

APPENDIX T8

*Additional and Re-Analyzed Intersections and
Street Segments and Revised Trip
Generation Table*

APPENDIX T8-1

*Additional and Re-Analyzed Intersections and
Street Segments*

ATTACHMENT A

INTERSECTION AND STREET SEGMENT ANALYSIS TABLES – ADDITIONAL AND RE-ANALYZED LOCATIONS

TABLE 1A
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Delay Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
15. SR-76 / Douglas Dr	Signal	AM	33.8	C	35.1	D	1.3	No
		PM	23.0	C	26.7	C	3.7	
18. SR-76 / Frazee Rd	Signal	AM	22.2	C	22.3	C	0.1	No
		PM	35.2	D	36.0	D	0.8	
19. SR-76 / College Blvd	Signal	AM	69.6	E	76.3	E	6.7	Yes
		PM	116.0	F	138.6	F	22.6	
24. SR-76 / Foussat Rd	Signal	AM	47.5	D	49.4	D	1.9	No
		PM	38.4	D	41.5	D	3.1	
25. SR-76 / Town Center Dr	Signal	AM	6.4	A	6.5	A	0.1	No
		PM	24.0	C	24.1	C	0.1	
26. SR-76 / Olive Hill Rd / Camino Del Rey	Signal	AM	52.4	D	53.1	D	0.7	No
		PM	45.2	D	45.9	D	0.7	
27. SR-76 / Mission Rd	Signal	AM	91.5	F	91.6	F	0.1	No
		PM	34.5	C	36.1	D	1.6	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the increase in delay due to Project.

General Notes:

1. Sig = Significant impact, yes or no.
2. **Bold** typeface and **shading** represents a significant direct impact.

SIGNALIZED	
DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

**TABLE 1B
EXISTING + PROJECT STREET SEGMENT OPERATIONS**

Street Segment	Existing Capacity (LOS E) ^a	Existing			Existing + Project			Δ ^e	Sig?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
State Route 76									
26. Via Montellano to Olive Hill Rd	60,000	42,500	C	0.708	43,659	C	0.728	0.019	No
27. Olive Hill Rd to South Mission Rd	60,000	43,000	C	0.717	44,159	C	0.736	0.019	No

Footnotes:

- a. Capacities based on City of Oceanside Roadway Classification & LOS table.
- b. Average Daily Traffic.
- c. Level of Service.
- d. Volume to Capacity ratio.
- e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.



**TABLE 2A
NEAR-TERM CUMULATIVE INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Delay Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
15. SR-76 / Douglas Dr	Signal	AM	35.5	D	37.0	D	1.5	No
		PM	28.2	C	32.0	C	3.8	
18. SR-76 / Frazee Rd	Signal	AM	22.3	C	22.3	C	0.0	No
		PM	35.0	D	36.2	D	0.2	
19. SR-76 / College Blvd	Signal	AM	74.1	E	81.7	F	7.6	Yes
		PM	132.4	F	155.4	F	23.0	
24. SR-76 / Foussat Rd	Signal	AM	51.5	D	53.3	D	1.8	No
		PM	44.1	D	49.2	D	5.1	
25. SR-76 / Town Center Dr	Signal	AM	6.2	A	6.3	A	0.1	No
		PM	23.2	C	23.3	C	0.1	
26. SR-76 / Olive Hill Rd / Camino Del Rey	Signal	AM	52.7	D	53.4	D	0.7	No
		PM	45.3	D	45.9	D	0.6	
27. SR-76 / Mission Rd	Signal	AM	91.5	F	91.6	F	0.1	No
		PM	35.0	D	36.6	D	1.6	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the increase in delay due to Project.

General Notes:

- 1. Sig = Significant impact, yes or no.
- 2. **Bold** typeface and **shading** represents a significant direct impact.

SIGNALIZED	
DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

**TABLE 2B
NEAR-TERM CUMULATIVE STREET SEGMENT OPERATIONS**

Street Segment	Existing Capacity (LOS E) ^a	Existing + Cumulative Projects			Existing + Cumulative Projects + Project			Δ ^e	Sig?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
State Route 76									
26. Via Montellano to Olive Hill Rd	60,000	43,350	C	0.723	44,509	C	0.742	0.019	No
27. Olive Hill Rd to South Mission Rd	60,000	43,860	C	0.731	45,019	C	0.750	0.019	No

Footnotes:

- a. Capacities based on City of Oceanside Roadway Classification & LOS table.
- b. Average Daily Traffic.
- c. Level of Service.
- d. Volume to Capacity ratio.
- e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

- 1. Sig = Significant impact, yes or no.



TABLE 3A
YEAR 2035 INTERSECTION OPERATIONS
(MASTER TRANSPORTATION ROADWAY PLAN)

Intersection	Control Type	Peak Hour	Year 2035 Without Project		Year 2035 With Project		Delay Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
15. SR-76 / Douglas Dr	Signal	AM	36.4	D	37.2	D	0.8	No
		PM	35.1	D	39.5	D	4.4	
18. SR-76 / Frazee Rd	Signal	AM	30.1	C	30.8	C	0.7	Yes
		PM	53.9	D	61.4	E	7.5	
19. SR-76 / College Blvd	Signal	AM	83.4	F	87.4	F	4.0	Yes
		PM	150.8	F	164.2	F	13.4	
24. SR-76 / Foussat Rd	Signal	AM	60.5	E	61.9	E	1.4	No
		PM	45.4	D	48.4	D	3.0	
25. SR-76 / Town Center Dr	Signal	AM	5.9	A	6.0	A	0.1	No
		PM	23.6	C	23.7	C	0.1	
26. SR-76 / Olive Hill Rd / Camino Del Rey	Signal	AM	68.6	E	69.9	E	1.3	No
		PM	55.3	E	55.6	E	0.3	
27. SR-76 / Mission Rd	Signal	AM	124.6	F	124.7	F	0.1	No
		PM	49.2	D	51.8	D	2.6	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the increase in delay due to Project.

General Notes:

- 1. Sig = Significant impact, yes or no.
- 2. **Bold** typeface and **shading** represents a significant direct impact.

SIGNALIZED	
DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

**TABLE 3B
YEAR 2035 STREET SEGMENT OPERATIONS
(MASTER TRANSPORTATION ROADWAY PLAN)**

Street Segment	MTRP Capacity (LOS E) ^a	Year 2035 Without Project			Year 2035 With Project			Δ ^e	Sig?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
State Route 76									
26. Via Montellano to Olive Hill Rd	60,000	68,400	F	1.140	69,410	F	1.157	0.017	No
27. Olive Hill Rd to South Mission Rd	60,000	72,300	F	1.205	73,155	F	1.219	0.014	No

Footnotes:

- a. Capacities based on City of Oceanside Roadway Classification & LOS table.
- b. Average Daily Traffic.
- c. Level of Service.
- d. Volume to Capacity ratio.
- e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.



TABLE 4A
YEAR 2035 INTERSECTION OPERATIONS
(WITHOUT MELROSE DRIVE EXTENSION)

Intersection	Control Type	Peak Hour	Year 2035 Without Project		Year 2035 With Project		Delay Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
15. SR-76 / Douglas Dr	Signal	AM	36.4	D	37.1	D	0.7	No
		PM	35.1	D	39.5	D	4.4	
18. SR-76 / Frazee Rd	Signal	AM	30.0	C	30.6	C	0.6	Yes
		PM	53.8	D	61.3	E	7.5	
19. SR-76 / College Blvd	Signal	AM	99.1	F	109.5	F	10.4	Yes
		PM	165.4	F	188.6	F	23.2	
24. SR-76 / Foussat Rd	Signal	AM	67.7	E	69.0	E	1.3	No
		PM	45.3	D	48.3	D	3.0	
25. SR-76 / Town Center Dr	Signal	AM	5.6	A	5.7	A	0.1	No
		PM	23.3	C	23.4	C	0.1	
26. SR-76 / Olive Hill Rd / Camino Del Rey	Signal	AM	68.6	E	69.9	E	1.3	No
		PM	55.3	E	55.6	E	0.3	
27. SR-76 / Mission Rd	Signal	AM	124.6	F	124.7	F	0.1	No
		PM	49.2	D	51.8	D	2.6	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the increase in delay due to Project.

General Notes:

- 1. Sig = Significant impact, yes or no.
- 2. **Bold** typeface and **shading** represents a significant direct impact.

SIGNALIZED	
DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

TABLE 4B
YEAR 2035 STREET SEGMENT OPERATIONS
(WITHOUT MELROSE DRIVE EXTENSION)

Street Segment	MTRP Capacity (LOS E) ^a	Year 2035 Without Project			Year 2035 With Project			Δ ^e	Sig?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
State Route 76									
26. Via Montellano to Olive Hill Rd	60,000	67,000	F	1.117	68,010	F	1.134	0.017	No
27. Olive Hill Rd to South Mission Rd	60,000	70,900	F	1.182	71,755	F	1.196	0.014	No

Footnotes:

- a. Capacities based on City of Oceanside Roadway Classification & LOS table.
- b. Average Daily Traffic.
- c. Level of Service.
- d. Volume to Capacity ratio.
- e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.



ATTACHMENT B

SYNCHRO ANALYSIS SHEETS – ADDITIONAL AND RE-ANALYZED LOCATIONS

Existing AM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑↑	↑↑	↑↑	↑		
Traffic Volume (veh/h)	1048	109	80	1679	77	124		
Future Volume (veh/h)	1048	109	80	1679	77	124		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1139	118	87	1825	84	135		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2536	1281	232	2900	318	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1139	118	87	1825	84	135		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.6	12.5		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.6	12.5		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	2536	1281	232	2900	318	253		
V/C Ratio(X)	0.45	0.09	0.38	0.63	0.26	0.53		
Avail Cap(c_a), veh/h	2536	1281	308	2900	407	294		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.88	0.88	0.37	0.37	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.5	61.7		
Incr Delay (d2), s/veh	0.5	0.1	0.4	0.4	0.4	1.7		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	0.2	0.0	1.8	0.2	1.7	5.6		
LnGrp Delay(d), s/veh	0.5	0.1	70.0	0.4	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1257			1912	219			
Approach Delay, s/veh	0.5			3.6	65.2			
Approach LOS	A			A	E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.5	122.6				139.1		20.9
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 14	107.0				127.0		18.9
Max Q Clear Time (g_c+I1), s	5.8	2.0				2.0		14.5
Green Ext Time (p_c), s	0.1	10.3				33.1		0.3
Intersection Summary								
HCM 2010 Ctrl Delay			6.4					
HCM 2010 LOS			A					
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 9 Report

Existing AM
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

	↖	→	↘	↙	←	↖	↗	↘	↙	↗	↘	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑	↑	↑	↑	↑	↑↑↑	↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	64	198	103	118	87	230	77	990	185	514	1983	14
Future Volume (veh/h)	64	198	103	118	87	230	77	990	185	514	1983	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	70	215	112	128	95	250	84	1076	201	559	2155	15
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	237	201	268	281	526	196	1880	585	625	2240	698
Arrive On Green	0.13	0.13	0.13	0.15	0.15	0.15	0.11	0.37	0.37	0.18	0.44	0.44
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	70	215	112	128	95	250	84	1076	201	559	2155	15
Grp Sat Flow(s), veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.7	16.9	9.9	9.8	6.8	18.6	6.6	25.2	13.6	23.6	61.2	0.8
Cycle Q Clear(g_c), s	2.7	16.9	9.9	9.8	6.8	18.6	6.6	25.2	13.6	23.6	61.2	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	437	237	201	268	281	526	196	1880	585	625	2240	698
V/C Ratio(X)	0.16	0.91	0.56	0.48	0.34	0.47	0.43	0.57	0.34	0.89	0.96	0.02
Avail Cap(c_a), veh/h	437	237	201	632	664	852	203	1880	585	780	2246	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	64.1	61.0	57.8	56.5	39.3	61.7	37.5	33.8	59.5	40.4	23.5
Incr Delay (d2), s/veh	0.2	34.9	3.4	1.3	0.7	0.7	1.5	0.4	0.3	11.0	11.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	11.0	4.5	4.9	3.6	8.2	3.3	11.8	6.0	12.2	30.9	0.4
LnGrp Delay(d), s/veh	58.0	99.0	64.3	59.1	57.2	40.0	63.2	37.9	34.2	70.4	51.8	23.5
LnGrp LOS	E	F	E	E	E	D	E	D	C	E	D	C
Approach Vol, veh/h		397			473			1361				2729
Approach Delay, s/veh		82.0			48.6			38.9				55.5
Approach LOS		F			D			D				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.7	62.5		25.0	22.2	73.0		28.5				
Change Period (Y+Rc), s	* 5.7	7.5		6.1	* 5.7	7.5		6.1				
Max Green Setting (Gmax), s	* 34	49.0		18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I1), s	25.6	27.2		18.9	8.6	63.2		20.6				
Green Ext Time (p_c), s	1.4	8.9		0.0	0.1	2.3		1.8				
Intersection Summary												
HCM 2010 Ctrl Delay				52.4								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 9 Report

Existing PM
24: Foussat Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	1878	133	90	1187	101	87	130	102	106	69	19
Future Volume (veh/h)	39	1878	133	90	1187	101	87	130	102	106	69	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	2041	145	98	1290	110	95	141	111	115	75	21
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	383	2249	1006	228	2045	915	246	430	134	248	301	237
Arrive On Green	0.11	0.64	0.64	0.07	0.58	0.58	0.07	0.08	0.08	0.07	0.09	0.09
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	42	2041	145	98	1290	110	95	141	111	115	75	21
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.0	89.4	6.6	4.9	43.6	3.7	4.7	4.7	12.4	5.8	3.6	1.0
Cycle Q Clear(g_c), s	2.0	89.4	6.6	4.9	43.6	3.7	4.7	4.7	12.4	5.8	3.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	2249	1006	228	2045	915	246	430	134	248	301	237
V/C Ratio(X)	0.11	0.91	0.14	0.43	0.63	0.12	0.39	0.33	0.83	0.46	0.25	0.09
Avail Cap(c_a), veh/h	383	2249	1006	229	2045	915	254	675	210	254	470	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.0	28.2	13.2	80.8	25.2	7.3	79.8	77.6	81.1	80.2	77.0	47.7
Incr Delay (d2), s/veh	0.1	6.7	0.3	0.8	1.0	0.2	1.0	0.4	14.2	1.4	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	45.5	3.0	2.4	21.6	1.6	2.3	2.2	6.0	2.8	1.8	0.4
LnGrp Delay(d),s/veh	72.1	35.0	13.5	81.6	26.2	7.4	80.8	78.0	95.3	81.5	77.4	47.9
LnGrp LOS	E	C	B	F	C	A	F	E	F	F	E	D
Approach Vol, veh/h	2228			1498				347			211	
Approach Delay, s/veh	34.3			28.4				84.3			76.7	
Approach LOS	C			C				F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	122.4	18.6	21.4	28.0	112.0	18.7	21.3				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	* 12	105.3	* 13	23.9	13.3	* 1E2	* 13	23.9				
Max Q Clear Time (g_c+I1), s	6.9	91.4	6.7	5.6	4.0	45.6	7.8	14.4				
Green Ext Time (p_c), s	0.1	11.1	0.1	0.4	0.0	15.1	0.1	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay	38.4											
HCM 2010 LOS	D											
Notes												

Existing PM
25: Town Center Dr & SR-76

North River Farms
09/21/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Volume (veh/h)	1596	259	162	1178	153	287		
Future Volume (veh/h)	1596	259	162	1178	153	287		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1735	282	176	1280	166	312		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2588	1308	219	2926	327	251		
Arrive On Green	1.00	1.00	0.13	1.00	0.10	0.10		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1735	282	176	1280	166	312		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	8.9	0.0	8.3	17.1		
Cycle Q Clear(g_c), s	0.0	0.0	8.9	0.0	8.3	17.1		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2588	1308	219	2926	327	251		
V/C Ratio(X)	0.67	0.22	0.80	0.44	0.51	1.24		
Avail Cap(c_a), veh/h	2588	1308	598	2926	327	251		
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.30	0.30	0.49	0.49	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	77.4	0.0	77.4	75.7		
Incr Delay (d2), s/veh	0.4	0.1	3.4	0.2	1.3	137.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.0	4.4	0.1	4.0	22.1		
LnGrp Delay(d),s/veh	0.4	0.1	80.8	0.2	78.7	213.3		
LnGrp LOS	A	A	F	A	E	F		
Approach Vol, veh/h	2017		1456			478		
Approach Delay, s/veh	0.4		10.0			166.6		
Approach LOS	A		A			F		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.2	139.6				156.8		23.2
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 31	111.8				148.8		17.1
Max Q Clear Time (g_c+I1), s	10.9	2.0				2.0		19.1
Green Ext Time (p_c), s	0.5	25.8				14.8		0.0
Intersection Summary								
HCM 2010 Ctrl Delay	24.0							
HCM 2010 LOS	C							
Notes								

Existing + Proj PM
24: Foussat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	39	1924	133	98	1210	101	87	130	117	106	69	19
Future Volume (veh/h)	39	1924	133	98	1210	101	87	130	117	106	69	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	2091	145	107	1315	110	95	141	127	115	75	21
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	2215	991	228	2045	915	246	479	149	248	335	264
Arrive On Green	0.10	0.63	0.63	0.07	0.58	0.58	0.07	0.09	0.09	0.07	0.09	0.09
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	42	2091	145	107	1315	110	95	141	127	115	75	21
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.0	97.3	6.8	5.4	44.9	3.7	4.7	4.6	14.2	5.8	3.5	1.0
Cycle Q Clear(g_c), s	2.0	97.3	6.8	5.4	44.9	3.7	4.7	4.6	14.2	5.8	3.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	2215	991	228	2045	915	246	479	149	248	335	264
V/C Ratio(X)	0.12	0.94	0.15	0.47	0.64	0.12	0.39	0.29	0.85	0.46	0.22	0.08
Avail Cap(c_a), veh/h	349	2215	991	229	2045	915	254	675	210	254	470	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.5	30.8	13.9	81.0	25.5	7.3	79.8	75.9	80.3	80.2	75.4	47.7
Incr Delay (d2), s/veh	0.2	9.9	0.3	0.9	0.9	0.2	1.0	0.3	20.1	1.4	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	50.4	3.0	2.6	22.2	1.6	2.3	2.2	7.1	2.8	1.7	0.4
LnGrp Delay(d), s/veh	73.7	40.7	14.2	81.9	26.5	7.4	80.8	76.3	100.4	81.5	75.7	47.9
LnGrp LOS	E	D	B	F	C	A	F	E	F	F	E	D
Approach Vol, veh/h	2278			1532				363			211	
Approach Delay, s/veh	39.6			29.0				85.9			76.1	
Approach LOS	D			C				F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	120.6	18.6	23.1	26.3	112.0	18.7	23.1				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	* 12	105.3	* 13	23.9	13.3	* 1E2	* 13	23.9				
Max Q Clear Time (g_c+I1), s	7.4	99.3	6.7	5.5	4.0	46.9	7.8	16.2				
Green Ext Time (p_c), s	0.1	5.3	0.1	0.4	0.0	15.6	0.1	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				41.5								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
N:12596\Analysis\Synchro4. Existing + Proj PM.syn

Synchro 10 Report

Existing + Proj PM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1657	259	162	1209	153	287		
Future Volume (veh/h)	1657	259	162	1209	153	287		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1801	282	176	1314	166	312		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2588	1308	219	2926	327	251		
Arrive On Green	1.00	1.00	0.13	1.00	0.10	0.10		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1801	282	176	1314	166	312		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	8.9	0.0	8.3	17.1		
Cycle Q Clear(g_c), s	0.0	0.0	8.9	0.0	8.3	17.1		
Prop In Lane	1.00		1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2588	1308	219	2926	327	251		
V/C Ratio(X)	0.70	0.22	0.80	0.45	0.51	1.24		
Avail Cap(c_a), veh/h	2588	1308	598	2926	327	251		
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.24	0.24	0.49	0.49	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	77.4	0.0	77.4	75.7		
Incr Delay (d2), s/veh	0.4	0.1	3.4	0.2	1.3	137.6		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	0.1	0.0	4.4	0.1	4.0	22.1		
LnGrp Delay(d), s/veh	0.4	0.1	80.8	0.2	78.7	213.3		
LnGrp LOS	A	A	F	A	E	F		
Approach Vol, veh/h	2083		1490			478		
Approach Delay, s/veh	0.3		9.8			166.6		
Approach LOS	A		A			F		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.2	139.6				156.8		23.2
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 31	111.8				148.8		17.1
Max Q Clear Time (g_c+I1), s	10.9	2.0				2.0		19.1
Green Ext Time (p_c), s	0.5	28.2				15.6		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.4					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
N:12596\Analysis\Synchro4. Existing + Proj PM.syn

Synchro 10 Report

Existing + Cuml AM
15: SR-76 & Douglas Dr

North River Farms
09/27/2018

Table with 13 columns (Movements: EBL, EBT, EBR, WBL, WBT, WBR, NBL, NBT, NBR, SBL, SBT, SBR) and 37 rows (Traffic Volume, Future Volume, Number, Initial Q, Ped-Bike Adj, etc.).

Intersection Summary
HCM 2010 Ctrl Delay 35.6
HCM 2010 LOS D

Notes

Existing + Cuml AM
18: Frazee Rd & SR-76

North River Farms
09/27/2018

Table with 13 columns (Movements: EBL, EBT, EBR, WBL, WBT, WBR, NBL, NBT, NBR, SBL, SBT, SBR) and 37 rows (Traffic Volume, Future Volume, Number, Initial Q, Ped-Bike Adj, etc.).

