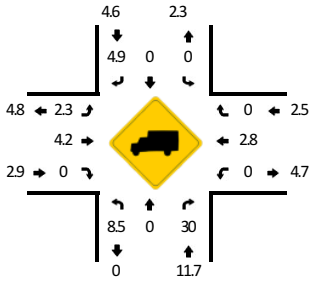
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

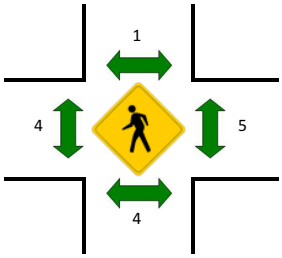
LOCATION: West St -- Main St
CITY/STATE: Fairfax, VA

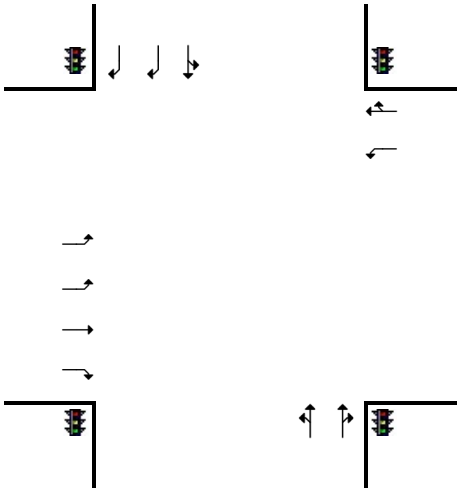
QC JOB #: 15778407
DATE: Thu, May 5 2022

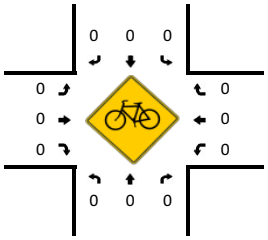
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

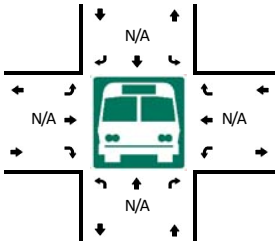


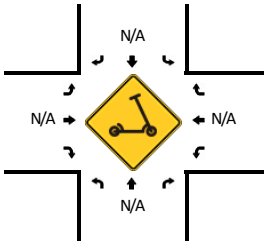












15-Min Count Period Beginning At	West St (Northbound)				West St (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	5	0	1	0	0	9	53	0	24	22	2	0	2	6	0	0	124	
6:15 AM	6	2	0	0	0	5	71	0	41	43	2	0	3	15	0	0	188	
6:30 AM	7	0	2	0	0	4	69	0	70	43	3	0	4	22	0	0	224	
6:45 AM	9	0	1	0	1	4	120	0	70	50	3	0	2	18	0	0	278	814
7:00 AM	20	0	3	0	0	5	106	0	108	72	6	0	3	24	0	0	347	1037
7:15 AM	4	0	0	0	4	11	131	0	152	64	12	0	3	30	0	0	411	1260
7:30 AM	6	0	0	0	1	8	141	0	160	95	5	0	1	35	0	0	452	1488
7:45 AM	10	0	1	0	2	12	189	0	247	99	8	0	7	43	0	0	618	1828
8:00 AM	16	0	3	0	2	13	215	0	147	106	2	0	5	34	0	0	543	2024
8:15 AM	15	3	6	0	3	15	163	0	179	104	3	0	2	30	0	0	523	2136
8:30 AM	9	3	3	0	3	19	147	0	135	96	9	0	2	33	0	0	459	2143
8:45 AM	21	4	6	0	1	14	149	0	124	85	8	0	5	49	0	0	466	1991
9:00 AM	21	3	9	0	6	20	188	0	131	86	3	0	5	28	0	0	500	1948
9:15 AM	15	1	1	0	2	16	161	0	102	74	9	0	8	40	0	0	429	1854
9:30 AM	8	3	4	0	3	15	179	0	117	98	8	0	1	38	0	0	474	1869
9:45 AM	23	0	1	0	1	14	147	0	106	84	2	0	3	40	0	0	421	1824

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	0	4	0	8	48	756	0	988	396	32	0	28	172	0	0	2472
Heavy Trucks	0	0	0		0	0	40		24	8	0		0	4	0		76
Buses																	
Pedestrians		4				4				0				8			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:18 PM

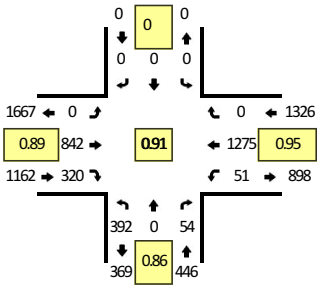
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

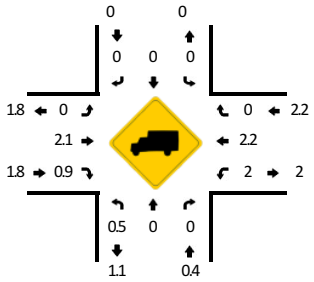
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

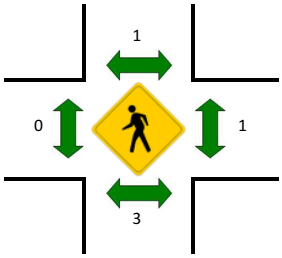
LOCATION: Judicial Dr -- Main St
CITY/STATE: Fairfax, VA

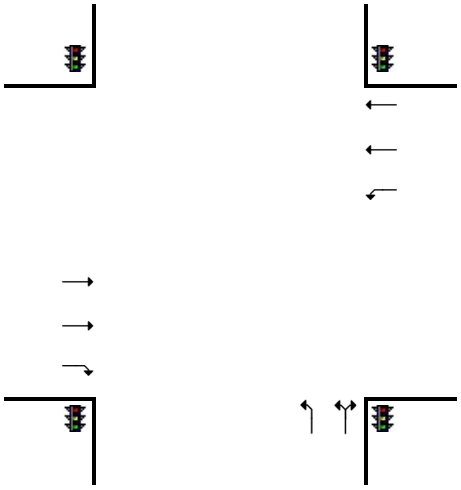
QC JOB #: 15778402
DATE: Thu, May 5 2022

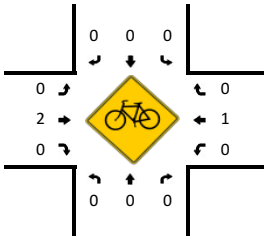
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

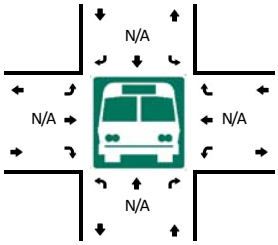


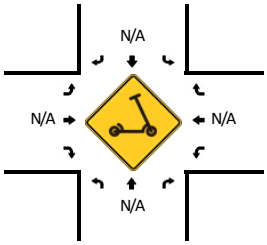












15-Min Count Period Beginning At	Judicial Dr (Northbound)				Judicial Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	88	0	10	0	0	0	0	0	0	203	68	0	15	298	0	0	682	
3:45 PM	80	0	10	0	0	0	0	0	0	214	82	0	10	309	0	0	705	
4:00 PM	90	0	7	0	0	0	0	0	0	196	90	1	18	323	0	0	725	
4:15 PM	74	0	15	0	0	0	0	0	0	215	76	0	13	317	0	1	711	2823
4:30 PM	112	0	18	0	0	0	0	0	0	226	102	0	13	335	0	0	806	2947
4:45 PM	106	0	12	0	0	0	0	0	0	198	81	0	13	295	0	1	706	2948
5:00 PM	100	0	9	0	0	0	0	0	0	203	61	0	10	328	0	0	711	2934
5:15 PM	82	0	8	0	0	0	0	0	0	209	59	0	11	343	0	1	713	2936
5:30 PM	65	0	7	0	0	0	0	0	0	231	70	1	13	313	0	2	702	2832
5:45 PM	84	0	22	0	0	0	0	0	0	230	83	0	11	333	0	0	763	2889
6:00 PM	95	0	13	0	0	0	0	0	0	193	51	0	12	345	0	0	709	2887
6:15 PM	59	0	6	0	0	0	0	0	0	209	50	0	5	321	0	0	650	2824
6:30 PM	42	0	3	0	0	0	0	0	0	203	54	0	5	272	0	0	579	2701
6:45 PM	44	0	2	0	0	0	0	0	0	167	49	1	7	226	0	0	496	2434
7:00 PM	56	0	7	0	0	0	0	0	0	200	83	1	7	241	0	1	596	2321
7:15 PM	40	0	7	0	0	0	0	0	0	133	60	0	6	228	0	0	474	2145

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	448	0	72	0	0	0	0	0	0	904	408	0	52	1340	0	0	3224
Heavy Trucks	0	0	0		0	0	0		0	24	4		0	28	0		56
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments: AM and PM periods share footage

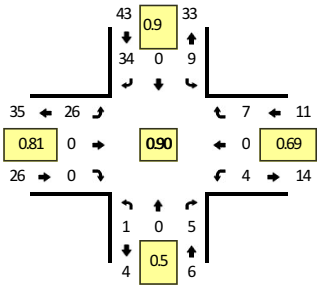
Report generated on 5/19/2022 1:19 PM

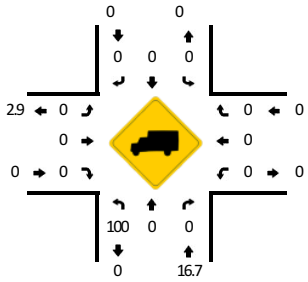
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

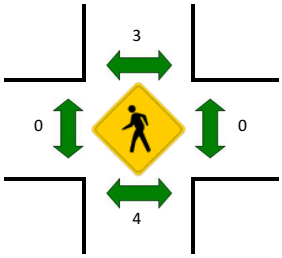
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

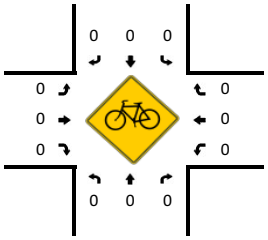
LOCATION: 10565 Main St West Dwy/Mosby Tower Entrance West Dwy -- Main St | **QC JOB #:** 15778416
CITY/STATE: Fairfax, VA | **DATE:** Thu, May 5 2022

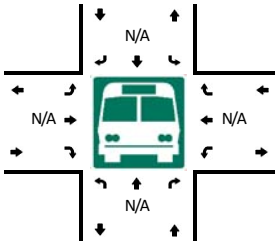
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

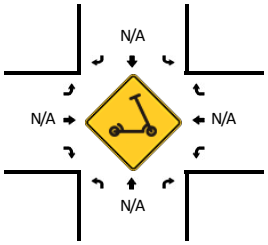












15-Min Count Period Beginning At	10565 Main St West Dwy/Mosby Tower Entrance West Dwy (Northbound)				10565 Main St West Dwy/Mosby Tower Entrance West Dwy (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	0	0	2	0	7	0	4	0	1	0	0	0	1	0	15	
3:45 PM	0	0	1	0	1	0	8	0	7	0	1	0	3	0	3	0	24	
4:00 PM	0	0	0	0	5	0	12	0	6	0	0	0	0	0	0	0	23	
4:15 PM	0	0	1	0	1	0	10	0	6	0	0	0	2	0	2	0	22	84
4:30 PM	0	0	2	0	5	0	7	0	7	0	0	0	2	0	1	0	24	93
4:45 PM	0	0	0	0	2	0	7	0	8	0	0	0	0	0	2	0	19	88
5:00 PM	1	0	2	0	1	0	10	0	5	0	0	0	0	0	2	0	21	86
5:15 PM	0	0	0	0	6	0	11	0	5	0	1	0	1	0	0	0	24	88
5:30 PM	0	0	0	0	1	0	5	0	10	0	0	0	0	0	3	0	19	83
5:45 PM	0	0	1	0	0	0	9	0	7	0	0	0	0	0	1	0	18	82
6:00 PM	0	0	0	0	1	0	13	0	4	0	0	0	0	0	1	0	19	80
6:15 PM	0	0	0	0	2	0	2	0	6	0	0	0	0	0	3	0	13	69
6:30 PM	0	0	0	0	4	0	5	0	10	0	0	0	0	0	0	0	19	69
6:45 PM	0	0	0	0	2	0	10	0	1	0	0	0	0	0	0	0	13	64
7:00 PM	0	0	0	0	1	0	7	0	11	0	1	0	0	0	5	0	25	70
7:15 PM	1	0	0	0	0	0	7	0	6	0	0	0	0	0	3	0	17	74

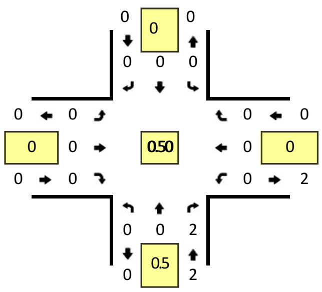
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	8	0	20	0	28	0	28	0	0	0	8	0	4	0	96
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

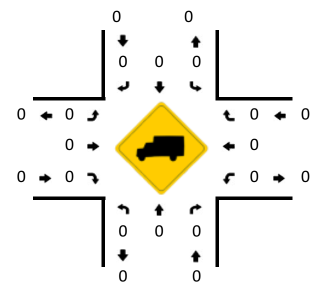
Report generated on 5/19/2022 1:19 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

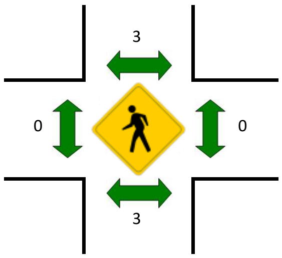
LOCATION: 10565 Main St East Dwy -- Main St | **QC JOB #:** 15778418

