

APPENDIX T14

Intersection Memo

DRAFT MEMORANDUM

To: Ninia Hammond, Integral Communities
From: Brian Grover, Dudek
Subject: North River Farms – Vandegrift Boulevard/N. River Road Intersection Improvements
Date: April 5, 2019
cc: Andrew Talbert, Dudek
Attachment(s): Attachment A, Intersection Exhibit
Attachment B, Traffic Analysis

This memorandum addresses proposed intersection improvements related to the North River Farms Planned Development (PD) Plan (proposed project). Specifically, in response to public comments and the review by the Planning Commission, the project applicant is proposing additional improvements to the Vandegrift Boulevard/N. River Road intersection as conditions of approval. As discussed below, the addition of the proposed improvements at the Vandegrift Boulevard/N. River Road intersection as conditions of approval would mitigate traffic impacts at this location, and would not result in any new significant or more severe impact on the environment.

Section 4.17.5 of the Final EIR proposes mitigation at the Vandegrift Boulevard/N. River Road intersection. Currently at the Vandegrift Boulevard/N. River Road intersection, dual westbound left-turns are provided, but only a single northbound right-turn. No improvement plans are identified in the City's Master Transportation Roadway Plan nor is there right-of-way available that would be feasible to obtain to widen this intersection, however, three feasible options, included in MM-TRA-1, would improve operations at this location.

MM-TRA-1 Vandegrift Boulevard/N. River Road. Prior to the issuance of the building permit for the 19th dwelling unit, the applicant shall complete one of the following three options, to the satisfaction of the City of Oceanside (City):

- Option 1: Rededicate the third northbound thru lane to be a shared thru/right-turn lane; or
- Option 2: Provide a right-turn overlap phase for the northbound right-turn lane; or
- Option 3: Rededicate the third northbound thru lane to a second dedicated right-turn lane and provide an overlap phase.

In addition to completion of one of the above listed three options, the applicant shall also conduct a traffic signal optimization study implement the results along N. River Road between Douglas Avenue and Vandegrift Boulevard. The study shall identify recommended adjustments to the signal timings, offsets, detection, and other parameters to improve intersection performance along the study corridor, to the satisfaction of the City.

As concluded in the Final EIR, MM-TRA-1 would only partially reduce impacts at this intersection. To fully mitigate the cumulative impact to below significant levels, additional lanes would be needed at this intersection. However, no improvement plans are identified in the City's Master Transportation Plan, and no right-of-way is available that would be feasible to obtain.

The project went before the City's Planning Commission on January 28, 2019. In response to public comments and the review by the Planning Commission, the project applicant is now proposing additional improvements to the intersection as conditions of approval. With the City's reasonable cooperation in acquisition of needed right-of-way at the Vandegrift Boulevard/N. River Road intersection, the project applicant is now proposing to construct a second northbound right turn lane with overlapping traffic signal phasing. This proposed improvement would require attainment of additional right-of-way and relocation of the existing sidewalk to accommodate the additional turn lane, as shown in Attachment A.

The construction of the proposed improvements would be temporary in nature and similar to other on- and off-site roadway improvements discussed in the Final EIR. Construction impacts have been thoroughly analyzed in the Final EIR, including, but not limited to, the following sections: 4.3, Air Quality; 4.4, Biological Resources; 4.5, Cultural Resources; and, 4.8, Greenhouse Gas Emissions. As shown in Attachment A, the proposed improvements would be located within existing developed areas. All mitigation measures already required of the project, such as MM-BIO-1 (which requires pre-construction bird surveys if construction is scheduled during avian breeding season), would also be required of the proposed improvements. All improvements would be completed to the reasonable satisfaction of the City Traffic Engineer per City's roadway development standards. Additionally, these proposed improvements would fully reduce the identified significant and unavoidable impact at the Vandegrift Boulevard/N. River Road intersection to a less than significant level. Therefore, the addition of the proposed improvements at the Vandegrift Boulevard/N. River Road intersection as conditions of approval would result in a substantial improvement in circulation, and would not result in any new significant or more severe impact on the environment.

Recirculation is not required for the conditions being proposed by the applicant. "Recirculation was intended to be an exception rather than the general rule." (*Laurel Heights Improvement Assn. v. Regents of the Univ. of California* (1993) 6 Cal.4th 1112, 1132 (*Laurel Heights II*)). It is not required for any project change. Instead, recirculation is required only when the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a new substantial or more severe significant adverse impact, or a substantially different feasible way to mitigate or avoid such an impact that the applicant declines to adopt. (*Laurel Heights II*, at p. 1129, CEQA Guidelines, §15088.5 (a).)

