Appendix H Access and Circulation Considerations

Appendix

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URBAN CROSSROADS

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June 8, 2021

Mr. Chris Tiffany
Schmidt Design Group
1310 Rosecrans Street, Suite G
San Diego, CA 92106

SUBJECT: OAK CREEK PARK ACCESS AND CIRCULATION CONSIDERATIONS

Dear Mr. Chris Tiffany:

This letter provides our initial review of traffic issues associated with proposed improvements for the Oak Creek Community Park, including an assessment of alternative access configurations. The simulation and optimization traffic modeling tools Synchro and SimTraffic have also been utilized to evaluate existing plus proposed project traffic flows at the Valley Oak Drive / Oak Creek Park intersection.

PROJECT CONTEXT

Exhibit 1 shows the existing park, which is located north of Barranca Parkway, west of Sand Canyon Avenue, and east of Valley Oak Drive in the City of Irvine. Access to the park is provided at the Valley Oak Drive / Oak Creek Park intersection. Park visitors traveling south on Valley Oak Drive use a left turn pocket to turn into the site. Northbound Park visitors turn right at the Valley Oak Drive / Oak Creek Park intersection to enter the site, after maneuvering through the Valley Oak Drive / Barranca Parkway traffic signal.

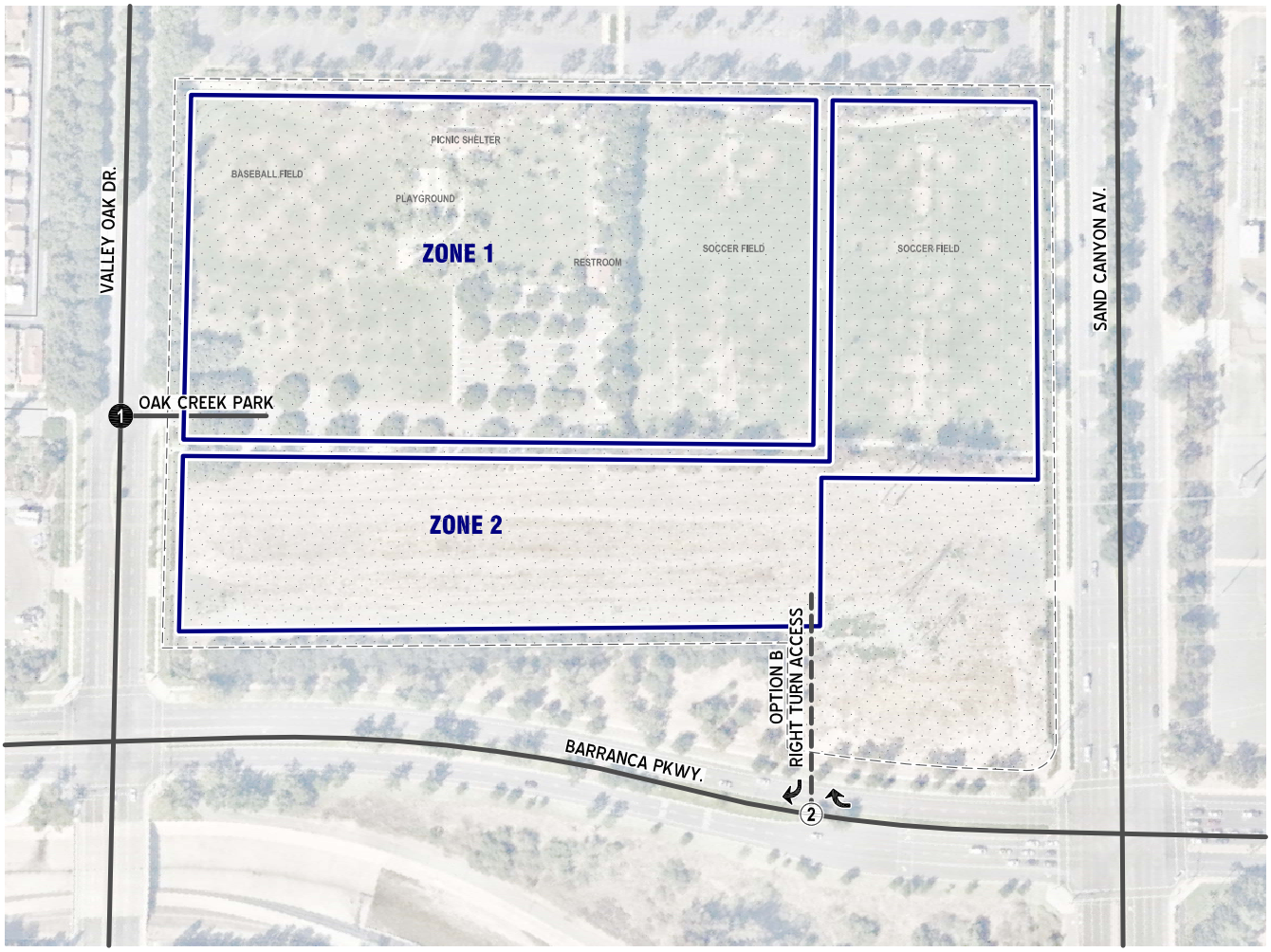
The Park currently provides 116 public parking spaces. Existing Oak Creek Park facilities include two soccer fields, one baseball field, and other multi-use active park accommodations (child play areas, restrooms, picnic pavilion, turf areas for various play/sports uses, and pedestrian walkways).

Exhibit 2 shows the City of Irvine General Plan roadway classifications and operational characteristics for streets surrounding the Park. The roadway system in the City of Irvine consists of four highway classifications: Major, Primary, Secondary and Commuter, which accommodate the majority of intercity and intracity trips. Additionally, there are three street classifications, Local Collector, Local Street and Private Way, which provide access to the highways.

Valley Oak Drive is classified as a Primary (two lanes in each direction, divided by a median), although it functions as a Collector between Alton Parkway and Irvine Center Drive. A Primary is defined as a moderate-speed highway with restricted access, which abuts and distributes trips to a variety of land uses. Oak Valley Drive is designed to provide four lanes of through traffic, bicycle lanes and emergency parking only, and it accommodates moderate parallel and perpendicular pedestrian movements.

Exhibit 3 shows available existing traffic volumes on streets surrounding the Park. Valley Oak Drive currently serves approximately 4,100 vehicles per day adjacent to the site.