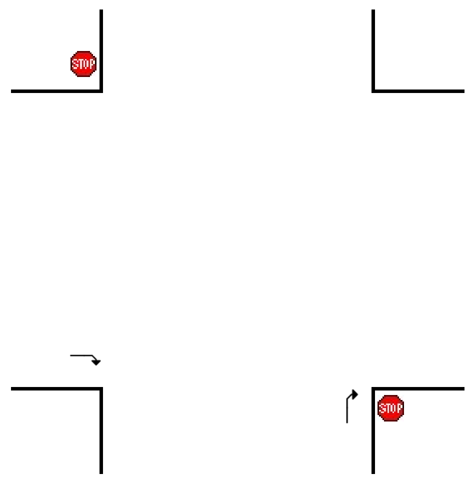
CITY/STATE: Fairfax, VA | **DATE:** Thu, May 5 2022

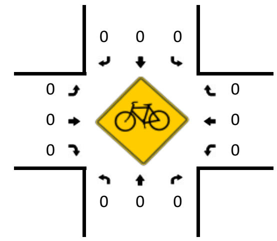


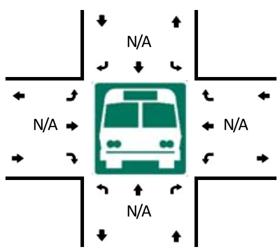
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

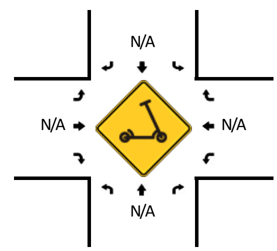












15-Min Count Period Beginning At	10565 Main St East Dwy (Northbound)				10565 Main St East Dwy (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
3:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1

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

Comments: AM and PM periods share footage

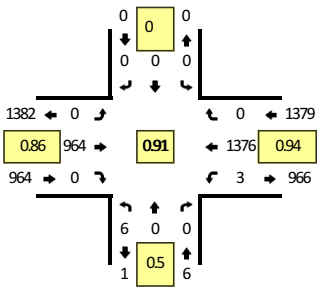
Type of peak hour being reported: User-Defined

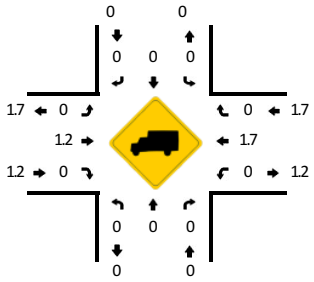
Method for determining peak hour: Total Entering Volume

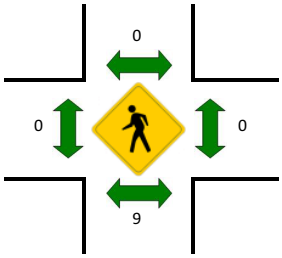
LOCATION: 10555 Main St Dwy West -- Main St
CITY/STATE: Fairfax, VA

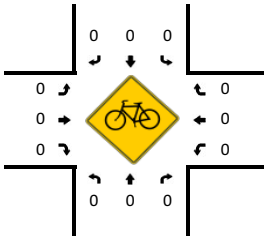
QC JOB #: 15056206
DATE: Tue, Sep 10 2019

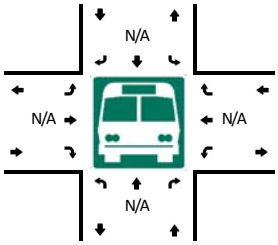
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

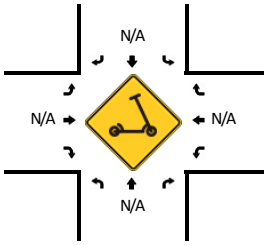












15-Min Count Period Beginning At	10555 Main St Dwy West (Northbound)				10555 Main St Dwy West (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	0	0	0	0	0	204	0	0	1	363	0	0	569	
4:15 PM	3	0	0	0	0	0	0	0	0	210	0	0	0	329	0	0	542	
4:30 PM	1	0	0	0	0	0	0	0	0	228	0	0	0	345	0	0	574	
4:45 PM	0	0	0	0	0	0	0	0	0	280	0	0	1	364	0	1	646	2331
5:00 PM	2	0	0	0	0	0	0	0	0	246	0	0	0	338	0	1	587	2349
5:15 PM	4	0	1	0	0	0	0	0	0	218	0	0	1	345	0	1	570	2377
5:30 PM	3	0	0	0	0	0	0	0	0	235	0	0	0	305	0	0	543	2346
5:45 PM	0	0	0	0	0	0	0	0	0	242	0	0	0	295	0	0	537	2237
6:00 PM	0	0	0	0	0	0	0	0	0	210	0	0	0	348	0	1	559	2209
6:15 PM	1	0	0	0	0	0	0	0	0	210	0	0	0	334	0	0	545	2184
6:30 PM	0	0	0	0	0	0	0	0	0	186	0	0	0	299	0	0	485	2126
6:45 PM	0	0	0	0	0	0	0	0	0	189	0	0	0	302	0	0	491	2080

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	0	0	0	0	0	1120	0	0	4	1456	0	4	2584
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	20	0		32
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/7/2022 2:00 PM

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

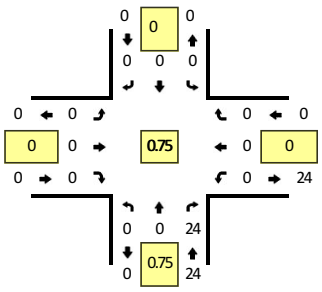
Type of peak hour being reported: User-Defined

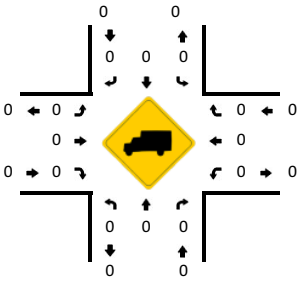
Method for determining peak hour: Total Entering Volume

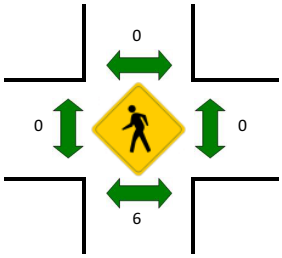
LOCATION: 10555 Main St Dwy East -- Main St
CITY/STATE: Fairfax, VA

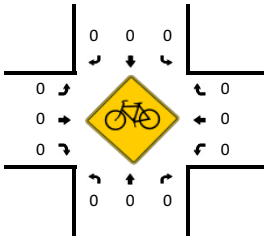
QC JOB #: 15056216
DATE: Tue, Sep 10 2019

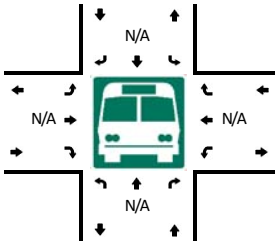
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

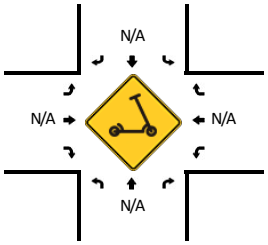












15-Min Count Period Beginning At	10555 Main St Dwy East (Northbound)				10555 Main St Dwy East (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
4:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
4:30 PM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
4:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	21
5:00 PM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	24
5:15 PM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	28
5:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	23
5:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	22
6:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
6:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4

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	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/7/2022 2:00 PM

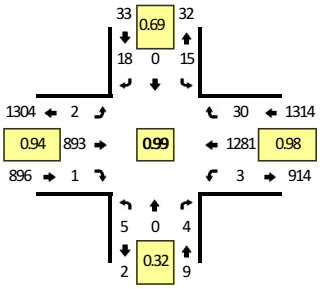
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

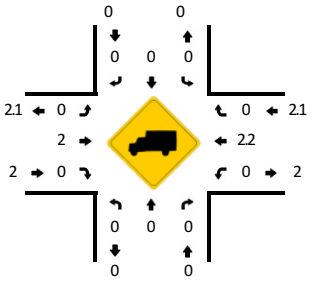
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

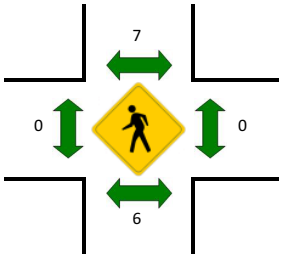
LOCATION: 10523 Main St Entrance/Mosby Tower Entrance -- Main St
CITY/STATE: Fairfax, VA

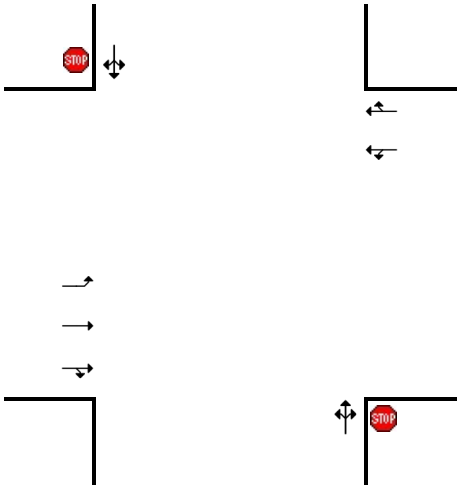
QC JOB #: 15778406
DATE: Thu, May 5 2022

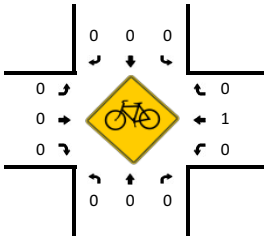
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

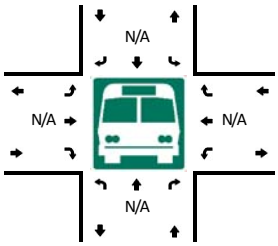


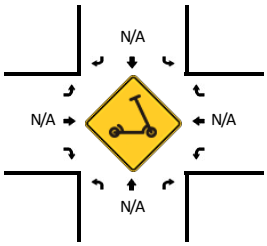












15-Min Count Period Beginning At	10523 Main St Entrance/Mosby Tower Entrance (Northbound)				10523 Main St Entrance/Mosby Tower Entrance (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	4	0	4	0	0	0	2	212	0	0	0	302	3	0	527	
3:45 PM	0	0	0	0	4	0	6	0	2	212	0	0	0	312	7	0	543	
4:00 PM	1	0	0	0	0	0	3	0	1	212	1	0	0	319	3	0	540	
4:15 PM	0	0	0	0	4	0	2	0	0	238	0	0	0	320	6	0	570	2180
4:30 PM	1	0	0	0	4	0	8	0	1	214	0	0	0	331	5	0	564	2217
4:45 PM	0	0	1	0	1	0	5	0	0	230	0	0	0	304	10	2	553	2227
5:00 PM	4	0	3	0	6	0	3	0	1	211	1	0	1	326	9	0	565	2252
5:15 PM	1	0	2	0	8	0	1	0	0	212	1	0	0	334	8	0	567	2249
5:30 PM	1	0	1	0	2	0	3	0	1	221	1	0	0	308	8	0	546	2231
5:45 PM	1	0	1	0	2	0	3	0	5	242	0	0	1	326	8	0	589	2267
6:00 PM	1	0	0	0	7	0	6	0	2	196	0	0	0	333	4	0	549	2251
6:15 PM	0	0	1	0	1	0	6	0	0	224	0	0	1	317	4	0	554	2238
6:30 PM	0	0	1	0	4	0	3	0	2	195	0	0	0	272	9	0	486	2178
6:45 PM	0	0	0	0	6	0	4	0	0	166	0	0	0	218	3	0	397	1986
7:00 PM	0	0	0	0	6	0	2	0	1	187	0	0	0	238	4	0	438	1875
7:15 PM	0	0	0	0	3	0	5	0	2	151	0	0	0	219	4	0	384	1705

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	16	0	8	0	0	952	0	0	0	1280	24	0	2280
Heavy Trucks	0	0	0		0	0	0		0	28	0		0	24	0		52
Buses																	
Pedestrians		12				12				0				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:19 PM

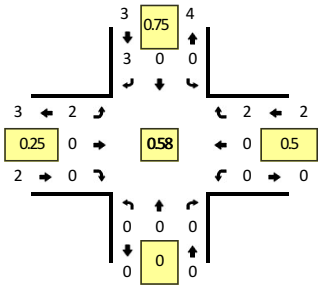
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

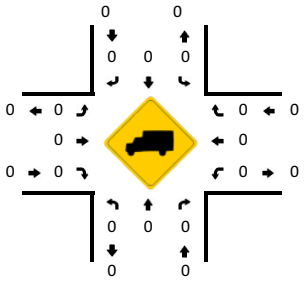
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

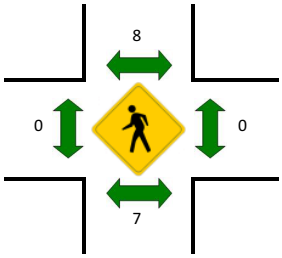
LOCATION: Church Dwys -- Main St
CITY/STATE: Fairfax, VA

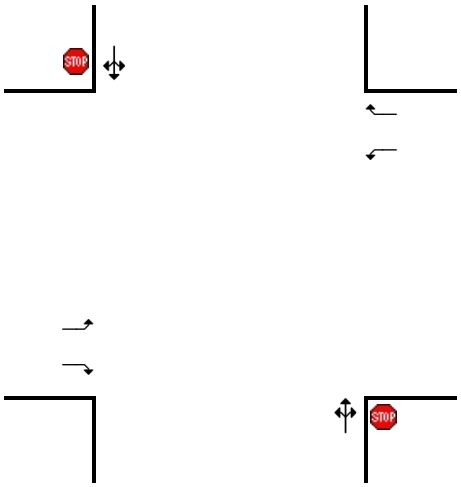
QC JOB #: 15778424
DATE: Thu, May 5 2022

