Appendix R

Intersection #17 Analysis

Abrams Associates
TRAFFIC ENGINEERING, INC.

November 1st, 2024

Bibiana Sparks
Acorn Environmental
5170 Golden Foothill Parkway
El Dorado Hills, CA 95762

Re: Analysis of the I-80 Westbound Off-Ramp at the SR 37 Eastbound Off-Ramp

Dear Ms. Sparks,

This letter was prepared to summarize the results of our analysis of the additional intersection requested by Caltrans (Intersection #17 - the SR 37 eastbound off-ramp at the I-80 westbound off-ramp). Based on a detailed analysis of traffic operations with and without the proposed project, implementation of the following mitigation measure would reduce the project impacts to a *less-than-significant* level.

Impact #1 **Impacts to intersection operations - The project would contribute to LOS operations exceeding the established standards at the following intersection under Cumulative Plus Project Friday conditions:**

SR 37 Eastbound Ramp at the I-80 Westbound Ramp (Intersection #17)

The addition of traffic from the proposed project would contribute to this intersection exceeding the established LOS standards. The poor traffic operations at Intersection #17 already occur under existing conditions without the proposed project during both the AM and PM peak hours. The proposed mitigation measure would be forecast to sufficiently mitigate both the LOS and queuing to acceptable levels in all plus project scenarios.

Mitigation Measure

MM 1 *SR 37 Eastbound Ramp at the I-80 Westbound Ramp – Construct a concrete barrier/K-rail to separate the two off-ramp movements for an adequate distance to maintain safety without the need for a stop sign. The proposed mitigation would be for the project to pay a proportionate share of the costs for this barrier, which may need to be extended by up to 200 feet beyond the ramp merge, depending on Caltrans' final design. This would allow for removal of the stop sign for the I-80 westbound off-ramp approach, which would essentially change it from an intersection to a ramp merge and eliminate the current LOS F operations.*

Project Description

The proposed project would consist of casino with 238,266 square feet of gaming floor with 3,500 slot machines and 130 table games. The project includes ballroom/event space that could accommodate a maximum of 2,500 guests. It would also include 24 Tribal residences, and a 12,555 square foot Tribal administration building. All access to the site would be via a new entrance roadway that would connect to the Auto Mall Parkway as the north leg at its existing intersection with Admiral Callaghan Lane. Two alternatives to the project have also been studied. Alternative B is a Reduced Intensity Alternative which consists of the same casino project but without the Tribal Housing and Offices. Alternative C is a Non-Gaming Alternative that would involve construction of 50 tribal residences and three Tribal administration buildings with a total of 23,353 square feet of building space. This alternative would also include two commercial buildings with a total of 129,702 square feet of building space and two hotel buildings with a total of 264 hotel rooms.

Analysis Methodology

Existing operational conditions at the new study intersection have been evaluated according to the requirements set forth by the Solano County and City of Vallejo General Plans. Analysis of traffic operations was conducted using the 6th Edition of the *Highway Capacity Manual* (*HCM*) Level of Service (LOS) methodology with Synchro software.[1] Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time. The level of service scale describes traffic flow with six ratings ranging from A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams.

As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience rapidly deteriorate as the capacity of the intersection or roadway segment is reached. Under such conditions, there is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled level of service (LOS) E. Beyond LOS E, the intersection or roadway segment capacity has been exceeded, and arriving traffic will exceed the ability of an intersection to accommodate it.

Table 1 summarizes the relationship between LOS, average control delay, and the volume to capacity ratio at signalized intersections. For unsignalized intersections (all-way stop controlled and two-way stop controlled) the average control delay and LOS operating conditions are calculated by approach (e.g., northbound) and by movement (e.g., northbound left-turn) for those movements that are subject to delay. In general,

[1] *6th Edition of Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2016.

the operating conditions for unsignalized intersections are presented for the worst approach. **Table 2** summarizes the relationship between LOS and average control delay at unsignalized intersections. For queuing, the *HCM* methodology implemented with Synchro software was used to calculate the 95th percentile queues for left turn pockets at the project study intersections. The resulting queue lengths are reported in feet and compared to the available left turn storage at each intersection.