EXHIBIT 1: EXISTING SITE AREA

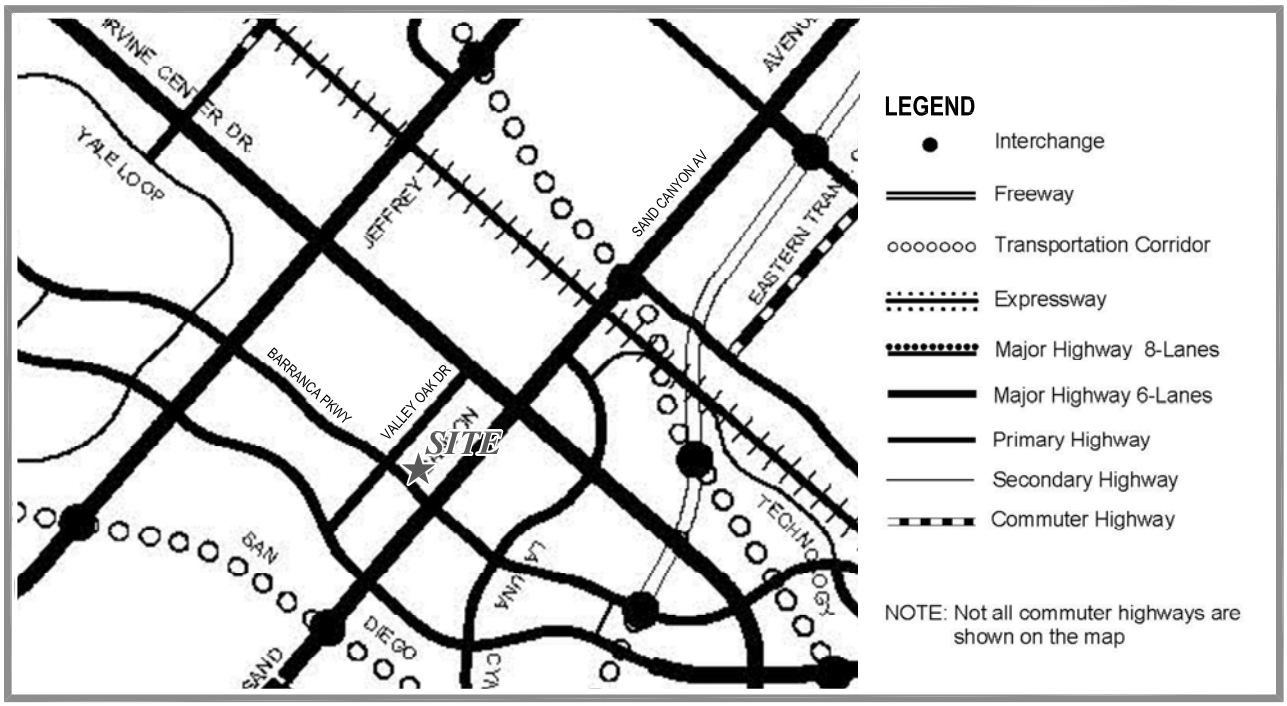


LEGEND:

- 1 = OPTION A EXISTING ANALYSIS LOCATION
- 2 = OPTION B ADDITIONAL ANALYSIS LOCATION
- = OPTION B DRIVEWAY (FUTURE)
- = RIGHT-IN/RIGHT-OUT ONLY
- ZONE # = TRAFFIC ANALYSIS ZONE (TAZ)