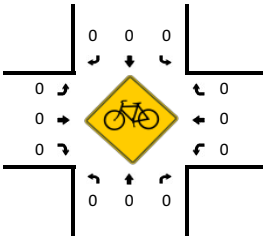
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

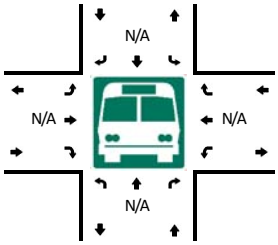


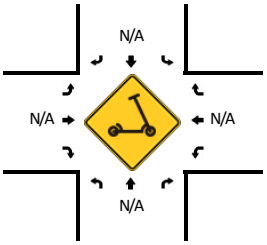












15-Min Count Period Beginning At	Church Dwys (Northbound)				Church Dwys (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	0	0	0	0	5	0	2	0	0	0	0	0	3	0	10	
3:45 PM	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	5	
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
4:15 PM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	3	19
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	11
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	7
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	5
5:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	3	6
6:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	5	10
6:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	10
6:45 PM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	3	13
7:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	12
7:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	9

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	0	0	4	0	8	0	0	0	0	0	0	0	12
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		12				16				0				0			28
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

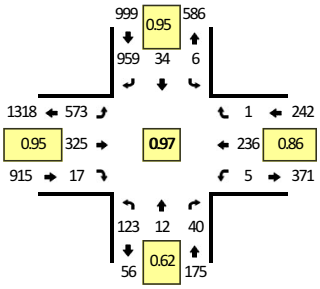
Report generated on 5/19/2022 1:19 PM

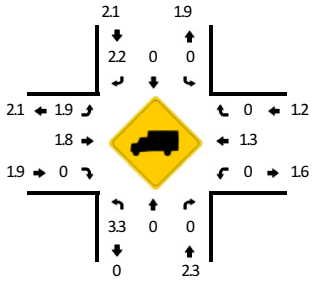
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

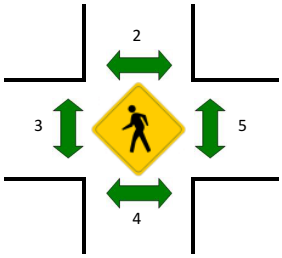
Type of peak hour being reported: System-wide Peak | Method for determining peak hour: Total Entering Volume

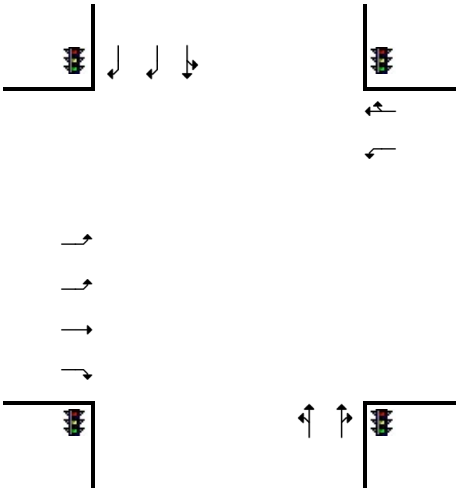
LOCATION: West St -- Main St | **QC JOB #:** 15778408
CITY/STATE: Fairfax, VA | **DATE:** Thu, May 5 2022

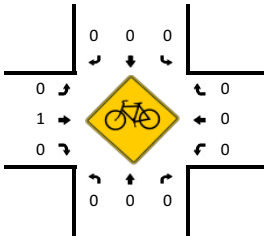
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

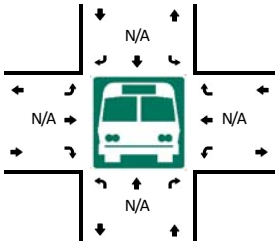


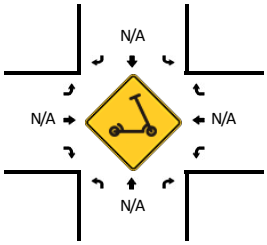












15-Min Count Period Beginning At	West St (Northbound)				West St (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	21	2	8	0	7	9	224	0	136	72	4	0	4	55	0	0	542	
3:45 PM	23	3	10	0	3	6	234	0	120	80	5	0	5	57	0	0	546	
4:00 PM	30	2	5	0	4	3	240	0	128	91	3	0	3	52	0	0	561	
4:15 PM	21	4	10	0	0	7	245	0	138	81	6	0	2	60	0	0	574	2223
4:30 PM	50	2	19	0	4	5	238	0	158	69	2	0	1	51	0	0	599	2280
4:45 PM	35	4	10	0	1	13	222	0	139	76	6	0	2	55	1	0	564	2298
5:00 PM	17	2	1	0	1	9	254	0	138	99	3	0	0	70	0	0	594	2331
5:15 PM	18	2	5	0	4	4	263	0	129	72	2	0	1	59	1	0	560	2317
5:30 PM	17	2	5	0	2	2	224	0	140	84	4	0	0	72	0	0	552	2270
5:45 PM	15	0	9	0	3	8	267	0	168	79	2	0	1	58	1	0	611	2317
6:00 PM	25	5	6	0	3	5	229	0	123	82	0	0	1	81	0	0	560	2283
6:15 PM	13	0	2	0	5	3	233	0	130	101	0	0	0	73	2	0	562	2285
6:30 PM	16	0	2	0	2	5	215	0	106	72	4	0	2	43	1	0	468	2201
6:45 PM	15	1	0	0	2	3	142	0	100	93	1	0	1	62	1	0	421	2011
7:00 PM	29	1	1	0	8	2	167	0	87	91	1	0	0	51	0	0	438	1889
7:15 PM	7	1	1	0	0	1	168	0	98	68	0	0	0	47	0	0	391	1718

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	200	8	76	0	16	20	952	0	632	276	8	0	4	204	0	0	2396
Heavy Trucks	0	0	0		0	0	20		12	8	0		0	4	0		44
Buses																	
Pedestrians		4				4				8				4			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments: AM and PM periods share footage

Report generated on 5/19/2022 1:19 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

D. Intersection Analysis Worksheets – Existing (2022)

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1287	351	35	964	262
v/c Ratio	0.47	0.24	0.11	0.33	0.71
Control Delay	9.0	0.5	3.8	4.2	91.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	0.5	3.8	4.2	91.7
Queue Length 50th (ft)	295	0	6	125	162
Queue Length 95th (ft)	366	9	15	167	208
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2713	1477	332	2891	870
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.24	0.11	0.33	0.30

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1145	312	31	858	210	23
Future Volume (vph)	1145	312	31	858	210	23
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3505	1583	1752	3471	3765	
Flt Permitted	1.00	1.00	0.18	1.00	0.96	
Satd. Flow (perm)	3505	1583	327	3471	3765	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	1287	351	35	964	236	26
RTOR Reduction (vph)	0	48	0	0	5	0
Lane Group Flow (vph)	1287	303	35	964	257	0
Confl. Peds. (#/hr)					1	
Heavy Vehicles (%)	3%	2%	3%	4%	2%	2%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	145.7	164.1	158.3	158.3	18.4	
Effective Green, g (s)	145.7	164.1	158.3	158.3	18.4	
Actuated g/C Ratio	0.77	0.86	0.83	0.83	0.10	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2687	1367	314	2891	364	
v/s Ratio Prot	c0.37	0.02	0.00	c0.28	c0.07	
v/s Ratio Perm		0.17	0.09			
v/c Ratio	0.48	0.22	0.11	0.33	0.70	
Uniform Delay, d1	8.2	2.2	4.8	3.7	83.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.1	0.2	0.3	6.1	
Delay (s)	8.8	2.3	4.9	4.0	89.3	
Level of Service	A	A	A	A	F	
Approach Delay (s)	7.4			4.0	89.3	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.51			
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	48.8%	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												
Traffic Volume (veh/h)	9	1177	2	3	862	4	0	0	1	4	0	8
Future Volume (Veh/h)	9	1177	2	3	862	4	0	0	1	4	0	8
Sign Control		Free			Free			Stop			Stop	
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)	11	1385	2	4	1014	5	0	0	1	5	0	9
Pedestrians								5				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								3.5				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			1085							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1019			1392			1937	2440	698	1740	2438	510
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1019			1125			1760	2347	316	1531	2345	510
tC, single (s)	4.1			4.8			7.5	6.5	8.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.5			3.5	4.0	4.3	3.5	4.0	3.3
p0 queue free %	98			99			100	100	100	93	100	98
cM capacity (veh/h)	677			397			44	30	393	67	30	509

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	11	923	464	4	676	343	1	14
Volume Left	11	0	0	4	0	0	0	5
Volume Right	0	0	2	0	0	5	1	9
cSH	677	1700	1700	397	1700	1700	393	151
Volume to Capacity	0.02	0.54	0.27	0.01	0.40	0.20	0.00	0.09
Queue Length 95th (ft)	1	0	0	1	0	0	0	8
Control Delay (s)	10.4	0.0	0.0	14.2	0.0	0.0	14.2	31.2
Lane LOS	B			B			B	D
Approach Delay (s)	0.1			0.1			14.2	31.2
Approach LOS							B	D

Intersection Summary					
Average Delay	0.3				
Intersection Capacity Utilization	43.7%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1182	0	0	869	0	0
Future Volume (Veh/h)	1182	0	0	869	0	0
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)	1391	0	0	1022	0	0
Pedestrians					5	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			920		
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			1396		1907	700
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1128		1725	317
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			524		68	579

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	696	696	511	511	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.41	0.41	0.30	0.30	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	36.0%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1173	9	10	869	0	0
Future Volume (Veh/h)	1173	9	10	869	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1222	9	10	905	0	0
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			853		
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			1234		1702	618
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			985		1519	282
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			609		94	625

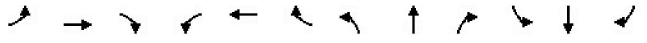
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	815	416	10	452	452	0
Volume Left	0	0	10	0	0	0
Volume Right	0	9	0	0	0	0
cSH	1700	1700	609	1700	1700	1700
Volume to Capacity	0.48	0.24	0.02	0.27	0.27	0.00
Queue Length 95th (ft)	0	0	1	0	0	0
Control Delay (s)	0.0	0.0	11.0	0.0	0.0	0.0
Lane LOS			B			A
Approach Delay (s)	0.0		0.1			0.0
Approach LOS						A

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	36.0%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1173	0	0	879	0	0
Future Volume (Veh/h)	1173	0	0	879	0	0
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)	1380	0	0	1034	0	0
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			710		
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			1384		1901	694
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1164		1752	381
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			522		67	541

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	690	690	517	517	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.41	0.41	0.30	0.30	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	35.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1163	7	6	874	13	1	0	1	6	0	4
Future Volume (Veh/h)	3	1163	7	6	874	13	1	0	1	6	0	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)	3	1264	8	7	950	14	1	0	1	7	0	4
Pedestrians		1			2			8				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		1226			597							
pX, platoon unblocked				0.90			0.90	0.90	0.90	0.90	0.90	
vC, conflicting volume	964			1280			1776	2260	646	1612	2257	483
vC1, stage 1 conf vol							1282	1282		971	971	
vC2, stage 2 conf vol							494	978		641	1286	
vCu, unblocked vol	964			1089			1640	2178	384	1458	2174	483
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	100	97	100	99
cM capacity (veh/h)	710			568			189	197	547	242	195	529

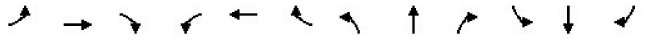
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	3	843	429	482	489	2	11
Volume Left	3	0	0	7	0	1	7
Volume Right	0	0	8	0	14	1	4
cSH	710	1700	1700	568	1700	280	302
Volume to Capacity	0.00	0.50	0.25	0.01	0.29	0.01	0.04
Queue Length 95th (ft)	0	0	0	1	0	1	3
Control Delay (s)	10.1	0.0	0.0	0.4	0.0	17.9	17.4
Lane LOS	B			A		C	C
Approach Delay (s)	0.0			0.2		17.9	17.4
Approach LOS						C	C

Intersection Summary					
Average Delay	0.2				
Intersection Capacity Utilization	43.0%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1170	0	0	893	0	0
Future Volume (Veh/h)	1170	0	0	893	0	0
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)	1376	0	0	1051	0	0
Pedestrians					5	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				478		
pX, platoon unblocked						
vC, conflicting volume			1381		1906	464
vC1, stage 1 conf vol					1381	
vC2, stage 2 conf vol					526	
vCu, unblocked vol			1381		1906	464
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			490		185	543

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	550	550	275	526	526	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.32	0.32	0.16	0.31	0.31	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		0.0
Approach LOS						A

Intersection Summary					
Average Delay	0.0				
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												
Traffic Volume (veh/h)	14	1156	0	0	889	8	0	0	0	0	0	4
Future Volume (Veh/h)	14	1156	0	0	889	8	0	0	0	0	0	4
Sign Control		Free			Free			Stop			Stop	
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)	16	1360	0	0	1046	9	0	0	0	0	0	5
Pedestrians								5			2	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								0			0	
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					320							
pX, platoon unblocked												
vC, conflicting volume	1057			1365			1925	2454	458	1538	2450	530
vC1, stage 1 conf vol							1397	1397		1052	1052	
vC2, stage 2 conf vol							528	1057		485	1397	
vCu, unblocked vol	1057			1365			1925	2454	458	1538	2450	530
tC, single (s)	4.2			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	99
cM capacity (veh/h)	624			497			136	160	547	221	163	493

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	356	680	340	697	358	0	5
Volume Left	16	0	0	0	0	0	0
Volume Right	0	0	0	0	9	0	5
cSH	624	1700	1700	1700	1700	1700	493
Volume to Capacity	0.03	0.40	0.20	0.41	0.21	0.00	0.01
Queue Length 95th (ft)	2	0	0	0	0	0	1
Control Delay (s)	0.8	0.0	0.0	0.0	0.0	0.0	12.4
Lane LOS	A					A	B
Approach Delay (s)	0.2			0.0		0.0	12.4
Approach LOS						A	B