Recirculation is not required for modifications or conditions that improve or better a project. Rather, as explained in *County of Orange v. Superior Court* (2003) 113 Cal.App.4th 1, 10:

"[T]he CEQA process itself [] contemplates revisions, to a greater or lesser degree, in any 'project.' That is, indeed, one of the major objectives of the CEQA process—to foster better (more environmentally sensitive) projects through revisions which are precipitated by the preparation of EIR's. As *County of Inyo v. City of Los Angeles* (1984) 160 Cal. App. 3d 1178, 1185 [...] has stated, CEQA is an 'interactive process of assessment of environmental impacts and responsive project modification which must be genuine.' [] It is thus the very nature of CEQA that 'projects' will be 'modified' to protect the environment....

Memorandum

Subject: North River Farms – Vandegrift Boulevard/N. River Road Intersection Improvements

...If a project has been modified in response to the CEQA process, the logical inference is that the ‘process works’ and the statute is being complied with.”

(*Id.* [emphasis added].)

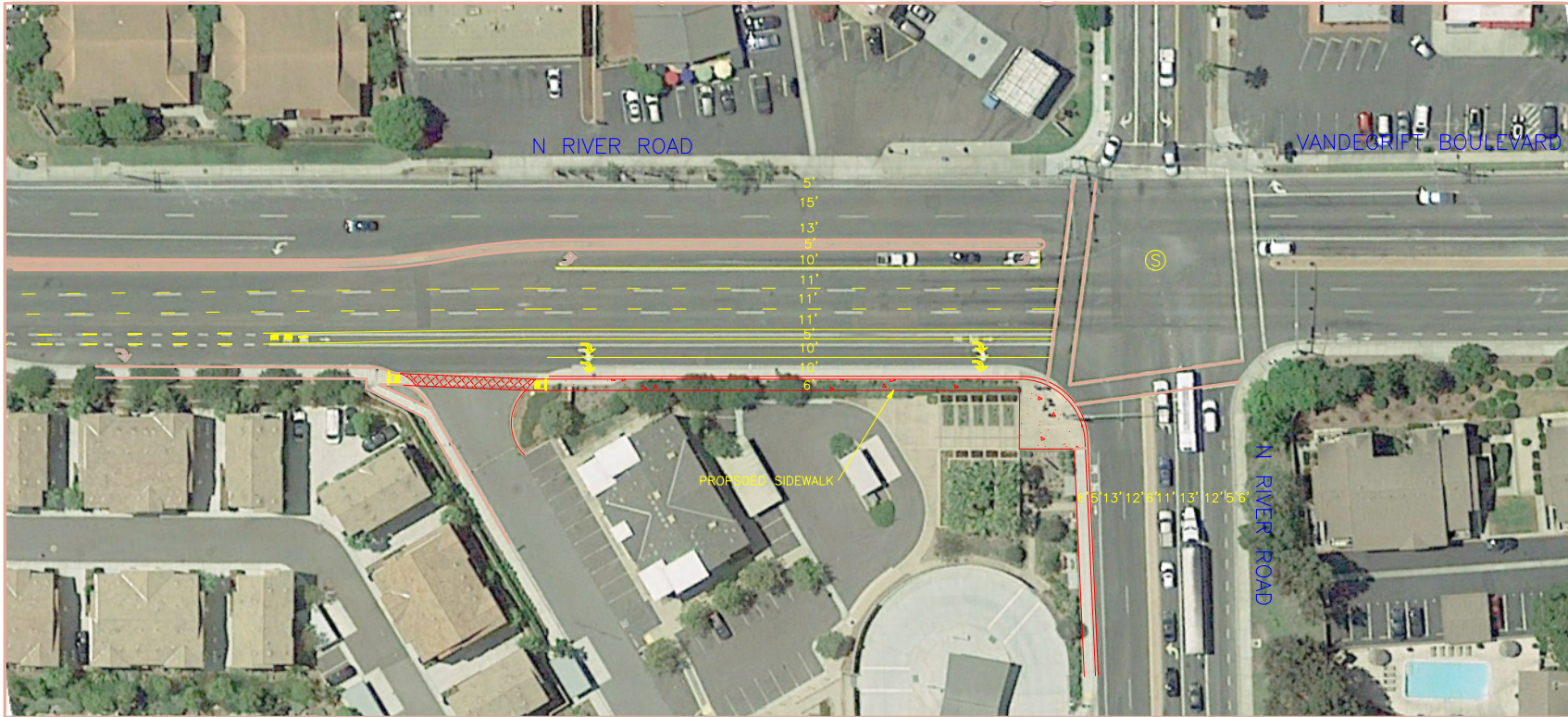
Here, the applicant has proposed several conditions in response to the CEQA process which, if adopted, would have a positive environmental impact and benefit to the community. The applicant has proposed conditions to retain additional acres of land in agricultural or open space uses in perpetuity, construct intersection improvements at the Vandegrift Boulevard/N. River Road intersection, and fund to-be-determined Climate Action Plan implementation measures, as detailed in a letter from the project applicant to the City dated March 22, 2019. This would *reduce* environmental impacts in areas of agricultural resources, traffic, and greenhouse gas emissions. The proposed agricultural land condition would reduce overall density and create a buffer to surrounding lands, reducing potential indirect impacts. The proposed improvements to the Vandegrift Boulevard/N. River Road intersection would completely mitigate the significant and unavoidable impact identified at this intersection in the Final EIR. Funding of future Climate Action Plan implementation measures would provide additional local carbon offsets in excess of mitigation measures MM-GHG-1 through MM-GHG-3 identified in the Final EIR. Additionally, as specified in the aforementioned letter, the applicant also proposes conditions to reserve land within the Village Core for a hotel, develop and fund an infrastructure and planning study within the South Morro Hills area, and assist the City in developing future traffic improvements. The funding and development of such conditions does not implicate the environment but would result in substantial benefits to the community.