Intersection Summary
HCM 2010 Ctrl Delay 22.3
HCM 2010 LOS C

Notes

Existing + Cuml AM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↘↘	↑↑	↘↘	↑		
Traffic Volume (veh/h)	1111	109	80	1716	77	124		
Future Volume (veh/h)	1111	109	80	1716	77	124		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1208	118	87	1865	84	135		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2536	1281	232	2900	318	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1208	118	87	1865	84	135		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.6	12.5		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.6	12.5		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2536	1281	232	2900	318	253		
V/C Ratio(X)	0.48	0.09	0.38	0.64	0.26	0.53		
Avail Cap(c_a), veh/h	2536	1281	308	2900	407	294		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.86	0.86	0.31	0.31	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.5	61.7		
Incr Delay (d2), s/veh	0.6	0.1	0.3	0.3	0.4	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.8	0.1	1.7	5.6		
LnGrp Delay(d),s/veh	0.6	0.1	70.0	0.3	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1326			1952	219			
Approach Delay, s/veh	0.5			3.4	65.2			
Approach LOS	A			A	E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.5	122.6				139.1		20.9
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 14	107.0				127.0		18.9
Max Q Clear Time (g_c+I1), s	5.8	2.0				2.0		14.5
Green Ext Time (p_c), s	0.1	11.3				35.1		0.3
Intersection Summary								
HCM 2010 Ctrl Delay				6.2				
HCM 2010 LOS				A				
Notes								

HCM 2010 Signalized Intersection Summary
N:12596\Analysis\Synchro\5. Existing + Cuml AM.syn

Synchro 9 Report

Existing + Cuml AM
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

	↘	→	↙	↖	←	↗	↘	↙	↖	↗	↘	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘↘	↑	↘	↘	↑	↘	↘↘	↑↑↑	↘	↘↘	↑↑↑	↘
Traffic Volume (veh/h)	64	198	103	118	87	230	77	1004	185	514	1990	14
Future Volume (veh/h)	64	198	103	118	87	230	77	1004	185	514	1990	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	70	215	112	128	95	250	84	1091	201	559	2163	15
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	237	201	268	281	526	196	1880	585	625	2241	698
Arrive On Green	0.13	0.13	0.13	0.15	0.15	0.15	0.11	0.37	0.37	0.18	0.44	0.44
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	70	215	112	128	95	250	84	1091	201	559	2163	15
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.7	16.9	9.9	9.8	6.8	18.6	6.6	25.6	13.6	23.6	61.6	0.8
Cycle Q Clear(g_c), s	2.7	16.9	9.9	9.8	6.8	18.6	6.6	25.6	13.6	23.6	61.6	0.8
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	437	237	201	268	281	526	196	1880	585	625	2241	698
V/C Ratio(X)	0.16	0.91	0.56	0.48	0.34	0.47	0.43	0.58	0.34	0.89	0.97	0.02
Avail Cap(c_a), veh/h	437	237	201	632	664	852	203	1880	585	780	2246	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	64.1	61.0	57.8	56.5	39.4	61.7	37.6	33.8	59.5	40.5	23.5
Incr Delay (d2), s/veh	0.2	35.0	3.4	1.3	0.7	0.7	1.5	0.5	0.3	11.0	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	11.0	4.5	4.9	3.6	8.2	3.3	12.1	6.0	12.2	31.3	0.4
LnGrp Delay(d),s/veh	58.0	99.1	64.4	59.1	57.2	40.0	63.2	38.1	34.2	70.5	52.4	23.5
LnGrp LOS	E	F	E	E	E	D	E	D	C	E	D	C
Approach Vol, veh/h		397			473			1376				2737
Approach Delay, s/veh		82.0			48.7			39.0				55.9
Approach LOS		F			D			D				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.7	62.5		25.0	22.2	73.1		28.5				
Change Period (Y+Rc), s	* 5.7	7.5		6.1	* 5.7	7.5		6.1				
Max Green Setting (Gmax), s	* 34	49.0		18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I1), s	25.6	27.6		18.9	8.6	63.6		20.6				
Green Ext Time (p_c), s	1.4	9.0		0.0	0.1	2.0		1.8				
Intersection Summary												
HCM 2010 Ctrl Delay					52.7							
HCM 2010 LOS					D							
Notes												

HCM 2010 Signalized Intersection Summary
N:12596\Analysis\Synchro\5. Existing + Cuml AM.syn

Synchro 9 Report

Existing + Cuml PM
24: Foussat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	39	1926	133	124	1235	105	87	131	133	108	70	19
Future Volume (veh/h)	39	1926	133	124	1235	105	87	131	133	108	70	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	2093	145	135	1342	114	95	142	145	117	76	21
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	2176	973	229	2045	915	246	534	166	248	373	294
Arrive On Green	0.09	0.61	0.61	0.07	0.58	0.58	0.07	0.10	0.10	0.07	0.11	0.11
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	42	2093	145	135	1342	114	95	142	145	117	76	21
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.0	100.3	7.0	6.9	46.4	3.8	4.7	4.6	16.2	5.9	3.5	1.0
Cycle Q Clear(g_c), s	2.0	100.3	7.0	6.9	46.4	3.8	4.7	4.6	16.2	5.9	3.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	2176	973	229	2045	915	246	534	166	248	373	294
V/C Ratio(X)	0.13	0.96	0.15	0.59	0.66	0.12	0.39	0.27	0.87	0.47	0.20	0.07
Avail Cap(c_a), veh/h	313	2176	973	229	2045	915	254	675	210	254	470	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.3	32.7	14.7	81.6	25.8	7.3	79.8	74.2	79.4	80.2	73.6	47.7
Incr Delay (d2), s/veh	0.2	12.2	0.3	1.9	0.8	0.1	1.0	0.3	26.2	1.4	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	52.5	3.1	3.3	22.8	1.7	2.3	2.2	8.3	2.8	1.7	0.4
LnGrp Delay(d), s/veh	75.5	44.9	15.0	83.5	26.7	7.4	80.8	74.4	105.6	81.6	73.9	47.8
LnGrp LOS	E	D	B	F	C	A	F	E	F	F	E	D
Approach Vol, veh/h	2280			1591			382			214		
Approach Delay, s/veh	43.5			30.1			87.8			75.6		
Approach LOS	D			C			F			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	118.7	18.6	25.1	24.4	112.0	18.7	25.0				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	* 12	105.3	* 13	23.9	13.3	* 1E2	* 13	23.9				
Max Q Clear Time (g_c+1t), s	8.9	102.3	6.7	5.5	4.0	48.4	7.9	18.2				
Green Ext Time (p_c), s	0.1	2.7	0.1	0.4	0.0	16.1	0.1	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay				44.1								
HCM 2010 LOS				D								
Notes												

Existing + Cuml PM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1644	259	162	1247	153	287		
Future Volume (veh/h)	1644	259	162	1247	153	287		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1787	282	176	1355	166	312		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2588	1308	219	2926	327	251		
Arrive On Green	1.00	1.00	0.13	1.00	0.10	0.10		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1787	282	176	1355	166	312		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	8.9	0.0	8.3	17.1		
Cycle Q Clear(g_c), s	0.0	0.0	8.9	0.0	8.3	17.1		
Prop In Lane	1.00		1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2588	1308	219	2926	327	251		
V/C Ratio(X)	0.69	0.22	0.80	0.46	0.51	1.24		
Avail Cap(c_a), veh/h	2588	1308	598	2926	327	251		
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.24	0.24	0.42	0.42	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	77.4	0.0	77.4	75.7		
Incr Delay (d2), s/veh	0.4	0.1	2.9	0.2	1.3	137.6		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	0.1	0.0	4.3	0.1	4.0	22.1		
LnGrp Delay(d), s/veh	0.4	0.1	80.4	0.2	78.7	213.3		
LnGrp LOS	A	A	F	A	E	F		
Approach Vol, veh/h	2069		1531		478			
Approach Delay, s/veh	0.3		9.4		166.6			
Approach LOS	A		A		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.2	139.6				156.8		23.2
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 31	111.8				148.8		17.1
Max Q Clear Time (g_c+1t), s	10.9	2.0				2.0		19.1
Green Ext Time (p_c), s	0.5	27.7				16.6		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.2					
HCM 2010 LOS			C					
Notes								

Existing + Cuml + Proj AM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↘↘	↑↑	↘↘	↑		
Traffic Volume (veh/h)	1131	109	80	1764	77	124		
Future Volume (veh/h)	1131	109	80	1764	77	124		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1229	118	87	1917	84	135		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2536	1281	232	2900	318	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1229	118	87	1917	84	135		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.6	12.5		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.6	12.5		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2536	1281	232	2900	318	253		
V/C Ratio(X)	0.48	0.09	0.38	0.66	0.26	0.53		
Avail Cap(c_a), veh/h	2536	1281	308	2900	407	294		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.85	0.85	0.31	0.31	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.5	61.7		
Incr Delay (d2), s/veh	0.6	0.1	0.3	0.4	0.4	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%) veh/ln	0.2	0.0	1.8	0.1	1.7	5.6		
LnGrp Delay(d),s/veh	0.6	0.1	70.0	0.4	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1347			2004	219			
Approach Delay, s/veh	0.5			3.4	65.2			
Approach LOS	A			A	E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.5	122.6				139.1		20.9
Change Period (Y+Rc), s	* 5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	* 14	107.0				127.0		18.9
Max Q Clear Time (g_c+I1), s	5.8	2.0				2.0		14.5
Green Ext Time (p_c), s	0.1	11.7				37.8		0.3
Intersection Summary								
HCM 2010 Ctrl Delay			6.1					
HCM 2010 LOS			A					
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Existing + Cuml + Proj AM
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

	↖	→	↘	↙	←	↖	↑	↘	↙	↓	↖	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘↘	↑	↘	↘	↑	↘		↑↑↑	↘	↘↘	↑↑↑	↘
Traffic Volume (veh/h)	64	198	103	121	87	230	77	1048	193	514	2008	14
Future Volume (veh/h)	64	198	103	121	87	230	77	1048	193	514	2008	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	70	215	112	132	95	250	84	1139	210	559	2183	15
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	236	201	268	281	526	196	1881	586	625	2242	698
Arrive On Green	0.13	0.13	0.13	0.15	0.15	0.15	0.11	0.37	0.37	0.18	0.44	0.44
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	70	215	112	132	95	250	84	1139	210	559	2183	15
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.7	17.0	9.9	10.2	6.8	18.6	6.6	27.1	14.3	23.6	62.6	0.8
Cycle Q Clear(g_c), s	2.7	17.0	9.9	10.2	6.8	18.6	6.6	27.1	14.3	23.6	62.6	0.8
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	437	236	201	268	281	526	196	1881	586	625	2242	698
V/C Ratio(X)	0.16	0.91	0.56	0.49	0.34	0.47	0.43	0.61	0.36	0.89	0.97	0.02
Avail Cap(c_a), veh/h	437	236	201	632	663	851	203	1881	586	779	2244	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	64.1	61.1	58.0	56.6	39.4	61.8	38.1	34.1	59.5	40.8	23.5
Incr Delay (d2), s/veh	0.2	35.1	3.4	1.4	0.7	0.7	1.5	0.6	0.4	11.0	13.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	1.3	11.0	4.5	5.1	3.6	8.2	3.3	12.8	6.4	12.2	32.1	0.4
LnGrp Delay(d),s/veh	58.1	99.3	64.4	59.4	57.3	40.1	63.3	38.6	34.4	70.5	54.1	23.5
LnGrp LOS	E	F	E	E	E	D	E	D	C	E	D	C
Approach Vol, veh/h		397			477			1433				2757
Approach Delay, s/veh		82.2			48.8			39.5				57.3
Approach LOS		F			D			D				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.7	62.6		25.0	22.2	73.1		28.6				
Change Period (Y+Rc), s	* 5.7	7.5		6.1	* 5.7	7.5		6.1				
Max Green Setting (Gmax), s	* 34	49.0		18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I1), s	25.6	29.1		19.0	8.6	64.6		20.6				
Green Ext Time (p_c), s	1.4	9.1		0.0	0.1	1.0		1.8				
Intersection Summary												
HCM 2010 Ctrl Delay				53.4								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Existing + Cuml + Proj PM
24: Fousat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	39	1972	133	132	1258	105	87	131	148	108	70	19
Future Volume (veh/h)	39	1972	133	132	1258	105	87	131	148	108	70	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	2143	145	143	1367	114	95	142	161	117	76	21
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	2143	959	229	2045	915	246	581	181	248	406	319
Arrive On Green	0.08	0.61	0.61	0.07	0.58	0.58	0.07	0.11	0.11	0.07	0.11	0.11
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	42	2143	145	143	1367	114	95	142	161	117	76	21
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.0	109.0	7.2	7.3	47.8	3.8	4.7	4.6	18.0	5.9	3.5	1.0
Cycle Q Clear(g_c), s	2.0	109.0	7.2	7.3	47.8	3.8	4.7	4.6	18.0	5.9	3.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	2143	959	229	2045	915	246	581	181	248	406	319
V/C Ratio(X)	0.15	1.00	0.15	0.62	0.67	0.12	0.39	0.24	0.89	0.47	0.19	0.07
Avail Cap(c_a), veh/h	281	2143	959	229	2045	915	254	675	210	254	470	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.9	35.5	15.4	81.8	26.1	7.3	79.8	72.7	78.6	80.2	72.1	47.7
Incr Delay (d2), s/veh	0.2	19.4	0.3	2.2	0.7	0.1	1.0	0.2	31.3	1.4	0.2	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0	58.8	3.2	3.5	23.6	1.7	2.3	2.2	9.5	2.8	1.7	0.4
LnGrp Delay(d), s/veh	77.1	54.9	15.8	84.0	26.9	7.4	80.8	72.9	110.0	81.6	72.3	47.8
LnGrp LOS	E	D	B	F	C	A	F	E	F	F	E	D
Approach Vol, veh/h	2330			1624				398			214	
Approach Delay, s/veh	52.9			30.5				89.8			75.0	
Approach LOS	D			C				F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	117.0	18.6	26.7	22.7	112.0	18.7	26.7				
Change Period (Y+Rc), s	5.7	8.0	5.7	6.1	8.0	8.0	5.7	6.1				
Max Green Setting (Gmax), s	105.3	13	23.9	13.3	* 1E2	13	23.9					
Max Q Clear Time (g_c+I), s	111.0	6.7	5.5	4.0	49.8	7.9	20.0					
Green Ext Time (p_c), s	0.1	0.0	0.1	0.4	0.0	16.5	0.1	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				49.2								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Existing + Cuml + Proj PM
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1705	259	162	1278	153	287		
Future Volume (veh/h)	1705	259	162	1278	153	287		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1853	282	176	1389	166	312		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2588	1308	219	2926	327	251		
Arrive On Green	0.97	0.97	0.13	1.00	0.10	0.10		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1853	282	176	1389	166	312		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	8.5	0.7	8.9	0.0	8.3	17.1		
Cycle Q Clear(g_c), s	8.5	0.7	8.9	0.0	8.3	17.1		
Prop In Lane	1.00	1.00		1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2588	1308	219	2926	327	251		
V/C Ratio(X)	0.72	0.22	0.80	0.47	0.51	1.24		
Avail Cap(c_a), veh/h	2588	1308	598	2926	327	251		
HCM Platoon Ratio	1.33	1.33	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.18	0.18	0.42	0.42	1.00	1.00		
Uniform Delay (d), s/veh	0.8	0.3	77.4	0.0	77.4	75.7		
Incr Delay (d2), s/veh	0.3	0.1	2.9	0.2	1.3	137.6		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	3	0.5	4.3	0.1	4.0	22.1		
LnGrp Delay(d), s/veh	1.1	0.4	80.3	0.2	78.7	213.3		
LnGrp LOS	A	A	F	A	E	F		
Approach Vol, veh/h	2135		1565			478		
Approach Delay, s/veh	1.0		9.2			166.6		
Approach LOS	A		A			F		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	139.6				156.8		23.2
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	111.8					148.8		17.1
Max Q Clear Time (g_c+I), s	10.5					2.0		19.1
Green Ext Time (p_c), s	0.5	29.9				17.4		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.0					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 AM (w. Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔↔	↔	↔↔	↔↔	↔↔	↔		
Traffic Volume (veh/h)	1205	110	80	1865	80	125		
Future Volume (veh/h)	1205	110	80	1865	80	125		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1310	120	87	2027	87	136		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2535	1281	232	2899	319	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1310	120	87	2027	87	136		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.8	12.6		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.8	12.6		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2535	1281	232	2899	319	253		
V/C Ratio(X)	0.52	0.09	0.38	0.70	0.27	0.54		
Avail Cap(c_a), veh/h	2535	1281	286	2899	385	284		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.81	0.81	0.21	0.21	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.6	61.7		
Incr Delay (d2), s/veh	0.6	0.1	0.2	0.3	0.5	1.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.8	0.1	1.8	5.7		
LnGrp Delay(d),s/veh	0.6	0.1	69.9	0.3	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1430		2114	223				
Approach Delay, s/veh	0.6		3.2	65.3				
Approach LOS	A		A	E				
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			6			8
Phs Duration (G+Y+Rc), s	122.6	122.6			139.1			20.9
Change Period (Y+Rc), s	5.7	8.0			8.0			6.1
Max Green Setting (Gmax), s	109.0				128.0			17.9
Max Q Clear Time (g_c+I), s	2.0				2.0			14.6
Green Ext Time (p_c), s	0.1	13.1			44.1			0.2
Intersection Summary								
HCM 2010 Ctrl Delay					5.9			
HCM 2010 LOS					A			
Notes								

HCM 2010 Signalized Intersection Summary
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Year 2035 AM (w. Melrose)
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔	↔	↔	↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔
Traffic Volume (veh/h)	65	215	105	140	95	270	80	1085	215	605	2145	15
Future Volume (veh/h)	65	215	105	140	95	270	80	1085	215	605	2145	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	71	234	114	152	103	293	87	1179	234	658	2332	16
Adj No. of Lanes	2	1	1	1	1	1	1	1	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
Arrive On Green	0.12	0.12	0.12	0.17	0.17	0.17	0.11	0.33	0.33	0.21	0.43	0.43
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	71	234	114	152	103	293	87	1179	234	658	2332	16
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.8	18.9	10.3	11.9	7.4	21.5	7.0	30.7	17.6	28.5	65.7	0.9
Cycle Q Clear(g_c), s	2.8	18.9	10.3	11.9	7.4	21.5	7.0	30.7	17.6	28.5	65.7	0.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
V/C Ratio(X)	0.17	1.01	0.58	0.51	0.33	0.49	0.45	0.70	0.45	0.92	1.06	0.02
Avail Cap(c_a), veh/h	427	231	197	618	649	881	198	1688	526	803	2195	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	66.7	62.9	57.6	55.7	36.3	63.6	44.2	39.9	58.9	43.3	24.8
Incr Delay (d2), s/veh	0.2	62.2	4.2	1.3	0.6	0.6	1.6	1.3	0.6	14.4	38.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	13.7	4.8	5.9	3.9	9.5	3.5	14.6	7.8	15.0	38.5	0.4
LnGrp Delay(d),s/veh	59.8	128.9	67.1	58.9	56.3	36.9	65.2	45.5	40.4	73.3	81.6	24.9
LnGrp LOS	E	F	E	E	E	D	E	D	D	E	F	C
Approach Vol, veh/h	419			548			1500				3006	
Approach Delay, s/veh	100.4			46.6			45.9				79.5	
Approach LOS	F			D			D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.4	58.0		25.0	22.3	73.2		31.7				
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	47.2			18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I), s	32.7			20.9	9.0	67.7		23.5				
Green Ext Time (p_c), s	1.3	7.9		0.0	0.1	0.0		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay						68.6						
HCM 2010 LOS						E						
Notes												

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔		↔	↔↔	↔				↔↔		↔↔
Traffic Volume (veh/h)	615	760	0	0	1800	90	0	0	0	130	0	1320
Future Volume (veh/h)	615	760	0	0	1800	90	0	0	0	130	0	1320
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	668	826	0	0	1957	98				141	0	1435
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	748	4053	0	1	1867	835				382	0	915
Arrive On Green	0.22	0.80	0.00	0.00	0.53	0.53				0.11	0.00	0.11
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	668	826	0	0	1957	98				141	0	1435
Grp Sat Flow(s), veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	27.9	5.8	0.0	0.0	78.0	4.6				5.6	0.0	16.4
Cycle Q Clear(g_c), s	27.9	5.8	0.0	0.0	78.0	4.6				5.6	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	748	4053	0	1	1867	835				382	0	915
V/C Ratio(X)	0.89	0.20	0.00	0.00	1.05	0.12				0.37	0.00	1.57
Avail Cap(c_a), veh/h	1031	4053	0	96	1867	835				382	0	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.2	3.6	0.0	0.0	34.9	17.6				60.9	0.0	49.7
Incr Delay (d2), s/veh	7.7	0.0	0.0	0.0	34.7	0.1				0.6	0.0	261.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.1	2.7	0.0	0.0	46.9	5.9				2.7	0.0	64.5
LnGrp Delay(d), s/veh	63.9	3.7	0.0	0.0	69.6	17.6				61.5	0.0	310.8
LnGrp LOS	E	A			F	B				E		F
Approach Vol, veh/h	1494			2055						1576		
Approach Delay, s/veh	30.6			67.1						288.5		
Approach LOS	C			E						F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	125.3			22.5	39.8	85.5						
Change Period (Y+Rc), s	5.7	7.5		6.1	7.7	7.5						
Max Green Setting (Gmax), s	116.3			16.4	44	78.0						
Max Q Clear Time (g_c+1I), s	7.8			18.4	29.9	80.0						
Green Ext Time (p_c), s	0.0	7.2		0.0	2.3	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay				124.6								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔			↔↔	↔			↔↔		↔↔	↔↔
Traffic Volume (veh/h)	625	2240	0	0	1550	265	0	0	0	265	0	430
Future Volume (veh/h)	625	2240	0	0	1550	265	0	0	0	265	0	430
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	679	2435	0	0	1685	288	0	0	0	288	0	467
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
Arrive On Green	0.14	0.96	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0
Grp Volume(v), veh/h	679	2435	0	0	1685	288	0	0	0	0	0	0
Grp Sat Flow(s), veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	0	0	0
Q Serve(g_s), s	25.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	25.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00	0.00	0.00	0.00		0.00
Lane Grp Cap(c), veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
V/C Ratio(X)	1.40	0.72	0.00	0.00	0.61	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	484	3382	0	0	2772	1240	0	455	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	77.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	183.7	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	24.4	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d), s/veh	261.1	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	F	A			A	A						
Approach Vol, veh/h	3114			1973						0		
Approach Delay, s/veh	57.5			0.1						0.0		
Approach LOS	E			A								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	8					
Phs Duration (G+Y+Rc), s		180.0			31.0	149.0	0.0					
Change Period (Y+Rc), s		8.0			5.7	8.0	6.1					
Max Green Setting (Gmax), s		91.9			25	60.9	44.0					
Max Q Clear Time (g_c+1I), s		19.6			27.3	2.0	0.0					
Green Ext Time (p_c), s		44.1			0.0	26.4	0.0					
Intersection Summary												
HCM 2010 Ctrl Delay							35.3					
HCM 2010 LOS							D					
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
 18: Frazee Rd & SR-76

North River Farms
 09/21/2018

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙ ↕ ↞ ↠ ↡ ↢ ↣ ↤ ↥											
Traffic Volume (veh/h)	50	1955	155	150	1410	70	85	155	185	35	75	35
Future Volume (veh/h)	50	1955	155	150	1410	70	85	155	185	35	75	35
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	2125	168	163	1533	76	92	168	201	38	82	38
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	1962	990	141	2023	983	246	304	255	195	276	326
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15
Sat Flow, veh/h	1774	3539	1582	1774	3539	1563	3442	1863	1562	3442	1863	1534
Grp Volume(v), veh/h	54	2125	168	163	1533	76	92	168	201	38	82	38
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1770	1563	1721	1863	1562	1721	1863	1534
Q Serve(g_s), s	5.3	99.8	8.0	14.3	0.0	4.6	14.9	22.2	1.9	7.1	3.6	3.6
Cycle Q Clear(g_c), s	5.3	99.8	8.0	14.3	0.0	4.6	14.9	22.2	1.9	7.1	3.6	3.6
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	110	1962	990	141	2023	983	246	304	255	195	276	326
V/C Ratio(X)	0.49	1.08	0.17	1.16	0.76	0.08	0.37	0.55	0.79	0.19	0.30	0.12
Avail Cap(c_a), veh/h	118	1962	990	141	2023	983	249	455	382	229	445	465
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(i)	0.09	0.09	0.09	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.6	40.1	14.1	75.7	0.0	0.0	79.7	69.3	72.4	81.0	68.3	57.5
Incr Delay (d2), s/veh	0.3	38.5	0.0	118.4	2.3	0.1	0.9	1.6	6.4	0.5	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%)veh/ln	6.6	59.0	3.5	11.6	0.7	0.0	2.2	7.8	10.1	0.9	3.7	1.5
LnGrp Delay(d),s/veh	81.9	78.7	14.1	194.1	2.3	0.1	80.7	70.9	78.8	81.5	68.9	57.7
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E
Approach Vol, veh/h	2347			1772			461			158		
Approach Delay, s/veh	74.1			19.9			76.3			69.2		
Approach LOS	E			B			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc),s	20.0	107.8	18.6	33.7	16.9	110.9	15.9	36.3				
Change Period (Y+Rc), s	5.7	8.0	5.7	7.0	5.7	8.0	5.7	7.0				
Max Green Setting (Gmax),s	48.3	13	43.0	12	85.6	12	44.0					
Max Q Clear Time (g_c+I),s	101.8	6.6	9.1	7.3	2.0	3.9	24.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	21.7	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay	53.9											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
 19: College Blvd & SR-76