Significance Criteria

For the purposes of this analysis a project would have a significant impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the off-reservation circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including, but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

- Consistent with Policy MTC 2.5 and Action MTC 2.5B in the Vallejo General Plan 2040, the advisory standard of the City of Vallejo is to maintain Level of Service (LOS) E during the peak hours "to be considered along with, but not to override, metrics for pedestrian, bicycle, transit and emergency access performance." The applicable measures of effectiveness are summarized below:

  Unsignalized Intersections - Project-related operational effects on unsignalized intersections are considered to result in significant effects if project generated traffic causes the LOS at an unsignalized intersection to degrade to worse than LOS D. As with signalized intersections, if an intersection is operating unacceptably before the addition of project trips, it would be considered a significant effect if the project causes a stop-controlled intersection to fall to LOS E (for side-street stop-controlled intersections, for the worst side street movement or approach), or adds traffic to a stop-controlled intersection already operating at LOS F and the California Manual on Uniform Traffic Control Devices peak hour signal warrant is met.

TABLE 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (sec/veh)	Volume to Capacity Ratio
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10	< 0.60
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20	> 0.61 to 0.70
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35	> 0.71 to 0.80
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55	> 0.81 to 0.90
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80	> 0.91 to 1.00
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80	> 1.00

SOURCES: 6th Edition of the *Highway Capacity Manual*, Transportation Research Board, 2016.

TABLE 2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (seconds/vehicle)
A	No delay for stop-controlled approaches.	0 to 10
B	Operations with minor delays.	> 10 to 15
C	Operations with moderate delays.	> 15 to 25
D	Operations with some delays.	> 25 to 35
E	Operations with high delays and long queues.	> 35 to 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

SOURCE: 6th Edition of the *Highway Capacity Manual*, Transportation Research Board, 2016.

Revised Project Trip Generation

Casino Trip Generation – The trip generation forecasts for the Proposed Project are presented in **Table 3**. The revised peak-hour trip generation for analysis was based on the higher trip rates per gaming position that were utilized for the EIS on the Shiloh Resort and Casino Project (Koi Nation of Northern California). The Proposed Project would have 3,500 slots and 130 table games. For the purposes of this analysis, it is assumed each table game would have an average of 7 gaming positions. This equates to a total of 4,410 gaming positions for the Proposed Project. Consistent with other casino traffic studies, the total casino traffic was also reduced by 10% to account for pass-by traffic (i.e. 90% of the casino trips were considered to be new to the area).[2]

Tribal Housing and Tribal Administration Building Trip Generation - The trip generation for the Tribal housing and the Tribal administration building are based on trip generation rates using the fitted curve equations for Single Family Detached Housing (ITE Land Use Code 210) and General Office Building (ITE Land Use Code 710) from the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition. It was assumed that approximately two thirds of the traffic to and from the Tribal Administration Building would be shared with trips from the Tribal residences and the casino. All the rates used in the analysis are presented in **Table 3,** which also summarizes the estimated weekday a.m. and p.m. peak-hour trip generation of the Proposed Project. During the normal weekday commute peak hours the total trip generation for the Proposed Project is estimated to be approximately 583 AM peak hour trips (339 inbound and 244 outbound) and 872 PM peak hour trips (409 inbound and 463 outbound).

Project Trip Distribution

The same trip distribution assumptions used in the EA were used for this analysis. The assumptions are based on the project's proximity to the access freeway and other key travel routes in Solano County, the existing directional split at nearby intersections, and engineering judgement considering the overall land use patterns in the area.

[2] *Final Report – Phased Transportation Study for Proposed Urban Casinos in West Contra Costa County*, Dowling Associates, Inc., Oakland, CA, December 28, 2007.