Intersection Summary					
Average Delay	0.1				
Intersection Capacity Utilization	42.1%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1156	0	0	897	0	0
Future Volume (Veh/h)	1156	0	0	897	0	0
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)	1360	0	0	1055	0	0
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	TWLTL			None		
Median storage veh)	2					
Upstream signal (ft)				140		
pX, platoon unblocked						
vC, conflicting volume			1366		1894	346
vC1, stage 1 conf vol					1366	
vC2, stage 2 conf vol					528	
vCu, unblocked vol			1366		1894	346
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			496		188	646

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1
Volume Total	389	389	389	194	528	528	0
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.23	0.23	0.23	0.11	0.31	0.31	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		0.0
Approach LOS							A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	28.1%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	853	470	21	17	165	70	65	823
v/c Ratio	0.65	0.67	0.03	0.05	0.70	0.32	0.22	0.49
Control Delay	36.6	40.3	0.1	19.7	73.4	52.1	51.2	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	40.3	0.1	19.7	73.4	52.1	51.2	15.3
Queue Length 50th (ft)	313	341	0	6	145	27	51	194
Queue Length 95th (ft)	432	#559	0	19	216	45	93	303
Internal Link Dist (ft)		60			306	268	482	
Turn Bay Length (ft)				125				
Base Capacity (vph)	1313	698	660	345	237	494	299	1686
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.67	0.03	0.05	0.70	0.14	0.22	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	734	404	18	15	142	0	47	3	10	8	48	708
Future Volume (vph)	734	404	18	15	142	0	47	3	10	8	48	708
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96			0.99	1.00
Satd. Flow (prot)	3090	1644	1377	1587	1660			2715			1665	2794
Flt Permitted	0.95	1.00	1.00	0.49	1.00			0.96			0.99	1.00
Satd. Flow (perm)	3090	1644	1377	825	1660			2715			1665	2794
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)	853	470	21	17	165	0	55	3	12	9	56	823
RTOR Reduction (vph)	0	0	12	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	853	470	9	17	165	0	0	59	0	0	65	823
Confl. Peds. (#/hr)	1		4	4		1	4		5	5		4
Heavy Vehicles (%)	2%	4%	2%	2%	3%	2%	8%	2%	30%	2%	2%	5%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	58.3	58.3	58.3	40.0	20.0			9.7			25.2	83.5
Effective Green, g (s)	58.3	58.3	58.3	40.0	20.0			9.7			25.2	83.5
Actuated g/C Ratio	0.42	0.42	0.42	0.29	0.14			0.07			0.18	0.60
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1286	684	573	344	237			188			299	1666
v/s Ratio Prot	c0.28	c0.29		0.01	0.10			c0.02			0.04	c0.21
v/s Ratio Perm			0.01	0.01								0.09
v/c Ratio	0.66	0.69	0.02	0.05	0.70			0.31			0.22	0.49
Uniform Delay, d1	32.9	33.4	24.0	36.1	57.1			62.0			49.0	16.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	2.7	5.6	0.0	0.1	8.6			1.0			1.7	1.0
Delay (s)	35.6	39.0	24.0	36.2	65.7			62.9			50.6	17.2
Level of Service	D	D	C	D	E			E			D	B
Approach Delay (s)		36.6			62.9			62.9			19.7	
Approach LOS		D			E			E			B	

Intersection Summary				
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.63			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8	
Intersection Capacity Utilization	76.4%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

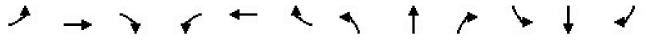
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	925	352	56	1401	490
v/c Ratio	0.36	0.25	0.13	0.50	0.84
Control Delay	12.6	0.5	6.5	9.5	102.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	0.5	6.5	9.5	102.6
Queue Length 50th (ft)	253	0	17	350	358
Queue Length 95th (ft)	330	9	33	447	415
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2546	1393	464	2779	833
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.25	0.12	0.50	0.59

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	842	320	51	1275	392	54
Future Volume (vph)	842	320	51	1275	392	54
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3539	1540	1770	3539	3745	
Flt Permitted	1.00	1.00	0.27	1.00	0.96	
Satd. Flow (perm)	3539	1540	496	3539	3745	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	925	352	56	1401	431	59
RTOR Reduction (vph)	0	44	0	0	5	0
Lane Group Flow (vph)	925	308	56	1401	485	0
Confl. Peds. (#/hr)		3	3			1
Confl. Bikes (#/hr)		2				1
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	158.3	192.2	172.8	172.8	33.9	
Effective Green, g (s)	158.3	192.2	172.8	172.8	33.9	
Actuated g/C Ratio	0.72	0.87	0.79	0.79	0.15	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2546	1345	433	2779	577	
v/s Ratio Prot	0.26	0.04	0.00	c0.40	c0.13	
v/s Ratio Perm		0.16	0.10			
v/c Ratio	0.36	0.23	0.13	0.50	0.84	
Uniform Delay, d1	11.7	2.2	6.5	8.4	90.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1	0.1	0.7	10.6	
Delay (s)	12.1	2.3	6.7	9.0	101.1	
Level of Service	B	A	A	A	F	
Approach Delay (s)	9.4			8.9	101.1	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.58			
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	58.3%	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												
Traffic Volume (veh/h)	26	861	0	4	1301	7	1	0	5	9	0	34
Future Volume (Veh/h)	26	861	0	4	1301	7	1	0	5	9	0	34
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	29	957	0	4	1446	8	1	0	6	10	0	38
Pedestrians								4			3	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			1085							
pX, platoon unblocked												
vC, conflicting volume	1457			961			1788	2484	482	2004	2480	730
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1457			961			1788	2484	482	2004	2480	730
tC, single (s)	4.1			4.1			9.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			93	100	99	69	100	90
cM capacity (veh/h)	459			709			15	27	528	33	27	364

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	29	638	319	4	964	490	7	48
Volume Left	29	0	0	4	0	0	1	10
Volume Right	0	0	0	0	0	8	6	38
cSH	459	1700	1700	709	1700	1700	90	117
Volume to Capacity	0.06	0.38	0.19	0.01	0.57	0.29	0.08	0.41
Queue Length 95th (ft)	5	0	0	0	0	0	6	44
Control Delay (s)	13.4	0.0	0.0	10.1	0.0	0.0	48.4	55.8
Lane LOS	B			B			E	F
Approach Delay (s)	0.4			0.0			48.4	55.8
Approach LOS							E	F

Intersection Summary					
Average Delay	1.4				
Intersection Capacity Utilization	46.6%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	875	0	0	1312	0	2
Future Volume (Veh/h)	875	0	0	1312	0	2
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)	1029	0	0	1544	0	2
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			920		
pX, platoon unblocked						
vC, conflicting volume			1032		1804	518
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1032		1804	518
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			667		70	501

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	514	514	772	772	2
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	2
cSH	1700	1700	1700	1700	501
Volume to Capacity	0.30	0.30	0.45	0.45	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	12.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.2
Approach LOS					B

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.6%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	877	0	3	1306	6	0
Future Volume (Veh/h)	877	0	3	1306	6	0
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)	964	0	3	1435	7	0
Pedestrians					9	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			853		
pX, platoon unblocked						
vC, conflicting volume			973		1696	491
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			973		1696	491
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		92	100
cM capacity (veh/h)			698		82	519

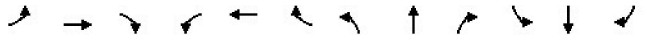
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	643	321	3	718	718	7
Volume Left	0	0	3	0	0	7
Volume Right	0	0	0	0	0	0
cSH	1700	1700	698	1700	1700	82
Volume to Capacity	0.38	0.19	0.00	0.42	0.42	0.08
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	0.0	0.0	10.2	0.0	0.0	52.7
Lane LOS			B			F
Approach Delay (s)	0.0		0.0			52.7
Approach LOS						F

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		46.1%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	877	0	0	1309	0	24
Future Volume (Veh/h)	877	0	0	1309	0	24
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)	1032	0	0	1540	0	28
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			710		
pX, platoon unblocked						
vC, conflicting volume			1038		1808	522
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1038		1808	522
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	94
cM capacity (veh/h)			662		70	497

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	516	516	770	770	28
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	28
cSH	1700	1700	1700	1700	497
Volume to Capacity	0.30	0.30	0.45	0.45	0.06
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	12.7
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.7
Approach LOS					B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		39.5%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	898	1	3	1286	30	5	0	4	15	0	18
Future Volume (Veh/h)	2	898	1	3	1286	30	5	0	4	15	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	2	907	1	3	1299	30	5	0	4	15	0	18
Pedestrians								6			7	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								1			1	
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		1226			597							
pX, platoon unblocked												
vC, conflicting volume	1336			914			1591	2260	460	1788	2245	672
vC1, stage 1 conf vol							918	918		1327	1327	
vC2, stage 2 conf vol							674	1342		462	918	
vCu, unblocked vol	1336			914			1591	2260	460	1788	2245	672
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	90	100	95
cM capacity (veh/h)	509			737			235	180	545	154	183	396

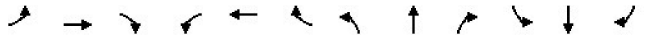
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	2	605	303	652	680	9	33
Volume Left	2	0	0	3	0	5	15
Volume Right	0	0	1	0	30	4	18
cSH	509	1700	1700	737	1700	314	231
Volume to Capacity	0.00	0.36	0.18	0.00	0.40	0.03	0.14
Queue Length 95th (ft)	0	0	0	0	0	2	12
Control Delay (s)	12.1	0.0	0.0	0.1	0.0	16.8	23.2
Lane LOS	B			A		C	C
Approach Delay (s)	0.0			0.1		16.8	23.2
Approach LOS						C	C

Intersection Summary					
Average Delay	0.4				
Intersection Capacity Utilization	48.6%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	917	0	0	1319	0	0
Future Volume (Veh/h)	917	0	0	1319	0	0
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)	1079	0	0	1552	0	0
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				478		
pX, platoon unblocked						
vC, conflicting volume			1086		1862	367
vC1, stage 1 conf vol					1086	
vC2, stage 2 conf vol					776	
vCu, unblocked vol			1086		1862	367
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			634		235	626

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	432	432	216	776	776	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.25	0.25	0.13	0.46	0.46	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		0.0
Approach LOS						A

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	39.8%	ICU Level of Service	A		
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	915	0	0	1316	2	0	0	0	0	0	3
Future Volume (Veh/h)	2	915	0	0	1316	2	0	0	0	0	0	3
Sign Control		Free			Free			Stop			Stop	
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)	2	1076	0	0	1548	2	0	0	0	0	0	4
Pedestrians								7			8	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								1			1	
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					320							
pX, platoon unblocked												
vC, conflicting volume	1558			1083			1865	2645	366	1920	2644	783
vC1, stage 1 conf vol							1087	1087		1557	1557	
vC2, stage 2 conf vol							778	1558		363	1087	
vCu, unblocked vol	1558			1083			1865	2645	366	1920	2644	783
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	99
cM capacity (veh/h)	417			636			189	141	627	113	142	334

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	271	538	269	1032	518	0	4
Volume Left	2	0	0	0	0	0	0
Volume Right	0	0	0	0	2	0	4
cSH	417	1700	1700	1700	1700	1700	334
Volume to Capacity	0.00	0.32	0.16	0.61	0.30	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	0.0	0.0	15.9
Lane LOS	A					A	C
Approach Delay (s)	0.0			0.0		0.0	15.9
Approach LOS						A	C

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	915	0	0	1318	0	0
Future Volume (Veh/h)	915	0	0	1318	0	0
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)	1076	0	0	1551	0	0
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	TWLTL			None		
Median storage veh)	2					
Upstream signal (ft)				140		
pX, platoon unblocked						
vC, conflicting volume			1079		1854	272
vC1, stage 1 conf vol					1079	
vC2, stage 2 conf vol					776	
vCu, unblocked vol			1079		1854	272
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			640		237	724

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1
Volume Total	307	307	307	154	776	776	0
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.18	0.18	0.18	0.09	0.46	0.46	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		0.0
Approach LOS							A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	591	335	18	5	244	180	41	989
v/c Ratio	0.50	0.57	0.03	0.01	1.02	0.57	0.14	0.61
Control Delay	35.5	43.1	0.1	18.4	121.8	58.1	49.8	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	43.1	0.1	18.4	121.8	58.1	49.8	20.0
Queue Length 50th (ft)	206	244	0	2	~235	73	32	277
Queue Length 95th (ft)	296	388	0	10	#411	105	68	413
Internal Link Dist (ft)		60			306	268	482	
Turn Bay Length (ft)				125				
Base Capacity (vph)	1189	585	565	417	239	542	299	1621
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.57	0.03	0.01	1.02	0.33	0.14	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	573	325	17	5	236	1	123	12	40	6	34	959
Future Volume (vph)	573	325	17	5	236	1	123	12	40	6	34	959
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97			0.99	1.00
Satd. Flow (prot)	3090	1676	1375	1585	1675			2928			1664	2878
Flt Permitted	0.95	1.00	1.00	0.56	1.00			0.97			0.99	1.00
Satd. Flow (perm)	3090	1676	1375	932	1675			2928			1664	2878
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)	591	335	18	5	243	1	127	12	41	6	35	989
RTOR Reduction (vph)	0	0	12	0	0	0	0	22	0	0	0	0
Lane Group Flow (vph)	591	335	6	5	244	0	0	158	0	0	41	989
Confl. Peds. (#/hr)	2		4	4		2	3		5	5		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	53.9	48.9	48.9	45.0	20.0			14.1			25.2	79.1
Effective Green, g (s)	53.9	48.9	48.9	45.0	20.0			14.1			25.2	79.1
Actuated g/C Ratio	0.38	0.35	0.35	0.32	0.14			0.10			0.18	0.56
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1189	585	480	416	239			294			299	1626
v/s Ratio Prot	0.19	c0.20		0.00	c0.15			c0.05			0.02	c0.23
v/s Ratio Perm			0.00	0.00								0.11
v/c Ratio	0.50	0.57	0.01	0.01	1.02			0.54			0.14	0.61
Uniform Delay, d1	32.7	37.1	29.8	32.3	60.0			59.9			48.3	20.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.5	4.0	0.0	0.0	63.7			1.9			1.0	1.7
Delay (s)	34.2	41.1	29.8	32.3	123.7			61.8			49.2	21.9
Level of Service	C	D	C	C	F			E			D	C
Approach Delay (s)		36.6			121.9			61.8			23.0	
Approach LOS		D			F			E			C	