North River Farms
 09/21/2018

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙ ↕ ↞ ↠ ↡ ↢ ↣ ↤ ↥											
Traffic Volume (veh/h)	715	1565	80	330	1125	675	70	1030	400	550	960	435
Future Volume (veh/h)	715	1565	80	330	1125	675	70	1030	400	550	960	435
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	777	1701	87	359	1223	734	76	1120	435	598	1043	473
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	541	1497	569	293	1130	557	224	864	327	446	1450	884
Arrive On Green	0.31	0.59	0.59	0.09	0.22	0.22	0.07	0.35	0.35	0.13	0.41	0.41
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	2501	947	3442	3539	1550
Grp Volume(v), veh/h	777	1701	87	359	1223	734	76	784	771	598	1043	473
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1679	1721	1770	1550
Q Serve(g_s), s	28.3	53.0	4.1	15.3	40.0	40.0	3.8	62.2	62.2	23.3	44.4	34.2
Cycle Q Clear(g_c), s	28.3	53.0	4.1	15.3	40.0	40.0	3.8	62.2	62.2	23.3	44.4	34.2
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	541	1497	569	293	1130	557	224	611	580	446	1450	884
V/C Ratio(X)	1.44	1.14	0.15	1.23	1.08	1.32	0.34	1.28	1.33	1.34	0.72	0.53
Avail Cap(c_a), veh/h	541	1497	569	293	1130	557	239	611	580	446	1450	884
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(i)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	37.0	22.3	82.3	70.0	58.3	80.4	58.9	58.9	78.4	44.4	24.3
Incr Delay (d2), s/veh	201.3	65.7	0.3	128.6	51.9	155.5	0.9	139.1	159.7	168.5	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%)veh/ln	28.5	33.5	1.9	12.5	24.2	51.7	1.8	54.0	54.6	21.5	22.1	14.7
LnGrp Delay(d),s/veh	263.0	102.7	22.6	211.0	121.9	213.9	81.3	198.0	218.6	246.9	46.2	24.9
LnGrp LOS	F	F	C	F	F	F	F	F	F	F	D	C
Approach Vol, veh/h	2565			2316			1631			2114		
Approach Delay, s/veh	148.6			164.9			202.3			98.2		
Approach LOS	F			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc),s	21.0	61.0	17.4	80.6	34.0	48.0	29.0	69.0				
Change Period (Y+Rc), s	5.7	8.0	5.7	6.8	5.7	8.0	5.7	6.8				
Max Green Setting (Gmax),s	53.0	13	73.0	28	40.0	23	62.2					
Max Q Clear Time (g_c+I),s	55.0	5.8	46.4	30.3	42.0	25.3	64.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	11.1	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	150.8											
HCM 2010 LOS	F											
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
24: Foussat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	110	1990	180	165	1275	295	115	330	175	305	175	55
Future Volume (veh/h)	110	1990	180	165	1275	295	115	330	175	305	175	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	2163	196	179	1386	321	125	359	190	332	190	60
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1679	3710	1660	229	2175	973	248	373	116	338	352	278
Arrive On Green	0.49	1.00	1.00	0.07	0.61	0.61	0.07	0.07	0.10	0.10	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	120	2163	196	179	1386	321	125	359	190	332	190	60
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	3.3	0.0	0.0	9.2	44.7	29.3	6.3	12.7	13.2	17.3	9.2	3.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.2	44.7	29.3	6.3	12.7	13.2	17.3	9.2	3.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1679	3710	1660	229	2175	973	248	373	116	338	352	278
V/C Ratio(X)	0.07	0.58	0.12	0.78	0.64	0.33	0.50	0.96	1.64	0.98	0.54	0.22
Avail Cap(c_a), veh/h	1679	3710	1660	229	2175	973	249	373	116	338	352	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.17	0.17	0.17	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	82.7	22.0	46.2	80.4	83.2	83.4	81.0	77.1	53.5
Incr Delay (d2), s/veh	0.0	0.7	0.1	3.0	0.2	0.2	1.6	36.8	321.8	43.6	1.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	0.3	0.1	4.5	21.8	12.9	3.1	7.2	16.2	10.3	4.6	1.2
LnGrp Delay(d), s/veh	24.5	0.7	0.1	85.7	22.2	46.3	82.0	119.9	405.2	124.6	78.8	53.9
LnGrp LOS	C	A	A	F	C	D	F	F	F	F	E	D
Approach Vol, veh/h	2479			1886				674			582	
Approach Delay, s/veh	1.8			32.4				193.3			102.4	
Approach LOS	A			C				F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	199.0	18.7	24.0	98.1	118.6	23.4	19.3				
Change Period (Y+Rc), s	5.7	8.0	5.7	6.1	8.0	8.0	5.7	6.1				
Max Green Setting (Gmax), s	111.6	13	17.9	13.0	1.1E2	18	13.2					
Max Q Clear Time (g_c+I), s	2.0	8.3	11.2	5.3	46.7	19.3	15.2					
Green Ext Time (p_c), s	0.0	43.0	0.1	0.7	0.2	19.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				45.4								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1785	265	165	1355	155	295		
Future Volume (veh/h)	1785	265	165	1355	155	295		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1940	288	179	1473	168	321		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2589	1307	222	2930	323	251		
Arrive On Green	0.97	0.97	0.13	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1940	288	179	1473	168	321		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	9.8	0.8	9.1	0.0	8.4	16.9		
Cycle Q Clear(g_c), s	9.8	0.8	9.1	0.0	8.4	16.9		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2589	1307	222	2930	323	251		
V/C Ratio(X)	0.75	0.22	0.81	0.50	0.52	1.28		
Avail Cap(c_a), veh/h	2589	1307	541	2930	323	251		
HCM Platoon Ratio	1.33	1.33	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.32	0.32	1.00	1.00		
Uniform Delay (d), s/veh	0.8	0.3	77.3	0.0	77.7	75.7		
Incr Delay (d2), s/veh	0.2	0.0	2.2	0.2	1.5	153.0		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	7.7	0.5	4.4	0.1	4.1	23.2		
LnGrp Delay(d), s/veh	1.0	0.3	79.5	0.2	79.2	228.8		
LnGrp LOS	A	A	E	A	E	F		
Approach Vol, veh/h	2228		1652				489	
Approach Delay, s/veh	0.9		8.8				177.4	
Approach LOS	A		A				F	
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.3	139.7				157.0		23.0
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	115.0	13				149.0		13.2
Max Q Clear Time (g_c+I), s	11.8	8.3				2.0		18.9
Green Ext Time (p_c), s	0.5	33.6				19.8		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.6					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
 26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
 09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	115	65	95	150	110	350	150	2530	135	240	1305	65
Future Volume (veh/h)	115	65	95	150	110	350	150	2530	135	240	1305	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	125	71	103	163	120	380	163	2750	147	261	1418	71
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	148	126	181	190	300	184	2980	928	302	2900	903
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.10	0.59	0.59	0.09	0.57	0.57
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	125	71	103	163	120	380	163	2750	147	261	1418	71
Grp Sat Flow(s), veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Q Serve(g_s), s	6.1	6.4	11.2	16.0	10.9	17.9	15.9	85.6	7.4	13.1	29.2	3.5
Cycle Q Clear(g_c), s	6.1	6.4	11.2	16.0	10.9	17.9	15.9	85.6	7.4	13.1	29.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	148	126	181	190	300	184	2980	928	302	2900	903
V/C Ratio(X)	0.46	0.48	0.82	0.90	0.63	1.27	0.89	0.92	0.16	0.86	0.49	0.08
Avail Cap(c_a), veh/h	282	153	130	181	190	300	270	3011	938	359	2900	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.2	77.3	79.5	78.0	75.7	71.2	77.7	32.8	16.6	79.1	22.5	17.0
Incr Delay (d2), s/veh	1.2	2.4	31.1	40.3	6.6	143.1	20.8	5.4	0.1	17.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.9	3.4	6.0	9.9	5.9	26.6	8.9	41.5	3.3	7.0	13.7	1.5
LnGrp Delay(d), s/veh	78.4	79.7	110.7	118.3	82.3	214.3	98.5	38.2	16.7	96.0	22.6	17.0
LnGrp LOS	E	E	F	F	F	F	F	D	B	F	C	B
Approach Vol, veh/h	299			663			3060			1750		
Approach Delay, s/veh	89.8			166.8			40.4			33.3		
Approach LOS	F			F			D			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	110.4			20.1	23.9	107.6		24.0				
Change Period (Y+Rc), s	7.5			6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	104.0			14.4	27	95.6		17.9				
Max Q Clear Time (g_c+I), s	87.6			13.2	17.9	31.2		19.9				
Green Ext Time (p_c), s	0.3	15.3		0.1	0.3	16.7		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	55.3											
HCM 2010 LOS	E											
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (w. Melrose)
 27: SR-76 & S Mission Rd

North River Farms
 09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	1480	1420	0	0	1065	160	0	0	0	175	0	635
Future Volume (veh/h)	1480	1420	0	0	1065	160	0	0	0	175	0	635
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	1609	1543	0	0	1158	174				190	0	690
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	1593	4238	0	1	1160	519				314	0	1544
Arrive On Green	0.46	0.83	0.00	0.00	0.33	0.33				0.09	0.00	0.09
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	1609	1543	0	0	1158	174				190	0	690
Grp Sat Flow(s), veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	83.3	13.1	0.0	0.0	58.8	14.9				9.6	0.0	16.4
Cycle Q Clear(g_c), s	83.3	13.1	0.0	0.0	58.8	14.9				9.6	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	1593	4238	0	1	1160	519				314	0	1544
V/C Ratio(X)	1.01	0.36	0.00	0.00	1.00	0.34				0.61	0.00	0.45
Avail Cap(c_a), veh/h	1593	4238	0	79	1160	519				314	0	1544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	48.3	3.6	0.0	0.0	60.4	45.7				78.7	0.0	23.8
Incr Delay (d2), s/veh	25.1	0.1	0.0	0.0	26.0	0.4				3.3	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.1	6.0	0.0	0.0	33.0	14.6				4.7	0.0	24.9
LnGrp Delay(d), s/veh	73.4	3.6	0.0	0.0	86.4	46.1				82.0	0.0	24.0
LnGrp LOS	F	A			F	D				F		C
Approach Vol, veh/h	3152			1332			880					
Approach Delay, s/veh	39.3			81.1			36.5					
Approach LOS	D			F			D					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	157.5			22.5	91.0	66.5						
Change Period (Y+Rc), s	7.5			6.1	7.7	7.5						
Max Green Setting (Gmax), s	136.3			16.4	83	59.0						
Max Q Clear Time (g_c+I), s	15.1			18.4	85.3	60.8						
Green Ext Time (p_c), s	0.0	19.9		0.0	0.0	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay	49.2											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 + Proj AM (w. Melrose)
15: SR-76 & Douglas Dr

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕	↕		↕	↕	↔	↕	↕
Traffic Volume (veh/h)	298	1087	0	0	1963	215	0	0	0	275	0	595
Future Volume (veh/h)	298	1087	0	0	1963	215	0	0	0	275	0	595
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	324	1182	0	0	2134	234	0	0	0	299	0	647
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0
Arrive On Green	0.08	0.95	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0
Grp Volume(v), veh/h	324	1182	0	0	2134	234	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	0	0	0
Q Serve(g_s), s	13.3	4.0	0.0	0.0	87.4	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	4.0	0.0	0.0	87.4	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00		0.00	
Lane Grp Cap(c), veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0
V/C Ratio(X)	1.13	0.35	0.00	0.00	0.73	0.18	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	73.3	0.3	0.0	0.0	41.5	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	86.3	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	1.9	0.0	0.0	43.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	159.7	0.5	0.0	0.0	41.7	16.4	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	F	A			D	B						
Approach Vol, veh/h		1506			2368			0				
Approach Delay, s/veh		34.7			39.2			0.0				
Approach LOS		C			D							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		160.0			19.0	141.0		0.0				
Change Period (Y+Rc), s		8.0			5.7	8.0		6.1				
Max Green Setting (Gmax), s		74.9			13	55.9		44.0				
Max Q Clear Time (g_c+I1), s		6.0			15.3	89.4		0.0				
Green Ext Time (p_c), s		10.2			0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay						37.4						
HCM 2010 LOS						D						
Notes												

Year 2035 + Proj AM (w. Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕	↕		↕	↕	↔	↕	↕
Traffic Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Future Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	2028	1031	130	2045	1031	272	216	183	252	205	281
Arrive On Green	0.07	0.57	0.57	0.10	0.77	0.77	0.08	0.12	0.12	0.07	0.11	0.11
Sat Flow, veh/h	1774	3539	1582	1774	3539	1583	3442	1863	1583	3442	1863	1570
Grp Volume(v), veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1770	1583	1721	1863	1583	1721	1863	1570
Q Serve(g_s), s	4.7	32.2	3.2	7.1	67.8	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Cycle Q Clear(g_c), s	4.7	32.2	3.2	7.1	67.8	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	2028	1031	130	2045	1031	272	216	183	252	205	281
V/C Ratio(X)	0.45	0.56	0.08	0.63	0.92	0.07	0.30	0.43	0.77	0.34	0.74	0.27
Avail Cap(c_a), veh/h	121	2028	1031	165	2045	1031	280	512	435	258	501	530
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	21.5	10.2	70.2	15.7	5.5	69.5	65.8	68.7	70.4	69.0	56.8
Incr Delay (d2), s/veh	1.5	0.7	0.1	3.4	5.9	0.1	0.6	1.3	6.7	0.8	5.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	15.9	1.4	3.6	33.8	0.7	1.7	3.9	6.4	1.8	6.8	2.9
LnGrp Delay(d),s/veh	73.2	22.1	10.3	73.5	21.6	5.6	70.1	67.1	75.3	71.2	74.3	57.3
LnGrp LOS	E	C	B	E	C	A	E	E	E	E	E	E
Approach Vol, veh/h		1274			2042			315				313
Approach Delay, s/veh		23.5			23.1			71.6				69.3
Approach LOS		C			C			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		1	2	3	4	5	6	7	8			
Phs Duration (G+Y+Rc), s		99.7	18.4	24.6	16.6	100.4	17.4	25.5				
Change Period (Y+Rc), s		8.0	5.7	7.0	5.7	8.0	5.7	7.0				
Max Green Setting (Gmax), s		62.7	13	43.0	12	65.6	12	44.0				
Max Q Clear Time (g_c+I1), s		34.2	5.6	14.7	6.7	69.8	5.8	15.8				
Green Ext Time (p_c), s		0.1	8.7	0.1	1.1	0.0	0.0	0.1				1.0
Intersection Summary												
HCM 2010 Ctrl Delay								30.8				
HCM 2010 LOS								C				
Notes												

Year 2035 + Proj AM (w. Melrose)
19: College Blvd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔↔	↔↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	475	845	45	595	1470	553	60	522	215	618	850	378
Future Volume (veh/h)	475	845	45	595	1470	553	60	522	215	618	850	378
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	516	918	49	647	1598	601	65	567	234	672	924	411
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	1157	467	671	1504	728	244	607	250	566	1213	742
Arrive On Green	0.17	0.30	0.30	0.20	0.30	0.30	0.07	0.25	0.25	0.16	0.34	0.34
Sat Flow, veh/h	3442	5085	1561	3442	5085	1583	3442	2435	1003	3442	3539	1579
Grp Volume(v), veh/h	516	918	49	647	1598	601	65	412	389	672	924	411
Grp Sat Flow(s), veh/h/ln	1721	1695	1561	1721	1695	1583	1721	1770	1668	1721	1770	1579
Q Serve(g_s), s	20.3	26.5	3.3	29.8	47.3	47.3	2.9	36.4	36.6	26.3	37.1	29.9
Cycle Q Clear(g_c), s	20.3	26.5	3.3	29.8	47.3	47.3	2.9	36.4	36.6	26.3	37.1	29.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	437	1157	467	671	1504	728	244	441	416	566	1213	742
V/C Ratio(X)	1.18	0.79	0.10	0.96	1.06	0.83	0.27	0.93	0.94	1.19	0.76	0.55
Avail Cap(c_a), veh/h	437	1157	467	671	1504	728	258	453	427	566	1223	747
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	52.3	36.6	63.8	56.3	37.6	70.4	58.8	58.8	66.8	46.8	30.4
Incr Delay (d2), s/veh	100.4	4.8	0.4	26.0	41.9	10.3	0.6	26.1	27.8	101.3	2.8	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	16.7	12.9	1.5	16.6	28.0	25.2	1.4	21.0	20.1	20.5	18.7	13.2
LnGrp Delay(d), s/veh	166.9	57.2	37.0	89.9	98.2	47.9	71.0	84.9	86.6	168.2	49.6	31.3
LnGrp LOS	F	E	D	F	F	D	E	F	F	F	D	C
Approach Vol, veh/h	1483			2846			866			2007		
Approach Delay, s/veh	94.7			85.7			84.6			85.6		
Approach LOS	F			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.9	44.4	17.0	61.7	26.0	55.3	32.0	46.7				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8				
Max Green Setting (Gmax) s	35.3	* 12	55.3	* 20	46.2	* 26	41.0					
Max Q Clear Time (g_c+R) s	28.5	4.9	39.1	22.3	49.3	28.3	38.6					
Green Ext Time (p_c), s	0.0	3.1	0.1	7.5	0.0	0.0	1.2					
Intersection Summary												
HCM 2010 Ctrl Delay	87.4											
HCM 2010 LOS	F											
Notes												

Year 2035 + Proj AM (w. Melrose)
24: Fousat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔↔	↔↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	80	1000	85	242	2046	150	220	205	115	325	255	50
Future Volume (veh/h)	80	1000	85	242	2046	150	220	205	115	325	255	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	87	1087	92	263	2224	163	239	223	125	353	277	54
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1713	3530	1579	311	2037	911	280	407	127	357	363	286
Arrive On Green	0.50	1.00	1.00	0.09	0.58	0.58	0.08	0.08	0.08	0.10	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	87	1087	92	263	2224	163	239	223	125	353	277	54
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.1	0.2	0.0	12.0	92.1	12.2	11.0	6.8	12.6	16.4	12.2	2.3
Cycle Q Clear(g_c), s	2.1	0.2	0.0	12.0	92.1	12.2	11.0	6.8	12.6	16.4	12.2	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1713	3530	1579	311	2037	911	280	407	127	357	363	286
V/C Ratio(X)	0.05	0.31	0.06	0.85	1.09	0.18	0.85	0.55	0.99	0.99	0.76	0.19
Avail Cap(c_a), veh/h	1713	3530	1579	411	2037	911	280	407	127	357	363	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.14	0.14	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	71.7	34.0	39.5	72.6	70.8	73.5	71.6	69.9	45.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	2.0	42.7	0.1	21.9	1.6	75.7	44.4	9.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.1	0.0	0.0	5.8	56.8	5.4	6.1	3.2	8.2	10.0	6.4	0.9
LnGrp Delay(d), s/veh	20.7	0.2	0.1	73.6	76.7	39.6	94.5	72.4	149.2	116.0	79.2	45.3
LnGrp LOS	C	A	A	E	F	D	F	E	F	F	E	D
Approach Vol, veh/h	1266			2650			587			684		
Approach Delay, s/veh	1.6			74.1			97.7			95.5		
Approach LOS	A			E			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	169.6	18.7	22.5	89.7	100.1	22.3	18.9				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax) s	86.0	* 13	16.4	13.0	* 92	* 17	12.8					
Max Q Clear Time (g_c+R) s	2.2	13.0	14.2	4.1	94.1	18.4	14.6					
Green Ext Time (p_c), s	0.4	9.4	0.0	0.4	0.1	0.0	0.0					
Intersection Summary												
HCM 2010 Ctrl Delay	61.9											
HCM 2010 LOS	E											
Notes												

Year 2035 + Proj AM (w. Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔↔	↔	↔↔	↔↔	↔↔	↔		
Traffic Volume (veh/h)	1225	110	80	1913	80	125		
Future Volume (veh/h)	1225	110	80	1913	80	125		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1332	120	87	2079	87	136		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2535	1281	232	2899	319	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1332	120	87	2079	87	136		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.8	12.6		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.8	12.6		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2535	1281	232	2899	319	253		
V/C Ratio(X)	0.53	0.09	0.38	0.72	0.27	0.54		
Avail Cap(c_a), veh/h	2535	1281	265	2899	385	284		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.80	0.80	0.21	0.21	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.6	61.7		
Incr Delay (d2), s/veh	0.6	0.1	0.2	0.3	0.5	1.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.8	0.1	1.8	5.7		
LnGrp Delay(d),s/veh	0.6	0.1	69.9	0.3	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1452		2166	223				
Approach Delay, s/veh	0.6		3.1	65.3				
Approach LOS	A		A	E				
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	122.6	122.6				139.1		20.9
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	110.0					128.0		17.9
Max Q Clear Time (g_c+I), s	2.0					2.0		14.6
Green Ext Time (p_c), s	0.1	13.5				47.2		0.2
Intersection Summary								
HCM 2010 Ctrl Delay					5.8			
HCM 2010 LOS					A			
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (w. Melrose)
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔	↔	↔	↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔
Traffic Volume (veh/h)	65	215	105	143	95	270	80	1129	223	605	2163	15
Future Volume (veh/h)	65	215	105	143	95	270	80	1129	223	605	2163	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	71	234	114	155	103	293	87	1227	242	658	2351	16
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
Arrive On Green	0.12	0.12	0.12	0.17	0.17	0.17	0.11	0.33	0.33	0.21	0.43	0.43
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	71	234	114	155	103	293	87	1227	242	658	2351	16
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.8	18.9	10.3	12.1	7.4	21.5	7.0	32.3	18.3	28.5	65.7	0.9
Cycle Q Clear(g_c), s	2.8	18.9	10.3	12.1	7.4	21.5	7.0	32.3	18.3	28.5	65.7	0.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
V/C Ratio(X)	0.17	1.01	0.58	0.52	0.33	0.49	0.45	0.73	0.46	0.92	1.07	0.02
Avail Cap(c_a), veh/h	427	231	197	618	649	881	198	1688	526	803	2195	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	66.7	62.9	57.7	55.7	36.2	63.6	44.8	40.1	59.0	43.3	24.8
Incr Delay (d2), s/veh	0.2	62.2	4.2	1.4	0.6	0.6	1.6	1.6	0.6	14.4	41.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	13.7	4.8	6.1	3.9	9.5	3.5	15.4	8.1	15.0	39.1	0.4
LnGrp Delay(d),s/veh	59.8	129.0	67.1	59.0	56.3	36.9	65.2	46.4	40.7	73.3	84.8	24.9
LnGrp LOS	E	F	E	E	E	D	E	D	D	E	F	C
Approach Vol, veh/h	419			551			1556				3025	
Approach Delay, s/veh	100.4			46.7			46.5				82.0	
Approach LOS	F			D			D				F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.4	58.0		25.0	22.3	73.2		31.8				
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	47.2			18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I), s	34.3			20.9	9.0	67.7		23.5				
Green Ext Time (p_c), s	1.3	7.5		0.0	0.1	0.0		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay						69.9						
HCM 2010 LOS						E						
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (w. Melrose)
27: SR-76 & S Mission Rd