TABLE 3
PROJECT TRIP GENERATION CALCULATIONS

Land Use	Size	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Tribal Casino Trip Rates - Trips per Gaming Position		2.23	0.08	0.06	0.14	0.10	0.11	0.21
Unadjusted Casino Trip Generation	**4,410 gaming positions**	9,834	364	253	617	435	491	926
Pass-By Traffic Reduction (10%)		983	36	25	62	45	49	93
Net New Off-Site Casino Trip Generation		**8,851**	**328**	**228**	**555**	**392**	**442**	**833**
ITE Single Family Detached Housing Trip Rates - Trips per Unit		11.31	0.23	0.69	0.92	0.60	0.35	0.95
Tribal Housing Trip Generation	**24 units**	**271**	**6**	**16**	**22**	**15**	**8**	**23**
ITE General Office Building Trip Rates - Trips per Square Foot		15.20	0.84	0.11	0.95	0.40	1.96	2.36
Tribal Offices Trip Generation	**12,555 sq. ft.**	191	11	1	12	5	25	30
Shared Traffic Reduction (50%)		95	6	0	6	3	12	15
Net New Off-Site Tribal Offices Trip Generation		**95**	**6**	**0**	**6**	**2**	**13**	**15**
Total Project Trip Generation		**9,218**	**339**	**244**	**583**	**409**	**463**	**872**

Traffic Capacity Conditions

Tables 4, 5, and 6 summarize the weekday LOS results for the Existing, Baseline, and Cumulative conditions with and without the project study intersections. As shown in these tables, the intersection of the SR 37 eastbound off-ramp at the I-80 westbound off-ramp (Intersection #17) is forecast to operate at LOS F under all scenarios in both the AM and PM peak hour. Please note this scenario represents average weekday conditions that assume there is no event being held at the proposed theater.

TABLE 4
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT	
				Delay	LOS	Delay	LOS
17	I-80 SOUTHBOUND OFFRAMP & SR-37 EASTBOUND OFFRAMP	Side Street Stop	AM	**65.0**	**F**	**163.6**	**F**
			PM	**125.0**	**F**	**300.7**	**F**

SOURCE: Abrams Associates, 2024 **NOTE:** Delay results are presented in terms of seconds per vehicle.

TABLE 5
BASELINE INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	BASELINE		BASELINE PLUS PROJECT	
				Delay	LOS	Delay	LOS
17	I-80 SOUTHBOUND OFFRAMP & SR-37 EASTBOUND OFFRAMP	Side Street Stop	AM	**85.4**	**F**	**201.8**	**F**
			PM	**163.6**	**F**	**357.4**	**F**

SOURCE: Abrams Associates, 2024 **NOTE:** Delay results are presented in terms of seconds per vehicle.

TABLE 6
CUMULATIVE INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	CUMULATIVE		CUMULATIVE PLUS PROJECT	
				Delay	LOS	Delay	LOS
17	I-80 SOUTHBOUND OFFRAMP & SR-37 EASTBOUND OFFRAMP	Side Street Stop	AM	**254.8**	**F**	**431.2**	**F**
			PM	**415.7**	**F**	**682.9**	**F**

SOURCE: Abrams Associates, 2024 **NOTE:** Delay results are presented in terms of seconds per vehicle.

MITIGATION

The following is a summary of the updated mitigation measures to address the transportation impacts of the project at the study intersection. Based on a detailed analysis of traffic operations with and without each of the proposed mitigations, implementation of the following mitigation measures would reduce the project impacts to a *less-than-significant* level.

Impact #1 **Impacts to intersection operations - The project would contribute to LOS operations exceeding the established standards under Cumulative Plus Project Friday conditions:**

SR 37 Eastbound Ramp at the I-80 Westbound Ramp (Intersection #17)

The addition of traffic from the proposed project would contribute to this intersection exceeding the established LOS standards. The poor traffic operations at Intersection #17 already occur under existing conditions without the proposed project during both the AM and PM peak hours. The proposed mitigation measure would be forecast to sufficiently mitigate both the LOS and queuing to acceptable levels in all plus project scenarios.