EXHIBIT 2: CITY OF IRVINE GENERAL PLAN ROADWAY CLASSIFICATION AND OPERATIONAL CHARACTERISTICS

ROADWAY CLASSIFICATION



OPERATIONAL CHARACTERISTICS

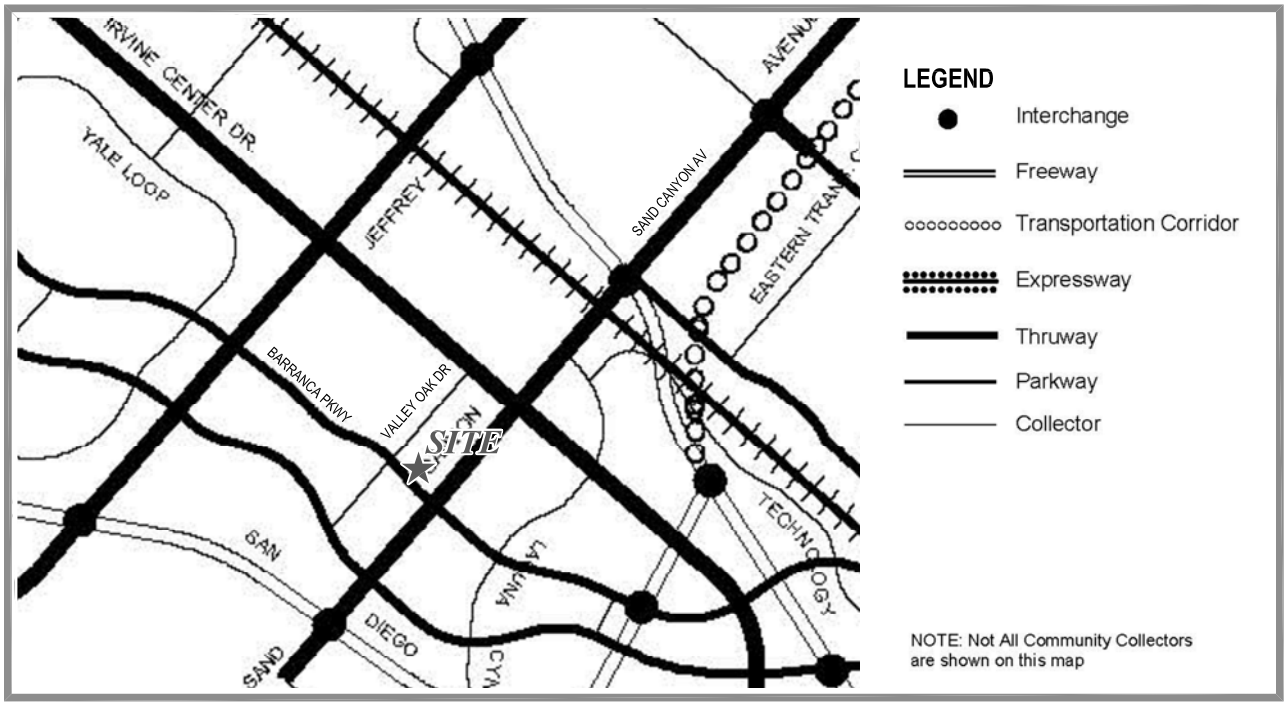


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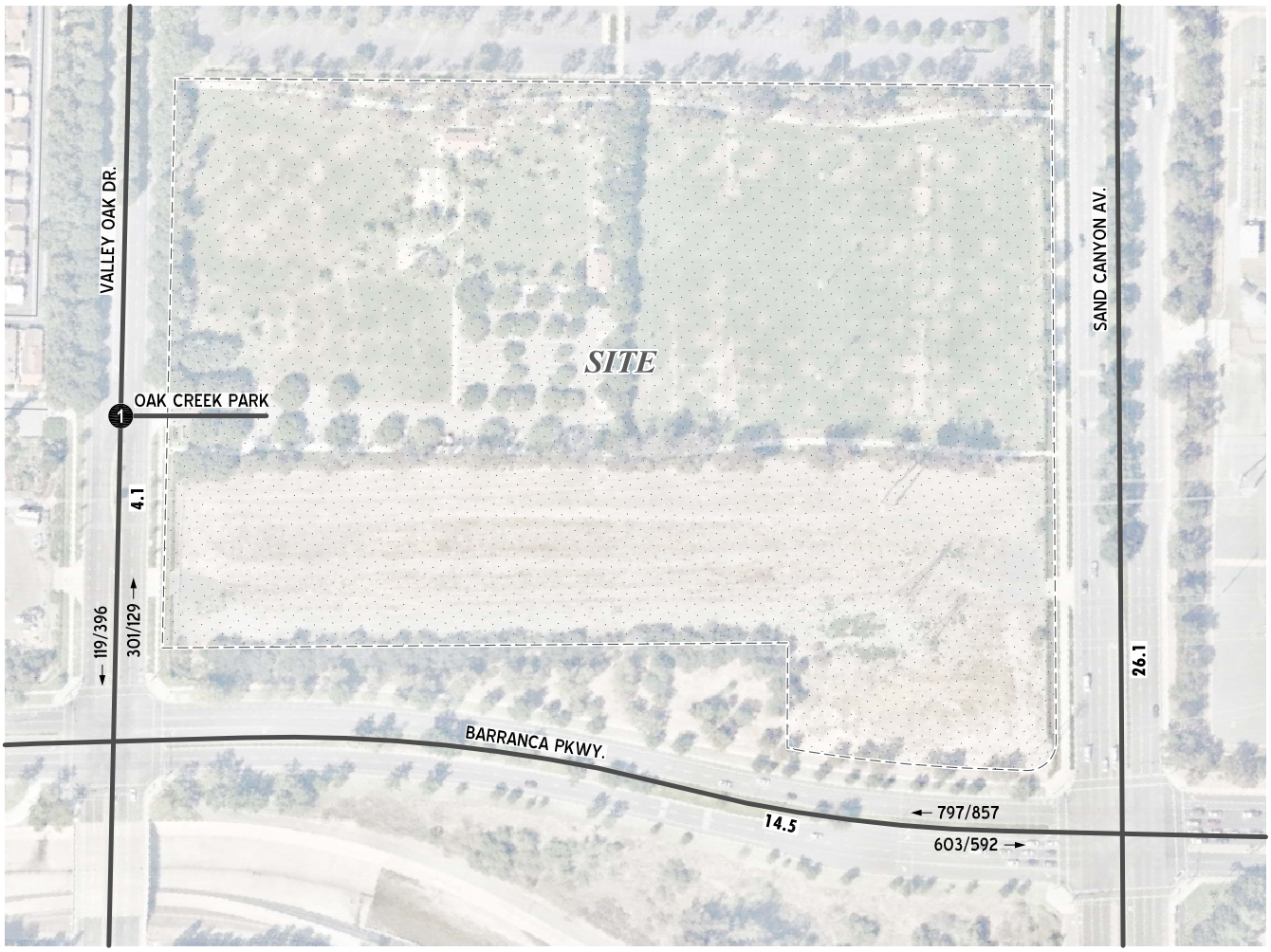
EXHIBIT 3: AVAILABLE EXISTING WEEKDAY TRAFFIC VOLUMES



LEGEND:

- (#) = INTERSECTION ID
- 10.0 = VEHICLES PER DAY (1000'S)
- ←100 = AM/PM DIRECTIONAL PEAK HOUR VOLUME

COUNT SOURCES:

1.) VALLEY OAK DRIVE ADT AND PEAK HOUR DIRECTIONAL FLOW: 2-DAY 24-HR COUNT (OCT. 9 to 10, 2018)

2.) SAND CANYON AV. ADT: 2-DAY ADT AVERAGE FROM CITY OF IRVINE COUNT DATA (2019)

3.) BARRANCA PKWY ADT: ESTIMATED BASED ON THE OCT. 2019 PEAK HOUR VOLUMES

4.) BARRANCA PKWY. PEAK HOUR DIRECTIONAL FLOW COUNT DATE: OCTOBER 15, 2019

As shown on the image below, pedestrians are directed to use the Valley Oak Drive / Barranca Parkway traffic signal crosswalk to cross Valley Oak Drive near the Park entrance.

Exhibits 4 and 5 show two access options for proposed Park land uses. Proposed Park land use quantities do not vary between the alternative access configurations. Proposed Park improvements expand the on-site public parking spaces from 116 (existing) to 229 total spaces (future). Proposed facilities include a new two-acre dog park and multi-use turf area, in addition to two soccer fields and other existing multi-use active park accommodations (child play areas, restrooms, picnic pavilion, turf areas for various play/sports uses, and pedestrian walkways).

Option A (Exhibit 4) retains the existing Valley Oak Drive / Oak Creek Park intersection as the only public vehicle entrance to the site. Option B (Exhibit 5) adds a limited access driveway (right turns only/no median break) to Barranca Parkway west of Sand Canyon Avenue.

TRIP GENERATION

Trip generation represents the amount of vehicle traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project.