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔	↔↔↔		↔	↔↔	↔				↔↔		↔↔
Traffic Volume (veh/h)	631	788	0	0	1812	90	0	0	0	130	0	1327
Future Volume (veh/h)	631	788	0	0	1812	90	0	0	0	130	0	1327
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	686	857	0	0	1970	98				141	0	1442
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	765	4060	0	1	1855	830				379	0	927
Arrive On Green	0.22	0.80	0.00	0.00	0.52	0.52				0.11	0.00	0.11
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	686	857	0	0	1970	98				141	0	1442
Grp Sat Flow(s), veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	28.8	6.1	0.0	0.0	78.0	4.7				5.7	0.0	16.4
Cycle Q Clear(g_c), s	28.8	6.1	0.0	0.0	78.0	4.7				5.7	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	765	4060	0	1	1855	830				379	0	927
V/C Ratio(X)	0.90	0.21	0.00	0.00	1.06	0.12				0.37	0.00	1.56
Avail Cap(c_a), veh/h	1025	4060	0	95	1855	830				379	0	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.2	3.6	0.0	0.0	35.4	18.0				61.4	0.0	49.7
Incr Delay (d2), s/veh	8.3	0.0	0.0	0.0	39.5	0.1				0.6	0.0	255.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	2.8	0.0	0.0	48.1	6.0				2.7	0.0	64.7
LnGrp Delay(d), s/veh	64.5	3.7	0.0	0.0	74.9	18.0				62.0	0.0	305.1
LnGrp LOS	E	A			F	B				E		F
Approach Vol, veh/h	1543			2068						1583		
Approach Delay, s/veh	30.7			72.2						283.4		
Approach LOS	C			E						F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	0	126.3		22.5	40.8	85.5						
Change Period (Y+Rc), s	5.7	7.5		6.1	7.7	7.5						
Max Green Setting (Gmax), s	116.3			16.4	44	78.0						
Max Q Clear Time (g_c+1t), s	8.1			18.4	30.8	80.0						
Green Ext Time (p_c), s	0.0	7.6		0.0	2.3	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay				124.3								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (w. Melrose)
15: SR-76 & Douglas Dr

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔			↔↔	↔				↔		↔↔
Traffic Volume (veh/h)	650	2275	0	0	1568	265	0	0	0	265	0	443
Future Volume (veh/h)	650	2275	0	0	1568	265	0	0	0	265	0	443
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	707	2473	0	0	1704	288	0	0	0	288	0	482
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
Arrive On Green	0.14	0.96	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0
Grp Volume(v), veh/h	707	2473	0	0	1704	288	0	0	0	0	0	0
Grp Sat Flow(s), veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	0	0	0
Q Serve(g_s), s	25.3	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	25.3	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00	0.00		0.00		0.00
Lane Grp Cap(c), veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
V/C Ratio(X)	1.46	0.73	0.00	0.00	0.61	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	484	3382	0	0	2772	1240	0	455	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.11	0.11	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	77.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	209.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	26.1	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d), s/veh	286.3	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	F	A			A	A						
Approach Vol, veh/h	3180			1992						0		
Approach Delay, s/veh	64.2			0.1						0.0		
Approach LOS	E			A								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		180.0			31.0	149.0		0.0				
Change Period (Y+Rc), s		8.0			5.7	8.0		6.1				
Max Green Setting (Gmax), s		91.9			25	60.9		44.0				
Max Q Clear Time (g_c+1t), s		20.6			27.3	2.0		0.0				
Green Ext Time (p_c), s		45.1			0.0	26.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				39.5								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (w. Melrose)
18: Frazee Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↔	↕	↕	↔	
Traffic Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35	
Future Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00	0.99	1.00		0.99	1.00		0.97		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Adj Flow Rate, veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38	
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	110	1947	983	141	2008	983	246	304	255	210	284	332	
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15	
Sat Flow, veh/h	1774	3539	1582	1774	3539	1563	3442	1863	1562	3442	1863	1535	
Grp Volume(v), veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38	
Grp Sat Flow(s), veh/h/ln	1774	1770	1582	1774	1770	1563	1721	1863	1562	1721	1863	1535	
Q Serve(g_s), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6	
Cycle Q Clear(g_c), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6	
Prop In Lane	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Lane Grp Cap(c), veh/h	110	1947	983	141	2008	983	246	304	255	210	284	332	
V/C Ratio(X)	0.49	1.12	0.17	1.16	0.78	0.08	0.37	0.55	0.79	0.23	0.29	0.11	
Avail Cap(c_a), veh/h	118	1947	983	141	2008	983	249	455	382	229	445	465	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.09	0.09	0.09	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	81.6	40.5	14.4	75.7	0.0	0.0	79.7	69.3	72.4	80.5	67.6	56.9	
Incr Delay (d2), s/veh	0.3	54.7	0.0	118.0	2.6	0.1	0.9	1.6	6.4	0.6	0.6	0.2	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	6	62.9	3.5	11.6	0.7	0.0	2.2	7.8	10.1	1.2	3.7	1.5	
LnGrp Delay(d), s/veh	81.9	95.2	14.5	193.7	2.6	0.1	80.7	70.9	78.8	81.1	68.2	57.1	
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E	
Approach Vol, veh/h	2402			1806			461			169			
Approach Delay, s/veh	89.3			19.7			76.3			69.4			
Approach LOS	F			B			E			E			
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	20.0	107.0	18.6	34.4	16.9	110.1	16.7	36.3					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0					
Max Green Setting (Gmax), s	83.3	* 13	43.0	* 12	85.6	* 12	44.0						
Max Q Clear Time (g_c+I), s	101.0	6.6	9.0	7.3	2.0	4.4	24.2						
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	22.6	0.0	1.6					
Intersection Summary													
HCM 2010 Ctrl Delay	61.4												
HCM 2010 LOS	E												
Notes													

Year 2035 + Proj PM (w. Melrose)
19: College Blvd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↔	↕	↕	↔	
Traffic Volume (veh/h)	776	1565	80	330	1125	685	70	1126	400	555	1009	466	
Future Volume (veh/h)	776	1565	80	330	1125	685	70	1126	400	555	1009	466	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00	1.00	1.00		0.99	1.00		0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	
Adj Flow Rate, veh/h	843	1701	87	359	1223	745	76	1224	435	603	1097	507	
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	541	1497	569	293	1130	557	224	890	306	446	1450	884	
Arrive On Green	0.31	0.59	0.59	0.09	0.22	0.22	0.07	0.35	0.35	0.13	0.41	0.41	
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	2574	886	3442	3539	1550	
Grp Volume(v), veh/h	843	1701	87	359	1223	745	76	829	830	603	1097	507	
Grp Sat Flow(s), veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1691	1721	1770	1550	
Q Serve(g_s), s	28.3	53.0	4.1	15.3	40.0	40.0	3.8	62.2	62.2	23.3	47.7	37.9	
Cycle Q Clear(g_c), s	28.3	53.0	4.1	15.3	40.0	40.0	3.8	62.2	62.2	23.3	47.7	37.9	
Prop In Lane	1.00		1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Lane Grp Cap(c), veh/h	541	1497	569	293	1130	557	224	611	584	446	1450	884	
V/C Ratio(X)	1.56	1.14	0.15	1.23	1.08	1.34	0.34	1.36	1.42	1.35	0.76	0.57	
Avail Cap(c_a), veh/h	541	1497	569	293	1130	557	239	611	584	446	1450	884	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	61.7	37.0	22.3	82.3	70.0	58.3	80.4	58.9	58.9	78.4	45.4	25.1	
Incr Delay (d2), s/veh	255.1	65.4	0.3	128.6	51.9	164.0	0.9	170.5	199.2	173.3	2.3	0.9	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	5	33.5	1.9	12.5	24.2	53.0	1.8	59.4	61.4	21.8	23.8	16.4	
LnGrp Delay(d), s/veh	316.8	102.4	22.5	211.0	121.9	222.3	81.3	229.4	258.1	251.6	47.8	26.0	
LnGrp LOS	F	F	C	F	F	F	F	F	F	F	D	C	
Approach Vol, veh/h	2631			2327			1735			2207			
Approach Delay, s/veh	168.4			167.8			236.7			98.5			
Approach LOS	F			F			F			F			
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	21.0	61.0	17.4	80.6	34.0	48.0	29.0	69.0					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8					
Max Green Setting (Gmax), s	53.0	* 13	73.0	* 28	40.0	* 23	62.2						
Max Q Clear Time (g_c+I), s	55.0	5.8	49.7	30.3	42.0	25.3	64.2						
Green Ext Time (p_c), s	0.0	0.0	0.1	11.2	0.0	0.0	0.0						
Intersection Summary													
HCM 2010 Ctrl Delay	164.2												
HCM 2010 LOS	F												
Notes													

Year 2035 + Proj PM (w. Melrose)
24: Fousat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	110	2036	180	173	1298	295	115	330	190	305	175	55
Future Volume (veh/h)	110	2036	180	173	1298	295	115	330	190	305	175	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	2213	196	188	1411	321	125	359	207	332	190	60
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1679	3710	1660	229	2175	973	248	373	116	338	352	278
Arrive On Green	0.49	1.00	1.00	0.07	0.61	0.61	0.07	0.07	0.10	0.10	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	120	2213	196	188	1411	321	125	359	207	332	190	60
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	3.3	0.0	0.0	9.7	46.0	29.3	6.3	12.7	13.2	17.3	9.2	3.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.7	46.0	29.3	6.3	12.7	13.2	17.3	9.2	3.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1679	3710	1660	229	2175	973	248	373	116	338	352	278
V/C Ratio(X)	0.07	0.60	0.12	0.82	0.65	0.33	0.50	0.96	1.78	0.98	0.54	0.22
Avail Cap(c_a), veh/h	1679	3710	1660	229	2175	973	249	373	116	338	352	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.11	0.11	0.11	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	82.9	22.2	46.2	80.4	83.2	83.4	81.0	77.1	53.5
Incr Delay (d2), s/veh	0.0	0.7	0.1	2.6	0.2	0.1	1.6	36.8	384.6	43.6	1.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	0.4	0.1	4.7	22.4	12.9	3.1	7.2	18.2	10.3	4.6	1.2
LnGrp Delay(d), s/veh	24.5	0.7	0.1	85.6	22.4	46.3	82.0	119.9	468.0	124.6	78.8	53.9
LnGrp LOS	C	A	A	F	C	D	F	F	F	F	E	D
Approach Vol, veh/h	2529			1920				691			582	
Approach Delay, s/veh	1.8			32.6				217.3			102.4	
Approach LOS	A			C				F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	199.0	18.7	24.0	98.1	118.6	23.4	19.3				
Change Period (Y+Rc), s	5.7	8.0	5.7	6.1	8.0	8	5.7	6.1				
Max Green Setting (Gmax), s	111.6	13	17.9	13.0	1.1E2	18	13.2					
Max Q Clear Time (g_c+I), s	2.0	8.3	11.2	5.3	48.0	19.3	15.2					
Green Ext Time (p_c), s	0.0	45.6	0.1	0.7	0.2	20.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				48.4								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (w. Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1846	265	165	1386	155	295		
Future Volume (veh/h)	1846	265	165	1386	155	295		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2007	288	179	1507	168	321		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2594	1307	222	2934	319	249		
Arrive On Green	0.97	0.97	0.13	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	2007	288	179	1507	168	321		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	10.5	0.7	9.1	0.0	8.4	16.7		
Cycle Q Clear(g_c), s	10.5	0.7	9.1	0.0	8.4	16.7		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2594	1307	222	2934	319	249		
V/C Ratio(X)	0.77	0.22	0.81	0.51	0.53	1.29		
Avail Cap(c_a), veh/h	2594	1307	522	2934	319	249		
HCM Platoon Ratio	1.33	1.33	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.31	0.31	1.00	1.00		
Uniform Delay (d), s/veh	0.7	0.3	77.3	0.0	77.9	75.9		
Incr Delay (d2), s/veh	0.2	0.0	2.2	0.2	1.6	157.1		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	8.9	0.4	4.4	0.1	4.1	23.3		
LnGrp Delay(d), s/veh	1.0	0.3	79.5	0.2	79.5	232.9		
LnGrp LOS	A	A	E	A	E	F		
Approach Vol, veh/h	2295		1686				489	
Approach Delay, s/veh	0.9		8.6				180.2	
Approach LOS	A		A				F	
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.7	139.9				157.2		22.8
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	116.2	13				149.2		16.7
Max Q Clear Time (g_c+I), s	12.5					2.0		18.7
Green Ext Time (p_c), s	0.5	36.6				20.8		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.4					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (w. Melrose)
 26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
 09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↑	↘	↘	↑	↗	↗	↗	↗	↗	↗	↗	
Traffic Volume (veh/h)	115	65	95	160	110	350	150	2558	140	240	1361	65	
Future Volume (veh/h)	115	65	95	160	110	350	150	2558	140	240	1361	65	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Adj Flow Rate, veh/h	125	71	103	174	120	380	163	2780	152	261	1479	71	
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	274	148	126	190	200	309	184	2956	920	302	2876	895	
Arrive On Green	0.08	0.08	0.08	0.11	0.11	0.11	0.10	0.58	0.58	0.09	0.57	0.57	
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583	
Grp Volume(v), veh/h	125	71	103	174	120	380	163	2780	152	261	1479	71	
Grp Sat Flow(s), veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Q Serve(g_s), s	6.1	6.4	11.3	17.1	10.8	18.9	16.0	88.9	7.8	13.2	31.4	3.6	
Cycle Q Clear(g_c), s	6.1	6.4	11.3	17.1	10.8	18.9	16.0	88.9	7.8	13.2	31.4	3.6	
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	274	148	126	190	200	309	184	2956	920	302	2876	895	
V/C Ratio(X)	0.46	0.48	0.82	0.91	0.60	1.23	0.89	0.94	0.17	0.86	0.51	0.08	
Avail Cap(c_a), veh/h	281	152	129	190	200	309	269	2973	926	358	2876	895	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	77.4	77.6	79.8	77.8	75.0	70.9	77.9	34.1	17.1	79.3	23.4	17.4	
Incr Delay (d2), s/veh	1.2	2.4	31.6	41.8	4.9	128.8	20.9	6.9	0.1	17.1	0.2	0.0	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	0.0	3.4	6.1	10.6	5.9	26.1	8.9	43.3	3.4	7.0	14.7	1.6	
LnGrp Delay(d), s/veh	78.6	80.0	111.5	119.7	79.9	199.7	98.9	40.9	17.2	96.4	23.6	17.4	
LnGrp LOS	E	E	F	F	E	F	F	D	B	F	C	B	
Approach Vol, veh/h	299			674				3095			1811		
Approach Delay, s/veh	90.3			157.7				42.8			33.9		
Approach LOS	F			F				D			C		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	21.2	109.9		20.1	23.9	107.1		25.0					
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1					
Max Green Setting (Gmax), s	103.0			14.4	27	94.6		18.9					
Max Q Clear Time (g_c+I), s	90.9			13.3	18.0	33.4		20.9					
Green Ext Time (p_c), s	0.3	11.5		0.1	0.3	17.8		0.0					
Intersection Summary													
HCM 2010 Ctrl Delay				55.6									
HCM 2010 LOS				E									
Notes													

Year 2035 + Proj PM (w. Melrose)
 27: SR-76 & S Mission Rd

North River Farms
 09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
Traffic Volume (veh/h)	1490	1438	0	0	1100	160	0	0	0	175	0	655	
Future Volume (veh/h)	1490	1438	0	0	1100	160	0	0	0	175	0	655	
Number	5	2	12	1	6	16				7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863	
Adj Flow Rate, veh/h	1620	1563	0	0	1196	174				190	0	712	
Adj No. of Lanes	2	3	0	1	2	1				2	0	2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2	
Cap, veh/h	1574	4238	0	1	1180	528				314	0	1528	
Arrive On Green	0.46	0.83	0.00	0.00	0.33	0.33				0.09	0.00	0.09	
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787	
Grp Volume(v), veh/h	1620	1563	0	0	1196	174				190	0	712	
Grp Sat Flow(s), veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393	
Q Serve(g_s), s	82.3	13.3	0.0	0.0	60.0	14.8				9.6	0.0	16.4	
Cycle Q Clear(g_c), s	82.3	13.3	0.0	0.0	60.0	14.8				9.6	0.0	16.4	
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00	
Lane Grp Cap(c), veh/h	1574	4238	0	1	1180	528				314	0	1528	
V/C Ratio(X)	1.03	0.37	0.00	0.00	1.01	0.33				0.61	0.00	0.47	
Avail Cap(c_a), veh/h	1574	4238	0	79	1180	528				314	0	1528	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00	
Uniform Delay (d), s/veh	48.8	3.6	0.0	0.0	60.0	44.9				78.7	0.0	24.7	
Incr Delay (d2), s/veh	30.6	0.1	0.0	0.0	29.7	0.4				3.3	0.0	0.2	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	45.8	6.1	0.0	0.0	34.2	14.5				4.7	0.0	25.8	
LnGrp Delay(d), s/veh	79.4	3.7	0.0	0.0	89.7	45.3				82.0	0.0	24.9	
LnGrp LOS	F	A			F	D				F		C	
Approach Vol, veh/h	3183			1370							902		
Approach Delay, s/veh	42.2			84.0							36.9		
Approach LOS	D			F							D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6							
Phs Duration (G+Y+Rc), s	157.5			22.5	90.0	67.5							
Change Period (Y+Rc), s	7.5			6.1	7.7	7.5							
Max Green Setting (Gmax), s	136.3			16.4	82	60.0							
Max Q Clear Time (g_c+I), s	15.3			18.4	84.3	62.0							
Green Ext Time (p_c), s	0.0	20.4		0.0	0.0	0.0							
Intersection Summary													
HCM 2010 Ctrl Delay				51.8									
HCM 2010 LOS				D									
Notes													

Year 2035 AM (No Melrose)
15: SR-76 & Douglas Dr

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	1075	0	0	1935	215	0	0	0	275	0	575
Future Volume (veh/h)	290	1075	0	0	1935	215	0	0	0	275	0	575
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	315	1168	0	0	2103	234	0	0	0	299	0	625
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0
Arrive On Green	0.08	0.95	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0
Grp Volume(v), veh/h	315	1168	0	0	2103	234	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	0	0	0
Q Serve(g_s), s	13.3	3.9	0.0	0.0	85.8	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	3.9	0.0	0.0	85.8	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00	1.00	0.00		0.00		0.00		0.00
Lane Grp Cap(c), veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0
V/C Ratio(X)	1.10	0.35	0.00	0.00	0.71	0.18	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	286	3362	0	0	2942	1316	0	512	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	73.3	0.3	0.0	0.0	40.9	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	74.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	1.9	0.0	0.0	42.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	147.4	0.5	0.0	0.0	41.1	16.4	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	F	A			D	B						
Approach Vol, veh/h	1483			2337			0					
Approach Delay, s/veh	31.7			38.6			0.0					
Approach LOS	C			D								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	160.0				19.0		141.0		0.0			
Change Period (Y+Rc), s	8.0				* 5.7		8.0		6.1			
Max Green Setting (Gmax), s	74.9				* 13		55.9		44.0			
Max Q Clear Time (g_c+I1), s	5.9				15.3		87.8		0.0			
Green Ext Time (p_c), s	10.0				0.0		0.0		0.0			
Intersection Summary												
HCM 2010 Ctrl Delay				35.9								
HCM 2010 LOS	D											
Notes												


HCM 2010 Signalized Intersection Summary
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Year 2035 AM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1025	80	75	1695	60	75	85	130	75	140	70
Future Volume (veh/h)	50	1025	80	75	1695	60	75	85	130	75	140	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	1114	87	82	1842	65	82	92	141	82	152	76
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	2028	1032	130	2046	1031	272	216	183	251	204	280
Arrive On Green	0.07	0.57	0.57	0.10	0.77	0.77	0.08	0.12	0.12	0.07	0.11	0.11
Sat Flow, veh/h	1774	3539	1582	1774	3539	1583	3442	1863	1583	3442	1863	1570
Grp Volume(v), veh/h	54	1114	87	82	1842	65	82	92	141	82	152	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1770	1583	1721	1863	1583	1721	1863	1570
Q Serve(g_s), s	4.7	31.4	3.2	7.1	62.6	1.3	3.6	7.4	13.8	3.6	12.7	6.7
Cycle Q Clear(g_c), s	4.7	31.4	3.2	7.1	62.6	1.3	3.6	7.4	13.8	3.6	12.7	6.7
Prop In Lane	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	2028	1032	130	2046	1031	272	216	183	251	204	280
V/C Ratio(X)	0.45	0.55	0.08	0.63	0.90	0.06	0.30	0.43	0.77	0.33	0.74	0.27
Avail Cap(c_a), veh/h	133	2028	1032	165	2046	1031	280	512	435	258	501	530
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	21.3	10.2	70.2	15.0	5.5	69.5	65.8	68.7	70.4	69.0	56.8
Incr Delay (d2), s/veh	1.6	0.7	0.1	3.3	4.7	0.1	0.6	1.3	6.6	0.7	5.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	15.5	1.4	3.6	31.0	0.6	1.7	3.9	6.4	1.7	6.8	2.9
LnGrp Delay(d),s/veh	73.2	21.9	10.3	73.5	19.7	5.5	70.1	67.1	75.3	71.2	74.3	57.3
LnGrp LOS	E	C	B	E	B	A	E	E	E	E	E	E
Approach Vol, veh/h	1255			1989			315			310		
Approach Delay, s/veh	23.3			21.5			71.6			69.3		
Approach LOS	C			C			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1		2		3		4		5		6	
Phs Duration (G+Y+Rc), s	99.7		18.4		24.6		16.6		100.5		17.4	
Change Period (Y+Rc), s	8.0		* 5.7		7.0		* 5.7		8.0		* 5.7	
Max Green Setting (Gmax), s	62.7		* 13		43.0		* 12		65.6		* 12	
Max Q Clear Time (g_c+I1), s	33.4		5.6		14.7		6.7		64.6		5.6	
Green Ext Time (p_c), s	0.1		8.6		0.1		1.1		0.0		0.9	
Intersection Summary												
HCM 2010 Ctrl Delay				30.0								
HCM 2010 LOS	C											
Notes												