Mitigation Measure

MM 1 *SR 37 Eastbound Ramp at the I-80 Westbound Ramp – Construct a concrete barrier/K-rail to separate the two off-ramp movements for an adequate distance to maintain safety without the need for a stop sign. The proposed mitigation would be for the project to pay a proportionate share of the costs for this barrier, which may need to be extended by up to 200 feet beyond the ramp merge, depending on Caltrans' final design. This would allow for removal of the stop sign for the I-80 westbound off-ramp approach, which would essentially change it from an intersection to a ramp merge and eliminate the current LOS F operations.*

Please don't hesitate to contact me if you have any questions about this information, or if anything else is needed.

Sincerely,

Stephen C. Abrams
President
Abrams Associates
T.E. License No. 1852

Caltrans Response Memo Technical Appendix

Scotts Valley Development Project

City of Vallejo

Prepared by:
Abrams Associates
1875 Olympic Boulevard, Suite 210
Walnut Creek CA 94596

Abrams Associates
TRAFFIC ENGINEERING, INC.

November 1, 2024

Appendix
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Intersection No: 17
Location: I-80 SB Off Ramp at SR-37 Off Ramp
AM Start Time 7:00 AM
PM Start Time 4:00 PM
Date: Thursday, September 12, 2024
Collected By: Rick Folster

Abrams Associates
TRAFFIC ENGINEERING, INC.

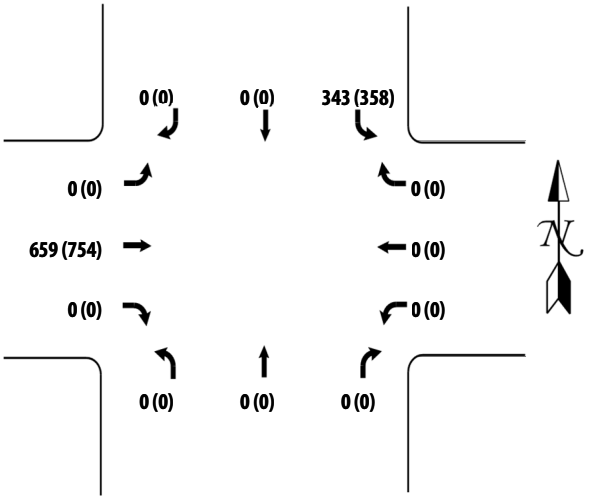
I-80 SB OFF RAMP AT SR-37 OFF RAMP INTERSECTION TURNING MOVEMENT SUMMARY

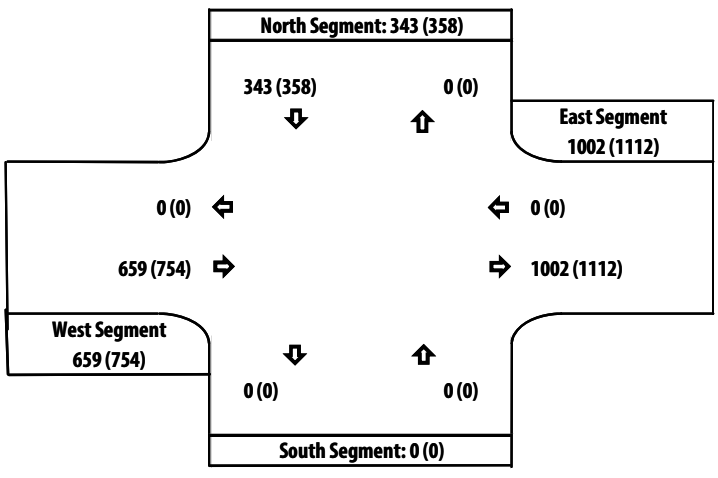
17	I-80 SB Off Ramp			I-80 SB Off Ramp			SR-37 Off Ramp			SR-37 Off Ramp			AM
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 AM				28				38					66
7:15 AM				59				108					167
7:30 AM				92				139					231
7:45 AM				88				169					257
8:00 AM				85				184					269
8:15 AM				78				167					245
8:30 AM				52				157					209
8:45 AM				50				135					185
Total	0	0	0	532	0	0	0	1097	0	0	0	0	1629