EXHIBIT 4: OPTION A SITE PLAN

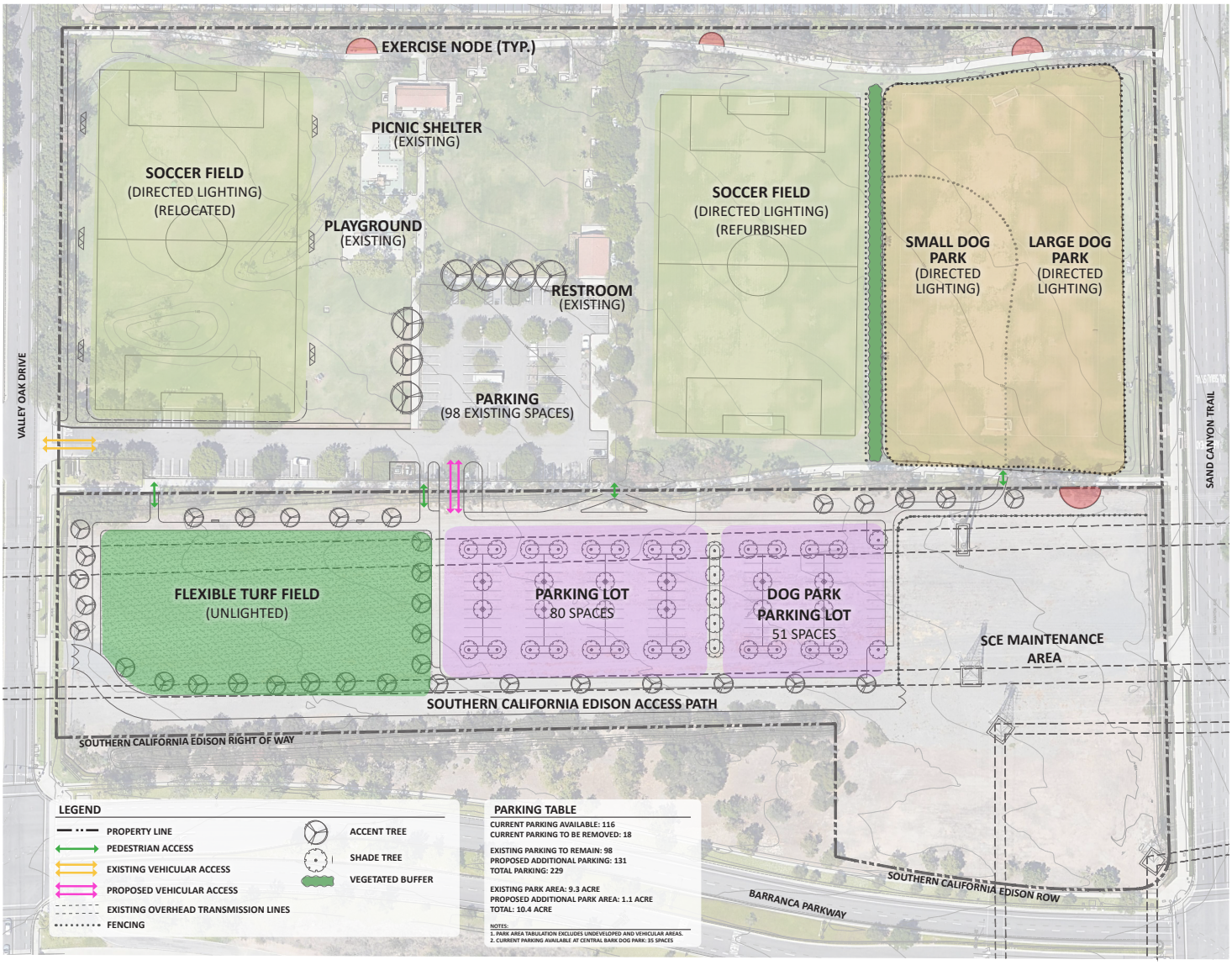
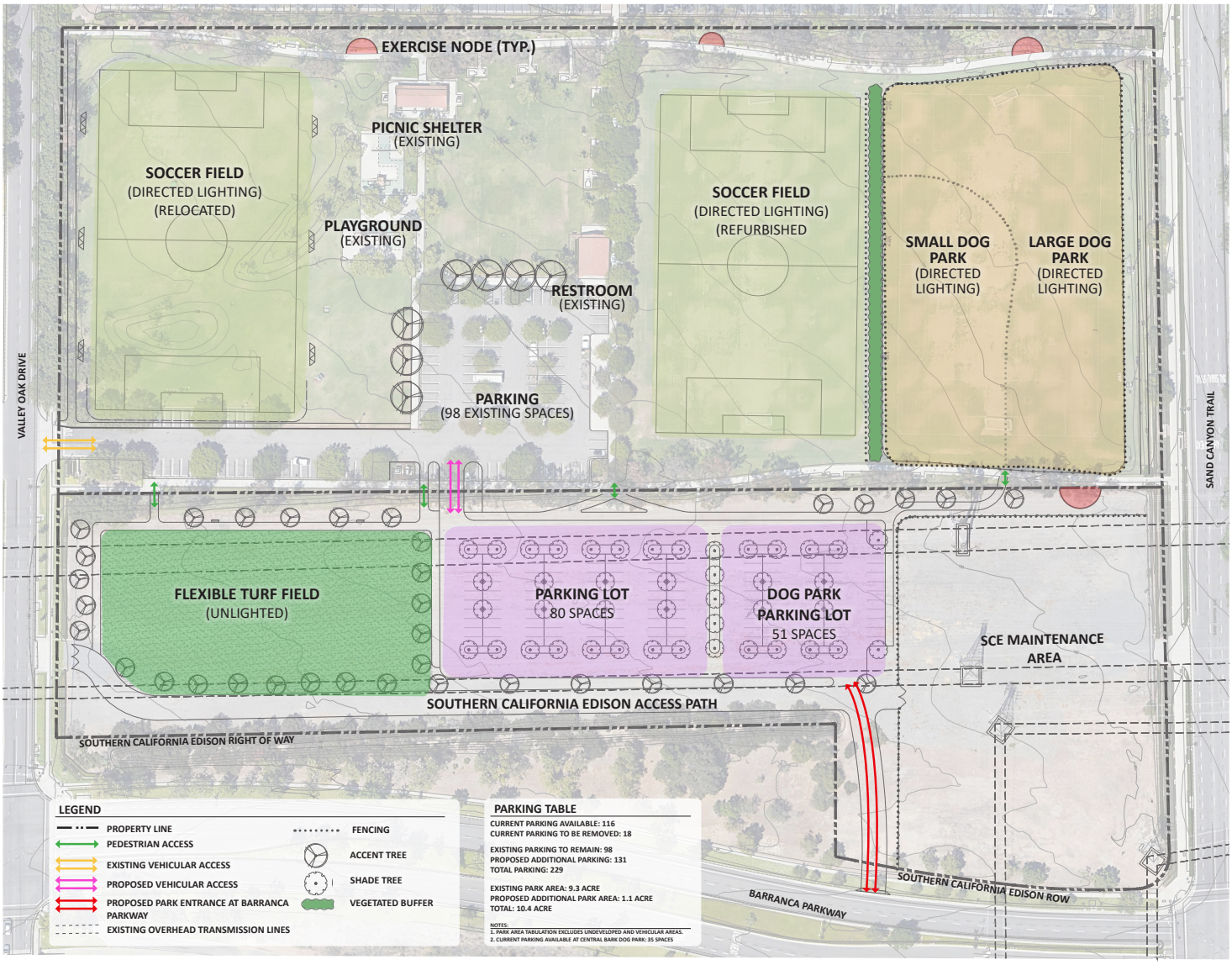


EXHIBIT 5: OPTION B SITE PLAN



The weekday trip generation rates used for this initial assessment are based upon information collected by City traffic consultants involved in Orange County Great Park traffic analyses, and the San Diego Associated Governments (SANDAG) Guide to Vehicular Traffic Generation Rates (April 2002). These sources include rates that are conservatively higher than Institute of Transportation Engineers (ITE) rates for comparable uses.

For evaluation purposes, two analysis zones are shown on Exhibit 1 for the park with adjacent expansion areas. Zone 1 is the area east of Valley Oak Drive and north of the existing parking spaces located on the south side of the Park entry driveway. Zone 2 encompasses the existing soccer field west of Sand Canyon Avenue, as well as the proposed park expansion area south of the Valley Oak Drive entrance.

Table 1 presents the initial trip generation calculations for zones 1 and 2. Existing Park land uses are estimated to generate 397 daily vehicle trip ends on weekdays, with 16 trip ends during the morning peak hour, and 96 trip ends during the evening peak hour.

Proposed Park land uses are estimated to generate a total of 714 daily vehicle trip ends on weekdays, with 49 trip ends during the morning peak hour, and 100 trip ends during the evening peak hour.

While daily and morning peak hour weekday traffic generation increases significantly in conjunctions with Park improvements, the change in evening peak hour traffic is nominal.

It is important to note that the weekday trip generation associated with park land uses increase significantly on weekend days and holidays.

TRIP DISTRIBUTION AND ASSIGNED VOLUMES

For the purposes of this initial access evaluation, Existing Plus Project development traffic volumes are examined at entries for each of the following options:

- Option A, Valley Oak Drive access only
- Option B, Adding a Right Turns Only Access Driveway Connection to Barranca

The outbound and inbound trip distribution patterns for Option A are shown on Exhibit 6. Equal proportions of Park traffic are allocated to routes serving north, south, east, and west traffic flows.

The outbound and inbound trip distribution patterns for Option B are shown on Exhibit 7. While maintaining the same overall directional orientation as presented for Option A, the volumes are rerouted to consider the new right-turns-only connection to Barranca Parkway.

Exhibits 8 and 9 show the existing plus project weekday AM and PM peak hour intersection turning movement volumes estimated at the Park entrances for Option A and Option B, respectively.