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	900	45	625	1565	600	60	505	225	670	800	345
Future Volume (veh/h)	475	900	45	625	1565	600	60	505	225	670	800	345
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00	0.99	1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	516	978	49	679	1701	652	65	549	245	728	870	375
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	1164	470	669	1539	740	244	589	262	566	1211	731
Arrive On Green	0.16	0.30	0.30	0.19	0.30	0.30	0.07	0.25	0.25	0.16	0.34	0.34
Sat Flow, veh/h	3442	5085	1561	3442	5085	1583	3442	2372	1055	3442	3539	1579
Grp Volume(v), veh/h	516	978	49	679	1701	652	65	409	385	728	870	375
Grp Sat Flow(s),veh/h/ln	1721	1695	1561	1721	1695	1583	1721	1770	1658	1721	1770	1579
Q Serve(g_s), s	19.3	28.8	3.3	31.1	48.4	48.4	2.9	36.2	36.3	26.3	34.3	26.8
Cycle Q Clear(g_c), s	19.3	28.8	3.3	31.1	48.4	48.4	2.9	36.2	36.3	26.3	34.3	26.8
Prop In Lane	1.00			1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	415	1164	470	669	1539	740	244	440	412	566	1211	731
V/C Ratio(X)	1.24	0.84	0.10	1.01	1.10	0.88	0.27	0.93	0.93	1.29	0.72	0.51
Avail Cap(c_a), veh/h	415	1164	470	669	1539	740	258	453	425	566	1223	737
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.2	52.9	36.4	64.4	55.8	38.6	70.4	58.8	58.8	66.8	45.9	30.3
Incr Delay (d2), s/veh	125.6	6.3	0.4	38.6	57.4	14.3	0.6	25.5	27.4	142.1	2.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	14.1	1.5	18.4	30.8	28.9	1.4	20.9	19.8	23.7	17.1	11.8
LnGrp Delay(d),s/veh	192.8	59.2	36.8	103.0	113.2	52.9	71.0	84.3	86.2	208.9	48.0	30.9
LnGrp LOS	F	E	D	F	F	D	E	F	F	F	D	C
Approach Vol, veh/h	1543			3032			859			1973		
Approach Delay, s/veh	103.2			97.9			84.2			104.1		
Approach LOS	F			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.8	44.6	17.0	61.5	25.0	56.4	32.0	46.6				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8				
Max Green Setting (Gmax), s	35.4	* 12	55.3	* 19	47.2	* 26	41.0					
Max Q Clear Time (g_c+Rc), s	30.8	4.9	36.3	21.3	50.4	28.3	38.3					
Green Ext Time (p_c), s	0.0	2.5	0.1	7.5	0.0	0.0	1.3					
Intersection Summary												
HCM 2010 Ctrl Delay				99.1								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1020	85	230	2080	150	220	205	110	330	255	50
Future Volume (veh/h)	80	1020	85	230	2080	150	220	205	110	330	255	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	87	1109	92	250	2261	163	239	223	120	359	277	54
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1349	3170	1418	297	2037	911	280	448	139	318	351	277
Arrive On Green	0.39	0.90	0.90	0.09	0.58	0.58	0.08	0.09	0.09	0.09	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	87	1109	92	250	2261	163	239	223	120	359	277	54
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.5	7.6	1.0	11.5	92.1	10.4	11.0	6.7	12.0	14.8	12.2	2.3
Cycle Q Clear(g_c), s	2.5	7.6	1.0	11.5	92.1	10.4	11.0	6.7	12.0	14.8	12.2	2.3
Prop In Lane	1.00			1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h	1349	3170	1418	297	2037	911	280	448	139	318	351	277
V/C Ratio(X)	0.06	0.35	0.06	0.84	1.11	0.18	0.85	0.50	0.86	1.13	0.79	0.20
Avail Cap(c_a), veh/h	1349	3170	1418	391	2037	911	280	464	144	318	363	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	1.3	0.9	72.0	34.0	28.8	72.6	69.6	72.0	72.6	70.4	45.0
Incr Delay (d2), s/veh	0.0	0.3	0.1	2.6	51.1	0.1	21.9	0.9	36.9	89.5	10.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2	3.7	0.5	5.6	59.2	4.6	6.1	3.2	6.7	11.0	6.5	0.9
LnGrp Delay(d),s/veh	30.4	1.6	1.0	74.6	85.0	28.9	94.5	70.4	108.9	162.1	81.2	45.3
LnGrp LOS	C	A	A	E	F	C	F	E	F	F	F	D
Approach Vol, veh/h	1288			2674			582			690		
Approach Delay, s/veh	3.5			80.6			88.2			120.5		
Approach LOS	A			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.5	152.8	18.7	22.0	72.3	100.1	20.5	20.2				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	86.9	* 13	16.4	13.0	* 92	* 15	14.6					
Max Q Clear Time (g_c+Rc), s	9.6	13.0	14.2	4.5	94.1	16.8	14.0					
Green Ext Time (p_c), s	0.4	9.7	0.0	0.4	0.1	0.0	0.1					
Intersection Summary												
HCM 2010 Ctrl Delay				67.7								
HCM 2010 LOS				E								
Notes												

HCM 2010 Signalized Intersection Summary
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Year 2035 AM (No Melrose)
25: Town Center Dr & SR-76

North River Farms
09/21/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1250	110	80	1935	80	125		
Future Volume (veh/h)	1250	110	80	1935	80	125		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1359	120	87	2103	87	136		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2535	1281	232	2899	319	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1359	120	87	2103	87	136		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.8	12.6		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.8	12.6		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2535	1281	232	2899	319	253		
V/C Ratio(X)	0.54	0.09	0.38	0.73	0.27	0.54		
Avail Cap(c_a), veh/h	2535	1281	265	2899	385	284		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.81	0.81	0.11	0.11	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.6	61.7		
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.2	0.5	1.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2	0.0	1.8	0.1	1.8	5.7		
LnGrp Delay(d),s/veh	0.7	0.1	69.8	0.2	68.0	63.5		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1479		2190	223				
Approach Delay, s/veh	0.6		2.9	65.3				
Approach LOS	A		A	E				
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	66.5	122.6				139.1		20.9
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	110.0					128.0		17.9
Max Q Clear Time (g_c+I), s	2.0					2.0		14.6
Green Ext Time (p_c), s	0.1	14.0				48.7		0.2
Intersection Summary								
HCM 2010 Ctrl Delay				5.6				
HCM 2010 LOS				A				
Notes								

HCM 2010 Signalized Intersection Summary
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Year 2035 AM (No Melrose)
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	65	215	105	140	95	270	80	1085	215	605	2145	15
Future Volume (veh/h)	65	215	105	140	95	270	80	1085	215	605	2145	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	71	234	114	152	103	293	87	1179	234	658	2332	16
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
Arrive On Green	0.12	0.12	0.12	0.17	0.17	0.17	0.11	0.33	0.33	0.21	0.43	0.43
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	71	234	114	152	103	293	87	1179	234	658	2332	16
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.8	18.9	10.3	11.9	7.4	21.5	7.0	30.7	17.6	28.5	65.7	0.9
Cycle Q Clear(g_c), s	2.8	18.9	10.3	11.9	7.4	21.5	7.0	30.7	17.6	28.5	65.7	0.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
V/C Ratio(X)	0.17	1.01	0.58	0.51	0.33	0.49	0.45	0.70	0.45	0.92	1.06	0.02
Avail Cap(c_a), veh/h	427	231	197	618	649	881	198	1688	526	803	2195	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	66.7	62.9	57.6	55.7	36.3	63.6	44.2	39.9	58.9	43.3	24.8
Incr Delay (d2), s/veh	0.2	62.2	4.2	1.3	0.6	0.6	1.6	1.3	0.6	14.4	38.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	13.7	4.8	5.9	3.9	9.5	3.5	14.6	7.8	15.0	38.5	0.4
LnGrp Delay(d),s/veh	59.8	128.9	67.1	58.9	56.3	36.9	65.2	45.5	40.4	73.3	81.6	24.9
LnGrp LOS	E	F	E	E	E	D	E	D	D	E	F	C
Approach Vol, veh/h	419			548			1500				3006	
Approach Delay, s/veh	100.4			46.6			45.9				79.5	
Approach LOS	F			D			D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.4	58.0		25.0	22.3	73.2		31.7				
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	47.2			18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I), s	32.7			20.9	9.0	67.7		23.5				
Green Ext Time (p_c), s	1.3	7.9		0.0	0.1	0.0		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay						68.6						
HCM 2010 LOS						E						
Notes												

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	615	760	0	0	1800	90	0	0	0	130	0	1320
Future Volume (veh/h)	615	760	0	0	1800	90	0	0	0	130	0	1320
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	668	826	0	0	1957	98				141	0	1435
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	748	4053	0	1	1867	835				382	0	915
Arrive On Green	0.22	0.80	0.00	0.00	0.53	0.53				0.11	0.00	0.11
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	668	826	0	0	1957	98				141	0	1435
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	27.9	5.8	0.0	0.0	78.0	4.6				5.6	0.0	16.4
Cycle Q Clear(g_c), s	27.9	5.8	0.0	0.0	78.0	4.6				5.6	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	748	4053	0	1	1867	835				382	0	915
V/C Ratio(X)	0.89	0.20	0.00	0.00	1.05	0.12				0.37	0.00	1.57
Avail Cap(c_a), veh/h	1031	4053	0	96	1867	835				382	0	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.2	3.6	0.0	0.0	34.9	17.6				60.9	0.0	49.7
Incr Delay (d2), s/veh	7.7	0.0	0.0	0.0	34.7	0.1				0.6	0.0	261.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.7	0.0	0.0	46.9	5.9				2.7	0.0	64.5
LnGrp Delay(d),s/veh	63.9	3.7	0.0	0.0	69.6	17.6				61.5	0.0	310.8
LnGrp LOS	E	A			F	B				E		F
Approach Vol, veh/h	1494			2055			1576					
Approach Delay, s/veh	30.6			67.1			288.5					
Approach LOS	C			E			F					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	0	125.3		22.5	39.8	85.5						
Change Period (Y+Rc), s	5.7	7.5		6.1	7.7	7.5						
Max Green Setting (Gmax), s	116.3			16.4	44	78.0						
Max Q Clear Time (g_c+I), s	7.8			18.4	29.9	80.0						
Green Ext Time (p_c), s	0.0	7.2		0.0	2.3	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay	124.6											
HCM 2010 LOS	F											
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	625	2240	0	0	1550	265	0	0	0	265	0	430
Future Volume (veh/h)	625	2240	0	0	1550	265	0	0	0	265	0	430
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	679	2435	0	0	1685	288	0	0	0	288	0	467
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
Arrive On Green	0.14	0.96	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0
Grp Volume(v), veh/h	679	2435	0	0	1685	288	0	0	0	0	0	0.0
Grp Sat Flow(s),veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	1863	0	0
Q Serve(g_s), s	25.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	25.3	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00		0.00	
Lane Grp Cap(c), veh/h	484	3382	0	0	2772	1240	0	1	0			
V/C Ratio(X)	1.40	0.72	0.00	0.00	0.61	0.23	0.00	0.00	0.00			
Avail Cap(c_a), veh/h	484	3382	0	0	2772	1240	0	455	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.09	0.09	0.00	0.00	0.00			
Uniform Delay (d), s/veh	77.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Incr Delay (d2), s/veh	182.8	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	24.3	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
LnGrp Delay(d),s/veh	260.2	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0			
LnGrp LOS	F	A			A	A						
Approach Vol, veh/h	3114			1973			0					
Approach Delay, s/veh	57.3			0.1			0.0					
Approach LOS	E			A								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		180.0			31.0	149.0		0.0				
Change Period (Y+Rc), s		8.0			5.7	8.0		6.1				
Max Green Setting (Gmax), s		91.9			25	60.9		44.0				
Max Q Clear Time (g_c+I), s		19.6			27.3	2.0		0.0				
Green Ext Time (p_c), s		44.1			0.0	26.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	35.1											
HCM 2010 LOS	D											
Notes												

Year 2035 PM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	50	1955	155	150	1410	70	85	155	185	35	75	35	
Future Volume (veh/h)	50	1955	155	150	1410	70	85	155	185	35	75	35	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00	0.99	1.00		0.99	1.00		0.97		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Adj Flow Rate, veh/h	54	2125	168	163	1533	76	92	168	201	38	82	38	
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	110	1962	990	141	2023	983	246	304	255	195	276	326	
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15	
Sat Flow, veh/h	1774	3539	1582	1774	3539	1563	3442	1863	1562	3442	1863	1534	
Grp Volume(v), veh/h	54	2125	168	163	1533	76	92	168	201	38	82	38	
Grp Sat Flow(s), veh/h/ln	1774	1770	1582	1774	1770	1563	1721	1863	1562	1721	1863	1534	
Q Serve(g_s), s	5.3	99.8	8.0	14.3	0.0	0.0	4.6	14.9	22.2	1.9	7.1	3.6	
Cycle Q Clear(g_c), s	5.3	99.8	8.0	14.3	0.0	0.0	4.6	14.9	22.2	1.9	7.1	3.6	
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	110	1962	990	141	2023	983	246	304	255	195	276	326	
V/C Ratio(X)	0.49	1.08	0.17	1.16	0.76	0.08	0.37	0.55	0.79	0.19	0.30	0.12	
Avail Cap(c_a), veh/h	118	1962	990	141	2023	983	249	455	382	229	445	465	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(i)	0.09	0.09	0.09	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	81.6	40.1	14.1	75.7	0.0	0.0	79.7	69.3	72.4	81.0	68.3	57.5	
Incr Delay (d2), s/veh	0.3	38.5	0.0	117.8	2.3	0.1	0.9	1.6	6.4	0.5	0.6	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	6	59.0	3.5	11.6	0.6	0.0	2.2	7.8	10.1	0.9	3.7	1.5	
LnGrp Delay(d),s/veh	81.9	78.7	14.1	193.5	2.3	0.1	80.7	70.9	78.8	81.5	68.9	57.7	
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E	
Approach Vol, veh/h	2347			1772				461			158		
Approach Delay, s/veh	74.1			19.8				76.3			69.2		
Approach LOS	E			B				E			E		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	20.0	107.8	18.6	33.7	16.9	110.9	15.9	36.3					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0					
Max Green Setting (Gmax), s	83.3	* 13	43.0	* 12	85.6	* 12	44.0						
Max Q Clear Time (g_c+I1), s	101.8	6.6	9.1	7.3	2.0	3.9	24.2						
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	21.7	0.0	1.6					
Intersection Summary													
HCM 2010 Ctrl Delay				53.8									
HCM 2010 LOS				D									
Notes													

HCM 2010 Signalized Intersection Summary
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Year 2035 PM (No Melrose)
19: College Blvd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	745	1600	80	345	1140	740	70	1060	370	600	990	455	
Future Volume (veh/h)	745	1600	80	345	1140	740	70	1060	370	600	990	455	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00	1.00	1.00		0.99	1.00		0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	
Adj Flow Rate, veh/h	810	1739	87	375	1239	804	76	1152	402	652	1076	495	
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	541	1469	561	312	1130	566	224	878	299	465	1450	884	
Arrive On Green	0.31	0.58	0.58	0.09	0.22	0.22	0.07	0.34	0.34	0.14	0.41	0.41	
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	2581	880	3442	3539	1550	
Grp Volume(v), veh/h	810	1739	87	375	1239	804	76	782	772	652	1076	495	
Grp Sat Flow(s), veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1692	1721	1770	1550	
Q Serve(g_s), s	28.3	52.0	4.3	16.3	40.0	40.0	3.8	61.2	61.2	24.3	46.4	36.6	
Cycle Q Clear(g_c), s	28.3	52.0	4.3	16.3	40.0	40.0	3.8	61.2	61.2	24.3	46.4	36.6	
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	541	1469	561	312	1130	566	224	602	575	465	1450	884	
V/C Ratio(X)	1.50	1.18	0.16	1.20	1.10	1.42	0.34	1.30	1.34	1.40	0.74	0.56	
Avail Cap(c_a), veh/h	541	1469	561	312	1130	566	229	602	575	465	1450	884	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(i)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	61.7	38.0	23.1	81.8	70.0	57.8	80.4	59.4	59.4	77.8	45.0	24.8	
Incr Delay (d2), s/veh	227.9	86.0	0.3	118.0	57.1	199.9	0.9	146.5	165.7	194.1	2.1	0.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	80.5	35.6	1.9	12.9	24.7	59.5	1.8	54.4	55.1	24.1	23.1	15.9	
LnGrp Delay(d),s/veh	289.6	124.0	23.4	199.8	127.1	257.7	81.3	205.9	225.1	271.9	47.1	25.6	
LnGrp LOS	F	F	C	F	F	F	F	F	F	F	D	C	
Approach Vol, veh/h	2636			2418				1630			2223		
Approach Delay, s/veh	171.6			181.8				209.2			108.3		
Approach LOS	F			F				F			F		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	20.0	60.0	17.4	80.6	34.0	48.0	30.0	68.0					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8					
Max Green Setting (Gmax), s	52.0	* 12	73.5	* 28	40.0	* 24	61.2						
Max Q Clear Time (g_c+I1), s	54.0	5.8	48.4	30.3	42.0	26.3	63.2						
Green Ext Time (p_c), s	0.0	0.0	0.1	11.3	0.0	0.0	0.0	0.0					
Intersection Summary													
HCM 2010 Ctrl Delay				165.4									
HCM 2010 LOS				F									
Notes													

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	110	2060	180	165	1320	300	115	330	175	310	175	55
Future Volume (veh/h)	110	2060	180	165	1320	300	115	330	175	310	175	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	2239	196	179	1435	326	125	359	190	337	190	60
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1679	3710	1660	229	2175	973	248	370	115	340	352	278
Arrive On Green	0.49	1.00	1.00	0.07	0.61	0.61	0.07	0.07	0.10	0.10	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	120	2239	196	179	1435	326	125	359	190	337	190	60
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	3.3	0.0	0.0	9.2	47.3	29.8	6.3	12.7	13.1	17.6	9.2	3.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.2	47.3	29.8	6.3	12.7	13.1	17.6	9.2	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1679	3710	1660	229	2175	973	248	370	115	340	352	278
V/C Ratio(X)	0.07	0.60	0.12	0.78	0.66	0.34	0.50	0.97	1.65	0.99	0.54	0.22
Avail Cap(c_a), veh/h	1679	3710	1660	229	2175	973	249	370	115	340	352	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.17	0.17	0.17	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	82.7	22.5	46.3	80.4	83.3	83.4	81.0	77.1	53.5
Incr Delay (d2), s/veh	0.0	0.7	0.1	3.0	0.3	0.2	1.6	38.7	327.4	46.0	1.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	0.4	0.1	4.5	23.2	13.1	3.1	7.3	16.2	10.6	4.6	1.2
LnGrp Delay(d), s/veh	24.5	0.7	0.1	85.7	22.8	46.4	82.0	122.0	410.8	127.0	78.8	53.9
LnGrp LOS	C	A	A	F	C	D	F	F	F	F	E	D
Approach Vol, veh/h	2555			1940			674			587		
Approach Delay, s/veh	1.8			32.5			196.0			103.9		
Approach LOS	A			C			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	199.0	18.7	24.0	98.1	118.6	23.5	19.2				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	111.6	* 13	17.9	13.0	1.1E2	* 18	13.1					
Max Q Clear Time (g_c+I), s	2.0	8.3	11.2	5.3	49.3	19.6	15.1					
Green Ext Time (p_c), s	0.0	47.0	0.1	0.7	0.2	20.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				45.3								
HCM 2010 LOS				D								
Notes												

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1855	265	165	1405	155	295		
Future Volume (veh/h)	1855	265	165	1405	155	295		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2016	288	179	1527	168	321		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2594	1307	221	2934	319	249		
Arrive On Green	0.97	0.97	0.13	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	2016	288	179	1527	168	321		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	10.7	0.7	9.1	0.0	8.4	16.7		
Cycle Q Clear(g_c), s	10.7	0.7	9.1	0.0	8.4	16.7		
Prop In Lane	1.00	1.00		1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2594	1307	221	2934	319	249		
V/C Ratio(X)	0.78	0.22	0.81	0.52	0.53	1.29		
Avail Cap(c_a), veh/h	2594	1307	503	2934	319	249		
HCM Platoon Ratio	1.33	1.33	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.29	0.29	1.00	1.00		
Uniform Delay (d), s/veh	0.7	0.3	77.3	0.0	77.9	75.9		
Incr Delay (d2), s/veh	0.2	0.0	2.1	0.2	1.6	157.3		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	8.9	0.4	4.4	0.1	4.1	23.3		
LnGrp Delay(d), s/veh	1.0	0.3	79.4	0.2	79.5	233.2		
LnGrp LOS	A	A	E	A	E	F		
Approach Vol, veh/h	2304		1706		489			
Approach Delay, s/veh	0.9		8.5		180.4			
Approach LOS	A		A		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.3	139.9				157.2		22.8
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	117.2					149.2		16.7
Max Q Clear Time (g_c+I), s	12.7					2.0		18.7
Green Ext Time (p_c), s	0.5	37.1				21.5		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			23.3					
HCM 2010 LOS			C					
Notes								

Year 2035 PM (No Melrose)
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

Diagram showing traffic movements and data tables for intersection 26. Movements include Lane Configurations, Traffic Volume, Future Volume, Number, Initial Q, Ped-Bike Adj, Parking Bus, Adj Sat Flow, Adj Flow Rate, Adj No. of Lanes, Peak Hour Factor, Percent Heavy Veh, Cap, Arrive On Green, Sat Flow, Grp Volume, Grp Sat Flow, Q Serve, Cycle Q Clear, Prop In Lane, Lane Grp Cap, V/C Ratio, Avail Cap, HCM Platoon Ratio, Upstream Filter, Uniform Delay, Incr Delay, Initial Q Delay, %ile BackOfQ, LnGrp Delay, LnGrp LOS, Approach Vol, Approach Delay, and Approach LOS. A Timer table shows assigned phases and durations. An Intersection Summary table shows HCM 2010 Ctrl Delay and LOS. A Notes section is also present.

HCM 2010 Signalized Intersection Summary
N:\2596\Analysis\Synchro\Long Term\No Melrose\14_Year 2035B PM.syn

Year 2035 PM (No Melrose)
27: SR-76 & S Mission Rd

North River Farms
09/27/2018

Diagram showing traffic movements and data tables for intersection 27. Movements include Lane Configurations, Traffic Volume, Future Volume, Number, Initial Q, Ped-Bike Adj, Parking Bus, Adj Sat Flow, Adj Flow Rate, Adj No. of Lanes, Peak Hour Factor, Percent Heavy Veh, Cap, Arrive On Green, Sat Flow, Grp Volume, Grp Sat Flow, Q Serve, Cycle Q Clear, Prop In Lane, Lane Grp Cap, V/C Ratio, Avail Cap, HCM Platoon Ratio, Upstream Filter, Uniform Delay, Incr Delay, Initial Q Delay, %ile BackOfQ, LnGrp Delay, LnGrp LOS, Approach Vol, Approach Delay, and Approach LOS. A Timer table shows assigned phases and durations. An Intersection Summary table shows HCM 2010 Ctrl Delay and LOS. A Notes section is also present.