Intersection Summary

HCM 2000 Control Delay	41.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

E. Intersection Analysis Worksheets – Future without Development (2025)

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1293	349	35	963	261
v/c Ratio	0.48	0.24	0.11	0.33	0.71
Control Delay	9.0	0.5	3.8	4.1	91.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	0.5	3.8	4.1	91.8
Queue Length 50th (ft)	297	0	6	125	162
Queue Length 95th (ft)	374	9	15	170	210
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2714	1477	330	2892	870
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.24	0.11	0.33	0.30

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1190	321	32	886	216	24
Future Volume (vph)	1190	321	32	886	216	24
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3505	1583	1752	3471	3765	
Flt Permitted	1.00	1.00	0.18	1.00	0.96	
Satd. Flow (perm)	3505	1583	325	3471	3765	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1293	349	35	963	235	26
RTOR Reduction (vph)	0	48	0	0	5	0
Lane Group Flow (vph)	1293	301	35	963	256	0
Confl. Peds. (#/hr)					1	
Heavy Vehicles (%)	3%	2%	3%	4%	2%	2%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	145.7	164.1	158.3	158.3	18.4	
Effective Green, g (s)	145.7	164.1	158.3	158.3	18.4	
Actuated g/C Ratio	0.77	0.86	0.83	0.83	0.10	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2687	1367	312	2891	364	
v/s Ratio Prot	c0.37	0.02	0.00	c0.28	c0.07	
v/s Ratio Perm		0.17	0.09			
v/c Ratio	0.48	0.22	0.11	0.33	0.70	
Uniform Delay, d1	8.2	2.2	4.8	3.7	83.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.1	0.2	0.3	6.0	
Delay (s)	8.8	2.3	5.0	4.0	89.2	
Level of Service	A	A	A	A	F	
Approach Delay (s)	7.4			4.0	89.2	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.51			
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	20.3	
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												
Traffic Volume (veh/h)	9	1223	2	3	890	4	0	0	1	4	0	8
Future Volume (Veh/h)	9	1223	2	3	890	4	0	0	1	4	0	8
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)	10	1329	2	3	967	4	0	0	1	4	0	9
Pedestrians								5				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								3.5				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			1085							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	971			1336			1854	2332	670	1660	2331	486
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	971			1057			1661	2220	280	1436	2219	486
tC, single (s)	4.1			4.8			7.5	6.5	8.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.5			3.5	4.0	4.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	100	95	100	98
cM capacity (veh/h)	706			425			52	36	420	79	36	528

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	10	886	445	3	645	326	1	13
Volume Left	10	0	0	3	0	0	0	4
Volume Right	0	0	2	0	0	4	1	9
cSH	706	1700	1700	425	1700	1700	420	192
Volume to Capacity	0.01	0.52	0.26	0.01	0.38	0.19	0.00	0.07
Queue Length 95th (ft)	1	0	0	1	0	0	0	5
Control Delay (s)	10.2	0.0	0.0	13.5	0.0	0.0	13.6	25.1
Lane LOS	B			B			B	D
Approach Delay (s)	0.1			0.0			13.6	25.1
Approach LOS							B	D

Intersection Summary					
Average Delay	0.2				
Intersection Capacity Utilization	44.9%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1228	0	0	897	0	0
Future Volume (Veh/h)	1228	0	0	897	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1335	0	0	975	0	0
Pedestrians					5	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			920		
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			1340		1828	672
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1060		1630	280
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			556		79	610

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	668	668	488	488	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.29	0.29	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	37.3%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1219	9	10	897	0	0
Future Volume (Veh/h)	1219	9	10	897	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1270	9	10	934	0	0
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			853		
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			1282		1764	642
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1008		1568	267
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			587		86	629

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	847	432	10	467	467	0
Volume Left	0	0	10	0	0	0
Volume Right	0	9	0	0	0	0
cSH	1700	1700	587	1700	1700	1700
Volume to Capacity	0.50	0.25	0.02	0.27	0.27	0.00
Queue Length 95th (ft)	0	0	1	0	0	0
Control Delay (s)	0.0	0.0	11.2	0.0	0.0	0.0
Lane LOS			B			A
Approach Delay (s)	0.0		0.1			0.0
Approach LOS						A

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	37.3%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1219	0	0	908	0	0
Future Volume (Veh/h)	1219	0	0	908	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1325	0	0	987	0	0
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			710		
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			1329		1822	666
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1068		1638	302
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			559		79	598

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	662	662	494	494	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.29	0.29	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	37.0%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1208	7	6	902	13	1	0	1	6	0	4
Future Volume (Veh/h)	3	1208	7	6	902	13	1	0	1	6	0	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)	3	1313	8	7	980	14	1	0	1	7	0	4
Pedestrians		1			2			8				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		0			0			1				
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		1226			597							
pX, platoon unblocked				0.87			0.87	0.87	0.87	0.87	0.87	
vC, conflicting volume	994			1329			1840	2339	670	1666	2336	498
vC1, stage 1 conf vol							1331	1331		1001	1001	
vC2, stage 2 conf vol							509	1008		666	1335	
vCu, unblocked vol	994			1072			1661	2237	312	1461	2234	498
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	100	97	100	99
cM capacity (veh/h)	692			556			185	191	587	235	189	517

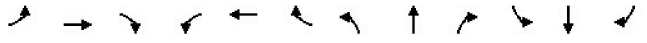
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	3	875	446	497	504	2	11
Volume Left	3	0	0	7	0	1	7
Volume Right	0	0	8	0	14	1	4
cSH	692	1700	1700	556	1700	282	294
Volume to Capacity	0.00	0.51	0.26	0.01	0.30	0.01	0.04
Queue Length 95th (ft)	0	0	0	1	0	1	3
Control Delay (s)	10.2	0.0	0.0	0.4	0.0	17.9	17.7
Lane LOS	B			A		C	C
Approach Delay (s)	0.0			0.2		17.9	17.7
Approach LOS						C	C

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	44.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1215	0	0	922	0	0
Future Volume (Veh/h)	1215	0	0	922	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1321	0	0	1002	0	0
Pedestrians					5	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				478		
pX, platoon unblocked						
vC, conflicting volume			1326		1827	445
vC1, stage 1 conf vol					1326	
vC2, stage 2 conf vol					501	
vCu, unblocked vol			1326		1827	445
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			514		198	558

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	528	528	264	501	501	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.31	0.31	0.16	0.29	0.29	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		0.0
Approach LOS						A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1201	0	0	918	8	0	0	0	0	0	4
Future Volume (Veh/h)	14	1201	0	0	918	8	0	0	0	0	0	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)	15	1305	0	0	998	9	0	0	0	0	0	4
Pedestrians								5			2	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								0			0	
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					320							
pX, platoon unblocked												
vC, conflicting volume	1009			1310			1843	2349	440	1470	2344	506
vC1, stage 1 conf vol							1340	1340		1004	1004	
vC2, stage 2 conf vol							503	1009		465	1340	
vCu, unblocked vol	1009			1310			1843	2349	440	1470	2344	506
tC, single (s)	4.2			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	100	100	100	100	99
cM capacity (veh/h)	652			522			148	171	562	236	174	511

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	341	652	326	665	342	0	4
Volume Left	15	0	0	0	0	0	0
Volume Right	0	0	0	0	9	0	4
cSH	652	1700	1700	1700	1700	1700	511
Volume to Capacity	0.02	0.38	0.19	0.39	0.20	0.00	0.01
Queue Length 95th (ft)	2	0	0	0	0	0	1
Control Delay (s)	0.8	0.0	0.0	0.0	0.0	0.0	12.1
Lane LOS	A					A	B
Approach Delay (s)	0.2			0.0		0.0	12.1
Approach LOS						A	B

Intersection Summary					
Average Delay	0.1				
Intersection Capacity Utilization	42.9%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1201	0	0	926	0	0
Future Volume (Veh/h)	1201	0	0	926	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1305	0	0	1007	0	0
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	TWLTL			None		
Median storage veh)	2					
Upstream signal (ft)				140		
pX, platoon unblocked						
vC, conflicting volume			1311		1814	332
vC1, stage 1 conf vol					1311	
vC2, stage 2 conf vol					504	
vCu, unblocked vol			1311		1814	332
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			521		201	660

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1
Volume Total	373	373	373	186	504	504	0
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.22	0.22	0.22	0.11	0.30	0.30	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		0.0
Approach LOS							A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	28.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	822	452	32	21	159	75	89	792
v/c Ratio	0.65	0.68	0.05	0.06	0.67	0.33	0.30	0.48
Control Delay	37.7	41.3	0.1	19.8	71.8	53.0	52.9	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	41.3	0.1	19.8	71.8	53.0	52.9	15.7
Queue Length 50th (ft)	299	324	0	7	139	29	71	185
Queue Length 95th (ft)	440	#570	0	24	#221	51	126	309
Internal Link Dist (ft)		60			306	268	482	
Turn Bay Length (ft)				125				
Base Capacity (vph)	1257	669	638	347	237	500	300	1635
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.68	0.05	0.06	0.67	0.15	0.30	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	756	416	29	19	146	0	50	8	11	8	74	729
Future Volume (vph)	756	416	29	19	146	0	50	8	11	8	74	729
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97			0.99	1.00
Satd. Flow (prot)	3090	1644	1377	1587	1660			2747			1668	2794
Flt Permitted	0.95	1.00	1.00	0.50	1.00			0.97			0.99	1.00
Satd. Flow (perm)	3090	1644	1377	838	1660			2747			1668	2794
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	822	452	32	21	159	0	54	9	12	9	80	792
RTOR Reduction (vph)	0	0	19	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	822	452	13	21	159	0	0	64	0	0	89	792
Confl. Peds. (#/hr)	1		4	4		1	4		5	5		4
Heavy Vehicles (%)	2%	4%	2%	2%	3%	2%	8%	2%	30%	2%	2%	5%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	57.0	57.0	57.0	40.0	20.0			11.0			25.2	82.2
Effective Green, g (s)	57.0	57.0	57.0	40.0	20.0			11.0			25.2	82.2
Actuated g/C Ratio	0.41	0.41	0.41	0.29	0.14			0.08			0.18	0.59
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1258	669	560	346	237			215			300	1640
v/s Ratio Prot	c0.27	c0.27		0.01	0.10			c0.02			0.05	c0.20
v/s Ratio Perm			0.01	0.01								0.09
v/c Ratio	0.65	0.68	0.02	0.06	0.67			0.30			0.30	0.48
Uniform Delay, d1	33.5	33.9	24.8	36.2	56.9			60.9			49.7	16.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	2.7	5.4	0.1	0.1	7.3			0.8			2.5	1.0
Delay (s)	36.2	39.3	24.9	36.3	64.1			61.6			52.2	17.7
Level of Service	D	D	C	D	E			E			D	B
Approach Delay (s)		37.0			60.9			61.6			21.2	
Approach LOS		D			E			E			C	

Intersection Summary				
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.62			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8	
Intersection Capacity Utilization	77.1%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

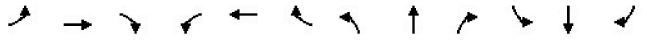
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	946	359	58	1438	500
v/c Ratio	0.37	0.26	0.14	0.52	0.84
Control Delay	13.0	0.5	6.7	10.0	101.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	0.5	6.7	10.0	101.7
Queue Length 50th (ft)	264	0	17	370	365
Queue Length 95th (ft)	348	9	36	480	420
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2533	1394	452	2768	834
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.26	0.13	0.52	0.60

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	870	330	53	1323	404	56
Future Volume (vph)	870	330	53	1323	404	56
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3539	1540	1770	3539	3744	
Flt Permitted	1.00	1.00	0.26	1.00	0.96	
Satd. Flow (perm)	3539	1540	481	3539	3744	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	946	359	58	1438	439	61
RTOR Reduction (vph)	0	46	0	0	6	0
Lane Group Flow (vph)	946	313	58	1438	494	0
Confl. Peds. (#/hr)		3	3			1
Confl. Bikes (#/hr)		2				1
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	157.5	192.1	172.1	172.1	34.6	
Effective Green, g (s)	157.5	192.1	172.1	172.1	34.6	
Actuated g/C Ratio	0.72	0.87	0.78	0.78	0.16	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2533	1344	420	2768	588	
v/s Ratio Prot	0.27	0.04	0.00	c0.41	c0.13	
v/s Ratio Perm		0.17	0.10			
v/c Ratio	0.37	0.23	0.14	0.52	0.84	
Uniform Delay, d1	12.1	2.2	6.8	8.8	90.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1	0.2	0.7	10.5	
Delay (s)	12.5	2.3	7.0	9.5	100.5	
Level of Service	B	A	A	A	F	
Approach Delay (s)	9.7			9.4	100.5	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.59			
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	60.0%	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												
Traffic Volume (veh/h)	26	889	0	4	1349	7	1	0	5	9	0	34
Future Volume (Veh/h)	26	889	0	4	1349	7	1	0	5	9	0	34
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)	28	966	0	4	1466	8	1	0	5	10	0	37
Pedestrians								4			3	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			1085							
pX, platoon unblocked												
vC, conflicting volume	1477			970			1804	2511	487	2025	2507	740
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1477			970			1804	2511	487	2025	2507	740
tC, single (s)	4.1			4.1			9.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			93	100	99	68	100	90
cM capacity (veh/h)	451			704			15	26	524	32	26	358