TABLE 1: WEEKDAY PROJECT TRIP GENERATION SUMMARY

Weekday Trip Generation Rates								
		AM Peak Hour			PM Peak Hour			
Land Use	Units	In	Out	Total	In	Out	Total	Daily
Soccer Field[2]	per field	1.29	1.00	2.29	20.00	9.86	29.86	109.00
Baseball Field[2]	per field	1.29	1.00	2.29	20.00	9.86	29.86	109.00
Dog Park[2]	per acre	9.00	6.00	15.00	8.00	7.00	15.00	192.00
Multi Use Active Park[3,4]	per acre	3.25	3.25	6.50	2.25	2.25	4.50	50.00
Multi Use Field[3]	per acre	3.25	3.25	6.50	2.25	2.25	4.50	50.00

Existing Use Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
ZONE 1:									
Soccer Field	1	Field	1	1	2	20	10	30	109
Baseball Field	1	Field	1	1	2	20	10	30	109
Multi Use Active Park[4]	1.4	AC	5	5	10	3	3	6	70
Zone 1 Subtotal			7	7	14	43	23	66	288
ZONE 2:									
Soccer Field	1	Field	1	1	2	20	10	30	109
EXISTING USE TOTAL			**8**	**8**	**16**	**63**	**33**	**96**	**397**

Proposed Project Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
ZONE 1:									
Soccer Field	2	Field	3	2	5	40	20	60	218
Multi Use Active Park[4]	0.9	AC	3	3	6	2	2	4	47
Zone 1 Subtotal			6	5	11	42	22	64	265
ZONE 2:									
Dog Park	2	AC	18	12	30	16	14	30	384
Multi Use Field	1.3	AC	4	4	8	3	3	6	65
Zone 2 Subtotal			22	16	38	19	17	36	449
PROPOSED PROJECT TOTAL			**28**	**21**	**49**	**61**	**39**	**100**	**714**

Trip Generation Comparison Results								
Existing Use		8	8	16	63	33	96	397
Proposed Project		28	21	49	61	39	100	714
DELTA (Proposed - Existing)		**20**	**13**	**33**	**-2**	**6**	**4**	**317**

[1] AC = Acres

[2] Trip Generation Rate Source: Orange County Great Park Development Plan Traffic Study, July 2014. Prepared by LSA Associates, Inc.

[3] For evaluation purposes, SANDAG's City Park (developed) daily and peak hour rates are utilized for multi-use park.

[4] Multi-use turf, child play area, restrooms, picnic pavilion, and pedestrian walkways

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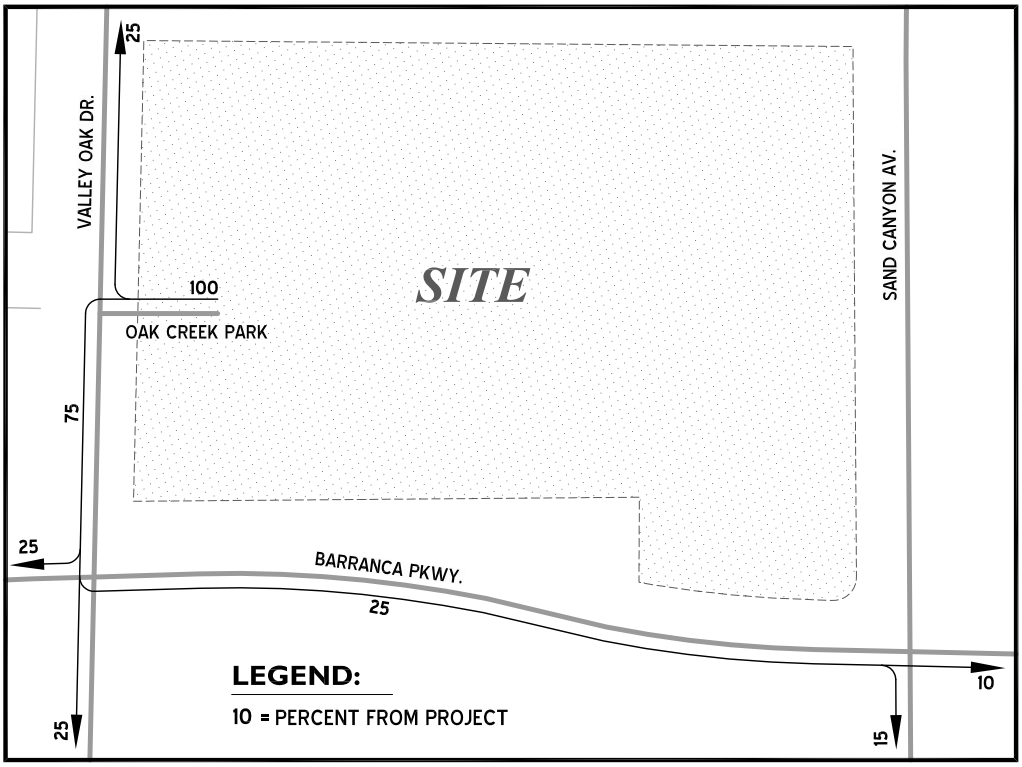
EXHIBIT 6: OPTION A PROJECT TRIP DISTRIBUTION