HCM 2010 Signalized Intersection Summary
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Year 2035 + Proj AM (No Melrose)
15: SR-76 & Douglas Dr

North River Farms
09/27/2018

	↖	→	↗	↙	←	↘	↖	↗	↙	↘	↖	↗	↙	↘
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖	↖			↖	↖			↖	↖		↖		↖
Traffic Volume (veh/h)	298	1087	0	0	1963	215	0	0	0	275	0	595		
Future Volume (veh/h)	298	1087	0	0	1963	215	0	0	0	275	0	595		
Number	5	2	12	1	6	16	3	8	18	7	4	14		
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863		
Adj Flow Rate, veh/h	324	1182	0	0	2134	234	0	0	0	299	0	647		
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2		
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		
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2		
Cap, veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0		
Arrive On Green	0.08	0.95	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00		
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	0	0	0		
Grp Volume(v), veh/h	324	1182	0	0	2134	234	0	0	0	0	0	0		
Grp Sat Flow(s),veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	0	0	0		
Q Serve(g_s), s	13.3	4.0	0.0	0.0	87.4	18.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	13.3	4.0	0.0	0.0	87.4	18.0	0.0	0.0	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lane Grp Cap(c), veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0		
V/C Ratio(X)	1.13	0.35	0.00	0.00	0.73	0.18	0.00	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	286	3362	0	0	2942	1316	0	1	0	0	0	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.70	0.70	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00		
Uniform Delay (d), s/veh	73.3	0.3	0.0	0.0	41.5	16.3	0.0	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	85.9	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	9.7	1.9	0.0	0.0	43.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	159.2	0.5	0.0	0.0	41.7	16.4	0.0	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	F	A			D	B								
Approach Vol, veh/h		1506			2368				0					
Approach Delay, s/veh		34.6			39.2				0.0					
Approach LOS		C			D									
Timer	1	2	3	4	5	6	7	8						
Assigned Phs		2			5	6		8						
Phs Duration (G+Y+Rc), s		160.0			19.0	141.0		0.0						
Change Period (Y+Rc), s		8.0			* 5.7	8.0		6.1						
Max Green Setting (Gmax), s		74.9			* 13	55.9		44.0						
Max Q Clear Time (g_c+I1), s		6.0			15.3	89.4		0.0						
Green Ext Time (p_c), s		10.2			0.0	0.0		0.0						
Intersection Summary														
HCM 2010 Ctrl Delay						37.4								
HCM 2010 LOS						D								
Notes														

Year 2035 + Proj AM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018

	↖	→	↗	↙	←	↘	↖	↗	↙	↘	↖	↗	↙	↘
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖		
Traffic Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70		
Future Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70		
Number	5	2	12	1	6	16	3	8	18	7	4	14		
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76		
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1		
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		
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2		
Cap, veh/h	121	2028	1031	130	2045	1031	272	216	183	252	205	281		
Arrive On Green	0.07	0.57	0.57	0.10	0.77	0.77	0.08	0.12	0.12	0.07	0.11	0.11		
Sat Flow, veh/h	1774	3539	1582	1774	3539	1583	3442	1863	1583	3442	1863	1570		
Grp Volume(v), veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76		
Grp Sat Flow(s),veh/h/ln	1774	1770	1582	1774	1770	1583	1721	1863	1583	1721	1863	1570		
Q Serve(g_s), s	4.7	32.2	3.2	7.1	67.8	1.5	3.6	7.4	13.8	3.8	12.7	6.7		
Cycle Q Clear(g_c), s	4.7	32.2	3.2	7.1	67.8	1.5	3.6	7.4	13.8	3.8	12.7	6.7		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	121	2028	1031	130	2045	1031	272	216	183	252	205	281		
V/C Ratio(X)	0.45	0.56	0.08	0.63	0.92	0.07	0.30	0.43	0.77	0.34	0.74	0.27		
Avail Cap(c_a), veh/h	133	2028	1031	165	2045	1031	280	512	435	258	501	530		
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.59	0.59	0.59	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	71.6	21.5	10.2	70.2	15.7	5.5	69.5	65.8	68.7	70.4	69.0	56.8		
Incr Delay (d2), s/veh	1.5	0.7	0.1	3.2	5.6	0.1	0.6	1.3	6.7	0.8	5.2	0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.3	15.9	1.4	3.6	33.7	0.7	1.7	3.9	6.4	1.8	6.8	2.9		
LnGrp Delay(d),s/veh	73.2	22.1	10.3	73.3	21.3	5.6	70.1	67.1	75.3	71.2	74.3	57.3		
LnGrp LOS	E	C	B	E	C	A	E	E	E	E	E	E		
Approach Vol, veh/h		1274			2042			315				313		
Approach Delay, s/veh		23.5			22.8			71.6				69.3		
Approach LOS		C			C			E				E		
Timer	1	2	3	4	5	6	7	8						
Assigned Phs		1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s		99.7	18.4	24.6	16.6	100.4	17.4	25.5						
Change Period (Y+Rc), s		8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0						
Max Green Setting (Gmax), s		62.7	* 13	43.0	* 12	65.6	* 12	44.0						
Max Q Clear Time (g_c+I1), s		34.2	5.6	14.7	6.7	69.8	5.8	15.8						
Green Ext Time (p_c), s		0.1	8.7	0.1	1.1	0.0	0.0	0.1	1.0					
Intersection Summary														
HCM 2010 Ctrl Delay									30.6					
HCM 2010 LOS									C					
Notes														

Year 2035 + Proj AM (No Melrose)
 19: College Blvd & SR-76

North River Farms
 09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↔	↔↔	↔↔	↔	↔↔	↔↔	↔↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	495	900	45	625	1565	627	60	537	225	733	875	393
Future Volume (veh/h)	495	900	45	625	1565	627	60	537	225	733	875	393
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00	0.99	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	538	978	49	679	1701	682	65	584	245	797	951	427
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	1138	461	669	1513	731	244	614	257	566	1229	739
Arrive On Green	0.16	0.30	0.30	0.19	0.30	0.30	0.07	0.25	0.25	0.16	0.35	0.35
Sat Flow, veh/h	3442	5085	1561	3442	5085	1583	3442	2421	1014	3442	3539	1579
Grp Volume(v), veh/h	538	978	49	679	1701	682	65	427	402	797	951	427
Grp Sat Flow(s),veh/h/ln	1721	1695	1561	1721	1695	1583	1721	1770	1666	1721	1770	1579
Q Serve(g_s), s	19.3	29.0	3.3	31.1	47.6	47.6	2.9	37.9	38.0	26.3	38.4	31.5
Cycle Q Clear(g_c), s	19.3	29.0	3.3	31.1	47.6	47.6	2.9	37.9	38.0	26.3	38.4	31.5
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	415	1138	461	669	1513	731	244	449	423	566	1229	739
V/C Ratio(X)	1.30	0.86	0.11	1.01	1.12	0.93	0.27	0.95	0.95	1.41	0.77	0.58
Avail Cap(c_a), veh/h	415	1138	461	669	1513	731	258	453	427	566	1229	739
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.2	53.8	37.1	64.4	56.2	40.7	70.4	58.7	58.7	66.8	46.6	31.0
Incr Delay (d2), s/veh	147.6	7.3	0.4	38.6	65.2	20.4	0.6	29.7	31.4	194.3	3.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	14.4	1.5	18.4	31.4	32.6	1.4	22.3	21.2	27.8	19.3	14.0
LnGrp Delay(d),s/veh	214.7	61.1	37.5	103.0	121.4	61.1	71.0	88.4	90.1	261.2	49.7	32.2
LnGrp LOS	F	E	D	F	F	E	E	F	F	F	D	C
Approach Vol, veh/h	1565			3062			894			2175		
Approach Delay, s/veh	113.2			103.9			87.9			123.8		
Approach LOS	F			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.8	43.8	17.0	62.4	25.0	55.6	32.0	47.4				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8				
Max Green Setting (Gmax), s	35.4	* 12	55.3	* 19	47.2	* 26	41.0					
Max Q Clear Time (g_c+R), s	31.0	4.9	40.4	21.3	49.6	28.3	40.0					
Green Ext Time (p_c), s	0.0	2.3	0.1	7.4	0.0	0.0	0.5					
Intersection Summary												
HCM 2010 Ctrl Delay				109.5								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
 24: Foussat Rd & SR-76

North River Farms
 09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔	↔	↔↔	↔↔	↔	↔↔	↔↔	↔↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	80	1035	85	242	2116	150	220	205	115	330	255	50
Future Volume (veh/h)	80	1035	85	242	2116	150	220	205	115	330	255	50
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	87	1125	92	263	2300	163	239	223	125	359	277	54
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1713	3530	1579	311	2037	911	280	397	124	364	363	286
Arrive On Green	0.50	1.00	1.00	0.09	0.58	0.58	0.08	0.08	0.08	0.11	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	87	1125	92	263	2300	163	239	223	125	359	277	54
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	2.1	0.2	0.0	12.0	92.1	12.2	11.0	6.8	12.5	16.7	12.2	2.3
Cycle Q Clear(g_c), s	2.1	0.2	0.0	12.0	92.1	12.2	11.0	6.8	12.5	16.7	12.2	2.3
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1713	3530	1579	311	2037	911	280	397	124	364	363	286
V/C Ratio(X)	0.05	0.32	0.06	0.85	1.13	0.18	0.85	0.56	1.01	0.99	0.76	0.19
Avail Cap(c_a), veh/h	1713	3530	1579	411	2037	911	280	397	124	364	363	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.14	0.14	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	71.7	34.0	39.3	72.6	71.1	73.8	71.4	69.9	45.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	2.0	59.1	0.1	21.9	1.8	83.7	43.7	9.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	5.8	61.4	5.4	6.1	3.2	8.4	10.1	6.4	0.9
LnGrp Delay(d),s/veh	20.7	0.2	0.1	73.6	93.1	39.4	94.5	72.9	157.6	115.2	79.2	45.3
LnGrp LOS	C	A	A	E	F	D	F	E	F	F	E	D
Approach Vol, veh/h	1304			2726			587			690		
Approach Delay, s/veh	1.6			88.0			99.7			95.3		
Approach LOS	A			F			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	169.6	18.7	22.5	89.7	100.1	22.6	18.6				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	8.0	* 8	* 5.7	6.1				
Max Green Setting (Gmax), s	86.0	* 13	16.4	13.0	* 92	* 17	12.5					
Max Q Clear Time (g_c+R), s	2.2	13.0	14.2	4.1	94.1	18.7	14.5					
Green Ext Time (p_c), s	0.4	9.9	0.0	0.4	0.1	0.0	0.0					
Intersection Summary												
HCM 2010 Ctrl Delay				69.0								
HCM 2010 LOS				E								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑↓	↑↑	↑↓	↑		
Traffic Volume (veh/h)	1270	110	80	1983	80	125		
Future Volume (veh/h)	1270	110	80	1983	80	125		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1380	120	87	2155	87	136		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2536	1281	232	2900	318	253		
Arrive On Green	1.00	1.00	0.09	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	1380	120	87	2155	87	136		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	0.0	0.0	3.8	0.0	3.8	12.6		
Cycle Q Clear(g_c), s	0.0	0.0	3.8	0.0	3.8	12.6		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2536	1281	232	2900	318	253		
V/C Ratio(X)	0.54	0.09	0.38	0.74	0.27	0.54		
Avail Cap(c_a), veh/h	2536	1281	265	2900	364	274		
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00		
Upstream Filter(I)	0.80	0.80	0.11	0.11	1.00	1.00		
Uniform Delay (d), s/veh	0.0	0.0	69.7	0.0	67.6	61.8		
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.2	0.5	1.8		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	0.2	0.0	1.8	0.1	1.8	5.7		
LnGrp Delay(d), s/veh	0.7	0.1	69.8	0.2	68.1	63.6		
LnGrp LOS	A	A	E	A	E	E		
Approach Vol, veh/h	1500		2242	223				
Approach Delay, s/veh	0.6		2.9	65.3				
Approach LOS	A		A	E				
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	122.6	122.6				139.1		20.9
Change Period (Y+Rc), s	5.7	8.0				8.0		6.1
Max Green Setting (Gmax), s	111.0					129.0		16.9
Max Q Clear Time (g_c+I), s	2.0					2.0		14.6
Green Ext Time (p_c), s	0.1	14.4				52.2		0.2
Intersection Summary								
HCM 2010 Ctrl Delay				5.6				
HCM 2010 LOS				A				
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
26: SR-76 & Olive Hill Rd/Camino Del Rey

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↓	↑	↑	↑↓	↑	↑	↑	↑↑↑	↑	↑↓	↑↑↑	↑
Traffic Volume (veh/h)	65	215	105	143	95	270	80	1129	223	605	2163	15
Future Volume (veh/h)	65	215	105	143	95	270	80	1129	223	605	2163	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	71	234	114	155	103	293	87	1227	242	658	2351	16
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
Arrive On Green	0.12	0.12	0.12	0.17	0.17	0.17	0.11	0.33	0.33	0.21	0.43	0.43
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	71	234	114	155	103	293	87	1227	242	658	2351	16
Grp Sat Flow(s), veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1695	1583	1721	1695	1583
Q Serve(g_s), s	2.8	18.9	10.3	12.1	7.4	21.5	7.0	32.3	18.3	28.5	65.7	0.9
Cycle Q Clear(g_c), s	2.8	18.9	10.3	12.1	7.4	21.5	7.0	32.3	18.3	28.5	65.7	0.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427	231	197	299	314	597	193	1688	526	718	2195	683
V/C Ratio(X)	0.17	1.01	0.58	0.52	0.33	0.49	0.45	0.73	0.46	0.92	1.07	0.02
Avail Cap(c_a), veh/h	427	231	197	618	649	881	198	1688	526	803	2195	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	66.7	62.9	57.7	55.7	36.2	63.6	44.8	40.1	59.0	43.3	24.8
Incr Delay (d2), s/veh	0.2	62.2	4.2	1.4	0.6	0.6	1.6	1.6	0.6	14.4	41.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4	13.7	4.8	6.1	3.9	9.5	3.5	15.4	8.1	15.0	39.1	0.4
LnGrp Delay(d), s/veh	59.8	129.0	67.1	59.0	56.3	36.9	65.2	46.4	40.7	73.3	84.8	24.9
LnGrp LOS	E	F	E	E	E	D	E	D	D	E	F	C
Approach Vol, veh/h	419			551			1556				3025	
Approach Delay, s/veh	100.4			46.7			46.5				82.0	
Approach LOS	F			D			D				F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.4	58.0		25.0	22.3	73.2		31.8				
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	47.2			18.9	* 17	65.7		53.0				
Max Q Clear Time (g_c+I), s	34.3			20.9	9.0	67.7		23.5				
Green Ext Time (p_c), s	1.3	7.5		0.0	0.1	0.0		2.1				
Intersection Summary												
HCM 2010 Ctrl Delay						69.9						
HCM 2010 LOS						E						
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔				↔	↔	↔
Traffic Volume (veh/h)	631	788	0	0	1812	90	0	0	0	130	0	1327
Future Volume (veh/h)	631	788	0	0	1812	90	0	0	0	130	0	1327
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	686	857	0	0	1970	98				141	0	1442
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	765	4060	0	1	1855	830				379	0	927
Arrive On Green	0.22	0.80	0.00	0.00	0.52	0.52				0.11	0.00	0.11
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	686	857	0	0	1970	98				141	0	1442
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	28.8	6.1	0.0	0.0	78.0	4.7				5.7	0.0	16.4
Cycle Q Clear(g_c), s	28.8	6.1	0.0	0.0	78.0	4.7				5.7	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	765	4060	0	1	1855	830				379	0	927
V/C Ratio(X)	0.90	0.21	0.00	0.00	1.06	0.12				0.37	0.00	1.56
Avail Cap(c_a), veh/h	1025	4060	0	95	1855	830				379	0	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.2	3.6	0.0	0.0	35.4	18.0				61.4	0.0	49.7
Incr Delay (d2), s/veh	8.3	0.0	0.0	0.0	39.5	0.1				0.6	0.0	255.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6	2.8	0.0	0.0	48.1	6.0				2.7	0.0	64.7
LnGrp Delay(d),s/veh	64.5	3.7	0.0	0.0	74.9	18.0				62.0	0.0	305.1
LnGrp LOS	E	A			F	B				E		F
Approach Vol, veh/h	1543			2068						1583		
Approach Delay, s/veh	30.7			72.2						283.4		
Approach LOS	C			E						F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	0	126.3		22.5	40.8	85.5						
Change Period (Y+Rc), s	5.7	7.5		6.1	7.7	7.5						
Max Green Setting (Gmax), s	116.3			16.4	44	78.0						
Max Q Clear Time (g_c+1t), s	8.1			18.4	30.8	80.0						
Green Ext Time (p_c), s	0.0	7.6		0.0	2.3	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay				124.3								
HCM 2010 LOS				F								
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔			↔	↔				↔	↔	↔
Traffic Volume (veh/h)	650	2275	0	0	1568	265	0	0	0	265	0	443
Future Volume (veh/h)	650	2275	0	0	1568	265	0	0	0	265	0	443
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	707	2473	0	0	1704	288	0	0	0	288	0	482
Adj No. of Lanes	2	2	0	0	2	1	0	1	0	1	0	2
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
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
Arrive On Green	0.14	0.96	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	3632	0	0	3632	1583	0	1863	0	1863	0	0
Grp Volume(v), veh/h	707	2473	0	0	1704	288	0	0	0	0	0	0.0
Grp Sat Flow(s),veh/h/ln	1721	1770	0	0	1770	1583	0	1863	0	1863	0	0
Q Serve(g_s), s	25.3	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	25.3	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00	0.00	0.00		0.00	0.00
Lane Grp Cap(c), veh/h	484	3382	0	0	2772	1240	0	1	0	0	0	0
V/C Ratio(X)	1.46	0.73	0.00	0.00	0.61	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	484	3382	0	0	2772	1240	0	455	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	77.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	208.7	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.1	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	286.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	F	A			A	A						
Approach Vol, veh/h	3180			1992						0		
Approach Delay, s/veh	64.2			0.1						0.0		
Approach LOS	E			A								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		180.0			31.0	149.0		0.0				
Change Period (Y+Rc), s		8.0			5.7	8.0		6.1				
Max Green Setting (Gmax), s		91.9			25	60.9		44.0				
Max Q Clear Time (g_c+1t), s		20.6			27.3	2.0		0.0				
Green Ext Time (p_c), s		45.1			0.0	26.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				39.5								
HCM 2010 LOS				D								
Notes												

Year 2035 + Proj PM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
Traffic Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35	
Future Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	0.99	1.00	0.99	1.00	1.00	0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Adj Flow Rate, veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38	
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	110	1947	983	141	2008	983	246	304	255	210	284	332	
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15	
Sat Flow, veh/h	1774	3539	1582	1774	3539	1563	3442	1863	1562	3442	1863	1535	
Grp Volume(v), veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38	
Grp Sat Flow(s), veh/h/ln	1774	1770	1582	1774	1770	1563	1721	1863	1562	1721	1863	1535	
Q Serve(g_s), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6	
Cycle Q Clear(g_c), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6	
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	110	1947	983	141	2008	983	246	304	255	210	284	332	
V/C Ratio(X)	0.49	1.12	0.17	1.16	0.78	0.08	0.37	0.55	0.79	0.23	0.29	0.11	
Avail Cap(c_a), veh/h	118	1947	983	141	2008	983	249	455	382	229	445	465	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.09	0.09	0.09	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	81.6	40.5	14.4	75.7	0.0	0.0	79.7	69.3	72.4	80.5	67.6	56.9	
Incr Delay (d2), s/veh	0.3	54.7	0.0	117.5	2.5	0.1	0.9	1.6	6.4	0.6	0.6	0.2	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	6	62.9	3.5	11.6	0.7	0.0	2.2	7.8	10.1	1.2	3.7	1.5	
LnGrp Delay(d), s/veh	81.9	95.2	14.5	193.2	2.5	0.1	80.7	70.9	78.8	81.1	68.2	57.1	
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E	
Approach Vol, veh/h	2402			1806				461			169		
Approach Delay, s/veh	89.3			19.6				76.3			69.4		
Approach LOS	F			B				E			E		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	20.0	107.0	18.6	34.4	16.9	110.1	16.7	36.3					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0					
Max Green Setting (Gmax), s	4	83.3	* 13	43.0	* 12	85.6	* 12	44.0					
Max Q Clear Time (g_c+I), s	4	101.0	6.6	9.0	7.3	2.0	4.4	24.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	22.6	0.0	1.6					
Intersection Summary													
HCM 2010 Ctrl Delay				61.3									
HCM 2010 LOS				E									
Notes													

Year 2035 + Proj PM (No Melrose)
19: College Blvd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
Traffic Volume (veh/h)	806	1600	80	345	1140	821	70	1156	370	641	1039	486	
Future Volume (veh/h)	806	1600	80	345	1140	821	70	1156	370	641	1039	486	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	0.99	1.00	0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	
Adj Flow Rate, veh/h	876	1739	87	375	1239	892	76	1257	402	697	1129	528	
Adj No. of Lanes	2	3	1	2	3	1	2	2	0	2	2	1	
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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	541	1469	561	312	1130	566	224	901	280	465	1450	884	
Arrive On Green	0.31	0.58	0.58	0.09	0.22	0.22	0.07	0.34	0.34	0.14	0.41	0.41	
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	2649	823	3442	3539	1550	
Grp Volume(v), veh/h	876	1739	87	375	1239	892	76	827	832	697	1129	528	
Grp Sat Flow(s), veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1703	1721	1770	1550	
Q Serve(g_s), s	28.3	52.0	4.3	16.3	40.0	40.0	3.8	61.2	61.2	24.3	49.8	40.3	
Cycle Q Clear(g_c), s	28.3	52.0	4.3	16.3	40.0	40.0	3.8	61.2	61.2	24.3	49.8	40.3	
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	541	1469	561	312	1130	566	224	602	579	465	1450	884	
V/C Ratio(X)	1.62	1.18	0.16	1.20	1.10	1.58	0.34	1.38	1.44	1.50	0.78	0.60	
Avail Cap(c_a), veh/h	541	1469	561	312	1130	566	229	602	579	465	1450	884	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	61.7	38.0	23.1	81.8	70.0	57.8	80.4	59.4	59.4	77.8	46.0	25.6	
Incr Delay (d2), s/veh	281.9	85.7	0.2	118.0	57.1	268.1	0.9	179.1	206.1	236.1	2.8	1.1	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	6	35.6	1.9	12.9	24.7	70.2	1.8	59.9	61.9	26.8	24.9	17.4	
LnGrp Delay(d), s/veh	343.6	123.7	23.3	199.8	127.1	326.0	81.3	238.5	265.5	314.0	48.8	26.7	
LnGrp LOS	F	F	C	F	F	F	F	F	F	F	D	C	
Approach Vol, veh/h	2702			2506				1735			2354		
Approach Delay, s/veh	191.8			208.8				244.6			122.4		
Approach LOS	F			F				F			F		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	20.0	60.0	17.4	80.6	34.0	48.0	30.0	68.0					
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.8	* 5.7	8.0	* 5.7	6.8					
Max Green Setting (Gmax), s	4	52.0	* 12	73.5	* 28	40.0	* 24	61.2					
Max Q Clear Time (g_c+I), s	4	54.0	5.8	51.8	30.3	42.0	26.3	63.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	11.2	0.0	0.0	0.0	0.0					
Intersection Summary													
HCM 2010 Ctrl Delay				188.6									
HCM 2010 LOS				F									
Notes													