None of the proposed conditions would result in any new significant or more severe impact on the environment. Recirculation is therefore not required.



Attachment A

Intersection Exhibit



LEGEND

- PROPOSED STRIPING
- Ⓢ TRAFFIC SIGNAL



REV. 3/13/2019
 NA\2596\Concept\N River Rd and Vandegrift - Conceptual Plan (3-13-19) (Rev 1).dwg



Figure 1
 Conceptual Improvement
 N River Road and Vandegrift Boulevard

NORTH RIVER FARMS



Attachment B

Traffic Analysis

MEMORANDUM

To: Ninia Hammond
Integral Communities

Date: April 2, 2019

From: John Boarman, P.E.
Cara Hilgesen
LLG, Engineers

LLG Ref: 3-16-2596

Subject: North River Farms – N. River Road/ Vandegrift Boulevard Intersection

Linscott, Law & Greenspan, Engineers (LLG) has prepared this technical memorandum to the Final EIR Traffic Analysis to document a fourth mitigation option for the significantly impacted intersection of N. River Road at Vandegrift Boulevard.

As shown in the Final EIR, the intersection of Vandegrift Boulevard/ N. River Road is significantly impacted by the Project. Three (3) mitigation options were proposed to partially mitigate this impact. Following the Project hearing at Planning Commission on January 28, 2019, a fourth option for mitigation has been selected to fully mitigate the Project impact.

In order to mitigate this impact, widening to provide additional lanes is required. Completion of this fourth option would necessitate the acquisition of right-of-way adjacent to the NCTD Transit Center to provide a second northbound right-turn lane, with an overlap phase.

With the addition of this second northbound right-turn lane, the impact would be fully mitigated to below significant levels. **Table 1** shows the pre- and post-mitigation auto delay and level of service results from this analysis. **Attachment 1** provides the post-mitigation level of service worksheets.

cc: File
Attachment: Post-mitigation intersection analysis worksheets



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TABLE 1
 OPTION 4: POST-MITIGATION INTERSECTION ANALYSIS – FULLY MITIGATED

MM#	Intersection	Peak Hour	Near-Term Pre-Mitigation Operations				Post Mitigation		Year 2035 (Master Trans. Roadway Plan) Pre-Mitigation Operations				Post Mitigation		Year 2035 (Without Melrose Drive Extension) Pre-Mitigation Operations				Post Mitigation		Mitigated to Below a Level of Significance?
			Without Project		With Project				Without Project		With Project				Without Project		With Project				
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
MM-TRA-1	2. Vandegrift Blvd/ North River Rd	AM	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Fully
		PM	56.8	E	148.1	F	47.2	D	78.5	E	166.0	F	52.7	D	118.4	F	230.3	F	64.4	E	