OUTBOUND TRIP DISTRIBUTION



INBOUND TRIP DISTRIBUTION

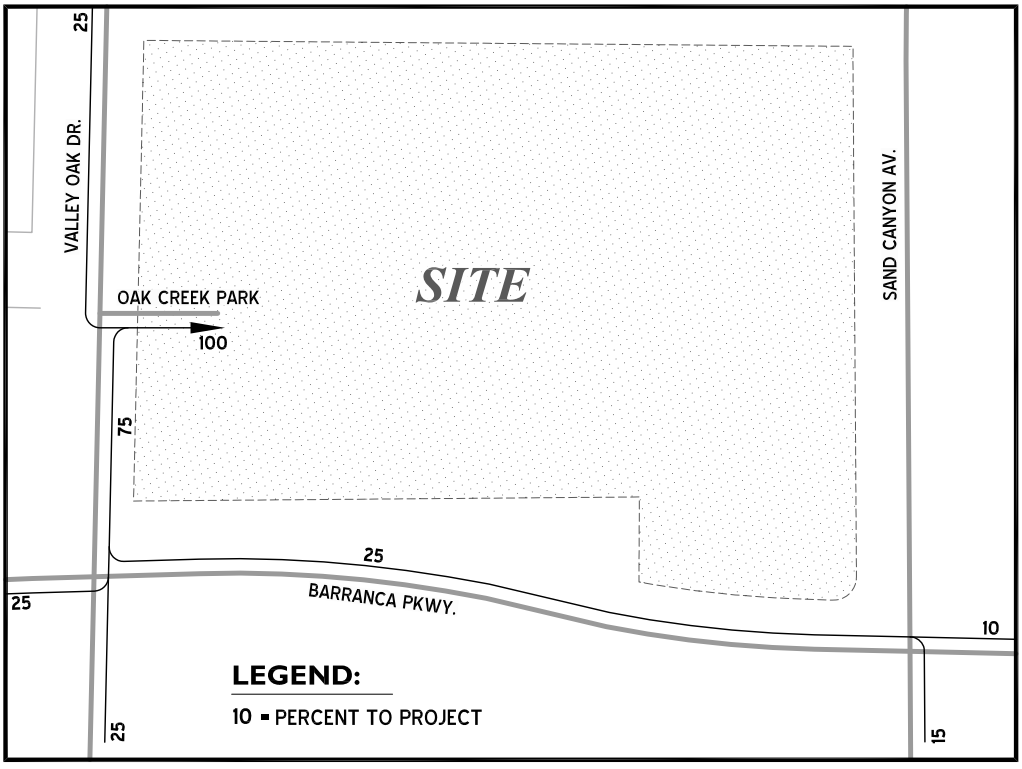
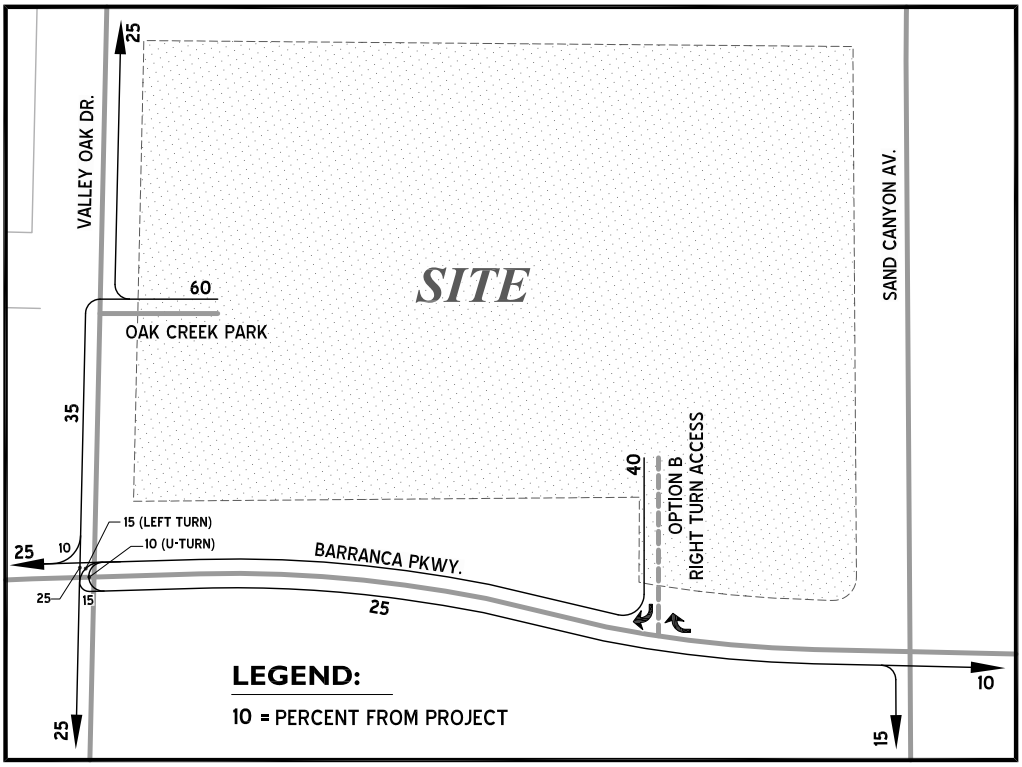


EXHIBIT 7: OPTION B PROJECT TRIP DISTRIBUTION

OUTBOUND TRIP DISTRIBUTION



INBOUND TRIP DISTRIBUTION

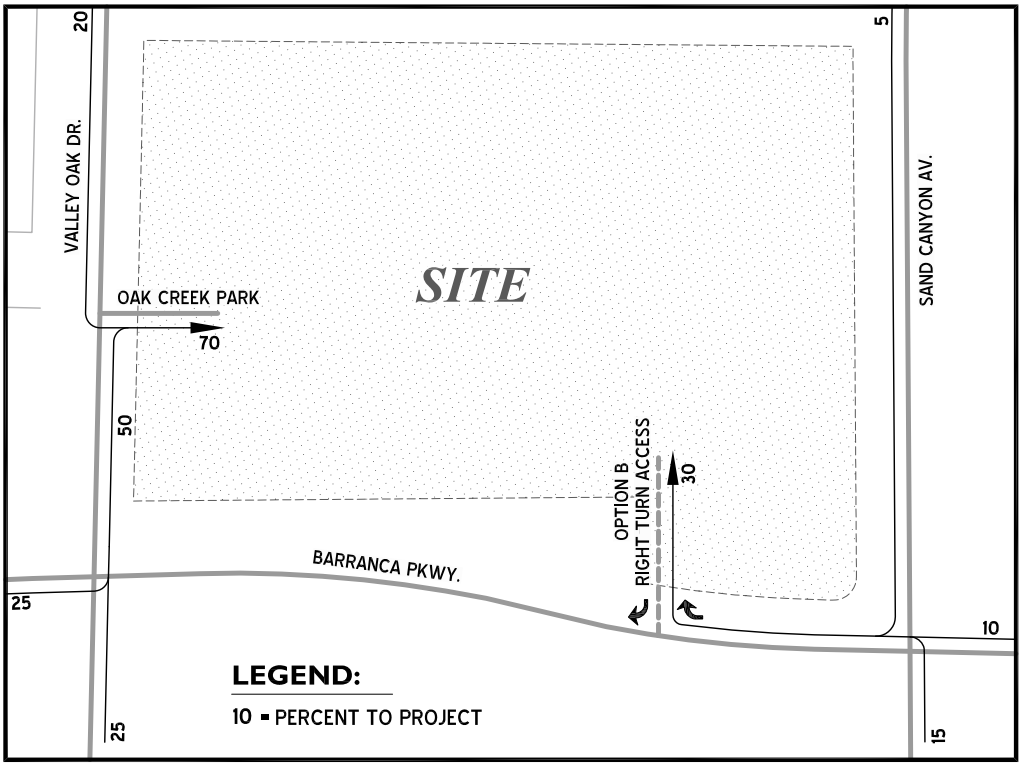
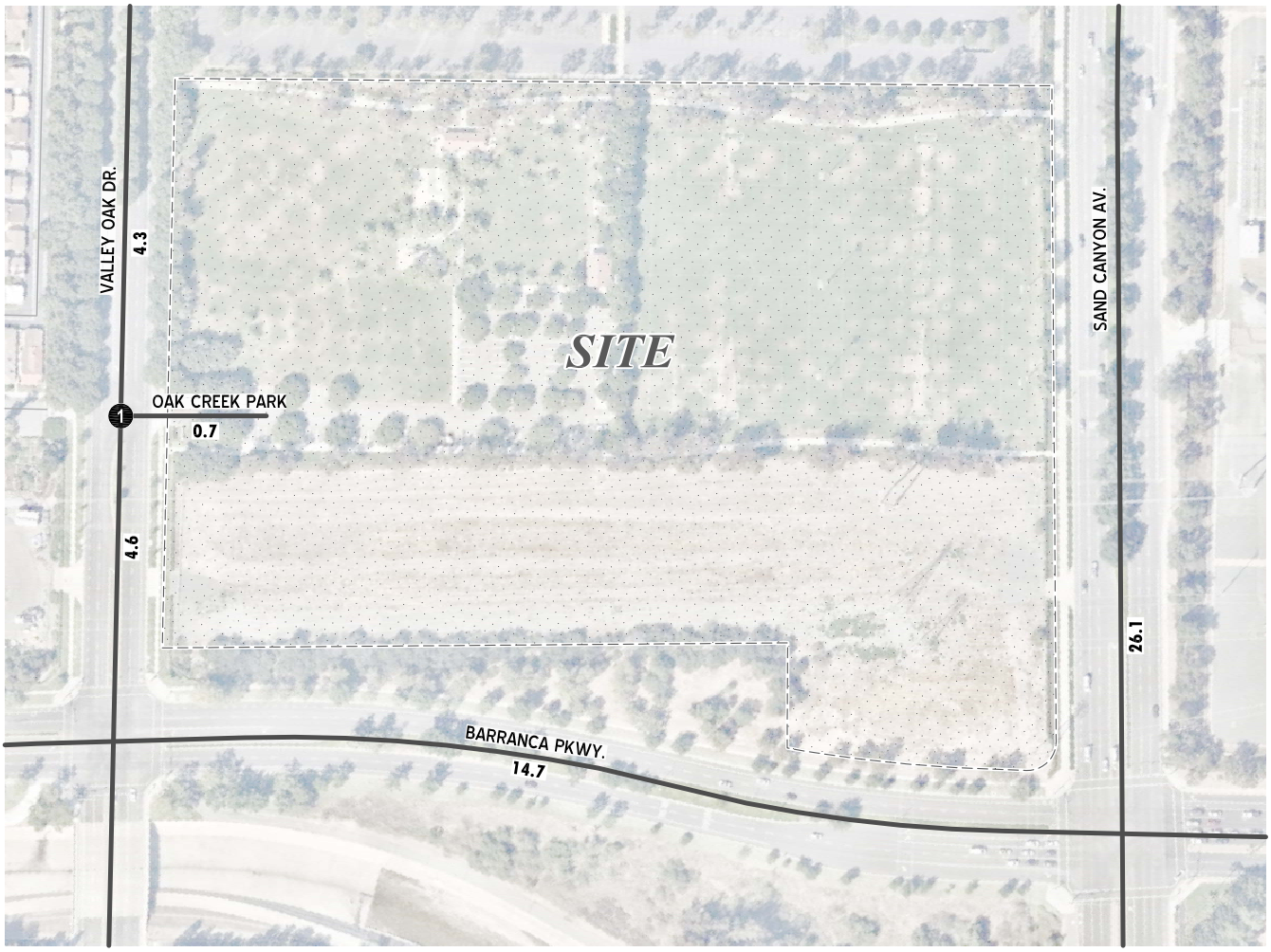
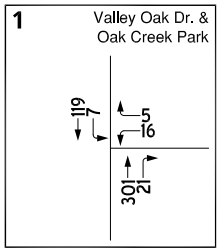