Year 2035 + Proj PM (No Melrose)
24: Fousat Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	110	2106	180	173	1343	300	115	330	190	310	175	55
Future Volume (veh/h)	110	2106	180	173	1343	300	115	330	190	310	175	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	2289	196	188	1460	326	125	359	207	337	190	60
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1679	3710	1660	229	2175	973	248	370	115	340	352	278
Arrive On Green	0.49	1.00	1.00	0.07	0.61	0.61	0.07	0.07	0.10	0.10	0.10	0.10
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	120	2289	196	188	1460	326	125	359	207	337	190	60
Grp Sat Flow(s), veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1393
Q Serve(g_s), s	3.3	0.0	0.0	9.7	48.7	29.8	6.3	12.7	13.1	17.6	9.2	3.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.7	48.7	29.8	6.3	12.7	13.1	17.6	9.2	3.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1679	3710	1660	229	2175	973	248	370	115	340	352	278
V/C Ratio(X)	0.07	0.62	0.12	0.82	0.67	0.34	0.50	0.97	1.80	0.99	0.54	0.22
Avail Cap(c_a), veh/h	1679	3710	1660	229	2175	973	249	370	115	340	352	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.11	0.11	0.11	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	82.9	22.8	46.3	80.4	83.3	83.4	81.0	77.1	53.5
Incr Delay (d2), s/veh	0.0	0.8	0.1	2.6	0.2	0.1	1.6	38.7	390.7	46.0	1.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	0.4	0.1	4.7	23.8	13.1	3.1	7.3	18.3	10.6	4.6	1.2
LnGrp Delay(d), s/veh	24.5	0.8	0.1	85.6	23.0	46.4	82.0	122.0	474.1	127.0	78.8	53.9
LnGrp LOS	C	A	A	F	C	D	F	F	F	F	E	D
Approach Vol, veh/h	2605			1974			691			587		
Approach Delay, s/veh	1.8			32.8			220.3			103.9		
Approach LOS	A			C			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	199.0	18.7	24.0	98.1	118.6	23.5	19.2				
Change Period (Y+Rc), s	5.7	8.0	5.7	6.1	8.0	8	5.7	6.1				
Max Green Setting (Gmax), s	111.6	13	17.9	13.0	1.1E2	18	13.1					
Max Q Clear Time (g_c+I), s	2.0	8.3	11.2	5.3	50.7	19.6	15.1					
Green Ext Time (p_c), s	0.0	49.8	0.1	0.7	0.2	21.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				48.3								
HCM 2010 LOS				D								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (No Melrose)
25: Town Center Dr & SR-76

North River Farms
09/27/2018

Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↔	↔	↔	↔	↔	↔		
Traffic Volume (veh/h)	1916	265	165	1436	155	295		
Future Volume (veh/h)	1916	265	165	1436	155	295		
Number	2	12	1	6	3	18		
Initial Q (Ob), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2083	288	179	1561	168	321		
Adj No. of Lanes	2	1	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2594	1308	221	2934	319	249		
Arrive On Green	0.97	0.97	0.13	1.00	0.09	0.09		
Sat Flow, veh/h	3632	1583	3442	3632	3442	1583		
Grp Volume(v), veh/h	2083	288	179	1561	168	321		
Grp Sat Flow(s), veh/h/ln	1770	1583	1721	1770	1721	1583		
Q Serve(g_s), s	12.2	0.7	9.1	0.0	8.4	16.7		
Cycle Q Clear(g_c), s	12.2	0.7	9.1	0.0	8.4	16.7		
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	2594	1308	221	2934	319	249		
V/C Ratio(X)	0.80	0.22	0.81	0.53	0.53	1.29		
Avail Cap(c_a), veh/h	2594	1308	465	2934	319	249		
HCM Platoon Ratio	1.33	1.33	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.28	0.28	1.00	1.00		
Uniform Delay (d), s/veh	0.8	0.3	77.4	0.0	77.9	75.9		
Incr Delay (d2), s/veh	0.3	0.0	2.1	0.2	1.6	157.9		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%), veh/ln	4	0.4	4.4	0.1	4.1	23.3		
LnGrp Delay(d), s/veh	1.0	0.3	79.4	0.2	79.5	233.7		
LnGrp LOS	A	A	E	A	E	F		
Approach Vol, veh/h	2371		1740		489			
Approach Delay, s/veh	0.9		8.3		180.7			
Approach LOS	A		A		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	139.9					157.2		22.8
Change Period (Y+Rc), s	8.0					8.0		6.1
Max Green Setting (Gmax), s	119.2					149.2		16.7
Max Q Clear Time (g_c+I), s	14.2					2.0		18.7
Green Ext Time (p_c), s	0.4	40.3				22.6		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			22.8					
HCM 2010 LOS			C					
Notes								

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	115	65	95	160	110	350	150	2558	140	240	1361	65
Future Volume (veh/h)	115	65	95	160	110	350	150	2558	140	240	1361	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	125	71	103	174	120	380	163	2780	152	261	1479	71
Adj No. of Lanes	2	1	1	1	1	1	1	3	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	148	126	190	200	309	184	2956	920	302	2876	895
Arrive On Green	0.08	0.08	0.08	0.11	0.11	0.11	0.10	0.58	0.58	0.09	0.57	0.57
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	1774	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	125	71	103	174	120	380	163	2780	152	261	1479	71
Grp Sat Flow(s), veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Q Serve(g_s), s	6.1	6.4	11.3	17.1	10.8	18.9	16.0	88.9	7.8	13.2	31.4	3.6
Cycle Q Clear(g_c), s	6.1	6.4	11.3	17.1	10.8	18.9	16.0	88.9	7.8	13.2	31.4	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	148	126	190	200	309	184	2956	920	302	2876	895
V/C Ratio(X)	0.46	0.48	0.82	0.91	0.60	1.23	0.89	0.94	0.17	0.86	0.51	0.08
Avail Cap(c_a), veh/h	281	152	129	190	200	309	269	2973	926	358	2876	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.4	77.6	79.8	77.8	75.0	70.9	77.9	34.1	17.1	79.3	23.4	17.4
Incr Delay (d2), s/veh	1.2	2.4	31.6	41.8	4.9	128.8	20.9	6.9	0.1	17.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	6.1	10.6	5.9	26.1	8.9	43.3	3.4	7.0	14.7	1.6
LnGrp Delay(d),s/veh	78.6	80.0	111.5	119.7	79.9	199.7	98.9	40.9	17.2	96.4	23.6	17.4
LnGrp LOS	E	E	F	F	E	F	F	D	B	F	C	B
Approach Vol, veh/h	299			674			3095			1811		
Approach Delay, s/veh	90.3			157.7			42.8			33.9		
Approach LOS	F			F			D			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.2	109.9		20.1	23.9	107.1		25.0				
Change Period (Y+Rc), s	5.7	7.5		6.1	5.7	7.5		6.1				
Max Green Setting (Gmax), s	103.0			14.4	27	94.6		18.9				
Max Q Clear Time (g_c+I), s	90.9			13.3	18.0	33.4		20.9				
Green Ext Time (p_c), s	0.3	11.5		0.1	0.3	17.8		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				55.6								
HCM 2010 LOS				E								
Notes												

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	1490	1438	0	0	1100	160	0	0	0	175	0	655
Future Volume (veh/h)	1490	1438	0	0	1100	160	0	0	0	175	0	655
Number	5	2	12	1	6	16				7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	1620	1563	0	0	1196	174				190	0	712
Adj No. of Lanes	2	3	0	1	2	1				2	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2				2	0	2
Cap, veh/h	1574	4238	0	1	1180	528				314	0	1528
Arrive On Green	0.46	0.83	0.00	0.00	0.33	0.33				0.09	0.00	0.09
Sat Flow, veh/h	3442	5253	0	1774	3539	1583				3442	0	2787
Grp Volume(v), veh/h	1620	1563	0	0	1196	174				190	0	712
Grp Sat Flow(s), veh/h/ln	1721	1695	0	1774	1770	1583				1721	0	1393
Q Serve(g_s), s	82.3	13.3	0.0	0.0	60.0	14.8				9.6	0.0	16.4
Cycle Q Clear(g_c), s	82.3	13.3	0.0	0.0	60.0	14.8				9.6	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	1574	4238	0	1	1180	528				314	0	1528
V/C Ratio(X)	1.03	0.37	0.00	0.00	1.01	0.33				0.61	0.00	0.47
Avail Cap(c_a), veh/h	1574	4238	0	79	1180	528				314	0	1528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	48.8	3.6	0.0	0.0	60.0	44.9				78.7	0.0	24.7
Incr Delay (d2), s/veh	30.6	0.1	0.0	0.0	29.7	0.4				3.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	45.8	6.1	0.0	0.0	34.2	14.5				4.7	0.0	25.8
LnGrp Delay(d),s/veh	79.4	3.7	0.0	0.0	89.7	45.3				82.0	0.0	24.9
LnGrp LOS	F	A			F	D				F		C
Approach Vol, veh/h	3183				1370						902	
Approach Delay, s/veh	42.2				84.0						36.9	
Approach LOS	D				F						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	0.0	157.5		22.5	90.0	67.5						
Change Period (Y+Rc), s	5.7	7.5		6.1	7.7	7.5						
Max Green Setting (Gmax), s	136.3			16.4	82	60.0						
Max Q Clear Time (g_c+I), s	15.3			18.4	84.3	62.0						
Green Ext Time (p_c), s	0.0	20.4		0.0	0.0	0.0						
Intersection Summary												
HCM 2010 Ctrl Delay					51.8							
HCM 2010 LOS					D							
Notes												

ATTACHMENT C

INTERSECTION ANALYSIS TABLE – ADAPTIVE SIGNAL CONTROL POST-MITIGATION

**TABLE 5
POST-MITIGATION ANALYSIS
INTERSECTIONS**

MM#	Intersection	Peak Hour	Year 2035 (Master Trans. Roadway Plan) Pre-Mitigation Operations ^a				Post Mitigation		Year 2035 (w/o Melrose Drive Extension) Pre-Mitigation Operations ^a				Post Mitigation		Mitigated?
			Without Project		With Project				Without Project		With Project				
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
TRA-5	16. SR-76/ Rancho Del Oro Dr	AM	118.3	F	124.3	F	105.5	F	118.3	F	124.3	F	105.5	F	Yes
		PM	167.0	F	174.0	F	150.2	F	167.0	F	174.0	F	150.2	F	
TRA-6	17. SR-76/ Old Grove Rd	AM	97.1	F	101.5	F	83.8	F	97.1	F	101.5	F	83.8	F	Yes
		PM	75.5	E	81.1	F	63.0	E	75.5	E	81.1	F	63.0	E	
TRA-7	18. SR-76/ Frazee Rd	AM	—	—	—	—	—	—	—	—	—	—	—	—	Yes
		PM	53.9	D	61.4	E	41.5	D	53.8	D	61.3	E	41.4	D	

General Notes:

1. MM# = Mitigation measure number.
2. Mitigation provided for locations currently operating at LOS E or F are required to improve operations to better than or equal to pre-project conditions only.

ATTACHMENT D

SYNCHRO ANALYSIS SHEETS – ADAPTIVE SIGNAL CONTROL POST-MITIGATION

Year 2035 + Proj AM (w. Melrose)
16: Rancho Del Oro Dr & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕↕	↔	↔	↕↕	↔	↔↔	↕↕	↔	↔↔	↕↕	↕↕	
Traffic Volume (veh/h)	40	962	360	348	1758	140	325	305	353	65	365	95	
Future Volume (veh/h)	40	962	360	348	1758	140	325	305	353	65	365	95	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1900	1863	1863	1900	
Adj Flow Rate, veh/h	43	1046	391	378	1911	152	353	332	384	71	397	103	
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	2	2	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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	161	1457	593	225	1599	650	286	474	424	247	715	184	
Arrive On Green	0.18	0.75	0.75	0.13	0.41	0.41	0.08	0.27	0.27	0.07	0.26	0.26	
Sat Flow, veh/h	1774	3893	1583	1774	3893	1583	3442	1770	1583	3442	2790	716	
Grp Volume(v), veh/h	43	1046	391	378	1911	152	353	332	384	71	250	250	
Grp Sat Flow(s), veh/h/ln	1774	1947	1583	1774	1947	1583	1721	1770	1583	1721	1770	1736	
Q Serve(g_s), s	3.3	23.4	19.6	20.3	65.7	10.0	13.3	27.1	37.5	3.1	19.6	20.0	
Cycle Q Clear(g_c), s	3.3	23.4	19.6	20.3	65.7	10.0	13.3	27.1	37.5	3.1	19.6	20.0	
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41	
Lane Grp Cap(c), veh/h	161	1457	593	225	1599	650	286	474	424	247	454	445	
V/C Ratio(X)	0.27	0.72	0.66	1.68	1.20	0.23	1.23	0.70	0.91	0.29	0.55	0.56	
Avail Cap(c_a), veh/h	188	1457	593	225	1599	650	286	545	488	258	531	521	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.73	0.73	0.73	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	60.9	15.5	15.0	69.9	47.1	30.7	73.3	52.8	56.6	70.4	51.5	51.7	
Incr Delay (d2), s/veh	0.6	2.3	4.2	307.5	88.5	0.1	131.8	3.4	18.9	0.6	1.1	1.1	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	1.7	12.6	9.0	29.2	55.0	4.4	11.6	13.7	18.7	1.5	9.7	9.7	
LnGrp Delay(d), s/veh	61.6	17.8	19.3	377.3	135.6	30.8	205.1	56.2	75.5	71.0	52.6	52.8	
LnGrp LOS	E	B	B	F	F	C	F	E	E	E	D	D	
Approach Vol, veh/h	1480			2441				1069			571		
Approach Delay, s/veh	19.4			166.5				112.3			55.0		
Approach LOS	B			F				F			D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	26.0	67.9	19.0	47.1	20.2	73.7	17.2	48.9					
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1					
Max Green Setting (Gmax), s	* 20	52.9	* 13	48.0	* 17	56.2	* 12	49.3					
Max Q Clear Time (g_c+I1), s	22.3	25.4	15.3	22.0	5.3	67.7	5.1	39.5					
Green Ext Time (p_c), s	0.0	9.3	0.0	3.2	0.0	0.0	0.1	3.3					
Intersection Summary													
HCM 2010 Ctrl Delay				105.5									
HCM 2010 LOS				F									
Notes													

Year 2035 + Proj AM (w. Melrose)
17: Old Grove Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕↕	↔	↔	↕↕	↔	↔↔	↕↕	↔	↔↔	↕↕	↕↕	
Traffic Volume (veh/h)	175	955	250	204	1701	15	210	190	182	35	320	335	
Future Volume (veh/h)	175	955	250	204	1701	15	210	190	182	35	320	335	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1900	1863	1863	1900	1863	1863	1900	
Adj Flow Rate, veh/h	190	1038	272	222	1849	16	228	207	198	38	348	364	
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	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	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	170	1442	579	243	1628	14	280	473	409	118	446	393	
Arrive On Green	0.10	0.37	0.37	0.14	0.41	0.41	0.08	0.27	0.27	0.07	0.25	0.25	
Sat Flow, veh/h	1774	3893	1562	1774	3955	34	3442	1770	1531	1774	1770	1560	
Grp Volume(v), veh/h	190	1038	272	222	909	956	228	207	198	38	348	364	
Grp Sat Flow(s), veh/h/ln	1774	1947	1562	1774	1947	2043	1721	1770	1531	1774	1770	1560	
Q Serve(g_s), s	15.3	36.6	21.2	19.8	65.9	65.9	10.4	15.5	17.4	3.3	29.3	36.4	
Cycle Q Clear(g_c), s	15.3	36.6	21.2	19.8	65.9	65.9	10.4	15.5	17.4	3.3	29.3	36.4	
Prop In Lane	1.00		1.00	1.00		1.00	0.02	1.00	1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	170	1442	579	243	801	841	280	473	409	118	446	393	
V/C Ratio(X)	1.12	0.72	0.47	0.91	1.13	1.14	0.82	0.44	0.48	0.32	0.78	0.93	
Avail Cap(c_a), veh/h	170	1442	579	264	801	841	299	487	421	144	477	420	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.53	0.53	0.53	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	72.3	43.2	38.4	68.1	47.1	47.1	72.3	48.7	49.3	71.3	55.7	58.4	
Incr Delay (d2), s/veh	86.9	1.7	1.5	17.3	67.5	68.4	15.1	0.6	0.9	1.6	7.7	25.5	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	11.6	20.1	9.4	10.8	50.4	53.1	5.6	7.7	7.5	1.7	15.3	18.5	
LnGrp Delay(d), s/veh	159.2	44.9	39.9	85.4	114.6	115.5	87.4	49.3	50.2	72.9	63.4	83.8	
LnGrp LOS	F	D	D	F	F	F	F	D	D	E	E	F	
Approach Vol, veh/h	1500			2087				633			750		
Approach Delay, s/veh	58.5			111.9				63.3			73.8		
Approach LOS	E			F				E			E		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	27.6	67.3	18.7	46.4	21.0	73.9	16.3	48.8					
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1					
Max Green Setting (Gmax), s	* 14	53.7	* 14	43.1	* 15	62.2	* 13	44.0					
Max Q Clear Time (g_c+I1), s	38.6	12.4	38.4	17.3	67.9	5.3	19.4						
Green Ext Time (p_c), s	0.1	6.6	0.1	1.9	0.0	0.0	0.0	2.6					
Intersection Summary													
HCM 2010 Ctrl Delay				83.8									
HCM 2010 LOS				F									
Notes													

Year 2035 + Proj AM (w. Melrose)
18: Frazee Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Future Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	2231	1031	130	2249	1031	272	216	183	252	205	281
Arrive On Green	0.07	0.57	0.57	0.10	0.77	0.77	0.08	0.12	0.12	0.07	0.11	0.11
Sat Flow, veh/h	1774	3893	1582	1774	3893	1583	3442	1863	1583	3442	1863	1570
Grp Volume(v), veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Grp Sat Flow(s), veh/h/ln	1774	1947	1582	1774	1947	1583	1721	1863	1583	1721	1863	1570
Q Serve(g_s), s	4.7	28.0	3.2	7.1	50.5	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Cycle Q Clear(g_c), s	4.7	28.0	3.2	7.1	50.5	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	121	2231	1031	130	2249	1031	272	216	183	252	205	281
V/C Ratio(X)	0.45	0.51	0.08	0.63	0.84	0.07	0.30	0.43	0.77	0.34	0.74	0.27
Avail Cap(c_a), veh/h	133	2231	1031	165	2249	1031	280	512	435	258	501	530
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	20.6	10.2	70.2	13.7	5.5	69.5	65.8	68.7	70.4	69.0	56.8
Incr Delay (d2), s/veh	1.7	0.6	0.1	3.4	2.6	0.1	0.6	1.3	6.7	0.8	5.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.4	15.3	1.4	3.6	27.4	0.7	1.7	3.9	6.4	1.8	6.8	2.9
LnGrp Delay(d), s/veh	73.4	21.1	10.4	73.5	16.3	5.6	70.1	67.1	75.3	71.2	74.3	57.3
LnGrp LOS	E	C	B	E	B	A	E	E	E	E	E	E
Approach Vol, veh/h	1274			2042			315			313		
Approach Delay, s/veh	22.6			18.2			71.6			69.3		
Approach LOS	C			B			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	99.7	18.4	24.6	16.6	100.4	17.4	25.5					
Change Period (Y+Rc), s	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0					
Max Green Setting (Gmax) s	62.7	* 13	43.0	* 12	65.6	* 12	44.0					
Max Q Clear Time (g_c+1t), s	30.0	5.6	14.7	6.7	52.5	5.8	15.8					
Green Ext Time (p_c), s	0.1	9.1	0.1	1.1	0.0	10.6	0.1	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay	28.0											
HCM 2010 LOS	C											
Notes												

Year 2035 + Proj PM (w. Melrose)
16: Rancho Del Oro Dr & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	75	2105	360	310	1413	120	330	370	315	100	280	55
Future Volume (veh/h)	75	2105	360	310	1413	120	330	370	315	100	280	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	0.99	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	82	2288	391	337	1536	130	359	402	342	109	304	60
Adj No. of Lanes	1	2	1	1	2	1	2	2	2	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1652	672	210	1752	712	273	450	380	228	696	135
Arrive On Green	0.06	0.28	0.28	0.12	0.45	0.45	0.08	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1774	3893	1583	1774	3893	1583	3442	1807	1524	3442	2948	574
Grp Volume(v), veh/h	82	2288	391	337	1536	130	359	394	350	109	181	183
Grp Sat Flow(s), veh/h/ln	1774	1947	1583	1774	1947	1583	1721	1770	1562	1721	1770	1753
Q Serve(g_s), s	8.1	76.4	38.1	21.3	64.5	8.9	14.3	38.7	39.1	5.5	15.6	16.1
Cycle Q Clear(g_c), s	8.1	76.4	38.1	21.3	64.5	8.9	14.3	38.7	39.1	5.5	15.6	16.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	0.98	1.00	0.33
Lane Grp Cap(c), veh/h	165	1652	672	210	1752	712	273	441	389	228	418	414
V/C Ratio(X)	0.50	1.38	0.58	1.61	0.88	0.18	1.31	0.89	0.90	0.48	0.43	0.44
Avail Cap(c_a), veh/h	168	1652	672	210	1752	712	273	495	436	229	472	467
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.13	0.13	0.13	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.3	64.4	50.7	79.3	45.0	29.7	82.8	65.3	65.4	81.0	58.5	58.7
Incr Delay (d2), s/veh	0.3	173.6	0.5	281.8	3.0	0.2	164.5	17.1	20.0	1.5	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.0	81.0	16.8	26.9	35.5	3.9	13.0	21.0	19.1	2.7	7.8	7.9
LnGrp Delay(d), s/veh	80.6	238.0	51.2	361.2	48.0	29.9	247.3	82.3	85.4	82.6	59.2	59.4
LnGrp LOS	F	F	D	F	D	C	F	F	F	F	E	E
Approach Vol, veh/h	2761			2003			1103			473		
Approach Delay, s/veh	206.9			99.5			137.0			64.7		
Approach LOS	F			F			F			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.0	84.4	20.0	48.6	22.4	89.0	17.6	50.9				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax) s	* 21	70.9	* 14	48.0	* 17	75.2	* 12	50.3				
Max Q Clear Time (g_c+1t), s	23.3	78.4	16.3	18.1	10.1	66.5	7.5	41.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.1	6.5	0.1	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay	150.2											
HCM 2010 LOS	F											
Notes												