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	28	644	322	4	977	497	6	47
Volume Left	28	0	0	4	0	0	1	10
Volume Right	0	0	0	0	0	8	5	37
cSH	451	1700	1700	704	1700	1700	77	112
Volume to Capacity	0.06	0.38	0.19	0.01	0.57	0.29	0.08	0.42
Queue Length 95th (ft)	5	0	0	0	0	0	6	45
Control Delay (s)	13.5	0.0	0.0	10.1	0.0	0.0	55.9	58.8
Lane LOS	B			B			F	F
Approach Delay (s)	0.4			0.0			55.9	58.8
Approach LOS							F	F

Intersection Summary					
Average Delay	1.4				
Intersection Capacity Utilization	47.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	904	0	0	1361	0	2
Future Volume (Veh/h)	904	0	0	1361	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	983	0	0	1479	0	2
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			920		
pX, platoon unblocked						
vC, conflicting volume			986		1726	494
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			986		1726	494
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			694		80	519

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	492	492	740	740	2
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	2
cSH	1700	1700	1700	1700	519
Volume to Capacity	0.29	0.29	0.43	0.43	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	12.0
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.0
Approach LOS					B

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	41.0%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	906	0	3	1355	6	0
Future Volume (Veh/h)	906	0	3	1355	6	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	985	0	3	1473	7	0
Pedestrians					9	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			853		
pX, platoon unblocked						
vC, conflicting volume			994		1736	502
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			994		1736	502
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		91	100
cM capacity (veh/h)			686		77	511

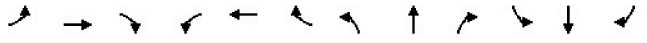
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	657	328	3	736	736	7
Volume Left	0	0	3	0	0	7
Volume Right	0	0	0	0	0	0
cSH	1700	1700	686	1700	1700	77
Volume to Capacity	0.39	0.19	0.00	0.43	0.43	0.09
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	0.0	0.0	10.3	0.0	0.0	56.1
Lane LOS			B			F
Approach Delay (s)	0.0		0.0			56.1
Approach LOS						F

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		47.5%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	906	0	0	1358	0	24
Future Volume (Veh/h)	906	0	0	1358	0	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	985	0	0	1476	0	26
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			710		
pX, platoon unblocked						
vC, conflicting volume			991		1729	498
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			991		1729	498
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			689		79	514

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	492	492	738	738	26
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	26
cSH	1700	1700	1700	1700	514
Volume to Capacity	0.29	0.29	0.43	0.43	0.05
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	12.4
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.4
Approach LOS					B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		40.9%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	927	1	3	1334	30	5	0	4	15	0	18
Future Volume (Veh/h)	2	927	1	3	1334	30	5	0	4	15	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	2	936	1	3	1347	30	5	0	4	15	0	18
Pedestrians								6			7	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								1			1	
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		1226			597							
pX, platoon unblocked												
vC, conflicting volume	1384			943			1644	2336	474	1851	2322	696
vC1, stage 1 conf vol							946	946		1375	1375	
vC2, stage 2 conf vol							698	1390		476	947	
vCu, unblocked vol	1384			943			1644	2336	474	1851	2322	696
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	90	100	95
cM capacity (veh/h)	488			719			225	171	533	144	174	382

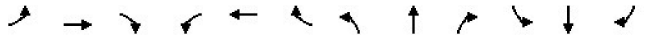
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	2	624	313	676	704	9	33
Volume Left	2	0	0	3	0	5	15
Volume Right	0	0	1	0	30	4	18
cSH	488	1700	1700	719	1700	303	218
Volume to Capacity	0.00	0.37	0.18	0.00	0.41	0.03	0.15
Queue Length 95th (ft)	0	0	0	0	0	2	13
Control Delay (s)	12.4	0.0	0.0	0.1	0.0	17.3	24.5
Lane LOS	B			A		C	C
Approach Delay (s)	0.0			0.1		17.3	24.5
Approach LOS						C	C

Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	49.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	947	0	0	1368	0	0
Future Volume (Veh/h)	947	0	0	1368	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1029	0	0	1487	0	0
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				478		
pX, platoon unblocked						
vC, conflicting volume			1036		1780	350
vC1, stage 1 conf vol					1036	
vC2, stage 2 conf vol					744	
vCu, unblocked vol			1036		1780	350
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			662		250	642

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	412	412	206	744	744	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.24	0.24	0.12	0.44	0.44	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		0.0
Approach LOS						A

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	41.1%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	945	0	0	1365	2	0	0	0	0	0	3
Future Volume (Veh/h)	2	945	0	0	1365	2	0	0	0	0	0	3
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)	2	1027	0	0	1484	2	0	0	0	0	0	3
Pedestrians								7			8	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								1			1	
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					320							
pX, platoon unblocked												
vC, conflicting volume	1494			1034			1783	2532	349	1839	2531	751
vC1, stage 1 conf vol							1038	1038		1493	1493	
vC2, stage 2 conf vol							745	1494		346	1038	
vCu, unblocked vol	1494			1034			1783	2532	349	1839	2531	751
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	99
cM capacity (veh/h)	442			663			203	152	642	124	153	351

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	259	514	257	989	497	0	3
Volume Left	2	0	0	0	0	0	0
Volume Right	0	0	0	0	2	0	3
cSH	442	1700	1700	1700	1700	1700	351
Volume to Capacity	0.00	0.30	0.15	0.58	0.29	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	0.0	0.0	15.4
Lane LOS	A					A	C
Approach Delay (s)	0.0			0.0		0.0	15.4
Approach LOS						A	C

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	945	0	0	1367	0	0
Future Volume (Veh/h)	945	0	0	1367	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1027	0	0	1486	0	0
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	TWLTL			None		
Median storage veh)	2					
Upstream signal (ft)				140		
pX, platoon unblocked						
vC, conflicting volume			1030		1773	260
vC1, stage 1 conf vol					1030	
vC2, stage 2 conf vol					743	
vCu, unblocked vol			1030		1773	260
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			668		252	737

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1
Volume Total	293	293	293	147	743	743	0
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.17	0.17	0.17	0.09	0.44	0.44	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		0.0
Approach LOS							A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	608	345	21	6	252	222	47	1019
v/c Ratio	0.53	0.61	0.04	0.01	1.05	0.64	0.16	0.64
Control Delay	37.1	45.4	0.1	18.7	129.5	61.8	50.2	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	45.4	0.1	18.7	129.5	61.8	50.2	21.7
Queue Length 50th (ft)	219	260	0	2	~250	94	37	303
Queue Length 95th (ft)	306	402	0	10	#428	131	75	432
Internal Link Dist (ft)		60			306	268	482	
Turn Bay Length (ft)				125				
Base Capacity (vph)	1153	565	551	416	239	543	299	1588
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.61	0.04	0.01	1.05	0.41	0.16	0.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	590	335	20	6	243	1	136	35	45	6	40	988
Future Volume (vph)	590	335	20	6	243	1	136	35	45	6	40	988
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97			0.99	1.00
Satd. Flow (prot)	3090	1676	1375	1585	1675			2952			1666	2877
Flt Permitted	0.95	1.00	1.00	0.55	1.00			0.97			0.99	1.00
Satd. Flow (perm)	3090	1676	1375	924	1675			2952			1666	2877
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)	608	345	21	6	251	1	140	36	46	6	41	1019
RTOR Reduction (vph)	0	0	14	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	608	345	7	6	252	0	0	204	0	0	47	1019
Confl. Peds. (#/hr)	2		4	4		2	3		5	5		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	52.3	47.3	47.3	45.0	20.0			15.7			25.2	77.5
Effective Green, g (s)	52.3	47.3	47.3	45.0	20.0			15.7			25.2	77.5
Actuated g/C Ratio	0.37	0.34	0.34	0.32	0.14			0.11			0.18	0.55
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1154	566	464	415	239			331			299	1592
v/s Ratio Prot	0.20	c0.21		0.00	c0.15			c0.07			0.03	c0.24
v/s Ratio Perm			0.01	0.00								0.12
v/c Ratio	0.53	0.61	0.02	0.01	1.05			0.62			0.16	0.64
Uniform Delay, d1	34.2	38.6	30.8	32.4	60.0			59.3			48.4	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.7	4.8	0.1	0.0	73.3			3.4			1.1	2.0
Delay (s)	35.9	43.5	30.9	32.4	133.3			62.7			49.6	23.6
Level of Service	D	D	C	C	F			E			D	C
Approach Delay (s)		38.5			130.9			62.7			24.7	
Approach LOS		D			F			E			C	

Intersection Summary

HCM 2000 Control Delay	44.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

F. Intersection Analysis Worksheets – Future with Development (2025)

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1388	349	35	1014	261
v/c Ratio	0.51	0.24	0.12	0.35	0.71
Control Delay	9.5	0.5	3.9	4.2	91.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	0.5	3.9	4.2	91.8
Queue Length 50th (ft)	333	0	6	134	162
Queue Length 95th (ft)	418	9	15	182	210
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2714	1477	301	2892	870
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.24	0.12	0.35	0.30

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1277	321	32	933	216	24
Future Volume (vph)	1277	321	32	933	216	24
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3505	1583	1752	3471	3765	
Flt Permitted	1.00	1.00	0.16	1.00	0.96	
Satd. Flow (perm)	3505	1583	287	3471	3765	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1388	349	35	1014	235	26
RTOR Reduction (vph)	0	48	0	0	5	0
Lane Group Flow (vph)	1388	301	35	1014	256	0
Confl. Peds. (#/hr)					1	
Heavy Vehicles (%)	3%	2%	3%	4%	2%	2%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	145.7	164.1	158.3	158.3	18.4	
Effective Green, g (s)	145.7	164.1	158.3	158.3	18.4	
Actuated g/C Ratio	0.77	0.86	0.83	0.83	0.10	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2687	1367	282	2891	364	
v/s Ratio Prot	c0.40	0.02	0.00	c0.29	c0.07	
v/s Ratio Perm		0.17	0.10			
v/c Ratio	0.52	0.22	0.12	0.35	0.70	
Uniform Delay, d1	8.6	2.2	5.4	3.7	83.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.1	0.2	0.3	6.0	
Delay (s)	9.3	2.3	5.6	4.1	89.2	
Level of Service	A	A	A	A	F	
Approach Delay (s)	7.9			4.1	89.2	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.54			
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	52.6%	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												
Traffic Volume (veh/h)	9	1310	2	3	937	4	0	0	1	4	0	8
Future Volume (Veh/h)	9	1310	2	3	937	4	0	0	1	4	0	8
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)	10	1424	2	3	1018	4	0	0	1	4	0	9
Pedestrians								5				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								3.5				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			488							
pX, platoon unblocked	0.80			0.84			0.88	0.88	0.84	0.88	0.88	0.80
vC, conflicting volume	1022			1431			1974	2478	718	1759	2477	511
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	526			1129			1009	1582	279	765	1581	0
tC, single (s)	4.1			4.8			7.5	6.5	8.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.5			3.5	4.0	4.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	100	98	100	99
cM capacity (veh/h)	829			387			165	93	412	252	93	867

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	10	949	477	3	679	343	1	13
Volume Left	10	0	0	3	0	0	0	4
Volume Right	0	0	2	0	0	4	1	9
cSH	829	1700	1700	387	1700	1700	412	495
Volume to Capacity	0.01	0.56	0.28	0.01	0.40	0.20	0.00	0.03
Queue Length 95th (ft)	1	0	0	1	0	0	0	2
Control Delay (s)	9.4	0.0	0.0	14.4	0.0	0.0	13.8	12.5
Lane LOS	A			B			B	B
Approach Delay (s)	0.1			0.0			13.8	12.5
Approach LOS							B	B

Intersection Summary					
Average Delay	0.1				
Intersection Capacity Utilization	47.3%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1315	0	0	944	0	0
Future Volume (Veh/h)	1315	0	0	944	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1429	0	0	1026	0	0
Pedestrians					5	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			323		
pX, platoon unblocked			0.84		0.88	0.84
vC, conflicting volume			1434		1947	720
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1130		971	277
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			512		219	600

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	714	714	513	513	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.42	0.30	0.30	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.7%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1306	9	10	944	0	0
Future Volume (Veh/h)	1306	9	10	944	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1360	9	10	983	0	0
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			256		
pX, platoon unblocked			0.84		0.87	0.84
vC, conflicting volume			1372		1879	688
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1072		920	262
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			544		231	620

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	907	462	10	492	492	0
Volume Left	0	0	10	0	0	0
Volume Right	0	9	0	0	0	0
cSH	1700	1700	544	1700	1700	1700
Volume to Capacity	0.53	0.27	0.02	0.29	0.29	0.00
Queue Length 95th (ft)	0	0	1	0	0	0
Control Delay (s)	0.0	0.0	11.7	0.0	0.0	0.0
Lane LOS			B			A
Approach Delay (s)	0.0		0.1			0.0
Approach LOS						A

Intersection Summary				
Average Delay		0.0		
Intersection Capacity Utilization	39.7%	ICU Level of Service		A
Analysis Period (min)		15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1326	0	0	958	0	0
Future Volume (Veh/h)	1326	0	0	958	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1441	0	0	1041	0	0
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			113		
pX, platoon unblocked			0.85		0.87	0.85
vC, conflicting volume			1445		1966	724
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1163		1020	312
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			503		202	577

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	720	720	520	520	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.42	0.31	0.31	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary				
Average Delay		0.0		
Intersection Capacity Utilization	40.0%	ICU Level of Service		A
Analysis Period (min)		15		

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	NWL
Lane Group Flow (vph)	3	1423	55	981	2	11	92
v/c Ratio	0.01	0.88	0.39	0.59	0.01	0.04	0.23
Control Delay	13.7	40.7	28.6	22.6	53.5	0.2	5.8
Queue Delay	0.0	0.3	0.0	0.4	0.0	0.0	0.1
Total Delay	13.7	41.0	28.6	23.0	53.5	0.2	5.9
Queue Length 50th (ft)	1	601	16	231	2	0	1
Queue Length 95th (ft)	6	711	m57	348	11	0	32
Internal Link Dist (ft)		33		198	61	76	111
Turn Bay Length (ft)	120		100				
Base Capacity (vph)	238	1625	141	1667	207	299	403
Starvation Cap Reductn	0	0	0	256	0	0	0
Spillback Cap Reductn	0	22	0	0	0	0	30
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.89	0.39	0.70	0.01	0.04	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Traffic Volume (vph)	3	1196	106	7	44	6	890	13	1	0	1	6
Future Volume (vph)	3	1196	106	7	44	6	890	13	1	0	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0			6.0		
Lane Util. Factor	1.00	0.95				1.00	0.95			1.00		
Frpb, ped/bikes	1.00	1.00				1.00	1.00			1.00		
Flpb, ped/bikes	1.00	1.00				1.00	1.00			1.00		
Frt	1.00	0.99				1.00	1.00			0.93		
Flt Protected	0.95	1.00				0.95	1.00			0.98		
Satd. Flow (prot)	1770	3447				1770	3432			1695		
Flt Permitted	0.20	1.00				0.06	1.00			0.93		
Satd. Flow (perm)	371	3447				110	3432			1612		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	1300	115	8	48	7	967	14	1	0	1	7
RTOR Reduction (vph)	0	1	0	0	0	0	1	0	0	0	0	0
Lane Group Flow (vph)	3	1422	0	0	0	55	980	0	0	2	0	0
Confl. Peds. (#/hr)			8		8							2
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			custom	pm+pt	NA		Perm	NA		Perm
Protected Phases	5	2				1	6			8		
Permitted Phases	2				1	6			8			4
Actuated Green, G (s)	71.0	66.0				75.0	68.0			18.0		
Effective Green, g (s)	71.0	66.0				75.0	68.0			18.0		
Actuated g/C Ratio	0.51	0.47				0.54	0.49			0.13		
Clearance Time (s)	6.0	6.0				6.0	6.0			6.0		
Vehicle Extension (s)	3.0	3.0				3.0	3.0			3.0		
Lane Grp Cap (vph)	238	1625				141	1666			207		
v/s Ratio Prot	0.00	c0.41				c0.02	0.29					
v/s Ratio Perm	0.01					0.19				c0.00		
v/c Ratio	0.01	0.88				0.39	0.59			0.01		
Uniform Delay, d1	18.6	33.3				25.5	25.9			53.2		
Progression Factor	1.00	1.00				1.51	0.81			1.00		
Incremental Delay, d2	0.1	6.9				6.9	1.3			0.1		
Delay (s)	18.7	40.2				45.5	22.4			53.3		
Level of Service	B	D				D	C			D		
Approach Delay (s)		40.2					23.6			53.3		
Approach LOS		D					C			D		

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	NWL	NWR2
Lane Configurations				
Traffic Volume (vph)	0	4	60	25
Future Volume (vph)	0	4	60	25
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	
Lane Util. Factor	1.00		1.00	
Frpb, ped/bikes	0.99		1.00	
Flpb, ped/bikes	1.00		1.00	
Frt	0.95		0.96	
Flt Protected	0.97		0.97	
Satd. Flow (prot)	1703		1719	
Flt Permitted	0.87		0.97	
Satd. Flow (perm)	1536		1719	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	65	27
RTOR Reduction (vph)	10	0	76	0
Lane Group Flow (vph)	1	0	16	0
Confl. Peds. (#/hr)		1	1	2
Heavy Vehicles (%)	2%	2%	2%	2%
Turn Type	NA		Prot	
Protected Phases	4		9	
Permitted Phases				
Actuated Green, G (s)	18.0		25.0	
Effective Green, g (s)	18.0		25.0	
Actuated g/C Ratio	0.13		0.18	
Clearance Time (s)	6.0		6.0	
Vehicle Extension (s)	3.0		3.0	
Lane Grp Cap (vph)	197		306	
v/s Ratio Prot			c0.01	
v/s Ratio Perm	0.00			
v/c Ratio	0.01		0.05	
Uniform Delay, d1	53.2		47.7	
Progression Factor	1.00		1.13	
Incremental Delay, d2	0.1		0.3	
Delay (s)	53.3		54.0	
Level of Service	D		D	
Approach Delay (s)	53.3		54.0	
Approach LOS	D		D	

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	1213	944	8	0	4
Future Volume (Veh/h)	14	1213	944	8	0	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	1318	1026	9	0	4
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		278	320			
pX, platoon unblocked					0.69	
vC, conflicting volume	1037				1502	520
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1037				127	520
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	98				100	99
cM capacity (veh/h)	636				571	500

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SB 1
Volume Total	15	439	439	439	684	351	4
Volume Left	15	0	0	0	0	0	0
Volume Right	0	0	0	0	0	9	4
cSH	636	1700	1700	1700	1700	1700	500
Volume to Capacity	0.02	0.26	0.26	0.26	0.40	0.21	0.01
Queue Length 95th (ft)	2	0	0	0	0	0	1
Control Delay (s)	10.8	0.0	0.0	0.0	0.0	0.0	12.3
Lane LOS	B						B
Approach Delay (s)	0.1				0.0		12.3
Approach LOS							B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		36.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	829	458	32	35	168	98	118	811
v/c Ratio	0.67	0.69	0.05	0.10	0.71	0.40	0.39	0.50
Control Delay	25.4	53.5	1.3	20.3	74.3	51.5	55.2	16.2
Queue Delay	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	56.4	1.3	20.3	74.3	51.5	55.2	16.2
Queue Length 50th (ft)	400	443	0	12	148	36	96	195
Queue Length 95th (ft)	m474	m510	m0	34	#245	61	160	319
Internal Link Dist (ft)		240			306	88	482	
Turn Bay Length (ft)			115	125				
Base Capacity (vph)	1245	662	633	346	237	505	300	1625
Starvation Cap Reductn	0	114	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.84	0.05	0.10	0.71	0.19	0.39	0.50

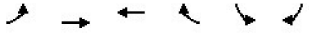
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	763	421	29	32	155	0	50	22	18	8	100	746
Future Volume (vph)	763	421	29	32	155	0	50	22	18	8	100	746
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97			1.00	1.00
Satd. Flow (prot)	3090	1644	1377	1587	1660			2741			1670	2794
Flt Permitted	0.95	1.00	1.00	0.50	1.00			0.97			1.00	1.00
Satd. Flow (perm)	3090	1644	1377	834	1660			2741			1670	2794
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	829	458	32	35	168	0	54	24	20	9	109	811
RTOR Reduction (vph)	0	0	19	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	829	458	13	35	168	0	0	80	0	0	118	811
Confl. Peds. (#/hr)	1		4	4		1	4		5	5		4
Heavy Vehicles (%)	2%	4%	2%	2%	3%	2%	8%	2%	30%	2%	2%	5%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	56.4	56.4	56.4	40.0	20.0			11.6			25.2	81.6
Effective Green, g (s)	56.4	56.4	56.4	40.0	20.0			11.6			25.2	81.6
Actuated g/C Ratio	0.40	0.40	0.40	0.29	0.14			0.08			0.18	0.58
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1244	662	554	345	237			227			300	1628
v/s Ratio Prot	c0.27	c0.28		0.01	0.10			c0.03			0.07	c0.20
v/s Ratio Perm			0.01	0.01								0.09
v/c Ratio	0.67	0.69	0.02	0.10	0.71			0.35			0.39	0.50
Uniform Delay, d1	34.1	34.6	25.2	36.5	57.2			60.6			50.7	17.2
Progression Factor	0.67	1.41	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.4	2.9	0.0	0.1	9.3			0.9			3.8	1.1
Delay (s)	24.4	51.7	25.2	36.6	66.5			61.6			54.5	18.3
Level of Service	C	D	C	D	E			E			D	B
Approach Delay (s)		33.9			61.4			61.6			22.9	
Approach LOS		C			E			E			C	

Intersection Summary					
HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C		
HCM 2000 Volume to Capacity ratio	0.64				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8		
Intersection Capacity Utilization	77.4%	ICU Level of Service	D		
Analysis Period (min)	15				

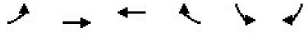
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	105	45	26	51	29	59
Future Volume (Veh/h)	105	45	26	51	29	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	114	49	28	55	32	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		280				
pX, platoon unblocked						
vC, conflicting volume	83				332	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	83				332	56
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				95	94
cM capacity (veh/h)	1514				613	1011

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	163	83	96
Volume Left	114	0	32
Volume Right	0	55	64
cSH	1514	1700	831
Volume to Capacity	0.08	0.05	0.12
Queue Length 95th (ft)	6	0	10
Control Delay (s)	5.5	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	5.5	0.0	9.9
Approach LOS			A

Intersection Summary				
Average Delay		5.4		
Intersection Capacity Utilization		26.8%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	29	51	11	6	26
Future Volume (Veh/h)	45	29	51	11	6	26
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	32	55	12	7	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		450				
pX, platoon unblocked						
vC, conflicting volume	67				191	61
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				191	61
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				99	97
cM capacity (veh/h)	1535				772	1004

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	81	67	35
Volume Left	49	0	7
Volume Right	0	12	28
cSH	1535	1700	947
Volume to Capacity	0.03	0.04	0.04
Queue Length 95th (ft)	2	0	3
Control Delay (s)	4.6	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	4.6	0.0	8.9
Approach LOS			A

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		20.7%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	13	22	68	121	39
Future Volume (Veh/h)	22	13	22	68	121	39
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)	24	14	24	74	132	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					168	
pX, platoon unblocked	0.93	0.93	0.93			
vC, conflicting volume	238	153	174			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	146	54	77			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	98			
cM capacity (veh/h)	762	933	1416			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	38	49	49	174
Volume Left	24	24	0	0
Volume Right	14	0	0	42
cSH	817	1416	1700	1700
Volume to Capacity	0.05	0.02	0.03	0.10
Queue Length 95th (ft)	4	1	0	0
Control Delay (s)	9.6	3.8	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.6	1.9		0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

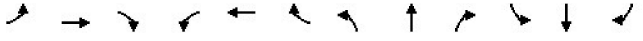
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	967	359	58	1462	500
v/c Ratio	0.38	0.26	0.14	0.53	0.84
Control Delay	13.2	0.5	6.7	10.1	101.7
Queue Delay	0.0	0.0	0.0	0.4	0.0
Total Delay	13.2	0.5	6.7	10.5	101.7
Queue Length 50th (ft)	272	0	17	380	365
Queue Length 95th (ft)	358	9	36	493	420
Internal Link Dist (ft)	425			206	540
Turn Bay Length (ft)		125	95		
Base Capacity (vph)	2533	1394	443	2768	834
Starvation Cap Reductn	0	0	0	715	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.26	0.13	0.71	0.60

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	890	330	53	1345	404	56
Future Volume (vph)	890	330	53	1345	404	56
Ideal Flow (vphpl)	1900	1900	1900	1900	2100	1900
Total Lost time (s)	7.0	6.3	7.0	7.0	6.3	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	3539	1540	1770	3539	3744	
Flt Permitted	1.00	1.00	0.25	1.00	0.96	
Satd. Flow (perm)	3539	1540	469	3539	3744	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	967	359	58	1462	439	61
RTOR Reduction (vph)	0	46	0	0	6	0
Lane Group Flow (vph)	967	313	58	1462	494	0
Confl. Peds. (#/hr)		3	3			1
Confl. Bikes (#/hr)		2				1
Turn Type	NA	pm+ov	pm+pt	NA	Prot	
Protected Phases	2	4	1	6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	157.5	192.1	172.1	172.1	34.6	
Effective Green, g (s)	157.5	192.1	172.1	172.1	34.6	
Actuated g/C Ratio	0.72	0.87	0.78	0.78	0.16	
Clearance Time (s)	7.0	6.3	7.0	7.0	6.3	
Vehicle Extension (s)	5.0	3.0	3.0	5.0	3.0	
Lane Grp Cap (vph)	2533	1344	411	2768	588	
v/s Ratio Prot	0.27	0.04	0.00	c0.41	c0.13	
v/s Ratio Perm		0.17	0.11			
v/c Ratio	0.38	0.23	0.14	0.53	0.84	
Uniform Delay, d1	12.2	2.2	6.9	8.9	90.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1	0.2	0.7	10.5	
Delay (s)	12.7	2.3	7.1	9.6	100.5	
Level of Service	B	A	A	A	F	
Approach Delay (s)	9.9			9.5	100.5	
Approach LOS	A			A	F	