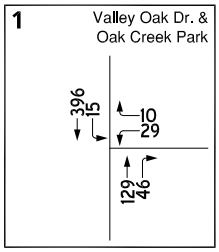
EXHIBIT 8: OPTION A EXISTING PLUS PROJECT VOLUMES AT ENTRANCE



AM PEAK HOUR



PM PEAK HOUR

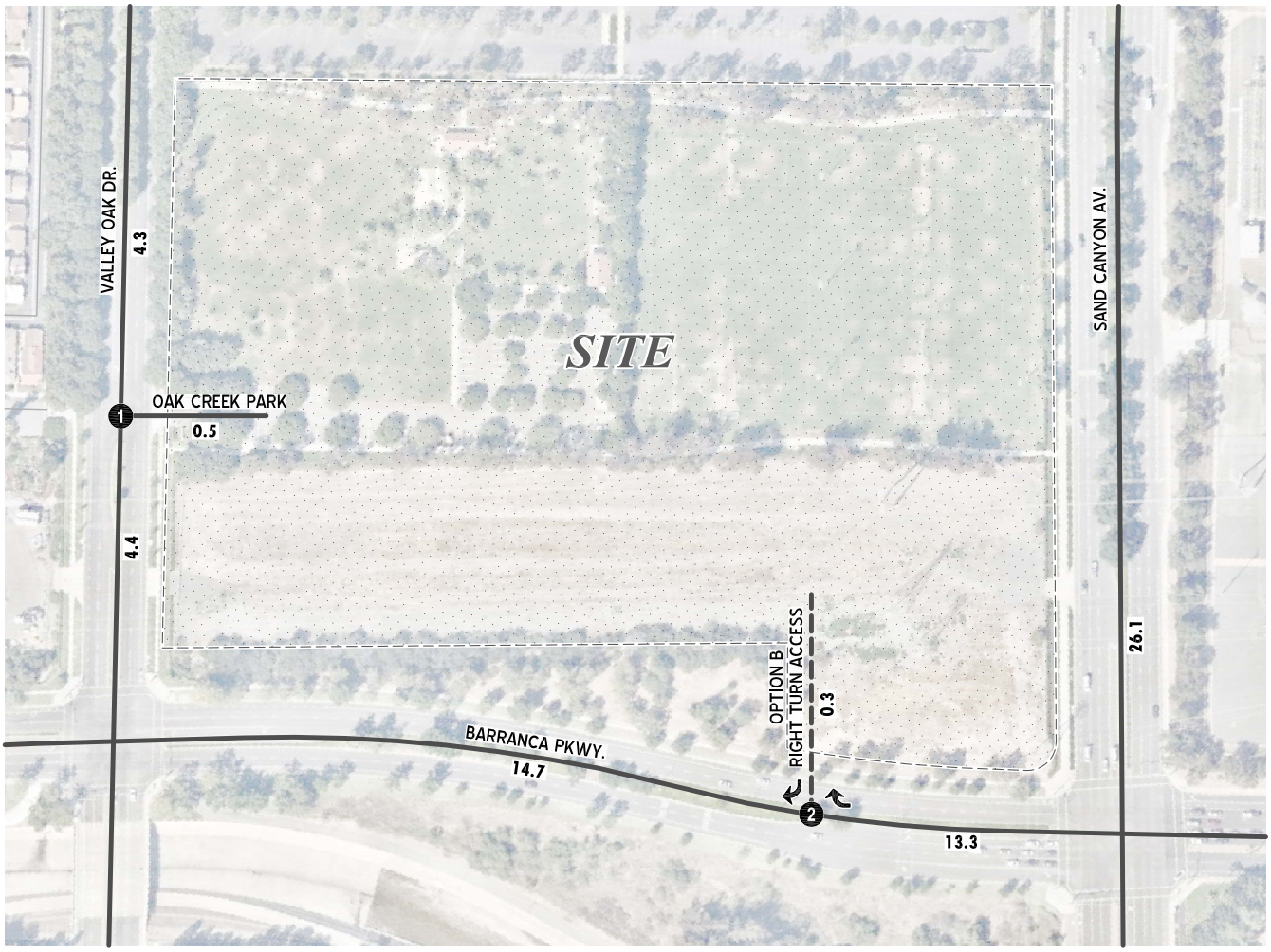


LEGEND:

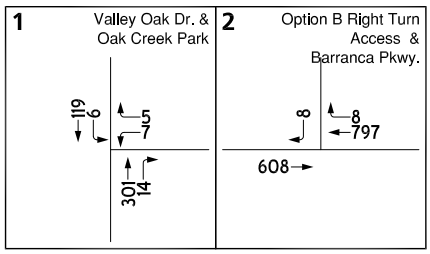
(#) = INTERSECTION ID

10.0 = VEHICLES PER DAY (1000'S)