17	I-80 SB Off Ramp			I-80 SB Off Ramp			SR-37 Off Ramp			SR-37 Off Ramp			PM
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 PM				102				203					305
4:15 PM				82				184					266
4:30 PM				78				179					257
4:45 PM				84				197					281
5:00 PM				88				180					268
5:15 PM				88				188					276
5:30 PM				81				193					274
5:45 PM				101				193					294
Total	0	0	0	704	0	0	0	1517	0	0	0	0	2221

AM PEAK HOUR VOLUMES													
17	I-80 SB Off Ramp			I-80 SB Off Ramp			SR-37 Off Ramp			SR-37 Off Ramp			AM
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:30 AM				92				139					231
7:45 AM				88				169					257
8:00 AM				85				184					269
8:15 AM				78				167					245
Total	0	0	0	343	0	0	0	659	0	0	0	0	1002

PM PEAK HOUR VOLUMES													
17	I-80 SB Off Ramp			I-80 SB Off Ramp			SR-37 Off Ramp			SR-37 Off Ramp			PM
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
5:00 PM				88				180					268
5:15 PM				88				188					276
5:30 PM				81				193					274
5:45 PM				101				193					294
Total	0	0	0	358	0	0	0	754	0	0	0	0	1112





Intersection	
Int Delay, s/veh	22.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	659	0	0	343	0
Future Vol, veh/h	0	659	0	0	343	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	716	0	0	373	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	716	-
Stage 1	-	-	0	-
Stage 2	-	-	716	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	395	0
Stage 1	0	-	-	0
Stage 2	0	-	482	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	395	-
Mov Cap-2 Maneuver	-	-	395	-
Stage 1	-	-	-	-
Stage 2	-	-	482	-

Approach	EB	SB
HCM Control Delay, s	0	65
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	395
HCM Lane V/C Ratio	-	0.944
HCM Control Delay (s)	-	65
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	10.5

Intersection	
Int Delay, s/veh	40.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	754	0	0	358	0
Future Vol, veh/h	0	754	0	0	358	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	820	0	0	389	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	820	-
Stage 1	-	-	0	-
Stage 2	-	-	820	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 343	0
Stage 1	0	-	-	0
Stage 2	0	-	431	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 343	-
Mov Cap-2 Maneuver	-	-	~ 343	-
Stage 1	-	-	-	-
Stage 2	-	-	431	-

Approach	EB	SB
HCM Control Delay, s	0	125
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	343
HCM Lane V/C Ratio	-	1.134
HCM Control Delay (s)	-	125
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	15.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	60.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	712	0	0	419	0
Future Vol, veh/h	0	712	0	0	419	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	774	0	0	455	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	774	-
Stage 1	-	-	0	-
Stage 2	-	-	774	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 365	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 453	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 365	-
Mov Cap-2 Maneuver	-	-	~ 365	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 453	-

Approach	EB	SB
HCM Control Delay, s	0	163.6
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	365
HCM Lane V/C Ratio	-	1.248
HCM Control Delay (s)	-	163.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	19.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	106.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	818	0	0	450	0
Future Vol, veh/h	0	818	0	0	450	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	889	0	0	489	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	889	-
Stage 1	-	-	0	-
Stage 2	-	-	889	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 312	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 400	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 312	-
Mov Cap-2 Maneuver	-	-	~ 312	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 400	-

Approach	EB	SB
HCM Control Delay, s	0	$ 300.7
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	312
HCM Lane V/C Ratio	-	1.568
HCM Control Delay (s)	-	$ 300.7
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	28.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	29.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	686	0	0	357	0
Future Vol, veh/h	0	686	0	0	357	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	746	0	0	388	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	746	-
Stage 1	-	-	0	-
Stage 2	-	-	746	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 380	0
Stage 1	0	-	-	0
Stage 2	0	-	467	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 380	-
Mov Cap-2 Maneuver	-	-	~ 380	-
Stage 1	-	-	-	-
Stage 2	-	-	467	-