General Notes:
























1. Proposed fourth mitigation option would require the acquisition of right-of-way to widen the northbound approach to provide a second right-turn lane with an overlap phase.
2. MM# = Mitigation measure number.
3. Sig = Significant impact post-mitigation.
4. 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 A
POST-MITIGATION INTERSECTION ANALYSIS WORKSHEETS

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	84	114	499	125	93	226	741	894	285	1016	66
Future Volume (veh/h)	93	84	114	499	125	93	226	741	894	285	1016	66
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	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	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	101	91	124	542	136	101	246	805	972	310	1104	72
Adj No. of Lanes	1	1	1	2	1	0	1	3	2	1	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	125	345	279	598	284	211	271	1567	1318	339	1227	536
Arrive On Green	0.07	0.19	0.19	0.17	0.29	0.29	0.15	0.31	0.31	0.19	0.35	0.35
Sat Flow, veh/h	1774	1863	1506	3442	985	732	1774	5085	2705	1774	3539	1548
Grp Volume(v), veh/h	101	91	124	542	0	237	246	805	972	310	1104	72
Grp Sat Flow(s),veh/h/ln	1774	1863	1506	1721	0	1717	1774	1695	1353	1774	1770	1548
Q Serve(g_s), s	7.1	5.3	9.3	19.6	0.0	14.5	17.3	16.5	36.9	21.8	37.6	4.1
Cycle Q Clear(g_c), s	7.1	5.3	9.3	19.6	0.0	14.5	17.3	16.5	36.9	21.8	37.6	4.1
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	345	279	598	0	495	271	1567	1318	339	1227	536
V/C Ratio(X)	0.81	0.26	0.44	0.91	0.00	0.48	0.91	0.51	0.74	0.91	0.90	0.13
Avail Cap(c_a), veh/h	219	528	427	636	0	592	286	1567	1318	429	1309	572
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	44.3	46.0	51.5	0.0	37.3	52.9	36.1	26.6	50.4	39.4	28.5
Incr Delay (d2), s/veh	11.4	0.4	1.1	16.2	0.0	0.7	29.6	0.3	2.2	20.7	8.4	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	3.9	2.8	4.0	10.7	0.0	6.9	10.7	7.8	14.2	12.6	19.8	1.8
LnGrp Delay(d),s/veh	69.6	44.7	47.1	67.7	0.0	38.0	82.6	36.4	28.8	71.1	47.8	28.6
LnGrp LOS	E	D	D	E		D	F	D	C	E	D	C
Approach Vol, veh/h		316			779			2023			1486	
Approach Delay, s/veh		53.6			58.7			38.4			51.7	
Approach LOS		D			E			D			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	28.8	43.6	26.6	28.0	23.9	48.5	13.5	41.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.7	36.8	23.5	36.0	20.5	47.0	15.7	43.8				
Max Q Clear Time (g_c+I1), s	23.8	38.9	21.6	11.3	19.3	39.6	9.1	16.5				
Green Ext Time (p_c), s	0.5	0.0	0.5	0.9	0.1	4.4	0.1	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			47.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
 2: N. River Rd & Vandegrift Blvd