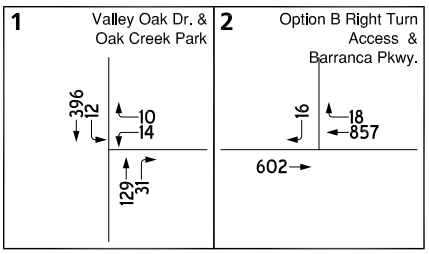
EXHIBIT 9: OPTION B EXISTING PLUS PROJECT VOLUMES AT ENTRANCES



AM PEAK HOUR



PM PEAK HOUR



LEGEND:

- (#) = INTERSECTION ID
- = OPTION B DRIVEWAY (FUTURE)
- 10.0 = VEHICLES PER DAY (1000'S)

Mr. Chris Tiffany
Schmidt Design Group
June 8, 2021

EXISTING PLUS PROJECT TRAFFIC OPERATIONS AT OAK VALLEY DRIVE ENTRANCE

Table 2 summarizes the Valley Oak Drive / Oak Creek Park intersection weekday peak hour level of service (LOS) for weekday morning and evening peak hour conditions with Options A and B. Intersection analysis worksheets are provided in Attachment 1.

For either access scenario, the Valley Oak Drive / Oak Creek Park intersection is anticipated to experience acceptable operations for existing plus project conditions with Park improvements.

INITIAL FINDINGS AND RECOMMMENDATIONS

Although Park volumes are concentrated at the Valley Oak Drive / Oak Creek Park intersection, Option A is an acceptable access scenario with development of the Park improvements. The existing daily traffic capacity on Valley Oak Drive north of Barranca Parkway is approximately 32,000 ADT. Existing traffic volumes on Valley Oak Drive adjacent to the Park are less than 15% of its capacity. This relatively low-background volume condition provides a favorable setting for the Valley Oak Drive / Oak Creek Park intersection to serve Park uses without congestion impacts.

As noted above, trip generation associated with park land uses increase significantly on weekend days and holidays. For Option A, the daily entry volume could increase to more than 2,000 ADT at the Park entrance east of Valley Oak Drive. Peak hour weekend volumes could be over 400 vehicles per hour. Although peak hour vehicle queues can be expected to interfere with some of the parking spaces on the entry driveway east of Valley Oak Drive, any potential back-ups on Valley Oak Drive are ameliorated by the low background volumes on that roadway.

Option B would provide an added outlet for Park traffic, which may be particularly useful during peak weekend conditions. However, a full evaluation of City of Irvine Transportation Design Procedures (TDPs) will be needed if this option is chosen for further analysis.

If you have any questions regarding this initial review of Park access and circulation, please contact John Kain at (949) 375-2435 or Marlie Whiteman at (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain, AICP
Principal

Marlie Whiteman, PE
Senior Associate

Attachments

TABLE 2: INTERSECTION ANALYSIS FOR EXISTING + PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												OPTION A				OPTION B			
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Valley Oak Dr. / Oak Creek Park	CSS	0	2	d	1	2	0	0	0	0	0	1!	0	11.1	10.9	B	B	10.6	10.3	B	B
2	Option B Right Turn Access / Barranca Pkwy.	**CSS**	0	0	0	0	0	**1**	0	2	0	0	2	d	--	--	--	--	11.4	11.8	B	B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 10.1 analysis software.

[3] CSS = Cross-street Stop

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ATTACHMENT 1:

EXISTING PLUS PROJECT (OPTION A AND OPTION B) INTERSECTION ANALYSIS WORKSHEETS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	16	5	301	21	7	119
Future Volume (vph)	16	5	301	21	7	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	150	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				90	
Link Speed (mph)	30		45			45
Link Distance (ft)	171		1026			462
Travel Time (s)	3.9		15.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	5	301	21	7	119
Future Vol, veh/h	16	5	301	21	7	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	50	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	5	327	23	8	129

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	408	164	0	0	350	0
Stage 1	327	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	571	852	-	-	1206	-
Stage 1	703	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	567	852	-	-	1206	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	616	1206	-
HCM Lane V/C Ratio	-	-	0.037	0.006	-
HCM Control Delay (s)	-	-	11.1	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	29	10	129	46	15	396
Future Volume (vph)	29	10	129	46	15	396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	150	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				90	
Link Speed (mph)	30		45			45
Link Distance (ft)	171		1026			462
Travel Time (s)	3.9		15.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	10	129	46	15	396
Future Vol, veh/h	29	10	129	46	15	396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	50	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	11	140	50	16	430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	387	70	0	0	190	0
Stage 1	140	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	589	978	-	-	1381	-
Stage 1	872	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	582	978	-	-	1381	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	649	1381	-
HCM Lane V/C Ratio	-	-	0.065	0.012	-
HCM Control Delay (s)	-	-	10.9	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	5	301	14	6	119
Future Volume (vph)	7	5	301	14	6	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	150	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				90	
Link Speed (mph)	30		45			45
Link Distance (ft)	171		1026			462
Travel Time (s)	3.9		15.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

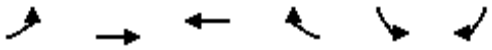
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	301	14	6	119
Future Vol, veh/h	7	5	301	14	6	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	50	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	5	327	15	7	129

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	406	164	0	0	342	0
Stage 1	327	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	573	852	-	-	1214	-
Stage 1	703	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	570	852	-	-	1214	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	661	1214	-
HCM Lane V/C Ratio	-	-	0.02	0.005	-
HCM Control Delay (s)	-	-	10.6	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	608	797	8	0	8
Future Volume (vph)	0	608	797	8	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			50	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	45		30	
Link Distance (ft)		282	341		323	
Travel Time (s)		6.4	5.2		7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	608	797	8	0	8
Future Vol, veh/h	0	608	797	8	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	50	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	661	866	9	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	433
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	571
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	571
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	571
HCM Lane V/C Ratio	-	-	-	0.015
HCM Control Delay (s)	-	-	-	11.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	10	129	31	12	396
Future Volume (vph)	14	10	129	31	12	396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		50	150	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				90	
Link Speed (mph)	30		45			45
Link Distance (ft)	171		1026			462
Travel Time (s)	3.9		15.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

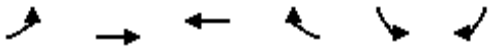
Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	10	129	31	12	396
Future Vol, veh/h	14	10	129	31	12	396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	50	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	11	140	34	13	430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	381	70	0	0	174	0
Stage 1	140	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	594	978	-	-	1400	-
Stage 1	872	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	589	978	-	-	1400	-
Mov Cap-2 Maneuver	589	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	769	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	706	1400	-
HCM Lane V/C Ratio	-	-	0.037	0.009	-
HCM Control Delay (s)	-	-	10.3	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	602	857	18	0	16
Future Volume (vph)	0	602	857	18	0	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			50	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		30	
Link Distance (ft)		282	341		323	
Travel Time (s)		6.4	7.8		7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	602	857	18	0	16
Future Vol, veh/h	0	602	857	18	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	50	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	654	932	20	0	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	466
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	543
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	543
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	543
HCM Lane V/C Ratio	-	-	-	0.032
HCM Control Delay (s)	-	-	-	11.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1