Approach	EB	SB
HCM Control Delay, s	0	85.4
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	380
HCM Lane V/C Ratio	-	1.021
HCM Control Delay (s)	-	85.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	12.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	52.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	785	0	0	373	0
Future Vol, veh/h	0	785	0	0	373	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	853	0	0	405	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	853	-
Stage 1	-	-	0	-
Stage 2	-	-	853	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 328	0
Stage 1	0	-	-	0
Stage 2	0	-	416	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 328	-
Mov Cap-2 Maneuver	-	-	~ 328	-
Stage 1	-	-	-	-
Stage 2	-	-	416	-

Approach	EB	SB
HCM Control Delay, s	0	163.6
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	328
HCM Lane V/C Ratio	-	1.236
HCM Control Delay (s)	-	163.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	18.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	74.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	739	0	0	433	0
Future Vol, veh/h	0	739	0	0	433	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	803	0	0	471	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	803	-
Stage 1	-	-	0	-
Stage 2	-	-	803	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 351	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 439	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 351	-
Mov Cap-2 Maneuver	-	-	~ 351	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 439	-

Approach	EB	SB
HCM Control Delay, s	0	201.8
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	351
HCM Lane V/C Ratio	-	1.341
HCM Control Delay (s)	-	201.8
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	22.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	126.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	849	0	0	465	0
Future Vol, veh/h	0	849	0	0	465	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	923	0	0	505	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	923	-
Stage 1	-	-	0	-
Stage 2	-	-	923	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 298	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 385	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 298	-
Mov Cap-2 Maneuver	-	-	~ 298	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 385	-

Approach	EB	SB
HCM Control Delay, s	0	$ 357.4
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	298
HCM Lane V/C Ratio	-	1.696
HCM Control Delay (s)	-	$ 357.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	31.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	87.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	812	0	0	423	0
Future Vol, veh/h	0	812	0	0	423	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	883	0	0	460	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	883	-
Stage 1	-	-	0	-
Stage 2	-	-	883	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 315	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 403	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 315	-
Mov Cap-2 Maneuver	-	-	~ 315	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 403	-

Approach	EB	SB
HCM Control Delay, s	0	254.8
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	315
HCM Lane V/C Ratio	-	1.46
HCM Control Delay (s)	-	254.8
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	25

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	133.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	930	0	0	442	0
Future Vol, veh/h	0	930	0	0	442	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1011	0	0	480	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	1011	-
Stage 1	-	-	0	-
Stage 2	-	-	1011	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 264	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 350	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 264	-
Mov Cap-2 Maneuver	-	-	~ 264	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 350	-

Approach	EB	SB
HCM Control Delay, s	0	$ 415.7
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	264
HCM Lane V/C Ratio	-	1.82
HCM Control Delay (s)	-	$ 415.7
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	32.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	157.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	865	0	0	499	0
Future Vol, veh/h	0	865	0	0	499	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	940	0	0	542	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	940	-
Stage 1	-	-	0	-
Stage 2	-	-	940	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 291	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 378	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 291	-
Mov Cap-2 Maneuver	-	-	~ 291	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 378	-

Approach	EB	SB
HCM Control Delay, s	0	$ 431.2
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	291
HCM Lane V/C Ratio	-	1.864
HCM Control Delay (s)	-	$ 431.2
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	36.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	238.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	994	0	0	534	0
Future Vol, veh/h	0	994	0	0	534	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1080	0	0	580	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	1080	-
Stage 1	-	-	0	-
Stage 2	-	-	1080	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 240	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 324	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 240	-
Mov Cap-2 Maneuver	-	-	~ 240	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 324	-

Approach	EB	SB
HCM Control Delay, s	0	$ 682.9
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	240
HCM Lane V/C Ratio	-	2.418
HCM Control Delay (s)	-	$ 682.9
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	47.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	29.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	685	0	0	357	0
Future Vol, veh/h	0	685	0	0	357	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	745	0	0	388	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	745	-
Stage 1	-	-	0	-
Stage 2	-	-	745	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 380	0
Stage 1	0	-	-	0
Stage 2	0	-	467	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 380	-
Mov Cap-2 Maneuver	-	-	~ 380	-
Stage 1	-	-	-	-
Stage 2	-	-	467	-