04/02/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	100	115	581	150	110	230	740	949	321	1005	65
Future Volume (veh/h)	95	100	115	581	150	110	230	740	949	321	1005	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	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	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	103	109	125	632	163	120	250	804	1032	349	1092	71
Adj No. of Lanes	1	1	1	2	1	0	1	3	2	1	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	128	347	281	666	305	224	263	1359	1261	374	1168	511
Arrive On Green	0.07	0.19	0.19	0.19	0.31	0.31	0.15	0.27	0.27	0.21	0.33	0.33
Sat Flow, veh/h	1774	1863	1507	3442	990	729	1774	5085	2701	1774	3539	1548
Grp Volume(v), veh/h	103	109	125	632	0	283	250	804	1032	349	1092	71
Grp Sat Flow(s),veh/h/ln	1774	1863	1507	1721	0	1718	1774	1695	1351	1774	1770	1548
Q Serve(g_s), s	7.2	6.4	9.3	23.0	0.0	17.3	17.7	17.4	33.9	24.5	37.9	4.1
Cycle Q Clear(g_c), s	7.2	6.4	9.3	23.0	0.0	17.3	17.7	17.4	33.9	24.5	37.9	4.1
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	347	281	666	0	529	263	1359	1261	374	1168	511
V/C Ratio(X)	0.81	0.31	0.45	0.95	0.00	0.54	0.95	0.59	0.82	0.93	0.94	0.14
Avail Cap(c_a), veh/h	218	529	428	666	0	609	263	1359	1261	399	1193	522
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	44.6	45.7	50.5	0.0	36.3	53.5	40.4	29.8	49.1	41.1	29.8
Incr Delay (d2), s/veh	11.3	0.5	1.1	23.2	0.0	0.8	41.8	0.7	4.4	27.8	13.3	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	3.9	3.3	4.0	13.0	0.0	8.3	11.7	8.3	16.4	14.9	20.7	1.8
LnGrp Delay(d),s/veh	69.3	45.1	46.8	73.7	0.0	37.2	95.2	41.1	34.2	76.9	54.4	29.9
LnGrp LOS	E	D	D	E		D	F	D	C	E	D	C
Approach Vol, veh/h		337			915			2086			1512	
Approach Delay, s/veh		53.1			62.4			44.1			58.5	
Approach LOS		D			E			D			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	31.2	38.4	29.0	28.1	23.3	46.3	13.6	43.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	28.5	33.0	24.5	36.0	18.8	42.7	15.6	44.9				
Max Q Clear Time (g_c+I1), s	26.5	35.9	25.0	11.3	19.7	39.9	9.2	19.3				
Green Ext Time (p_c), s	0.2	0.0	0.0	1.0	0.0	1.9	0.1	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			52.7									
HCM 2010 LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	110	115	681	165	125	235	770	1110	371	1045	65
Future Volume (veh/h)	95	110	115	681	165	125	235	770	1110	371	1045	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	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	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	103	120	125	740	179	136	255	837	1207	403	1136	71
Adj No. of Lanes	1	1	1	2	1	0	1	3	2	1	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	125	322	259	771	318	242	267	1241	1283	424	1177	515
Arrive On Green	0.07	0.17	0.17	0.22	0.33	0.33	0.15	0.24	0.24	0.24	0.33	0.33
Sat Flow, veh/h	1774	1863	1501	3442	975	741	1774	5085	2699	1774	3539	1548
Grp Volume(v), veh/h	103	120	125	740	0	315	255	837	1207	403	1136	71
Grp Sat Flow(s),veh/h/ln	1774	1863	1501	1721	0	1716	1774	1695	1349	1774	1770	1548
Q Serve(g_s), s	8.6	8.5	11.2	31.8	0.0	22.7	21.3	22.3	36.5	33.5	47.2	4.8
Cycle Q Clear(g_c), s	8.6	8.5	11.2	31.8	0.0	22.7	21.3	22.3	36.5	33.5	47.2	4.8
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	322	259	771	0	560	267	1241	1283	424	1177	515
V/C Ratio(X)	0.82	0.37	0.48	0.96	0.00	0.56	0.96	0.67	0.94	0.95	0.96	0.14
Avail Cap(c_a), veh/h	208	448	361	771	0	596	267	1241	1283	443	1183	517
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	54.7	55.8	57.4	0.0	41.6	63.1	51.2	38.1	56.1	49.1	34.9
Incr Delay (d2), s/veh	12.6	0.7	1.4	23.1	0.0	1.1	43.0	1.5	13.5	29.9	18.3	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	4.6	4.5	4.8	17.6	0.0	10.9	13.7	10.6	26.1	20.0	26.0	2.1
LnGrp Delay(d),s/veh	81.2	55.4	57.2	80.5	0.0	42.7	106.0	52.6	51.6	86.0	67.3	35.0
LnGrp LOS	F	E	E	F		D	F	D	D	F	E	D
Approach Vol, veh/h		348			1055			2299			1610	
Approach Delay, s/veh		63.7			69.2			58.0			70.6	
Approach LOS		E			E			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	40.2	41.0	38.0	30.3	27.0	54.3	15.0	53.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	37.4	35.1	33.5	36.0	22.5	50.0	17.5	52.0				
Max Q Clear Time (g_c+I1), s	35.5	38.5	33.8	13.2	23.3	49.2	10.6	24.7				
Green Ext Time (p_c), s	0.3	0.0	0.0	1.0	0.0	0.6	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			64.4									
HCM 2010 LOS			E									