Intersection Summary				
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.60			
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	60.6%	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												
Traffic Volume (veh/h)	26	909	0	4	1371	7	1	0	5	9	0	34
Future Volume (Veh/h)	26	909	0	4	1371	7	1	0	5	9	0	34
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)	28	988	0	4	1490	8	1	0	5	10	0	37
Pedestrians								4			3	
Lane Width (ft)								12.0			12.0	
Walking Speed (ft/s)								3.5			3.5	
Percent Blockage								0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		738			488							
pX, platoon unblocked	0.66			0.89			0.71	0.71	0.89	0.71	0.71	0.66
vC, conflicting volume	1501			992			1838	2557	498	2060	2553	752
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	734			756			711	1718	204	1022	1712	0
tC, single (s)	4.1			4.1			9.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			99	100	99	92	100	95
cM capacity (veh/h)	572			758			119	60	715	128	60	715

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	28	659	329	4	993	505	6	47
Volume Left	28	0	0	4	0	0	1	10
Volume Right	0	0	0	0	0	8	5	37
cSH	572	1700	1700	758	1700	1700	390	362
Volume to Capacity	0.05	0.39	0.19	0.01	0.58	0.30	0.02	0.13
Queue Length 95th (ft)	4	0	0	0	0	0	1	11
Control Delay (s)	11.6	0.0	0.0	9.8	0.0	0.0	14.4	16.4
Lane LOS	B			A			B	C
Approach Delay (s)	0.3			0.0			14.4	16.4
Approach LOS							B	C

Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	48.6%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	924	0	0	1383	0	2
Future Volume (Veh/h)	924	0	0	1383	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1004	0	0	1503	0	2
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	903			323		
pX, platoon unblocked			0.90		0.72	0.90
vC, conflicting volume			1007		1758	505
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			776		609	215
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			747		304	705

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	502	502	752	752	2
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	2
cSH	1700	1700	1700	1700	705
Volume to Capacity	0.30	0.30	0.44	0.44	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	10.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.1
Approach LOS					B

Intersection Summary					
Average Delay	0.0				
Intersection Capacity Utilization	41.6%	ICU Level of Service	A		
Analysis Period (min)	15				

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	926	0	3	1377	6	0
Future Volume (Veh/h)	926	0	3	1377	6	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1007	0	3	1497	7	0
Pedestrians					9	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	970			256		
pX, platoon unblocked			0.90		0.72	0.90
vC, conflicting volume			1016		1770	512
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			787		631	225
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			736		292	691

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	671	336	3	748	748	7
Volume Left	0	0	3	0	0	7
Volume Right	0	0	0	0	0	0
cSH	1700	1700	736	1700	1700	292
Volume to Capacity	0.39	0.20	0.00	0.44	0.44	0.02
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	9.9	0.0	0.0	17.6
Lane LOS			A			C
Approach Delay (s)	0.0		0.0			17.6
Approach LOS						C

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	48.1%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	926	0	0	1380	0	24
Future Volume (Veh/h)	926	0	0	1380	0	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1007	0	0	1500	0	26
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1113			113		
pX, platoon unblocked			0.90		0.72	0.90
vC, conflicting volume			1013		1763	510
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			787		632	227
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			739		294	693

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	504	504	750	750	26
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	26
cSH	1700	1700	1700	1700	693
Volume to Capacity	0.30	0.30	0.44	0.44	0.04
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	10.4
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.4
Approach LOS					B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	41.5%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	NWL
Lane Group Flow (vph)	2	959	40	1373	9	33	76
v/c Ratio	0.02	0.57	0.17	0.81	0.05	0.11	0.19
Control Delay	14.0	27.8	12.1	33.6	54.3	0.8	3.2
Queue Delay	0.0	0.0	0.0	45.1	0.0	0.0	0.0
Total Delay	14.0	27.8	12.1	78.7	54.3	0.8	3.2
Queue Length 50th (ft)	1	323	18	575	7	0	0
Queue Length 95th (ft)	5	389	m19	m632	26	0	10
Internal Link Dist (ft)		33		198	61	76	111
Turn Bay Length (ft)	120		100				
Base Capacity (vph)	126	1685	240	1688	199	297	407
Starvation Cap Reductn	0	0	0	432	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.57	0.17	1.09	0.05	0.11	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Traffic Volume (vph)	2	923	26	1	37	3	1330	30	5	0	4	15
Future Volume (vph)	2	923	26	1	37	3	1330	30	5	0	4	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0			6.0		
Lane Util. Factor	1.00	0.95				1.00	0.95			1.00		
Frpb, ped/bikes	1.00	1.00				1.00	1.00			1.00		
Flpb, ped/bikes	1.00	1.00				1.00	1.00			1.00		
Frt	1.00	1.00				1.00	1.00			0.94		
Flt Protected	0.95	1.00				0.95	1.00			0.97		
Satd. Flow (prot)	1770	3520				1770	3524			1704		
Flt Permitted	0.07	1.00				0.20	1.00			0.89		
Satd. Flow (perm)	132	3520				370	3524			1551		
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	2	932	26	1	37	3	1343	30	5	0	4	15
RTOR Reduction (vph)	0	0	0	0	0	0	1	0	0	0	0	0
Lane Group Flow (vph)	2	959	0	0	0	40	1372	0	0	9	0	0
Confl. Peds. (#/hr)	7		6		6			7				
Confl. Bikes (#/hr)								1				
Turn Type	pm+pt	NA			custom	pm+pt	NA		Perm	NA		Perm
Protected Phases	5	2				1	6			8		
Permitted Phases	2				1	6			8			4
Actuated Green, G (s)	72.0	67.0				72.0	67.0			18.0		
Effective Green, g (s)	72.0	67.0				72.0	67.0			18.0		
Actuated g/C Ratio	0.51	0.48				0.51	0.48			0.13		
Clearance Time (s)	6.0	6.0				6.0	6.0			6.0		
Vehicle Extension (s)	3.0	3.0				3.0	3.0			3.0		
Lane Grp Cap (vph)	126	1684				240	1686			199		
v/s Ratio Prot	0.00	0.27				c0.01	c0.39					
v/s Ratio Perm	0.01					0.08				c0.01		
v/c Ratio	0.02	0.57				0.17	0.81			0.05		
Uniform Delay, d1	23.2	26.2				18.8	31.2			53.5		
Progression Factor	1.00	1.00				0.77	0.96			1.00		
Incremental Delay, d2	0.2	1.4				1.1	3.2			0.4		
Delay (s)	23.4	27.6				15.5	33.2			53.9		
Level of Service	C	C				B	C			D		
Approach Delay (s)		27.6					32.7			53.9		
Approach LOS		C					C			D		

Intersection Summary

HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	NWL	NWR2
Lane Configurations				
Traffic Volume (vph)	0	18	31	45
Future Volume (vph)	0	18	31	45
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	
Lane Util. Factor	1.00		1.00	
Frpb, ped/bikes	1.00		1.00	
Flpb, ped/bikes	1.00		1.00	
Frt	0.93		0.92	
Flt Protected	0.98		0.98	
Satd. Flow (prot)	1687		1680	
Flt Permitted	0.88		0.98	
Satd. Flow (perm)	1521		1680	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	18	31	45
RTOR Reduction (vph)	29	0	62	0
Lane Group Flow (vph)	4	0	14	0
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Turn Type	NA		Prot	
Protected Phases	4		9	
Permitted Phases				
Actuated Green, G (s)	18.0		26.0	
Effective Green, g (s)	18.0		26.0	
Actuated g/C Ratio	0.13		0.19	
Clearance Time (s)	6.0		6.0	
Vehicle Extension (s)	3.0		3.0	
Lane Grp Cap (vph)	195		312	
v/s Ratio Prot			c0.01	
v/s Ratio Perm	0.00			
v/c Ratio	0.02		0.05	
Uniform Delay, d1	53.3		46.8	
Progression Factor	1.00		1.10	
Incremental Delay, d2	0.2		0.3	
Delay (s)	53.5		51.8	
Level of Service	D		D	
Approach Delay (s)	53.5		51.8	
Approach LOS	D		D	

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	981	1395	2	0	3
Future Volume (Veh/h)	2	981	1395	2	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1066	1516	2	0	3
Pedestrians					8	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		278	320			
pX, platoon unblocked					0.84	
vC, conflicting volume	1526				1884	767
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1526				1380	767
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	429				112	342

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SB 1
Volume Total	2	355	355	355	1011	507	3
Volume Left	2	0	0	0	0	0	0
Volume Right	0	0	0	0	0	2	3
cSH	429	1700	1700	1700	1700	1700	342
Volume to Capacity	0.00	0.21	0.21	0.21	0.59	0.30	0.01
Queue Length 95th (ft)	0	0	0	0	0	0	1
Control Delay (s)	13.4	0.0	0.0	0.0	0.0	0.0	15.6
Lane LOS	B						C
Approach Delay (s)	0.0				0.0		15.6
Approach LOS							C

Intersection Summary				
Average Delay		0.0		
Intersection Capacity Utilization		48.6%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	635	357	21	16	260	272	78	1041
v/c Ratio	0.57	0.65	0.04	0.04	1.09	0.70	0.26	0.67
Control Delay	50.0	25.5	0.1	19.1	138.2	63.6	52.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Total Delay	50.0	25.5	0.1	19.1	138.2	63.6	52.1	26.1
Queue Length 50th (ft)	200	85	0	6	~265	116	62	327
Queue Length 95th (ft)	266	317	m0	19	#447	160	113	446
Internal Link Dist (ft)		240			306	88	482	
Turn Bay Length (ft)			115	125				
Base Capacity (vph)	1117	546	536	414	239	547	300	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	1	0	378
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.65	0.04	0.04	1.09	0.50	0.26	0.89

Intersection Summary

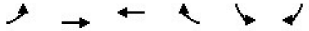
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	616	346	20	16	251	1	136	71	57	6	70	1010
Future Volume (vph)	616	346	20	16	251	1	136	71	57	6	70	1010
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2200
Total Lost time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00			0.95			1.00	0.88
Frpb, ped/bikes	1.00	1.00	0.97	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			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97			1.00	1.00
Satd. Flow (prot)	3090	1676	1375	1586	1675			2967			1670	2876
Flt Permitted	0.95	1.00	1.00	0.55	1.00			0.97			1.00	1.00
Satd. Flow (perm)	3090	1676	1375	914	1675			2967			1670	2876
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)	635	357	21	16	259	1	140	73	59	6	72	1041
RTOR Reduction (vph)	0	0	14	0	0	0	0	19	0	0	0	0
Lane Group Flow (vph)	635	357	7	16	260	0	0	253	0	0	78	1041
Confl. Peds. (#/hr)	2		4	4		2	3		5	5		3
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	Perm	pm+pt	NA		Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		3	3		4	4	5
Permitted Phases			2	6								4
Actuated Green, G (s)	50.6	45.6	45.6	45.0	20.0			17.4			25.2	75.8
Effective Green, g (s)	50.6	45.6	45.6	45.0	20.0			17.4			25.2	75.8
Actuated g/C Ratio	0.36	0.33	0.33	0.32	0.14			0.12			0.18	0.54
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0			6.0			6.8	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	1116	545	447	413	239			368			300	1557
v/s Ratio Prot	0.21	c0.21		0.01	c0.16			c0.09			0.05	c0.24
v/s Ratio Perm			0.00	0.01								0.12
v/c Ratio	0.57	0.66	0.02	0.04	1.09			0.69			0.26	0.67
Uniform Delay, d1	35.9	40.5	32.0	32.6	60.0			58.7			49.4	23.1
Progression Factor	1.30	0.48	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.8	5.3	0.1	0.0	83.6			5.3			2.1	2.3
Delay (s)	48.6	24.7	32.0	32.6	143.6			63.9			51.5	25.4
Level of Service	D	C	C	C	F			E			D	C
Approach Delay (s)		39.8			137.2			63.9			27.2	
Approach LOS		D			F			E			C	

Intersection Summary

HCM 2000 Control Delay	47.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

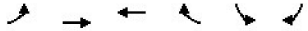
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	18	21	43	53	55
Future Volume (Veh/h)	45	18	21	43	53	55
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	20	23	47	58	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		280				
pX, platoon unblocked						
vC, conflicting volume	70				164	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	70				164	46
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				93	94
cM capacity (veh/h)	1531				800	1023

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	69	70	118
Volume Left	49	0	58
Volume Right	0	47	60
cSH	1531	1700	899
Volume to Capacity	0.03	0.04	0.13
Queue Length 95th (ft)	2	0	11
Control Delay (s)	5.3	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	5.3	0.0	9.6
Approach LOS			A

Intersection Summary				
Average Delay		5.8		
Intersection Capacity Utilization		23.1%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	53	43	9	11	21
Future Volume (Veh/h)	18	53	43	9	11	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	58	47	10	12	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		450				
pX, platoon unblocked						
vC, conflicting volume	57				150	52
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	57				150	52
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				99	98
cM capacity (veh/h)	1547				831	1016

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	78	57	35
Volume Left	20	0	12
Volume Right	0	10	23
cSH	1547	1700	944
Volume to Capacity	0.01	0.03	0.04
Queue Length 95th (ft)	1	0	3
Control Delay (s)	2.0	0.0	9.0
Lane LOS	A		A
Approach Delay (s)	2.0	0.0	9.0
Approach LOS			A

Intersection Summary				
Average Delay		2.7		
Intersection Capacity Utilization		20.5%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	16	13	216	66	40
Future Volume (Veh/h)	49	16	13	216	66	40
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)	53	17	14	235	72	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					168	
pX, platoon unblocked	0.97	0.97	0.97			
vC, conflicting volume	239	94	115			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	195	44	66			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	98	99			
cM capacity (veh/h)	742	982	1481			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	70	92	157	115
Volume Left	53	14	0	0
Volume Right	17	0	0	43
cSH	789	1481	1700	1700
Volume to Capacity	0.09	0.01	0.09	0.07
Queue Length 95th (ft)	7	1	0	0
Control Delay (s)	10.0	1.2	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.0	0.4		0.0
Approach LOS	B			

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A	
Analysis Period (min)	15			