Approach	EB	SB
HCM Control Delay, s	0	85.4
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	380
HCM Lane V/C Ratio	-	1.021
HCM Control Delay (s)	-	85.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	12.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	93.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	755	0	0	458	0
Future Vol, veh/h	0	755	0	0	458	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	821	0	0	498	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	821	-
Stage 1	-	-	0	-
Stage 2	-	-	821	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 343	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 431	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 343	-
Mov Cap-2 Maneuver	-	-	~ 343	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 431	-

Approach	EB	SB
HCM Control Delay, s	0	248.1
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	343
HCM Lane V/C Ratio	-	1.451
HCM Control Delay (s)	-	248.1
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	26.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	38.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	713	0	0	371	0
Future Vol, veh/h	0	713	0	0	371	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	775	0	0	403	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	775	-
Stage 1	-	-	0	-
Stage 2	-	-	775	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 365	0
Stage 1	0	-	-	0
Stage 2	0	-	453	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 365	-
Mov Cap-2 Maneuver	-	-	~ 365	-
Stage 1	-	-	-	-
Stage 2	-	-	453	-

Approach	EB	SB
HCM Control Delay, s	0	112.3
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	365
HCM Lane V/C Ratio	-	1.105
HCM Control Delay (s)	-	112.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	14.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	111

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	783	0	0	472	0
Future Vol, veh/h	0	783	0	0	472	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	851	0	0	513	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	851	-
Stage 1	-	-	0	-
Stage 2	-	-	851	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 329	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 417	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 329	-
Mov Cap-2 Maneuver	-	-	~ 329	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 417	-

Approach	EB	SB
HCM Control Delay, s	0	295.2
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	329
HCM Lane V/C Ratio	-	1.559
HCM Control Delay (s)	-	295.2
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	29.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	105.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	844	0	0	439	0
Future Vol, veh/h	0	844	0	0	439	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	917	0	0	477	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	917	-
Stage 1	-	-	0	-
Stage 2	-	-	917	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 301	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 388	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 301	-
Mov Cap-2 Maneuver	-	-	~ 301	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 388	-

Approach	EB	SB
HCM Control Delay, s	0	$ 309.5
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	301
HCM Lane V/C Ratio	-	1.585
HCM Control Delay (s)	-	$ 309.5
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	28.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	210.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	914	0	0	540	0
Future Vol, veh/h	0	914	0	0	540	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	993	0	0	587	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	993	-
Stage 1	-	-	0	-
Stage 2	-	-	993	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 271	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 357	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 271	-
Mov Cap-2 Maneuver	-	-	~ 271	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 357	-

Approach	EB	SB
HCM Control Delay, s	0	$ 566.6
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	271
HCM Lane V/C Ratio	-	2.166
HCM Control Delay (s)	-	$ 566.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	44.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	137

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	788	0	0	506	0
Future Vol, veh/h	0	788	0	0	506	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	857	0	0	550	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	857	-
Stage 1	-	-	0	-
Stage 2	-	-	857	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 326	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 414	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 326	-
Mov Cap-2 Maneuver	-	-	~ 326	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 414	-

Approach	EB	SB
HCM Control Delay, s	0	$ 350.3
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	326
HCM Lane V/C Ratio	-	1.687
HCM Control Delay (s)	-	$ 350.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	34.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	157

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	816	0	0	520	0
Future Vol, veh/h	0	816	0	0	520	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	887	0	0	565	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	887	-
Stage 1	-	-	0	-
Stage 2	-	-	887	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 313	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 401	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 313	-
Mov Cap-2 Maneuver	-	-	~ 313	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 401	-