Year 2035 + Proj PM (w. Melrose)
17: Old Grove Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	240	1981	300	188	1388	15	245	280	220	10	115	160
Future Volume (veh/h)	240	1981	300	188	1388	15	245	280	220	10	115	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	261	2153	326	204	1509	16	266	304	239	11	125	174
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	2105	845	171	1948	21	309	362	277	54	233	208
Arrive On Green	0.14	0.54	0.54	0.10	0.49	0.49	0.09	0.19	0.19	0.03	0.13	0.13
Sat Flow, veh/h	1774	3893	1563	1774	3946	42	3442	1898	1451	1774	1770	1580
Grp Volume(v), veh/h	261	2153	326	204	744	781	266	283	260	11	125	174
Grp Sat Flow(s), veh/h/ln	1774	1947	1563	1774	1947	2042	1721	1770	1579	1774	1770	1580
Q Serve(g_s), s	25.8	97.3	21.8	17.3	56.4	56.5	13.7	27.7	28.7	1.1	11.9	19.3
Cycle Q Clear(g_c), s	25.8	97.3	21.8	17.3	56.4	56.5	13.7	27.7	28.7	1.1	11.9	19.3
Prop In Lane	1.00	1.00	1.00	1.00	1.00	0.02	1.00	0.92	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	254	2105	845	171	961	1008	309	338	301	54	233	208
V/C Ratio(X)	1.03	1.02	0.39	1.20	0.77	0.78	0.86	0.84	0.86	0.20	0.54	0.84
Avail Cap(c_a), veh/h	254	2105	845	171	961	1008	402	433	386	128	354	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.1	41.3	24.0	81.3	37.4	37.4	80.8	70.1	70.5	85.1	73.0	76.3
Incr Delay (d2), s/veh	24.1	12.9	0.1	121.3	4.3	4.2	14.0	10.9	14.9	1.8	1.9	11.3
Initial Q Delay(d3), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3	55.8	9.4	14.2	31.3	33.1	7.1	14.6	13.8	0.6	6.0	9.1
LnGrp Delay(d), s/veh	101.3	54.2	24.1	202.7	41.7	41.5	94.8	81.1	85.4	86.9	74.9	87.6
LnGrp LOS	F	F	C	F	D	D	F	F	F	F	E	F
Approach Vol, veh/h	2740			1729			809			310		
Approach Delay, s/veh	55.1			60.6			87.0			82.4		
Approach LOS	E			E			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	105.3	21.8	29.8	31.5	96.8	11.2	40.5				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax), s	80.2	* 21	36.0	* 26	71.7	* 13	44.0					
Max Q Clear Time (g_c+I), s	99.3	15.7	21.3	27.8	58.5	3.1	30.7					
Green Ext Time (p_c), s	0.0	0.0	0.4	1.5	0.0	8.5	0.0	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay	63.0											
HCM 2010 LOS	E											
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj PM (w. Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35
Future Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	2141	983	141	2208	983	246	304	255	210	284	332
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15
Sat Flow, veh/h	1774	3893	1582	1774	3893	1563	3442	1863	1562	3442	1863	1535
Grp Volume(v), veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38
Grp Sat Flow(s), veh/h/ln	1774	1947	1582	1774	1947	1563	1721	1863	1562	1721	1863	1535
Q Serve(g_s), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6
Cycle Q Clear(g_c), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	110	2141	983	141	2208	983	246	304	255	210	284	332
V/C Ratio(X)	0.49	1.02	0.17	1.16	0.71	0.08	0.37	0.55	0.79	0.23	0.29	0.11
Avail Cap(c_a), veh/h	118	2141	983	141	2208	983	249	455	382	229	445	465
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.6	40.5	14.4	75.7	0.0	0.0	79.7	69.3	72.4	80.5	67.6	56.9
Incr Delay (d2), s/veh	0.3	11.2	0.0	118.0	1.6	0.1	0.9	1.6	6.4	0.6	0.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	56.3	3.5	11.6	0.5	0.0	2.2	7.8	10.1	1.2	3.7	1.5
LnGrp Delay(d), s/veh	81.9	51.7	14.5	193.7	1.6	0.1	80.7	70.9	78.8	81.1	68.2	57.1
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E
Approach Vol, veh/h	2402			1806			461			169		
Approach Delay, s/veh	49.8			18.9			76.3			69.4		
Approach LOS	D			B			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	107.0	18.6	34.4	16.9	110.1	16.7	36.3				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0				
Max Green Setting (Gmax), s	83.3	* 13	43.0	* 12	85.6	* 12	44.0					
Max Q Clear Time (g_c+I), s	101.0	6.6	9.0	7.3	2.0	4.4	24.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	22.6	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay	41.5											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
16: Rancho Del Oro Dr & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↕	↕	↕	↕
Traffic Volume (veh/h)	40	962	360	348	1758	140	325	305	353	65	365	95
Future Volume (veh/h)	40	962	360	348	1758	140	325	305	353	65	365	95
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	1046	391	378	1911	152	353	332	384	71	397	103
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	2	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	1457	593	225	1599	650	286	474	424	247	715	184
Arrive On Green	0.18	0.75	0.75	0.13	0.41	0.41	0.08	0.27	0.27	0.07	0.26	0.26
Sat Flow, veh/h	1774	3893	1583	1774	3893	1583	3442	1770	1583	3442	2790	716
Grp Volume(v), veh/h	43	1046	391	378	1911	152	353	332	384	71	250	250
Grp Sat Flow(s), veh/h/ln	1774	1947	1583	1774	1947	1583	1721	1770	1583	1721	1770	1736
Q Serve(g_s), s	3.3	23.4	19.6	20.3	65.7	10.0	13.3	27.1	37.5	3.1	19.6	20.0
Cycle Q Clear(g_c), s	3.3	23.4	19.6	20.3	65.7	10.0	13.3	27.1	37.5	3.1	19.6	20.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.41
Lane Grp Cap(c), veh/h	161	1457	593	225	1599	650	286	474	424	247	454	445
V/C Ratio(X)	0.27	0.72	0.66	1.68	1.20	0.23	1.23	0.70	0.91	0.29	0.55	0.56
Avail Cap(c_a), veh/h	188	1457	593	225	1599	650	286	545	488	258	531	521
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	15.5	15.0	69.9	47.1	30.7	73.3	52.8	56.6	70.4	51.5	51.7
Incr Delay (d2), s/veh	0.6	2.3	4.2	307.5	88.5	0.1	131.8	3.4	18.9	0.6	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.7	12.6	9.0	29.2	55.0	4.4	11.6	13.7	18.7	1.5	9.7	9.7
LnGrp Delay(d), s/veh	61.6	17.8	19.3	377.3	135.6	30.8	205.1	56.2	75.5	71.0	52.6	52.8
LnGrp LOS	E	B	B	F	F	C	F	E	E	E	D	D
Approach Vol, veh/h	1480			2441				1069			571	
Approach Delay, s/veh	19.4			166.5				112.3			55.0	
Approach LOS	B			F				F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	67.9	19.0	47.1	20.2	73.7	17.2	48.9				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax), s	* 20	52.9	* 13	48.0	* 17	56.2	* 12	49.3				
Max Q Clear Time (g_c+I1), s	22.3	25.4	15.3	22.0	5.3	67.7	5.1	39.5				
Green Ext Time (p_c), s	0.0	9.3	0.0	3.2	0.0	0.0	0.1	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay				105.5								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
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Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
17: Old Grove Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↕	↕	↕	↕
Traffic Volume (veh/h)	175	955	250	204	1701	15	210	190	182	35	320	335
Future Volume (veh/h)	175	955	250	204	1701	15	210	190	182	35	320	335
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	190	1038	272	222	1849	16	228	207	198	38	348	364
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1442	579	243	1628	14	280	473	409	118	446	393
Arrive On Green	0.10	0.37	0.37	0.14	0.41	0.41	0.08	0.27	0.27	0.07	0.25	0.25
Sat Flow, veh/h	1774	3893	1562	1774	3955	34	3442	1770	1531	1774	1770	1560
Grp Volume(v), veh/h	190	1038	272	222	909	956	228	207	198	38	348	364
Grp Sat Flow(s), veh/h/ln	1774	1947	1562	1774	1947	2043	1721	1770	1531	1774	1770	1560
Q Serve(g_s), s	15.3	36.6	21.2	19.8	65.9	65.9	10.4	15.5	17.4	3.3	29.3	36.4
Cycle Q Clear(g_c), s	15.3	36.6	21.2	19.8	65.9	65.9	10.4	15.5	17.4	3.3	29.3	36.4
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	0.02	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	170	1442	579	243	801	841	280	473	409	118	446	393
V/C Ratio(X)	1.12	0.72	0.47	0.91	1.13	1.14	0.82	0.44	0.48	0.32	0.78	0.93
Avail Cap(c_a), veh/h	170	1442	579	264	801	841	299	487	421	144	477	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.3	43.2	38.4	68.1	47.1	47.1	72.3	48.7	49.3	71.3	55.7	58.4
Incr Delay (d2), s/veh	86.9	1.7	1.5	17.3	67.5	68.4	15.1	0.6	0.9	1.6	7.7	25.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	11.6	20.1	9.4	10.8	50.4	53.1	5.6	7.7	7.5	1.7	15.3	18.5
LnGrp Delay(d), s/veh	159.2	44.9	39.9	85.4	114.6	115.5	87.4	49.3	50.2	72.9	63.4	83.8
LnGrp LOS	F	D	D	F	F	F	F	D	D	E	E	F
Approach Vol, veh/h	1500			2087				633			750	
Approach Delay, s/veh	58.5			111.9				63.3			73.8	
Approach LOS	E			F				E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.6	67.3	18.7	46.4	21.0	73.9	16.3	48.8				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax), s	* 14	43.1	* 15	44.1	* 15	62.2	* 13	44.0				
Max Q Clear Time (g_c+I1), s	38.6	12.4	38.4	17.3	67.9	5.3	19.4					
Green Ext Time (p_c), s	0.1	6.6	0.1	1.9	0.0	0.0	0.0	2.6				
Intersection Summary												
HCM 2010 Ctrl Delay				83.8								
HCM 2010 LOS				F								
Notes												

HCM 2010 Signalized Intersection Summary
N:\2596\Analysis\Synchro\Mitigation\ASCI\B.LT no Melrose\15. Year 2035B + Proj AM.syn

Synchro 10 Report

Year 2035 + Proj AM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/27/2018

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Future Volume (veh/h)	50	1042	80	75	1735	68	75	85	130	78	140	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	2231	1031	130	2249	1031	272	216	183	252	205	281
Arrive On Green	0.07	0.57	0.57	0.10	0.77	0.77	0.08	0.12	0.12	0.07	0.11	0.11
Sat Flow, veh/h	1774	3893	1582	1774	3893	1583	3442	1863	1583	3442	1863	1570
Grp Volume(v), veh/h	54	1133	87	82	1886	74	82	92	141	85	152	76
Grp Sat Flow(s), veh/h/ln	1774	1947	1582	1774	1947	1583	1721	1863	1583	1721	1863	1570
Q Serve(g_s), s	4.7	28.0	3.2	7.1	50.5	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Cycle Q Clear(g_c), s	4.7	28.0	3.2	7.1	50.5	1.5	3.6	7.4	13.8	3.8	12.7	6.7
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	121	2231	1031	130	2249	1031	272	216	183	252	205	281
V/C Ratio(X)	0.45	0.51	0.08	0.63	0.84	0.07	0.30	0.43	0.77	0.34	0.74	0.27
Avail Cap(c_a), veh/h	133	2231	1031	165	2249	1031	280	512	435	258	501	530
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	20.6	10.2	70.2	13.7	5.5	69.5	65.8	68.7	70.4	69.0	56.8
Incr Delay (d2), s/veh	1.7	0.6	0.1	3.2	2.5	0.1	0.6	1.3	6.7	0.8	5.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4	15.3	1.4	3.6	27.4	0.7	1.7	3.9	6.4	1.8	6.8	2.9
LnGrp Delay(d), s/veh	73.4	21.1	10.4	73.3	16.2	5.6	70.1	67.1	75.3	71.2	74.3	57.3
LnGrp LOS	E	C	B	E	B	A	E	E	E	E	E	E
Approach Vol, veh/h	1274			2042			315			313		
Approach Delay, s/veh	22.6			18.1			71.6			69.3		
Approach LOS	C			B			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	99.7	18.4	24.6	16.6	100.4	17.4	25.5					
Change Period (Y+Rc), s	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0					
Max Green Setting (Gmax), s	* 62.7	* 13	43.0	* 12	65.6	* 12	44.0					
Max Q Clear Time (g_c+1t), s	30.0	5.6	14.7	6.7	52.5	5.8	15.8					
Green Ext Time (p_c), s	0.1	9.1	0.1	1.1	0.0	10.6	0.1	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay	27.9											
HCM 2010 LOS	C											
Notes												

Year 2035 + Proj PM (No Melrose)
16: Rancho Del Oro Dr & SR-76

North River Farms
09/27/2018

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	75	2105	360	310	1413	120	330	370	315	100	280	55
Future Volume (veh/h)	75	2105	360	310	1413	120	330	370	315	100	280	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	82	2288	391	337	1536	130	359	402	342	109	304	60
Adj No. of Lanes	1	2	1	1	2	1	2	2	2	0	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1652	672	210	1752	712	273	450	380	228	696	135
Arrive On Green	0.06	0.28	0.28	0.12	0.45	0.45	0.08	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1774	3893	1583	1774	3893	1583	3442	1807	1524	3442	2948	574
Grp Volume(v), veh/h	82	2288	391	337	1536	130	359	394	350	109	181	183
Grp Sat Flow(s), veh/h/ln	1774	1947	1583	1774	1947	1583	1721	1770	1562	1721	1770	1753
Q Serve(g_s), s	8.1	76.4	38.1	21.3	64.5	8.9	14.3	38.7	39.1	5.5	15.6	16.1
Cycle Q Clear(g_c), s	8.1	76.4	38.1	21.3	64.5	8.9	14.3	38.7	39.1	5.5	15.6	16.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.33
Lane Grp Cap(c), veh/h	165	1652	672	210	1752	712	273	441	389	228	418	414
V/C Ratio(X)	0.50	1.38	0.58	1.61	0.88	0.18	1.31	0.89	0.90	0.48	0.43	0.44
Avail Cap(c_a), veh/h	168	1652	672	210	1752	712	273	495	436	229	472	467
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.13	0.13	0.13	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.3	64.4	50.7	79.3	45.0	29.7	82.8	65.3	65.4	81.0	58.5	58.7
Incr Delay (d2), s/veh	0.3	173.6	0.5	281.8	3.0	0.2	164.5	17.1	20.0	1.5	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.0	81.0	16.8	26.9	35.5	3.9	13.0	21.0	19.1	2.7	7.8	7.9
LnGrp Delay(d), s/veh	80.6	238.0	51.2	361.2	48.0	29.9	247.3	82.3	85.4	82.6	59.2	59.4
LnGrp LOS	F	F	D	F	D	C	F	F	F	F	E	E
Approach Vol, veh/h	2761			2003			1103			473		
Approach Delay, s/veh	206.9			99.5			137.0			64.7		
Approach LOS	F			F			F			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.0	84.4	20.0	48.6	22.4	89.0	17.6	50.9				
Change Period (Y+Rc), s	* 5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax), s	* 21	70.9	* 14	48.0	* 17	75.2	* 12	50.3				
Max Q Clear Time (g_c+1t), s	23.3	78.4	16.3	18.1	10.1	66.5	7.5	41.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.1	6.5	0.1	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay	150.2											
HCM 2010 LOS	F											
Notes												

Year 2035 + Proj PM (No Melrose)
17: Old Grove Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	240	1981	300	188	1388	15	245	280	220	10	115	160
Future Volume (veh/h)	240	1981	300	188	1388	15	245	280	220	10	115	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	0.99	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	261	2153	326	204	1509	16	266	304	239	11	125	174
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	2105	845	171	1948	21	309	362	277	54	233	208
Arrive On Green	0.14	0.54	0.54	0.10	0.49	0.49	0.09	0.19	0.19	0.03	0.13	0.13
Sat Flow, veh/h	1774	3893	1563	1774	3946	42	3442	1898	1451	1774	1770	1580
Grp Volume(v), veh/h	261	2153	326	204	744	781	266	283	260	11	125	174
Grp Sat Flow(s), veh/h/ln	1774	1947	1563	1774	1947	2042	1721	1770	1579	1774	1770	1580
Q Serve(g_s), s	25.8	97.3	21.8	17.3	56.4	56.5	13.7	27.7	28.7	1.1	11.9	19.3
Cycle Q Clear(g_c), s	25.8	97.3	21.8	17.3	56.4	56.5	13.7	27.7	28.7	1.1	11.9	19.3
Prop In Lane	1.00	1.00	1.00	1.00	1.00	0.02	1.00	0.92	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	254	2105	845	171	961	1008	309	338	301	54	233	208
V/C Ratio(X)	1.03	1.02	0.39	1.20	0.77	0.78	0.86	0.84	0.86	0.20	0.54	0.84
Avail Cap(c_a), veh/h	254	2105	845	171	961	1008	402	433	386	128	354	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.1	41.3	24.0	81.3	37.4	37.4	80.8	70.1	70.5	85.1	73.0	76.3
Incr Delay (d2), s/veh	24.1	12.9	0.1	121.3	4.3	4.2	14.0	10.9	14.9	1.8	1.9	11.3
Initial Q Delay(d3), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3	55.8	9.4	14.2	31.3	33.1	7.1	14.6	13.8	0.6	6.0	9.1
LnGrp Delay(d), s/veh	101.3	54.2	24.1	202.7	41.7	41.5	94.8	81.1	85.4	86.9	74.9	87.6
LnGrp LOS	F	F	C	F	D	D	F	F	F	F	E	F
Approach Vol, veh/h	2740			1729			809			310		
Approach Delay, s/veh	55.1			60.6			87.0			82.4		
Approach LOS	E			E			F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	105.3	21.8	29.8	31.5	96.8	11.2	40.5				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	6.1	* 5.7	8.0	* 5.7	6.1				
Max Green Setting (Gmax), s	80.2	* 21	36.0	* 26	71.7	* 13	44.0					
Max Q Clear Time (g_c+ltt), s	99.3	15.7	21.3	27.8	58.5	3.1	30.7					
Green Ext Time (p_c), s	0.0	0.0	0.4	1.5	0.0	8.5	0.0	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay	63.0											
HCM 2010 LOS	E											
Notes												

Year 2035 + Proj PM (No Melrose)
18: Frazee Rd & SR-76

North River Farms
09/21/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35
Future Volume (veh/h)	50	2006	155	150	1436	75	85	155	185	45	75	35
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	1.00	0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	2049	1863	1863	2049	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	2	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	2141	983	141	2208	983	246	304	255	210	284	332
Arrive On Green	0.06	0.55	0.55	0.16	1.00	1.00	0.07	0.16	0.16	0.06	0.15	0.15
Sat Flow, veh/h	1774	3893	1582	1774	3893	1563	3442	1863	1562	3442	1863	1535
Grp Volume(v), veh/h	54	2180	168	163	1561	82	92	168	201	49	82	38
Grp Sat Flow(s), veh/h/ln	1774	1947	1582	1774	1947	1563	1721	1863	1562	1721	1863	1535
Q Serve(g_s), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6
Cycle Q Clear(g_c), s	5.3	99.0	8.1	14.3	0.0	0.0	4.6	14.9	22.2	2.4	7.0	3.6
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	110	2141	983	141	2208	983	246	304	255	210	284	332
V/C Ratio(X)	0.49	1.02	0.17	1.16	0.71	0.08	0.37	0.55	0.79	0.23	0.29	0.11
Avail Cap(c_a), veh/h	118	2141	983	141	2208	983	249	455	382	229	445	465
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.6	40.5	14.4	75.7	0.0	0.0	79.7	69.3	72.4	80.5	67.6	56.9
Incr Delay (d2), s/veh	0.3	11.2	0.0	117.5	1.6	0.1	0.9	1.6	6.4	0.6	0.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6	56.3	3.5	11.6	0.5	0.0	2.2	7.8	10.1	1.2	3.7	1.5
LnGrp Delay(d), s/veh	81.9	51.7	14.5	193.2	1.6	0.1	80.7	70.9	78.8	81.1	68.2	57.1
LnGrp LOS	F	F	B	F	A	A	F	E	E	F	E	E
Approach Vol, veh/h	2402			1806			461			169		
Approach Delay, s/veh	49.8			18.8			76.3			69.4		
Approach LOS	D			B			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	107.0	18.6	34.4	16.9	110.1	16.7	36.3				
Change Period (Y+Rc), s	5.7	8.0	* 5.7	7.0	* 5.7	8.0	* 5.7	7.0				
Max Green Setting (Gmax), s	83.3	* 13	43.0	* 12	85.6	* 12	44.0					
Max Q Clear Time (g_c+ltt), s	101.0	6.6	9.0	7.3	2.0	4.4	24.2					
Green Ext Time (p_c), s	0.0	0.0	0.1	0.6	0.0	22.6	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay	41.4											
HCM 2010 LOS	D											
Notes												

APPENDIX T8-2
Revised Trip Generation Table

Table 7-1
Project Trip Generation

	Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour						
			Rate ^a	Volume	% of ADT ^a	In:Out	In:Out	Volume			% of ADT ^a	In:Out	In:Out	Volume		
						Split	In	Out	Total	Split		In	Out	Total		
RESIDENTIAL TRIPS																
UNIT TYPE																
	≤ 20 DU per acre	347 DU	8 /DU	2,776	8%	20%	80%	44	178	222	10%	70%	30%	195	83	278
	≤ 6 DU per acre	309 DU	10 /DU	3,090	8%	30%	70%	74	173	247	10%	70%	30%	216	93	309
A	RESIDENTIAL TRIP GENERATION	656 DU		5,866	—	—	—	118	351	469	—	—	—	411	176	587
NON-RESIDENTIAL																
B	Commercial (C+D)	25 KSF	40 /KSF	1,000	3%	60%	40%	18	12	30	9%	50%	50%	45	45	90
C	Primary External Trips ^d		90%	900	—	—	—	18	12	30	9%	50%	50%	40	40	80
D	Pass-by External Trips ^d		10%	100	—	—	—	—	—	—	9%	50%	50%	5	5	10
E	Restaurant ^b (F+G)	5 KSF	100 /KSF	500	1%	60%	40%	3	2	5	8%	70%	30%	28	12	40
F	Primary External Trips ^d		90%	450	—	—	—	3	2	5	8%	70%	30%	25	11	36
G	Pass-by External Trips ^d		10%	50	—	—	—	—	—	—	8%	70%	30%	3	1	4
H	Farm ^c	30 acres	2 /acre	60	0.26	43%	57%	7	9	16	0.45	57%	43%	15	12	27
I	Hotel ^e	100 rooms	9 /room	900	8%	40%	60%	29	43	72	9%	60%	40%	49	32	81
J	<i>Subtotal Primary Trips (Residential + Primary Non-Residential Trips + Hotel Trips) (A + C + F + H + I)</i>			8,176				175	417	592				540	271	811
K	Mixed Use Reduction ^d (J x 5%)	5%		(409)				(9)	(21)	(30)				(27)	(14)	(41)
L	TOTAL PRIMARY TRIPS (J - K)			7,767				166	396	562				513	257	770
M	TOTAL DRIVEWAY TRIPS (Total Project Trips - Mixed Use Reduction) (A + B + E + H + I - K)			7,917				166	396	562				521	263	784

Footnotes:

- a. Rates based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.
- b. Restaurant uses "Quality Restaurant" rate from SANDAG
- c. For Farm, SANDAG "Agriculture" rate applied. For peak splits, ITE 818 "Nursery (Wholesale)" rate applied.
- d. Primary trips, pass-by trips, and mixed-use credit percentages sourced to SANDAG.
- e. For Hotel, SANDAG "Hotel" rate reduced from 10 ADT/room to 9 ADT/room since the "hotel" rate includes trips generated by convention facilities, which are not proposed by the Project.