Approach	EB	SB
HCM Control Delay, s	0	$ 403.3
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	313
HCM Lane V/C Ratio	-	1.806
HCM Control Delay (s)	-	$ 403.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	37.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	270.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	947	0	0	588	0
Future Vol, veh/h	0	947	0	0	588	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1029	0	0	639	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	1029	-
Stage 1	-	-	0	-
Stage 2	-	-	1029	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 258	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 343	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 258	-
Mov Cap-2 Maneuver	-	-	~ 258	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 343	-

Approach	EB	SB
HCM Control Delay, s	0	$ 706.3
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	258
HCM Lane V/C Ratio	-	2.477
HCM Control Delay (s)	-	$ 706.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	52.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	24.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	668	0	0	348	0
Future Vol, veh/h	0	668	0	0	348	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	726	0	0	378	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	726	-
Stage 1	-	-	0	-
Stage 2	-	-	726	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	390	0
Stage 1	0	-	-	0
Stage 2	0	-	477	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	390	-
Mov Cap-2 Maneuver	-	-	390	-
Stage 1	-	-	-	-
Stage 2	-	-	477	-

Approach	EB	SB
HCM Control Delay, s	0	71.3
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	390
HCM Lane V/C Ratio	-	0.97
HCM Control Delay (s)	-	71.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	11.2

Intersection	
Int Delay, s/veh	129.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	775	0	0	503	0
Future Vol, veh/h	0	775	0	0	503	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	842	0	0	547	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	842	-
Stage 1	-	-	0	-
Stage 2	-	-	842	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 333	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 421	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 333	-
Mov Cap-2 Maneuver	-	-	~ 333	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 421	-

Approach	EB	SB
HCM Control Delay, s	0	$ 330.1
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	333
HCM Lane V/C Ratio	-	1.642
HCM Control Delay (s)	-	$ 330.1
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	32.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	32.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	695	0	0	362	0
Future Vol, veh/h	0	695	0	0	362	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	755	0	0	393	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	755	-
Stage 1	-	-	0	-
Stage 2	-	-	755	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 375	0
Stage 1	0	-	-	0
Stage 2	0	-	462	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 375	-
Mov Cap-2 Maneuver	-	-	~ 375	-
Stage 1	-	-	-	-
Stage 2	-	-	462	-

Approach	EB	SB
HCM Control Delay, s	0	93.9
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	375
HCM Lane V/C Ratio	-	1.049
HCM Control Delay (s)	-	93.9
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	13.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	149.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	802	0	0	517	0
Future Vol, veh/h	0	802	0	0	517	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	872	0	0	562	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	872	-
Stage 1	-	-	0	-
Stage 2	-	-	872	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 320	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 407	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 320	-
Mov Cap-2 Maneuver	-	-	~ 320	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 407	-

Approach	EB	SB
HCM Control Delay, s	0	$ 380.9
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	320
HCM Lane V/C Ratio	-	1.756
HCM Control Delay (s)	-	$ 380.9
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	36.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	93.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	823	0	0	429	0
Future Vol, veh/h	0	823	0	0	429	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	895	0	0	466	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	895	-
Stage 1	-	-	0	-
Stage 2	-	-	895	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 310	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 397	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 310	-
Mov Cap-2 Maneuver	-	-	~ 310	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 397	-

Approach	EB	SB
HCM Control Delay, s	0	274
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	310
HCM Lane V/C Ratio	-	1.504
HCM Control Delay (s)	-	274
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	26.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	259.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	930	0	0	584	0
Future Vol, veh/h	0	930	0	0	584	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1011	0	0	635	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	1011	-
Stage 1	-	-	0	-
Stage 2	-	-	1011	-
Critical Hdwy	-	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	-	-	3.527	-
Pot Cap-1 Maneuver	0	-	~ 264	0
Stage 1	0	-	-	0
Stage 2	0	-	~ 350	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	~ 264	-
Mov Cap-2 Maneuver	-	-	~ 264	-
Stage 1	-	-	-	-
Stage 2	-	-	~ 350	-

Approach	EB	SB
HCM Control Delay, s	0	$ 673.2
HCM LOS		F

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	264
HCM Lane V/C Ratio	-	2.404
HCM Control Delay (s)	-	$ 673.2
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	51

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon