

MEMORANDUM

To: Tim Karp
Insite Property Group

From: Leo Espelet, P.E., T.E.
Kimley-Horn and Associates, Inc.

Date: December 13, 2021

Subject: Transportation Assessment for the Quarry Storage MPA (5790 Quarry Road)
Self-Storage and RV Parking Facility

This memorandum was prepared to document the anticipated traffic generation for the Quarry Storage MPA (5790 Quarry Road, Sweetwater Community Plan Area), document the findings of the Vehicle Miles Travelled Evaluation, and evaluate intersection and roadway operations.

Project Description

The proposed project would construct an approximately 130,000 square feet (SF) self-storage facility and RV parking lot located off Quarry Road, north of Sweetwater Road, in La Presa, California. The proposed self-storage facility contains 950 units and the proposed RV storage parking lot contains 115 spaces. On site, there is also a leasing office with 16 passenger vehicle parking spaces and 4 ADA parking spaces. Access to the site will be provided via a driveway on Quarry Road. **Figure 1** shows the overall project location in the Regional context. **Figure 2** illustrates the draft project site plan. The current Sweetwater Community Planning Area General Plan notes the project site as "Village Residential" with a "VR-2" land use designation.

Figure 1 Regional Map

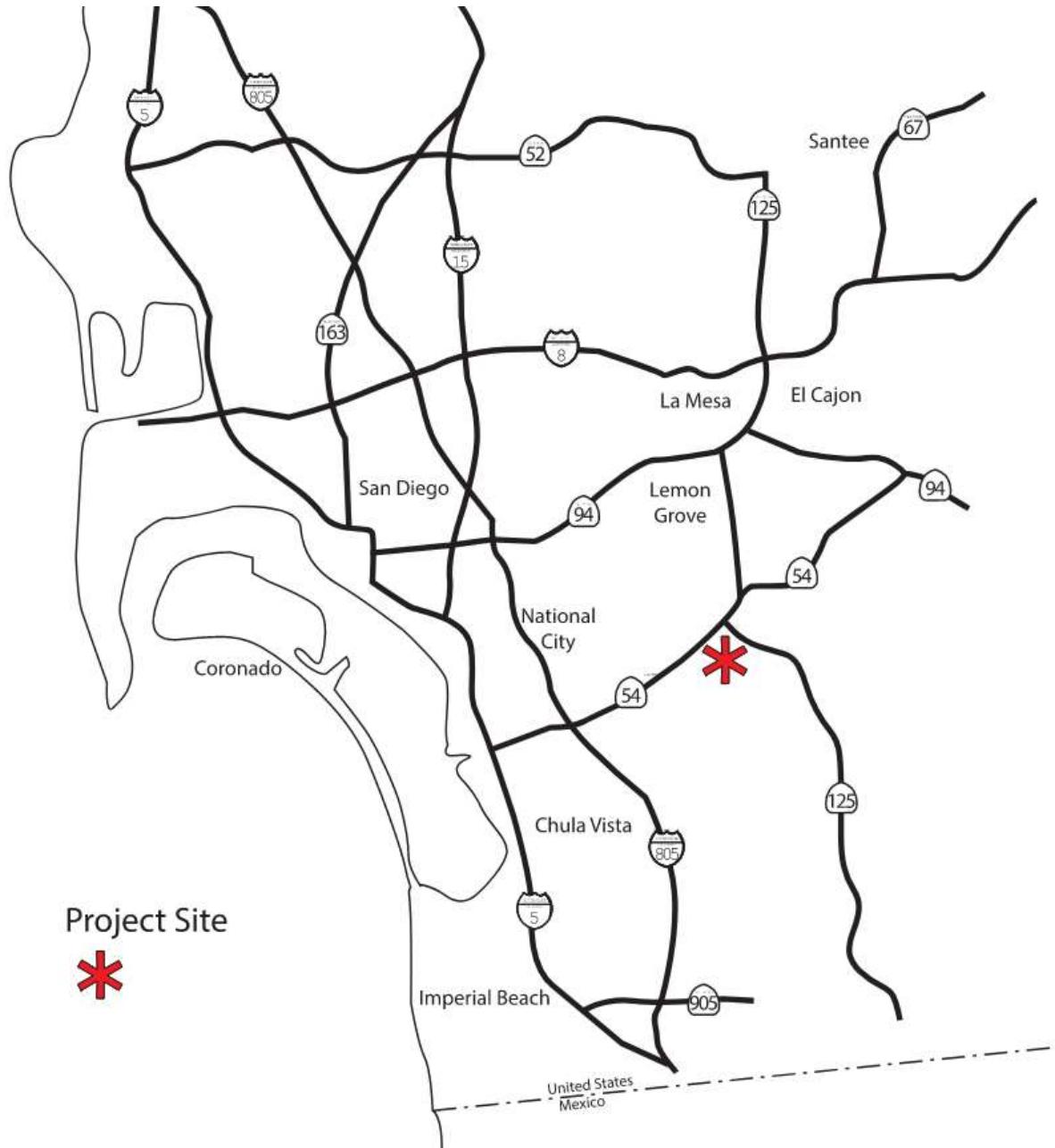


Figure 2 Site Plan



Proposed Custom Project Trip Generation

The potential trip generation of the proposed project was calculated using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition (2017) for self-storage use (Land Use Code 151: Mini-Warehouse). Although ITE does not have trip rates for RV storage use, the trip-generating characteristics of an RV storage use closely resemble those of a self-storage (mini-warehouse) use. Combined, the 950 self-storage units and 115 RV storage parking spaces total 1,065 storage units. **Table 1** shows the trip generation daily trip and peak-hour volume calculations.

Table 1 Trip Generation

Land Use	Size	Unit	ADT ²	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates									
Mini-Warehouse (Self-Storage and RV Storage) ¹	-	100 Storage Units	17.96	0.710	0.680	1.390	0.980	0.970	1.950
Project Trip Generation									
Self-Storage and RV Storage	10.65	100 Storage Units	191	8	7	15	10	11	21

Note:

1. Trip rate references from ITE Trip Generation, 10th Edition. Land Use Code (151) – Mini-Warehouse.
2. ADT=Average Daily Traffic, the daily trips generated by a site.

As shown in Table 1, the project is anticipated to generate 191 trips per day, with up to 21 trips in the PM peak-hour. Self-storage unit leasers would commute to the site via private vehicles or small single-unit truck rentals, they would drop off or pick up their personal items from the storage units and then exit the site. Individuals leasing an RV parking space will likely enter the site on their RV, accompanied by an additional driver on a private vehicle. Once the RV driver parks, it is assumed they would exit the site on the accompanying vehicle. It is not assumed that there will be daily traffic for each unit on the site, because of the nature of self-storage and RV parking facilities. Individuals that use these facilities only commute to them periodically, as represented in the trip generation estimate.

Traffic Operations Analysis at Sweetwater Road and Quarry Road

Project traffic is expected to enter Quarry Road at its intersection with Sweetwater Road. Currently, this intersection operates as a T-intersection with stop-control on Quarry Road and free movements on Sweetwater Road. Quarry Road has one lane in each direction. Sweetwater Road has one lane in each direction and Class II Bike Lanes. There are no turn pockets or turn lanes at the intersection.

The project team contacted National Data and Surveying Services (NDS) and received intersection peak-hour turning movement counts taken on Tuesday July 27th, 2021. NDS also provided daily trip counts (ADTs), speeds, and classifications for the north leg of the intersection, on Sweetwater Road, taken on the same day. The traffic counts are included in **Appendix A**. As shown in the counts, Sweetwater Road has an ADT of about 8,500 vehicles per day. 84 percent of vehicles are passenger cars, 14 percent of vehicles are 2-axle, 4-tire single unit trucks, and 2 percent of vehicles are heavy trucks. The 85th percentile speed is 48 miles per hour (mph) for northbound vehicles and 54 mph for southbound vehicles. The average speed is 42 mph for northbound vehicles and 47 mph for southbound vehicles.

The peak-hour and ADT volumes were used to analyze existing operations at the intersection and at the roadway segment north of the intersection. These volumes, with the addition of trips generated by the facility, were then used to analyze existing plus project conditions. Synchro 10 was used for the intersection analysis. The findings are included in **Appendix B** and summarized below in **Table 2** and **Table 3**.

Table 2 Intersection LOS Analysis Results

Existing Conditions		Existing Plus Project Conditions		
Peak Hour		AM	PM	AM
Intersection Delay ¹ (seconds/vehicle)		12.3	13.5	12.8
Intersection LOS		B	B	C

Note: See **Appendix B** for Synchro 10 Intersection Analysis Calculation Worksheets
 1. For one-way stop control intersections, intersection delay is reported for the stop-controlled movement.

Table 3 Roadway Segment LOS Analysis Results

	Roadway Segment	Roadway Classification ¹	LOS E Capacity	ADT ²	V/C RATIO ³	LOS
Existing Conditions	Sweetwater Road North of Quarry Road	2 Lane Light Collector	16,200	8,440	0.521	D
Existing Plus Project Conditions	Sweetwater Road North of Quarry Road	2 Lane Light Collector	16,200	8,631	0.533	D

1. Existing roads street classification is based on the County of San Diego Mobility Element
2. Average Daily Traffic (ADT) volumes for the roadway segments were provided by National Data & Surveying Services.
3. The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

The analysis shows that the intersection and Sweetwater Road function with LOS D or better for both existing and existing with project conditions. In conclusion, the intersection of Sweetwater Road with Quarry Road and the Sweetwater Road roadway segment are anticipated to operate acceptably with the proposed project.

Intersection Geometry

Quarry Road currently meets Sweetwater Road at a 30 degree angle, making turning into and out of Quarry Road from the north leg of the intersection difficult, especially for large vehicles. An alternative roadway concept layout, and its associated turning movements, is included in **Appendix C**. Appendix C also includes existing and proposed sight triangles for the intersection. As shown in the exhibits, realigning Quarry Road to “T” into Sweetwater Road will allow large vehicles to access Quarry Road and improve sight distance. It is noted the existing and proposed sight triangles looking north on Sweetwater Road are slightly less than the County standard of 500' for 50mph (County of San Diego Department of Public Works Public Road Standards, Table 5); however, the standard sight distance would be provided if a vehicle were to pull up to the edge of Sweetwater Road.

Vehicle Miles Travel Assessment

Senate Bill 743 (SB 743) was signed into law on September 27, 2013 and changed the way that public agencies evaluate transportation impact under CEQA. A key element of this law is the elimination of using auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant transportation impacts under CEQA. The legislative intent of SB 743 was to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas (GHG) emissions.” According to the law, “traffic congestion shall not be considered a significant impact on the environment” within CEQA transportation analysis.

In response, the Governor’s Office of Planning and Research (OPR) updated CEQA Guidelines to establish new criteria for determining the significance of transportation impacts. Based on input from the public, public agencies, and various organizations, OPR recommended that Vehicle Miles Traveled (VMT) be the primary metric for evaluating transportation impacts under CEQA. VMT measures the number of vehicle trips generated and the length or distance of those trips.

To help clarify the CEQA Guidelines and SB 743, OPR developed the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018). The advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. OPR provides this Technical Advisory as a resource for the public to use at their discretion.

The OPR guidelines note the following: “... local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact.” Locally serving retail/service projects generally improve the convenience of retail close to home and have the effect of reducing vehicle travel.

The Quarry Storage MPA will serve its local community with self-storage and RV parking, which will reduce regional VMT by providing convenient storage solutions closer to home than currently exist. Therefore, this project is considered a locally-serving retail/service project and is considered to have a less than significant impact for CEQA/Transportation.



Conclusion

The following are the key conclusions of the analysis:

- The proposed project is anticipated to generate 191 daily trips.
- This project is considered a locally-serving retail/service project and is considered to have a less than significant impact for CEQA/Transportation.
- The proposed project site is noted as a “Village Residential VR-2” land use in the Sweetwater General Plan.
- Realignment of Quarry Road should be considered to improve intersection sight distance and facilitate truck turns.



Appendix A – Traffic Counts

National Data & Surveying Services
Intersection Turning Movement Count

Location: Sweetwater Rd & Quarry Rd
City: La Presa
Control: 1-Way Stop(WB)

Project ID: 21-040131-001
Date: 7/27/2021

Data - Totals

NS/EW Streets:	Sweetwater Rd				Sweetwater Rd				Quarry Rd				Quarry Rd						
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND						
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	TOTAL
NL	NT	NR	NU		SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
7:00 AM	0	37	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	100
7:15 AM	0	54	0	0	1	94	0	0	0	0	0	0	0	3	0	1	0	0	153
7:30 AM	0	63	2	0	0	79	0	0	0	0	0	0	0	1	0	0	0	0	145
7:45 AM	0	67	2	0	0	67	0	0	0	0	0	0	0	1	0	0	0	0	137
8:00 AM	0	71	0	0	0	56	0	0	0	0	0	0	0	0	0	2	0	0	129
8:15 AM	0	70	1	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	138
8:30 AM	0	63	0	0	0	69	0	0	0	0	0	0	0	1	0	0	0	0	133
8:45 AM	0	53	1	0	0	50	0	0	0	0	0	0	0	2	0	0	0	0	106
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			TOTAL
APPROACH %'s :	0	478	6	0	1	545	0	0	0	0	0	0	8	0	3	0			1041
PEAK HR :	07:15 AM - 08:15 AM																		TOTAL
PEAK HR VOL :	0	255	4	0	1	296	0	0	0	0	0	0	5	0	3	0			564
PEAK HR FACTOR :	0.000	0.898	0.500	0.000	0.250	0.787	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.375	0.000	0.500		0.922
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND						
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	TOTAL
NL	NT	NR	NU		SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
4:00 PM	0	103	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	166
4:15 PM	0	117	0	0	1	82	0	0	0	0	0	0	0	0	0	0	0	0	200
4:30 PM	0	115	1	0	1	86	0	0	0	0	0	0	0	0	0	1	0	0	204
4:45 PM	0	84	2	0	0	83	0	0	0	0	0	0	0	0	0	0	0	0	169
5:00 PM	0	102	0	0	1	84	0	0	0	0	0	0	0	1	0	0	0	0	188
5:15 PM	0	81	1	0	0	93	0	0	0	0	0	0	0	0	0	1	0	0	176
5:30 PM	0	88	0	0	0	86	0	0	0	0	0	0	0	0	0	0	0	0	174
5:45 PM	0	69	0	0	1	89	0	0	0	0	0	0	0	0	0	1	0	0	160
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			TOTAL
APPROACH %'s :	0	759	4	0	4	666	0	0	0	0	0	0	1	0	3	0			1437
PEAK HR :	04:15 PM - 05:15 PM																		TOTAL
PEAK HR VOL :	0	418	3	0	3	335	0	0	0	0	0	0	1	0	1	0			761
PEAK HR FACTOR :	0.000	0.893	0.375	0.000	0.750	0.974	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.500		0.933

Prepared by National Data & Surveying Services

Sweetwater Rd & Quarry Rd

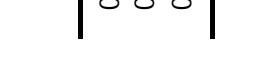
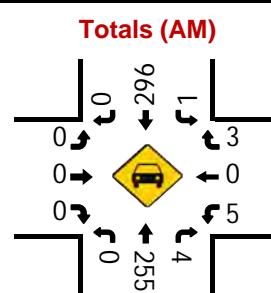
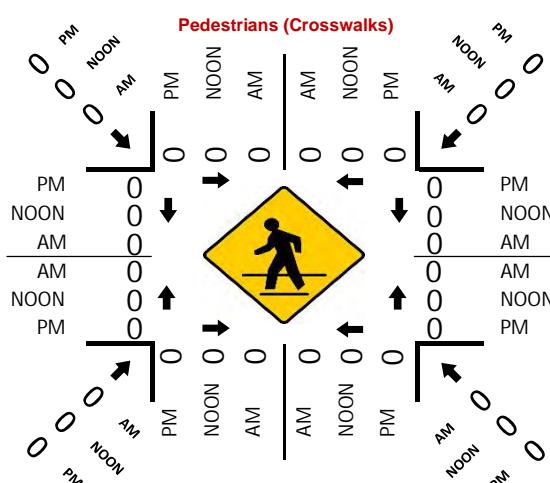
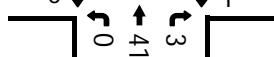
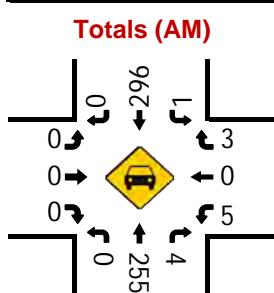
Peak Hour Turning Movement Count

ID: 21-040131-001

City: La Presa

Day: Tuesday

Date: 7/27/2021



Prepared by NDS/ATD
 Prepared by National Data & Surveying Services
VOLUME
 Sweetwater Rd N/O Quarry Rd

Day: Tuesday
 Date: 7/27/2021

City: La Presa
 Project #: CA21_040132_001

DAILY TOTALS				NB 4,484	SB 3,956	EB 0	WB 0					Total 8,440
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	3	2	0	0	5	12:00	53	35	0	0	88	
00:15	7	10	0	0	17	12:15	69	47	0	0	116	
00:30	1	4	0	0	5	12:30	50	65	0	0	115	
00:45	1	12	5	21	33	12:45	67	239	62	209	448	
01:00	4	4	0	0	8	13:00	76	63	0	0	139	
01:15	4	4	0	0	8	13:15	61	63	0	0	124	
01:30	6	3	0	0	9	13:30	55	62	0	0	117	
01:45	1	15	1	12	27	13:45	73	265	80	268	533	
02:00	1	4	0	0	5	14:00	75	74	0	0	149	
02:15	2	2	0	0	4	14:15	89	55	0	0	144	
02:30	1	3	0	0	4	14:30	82	73	0	0	155	
02:45	2	6	2	11	17	14:45	77	323	61	263	586	
03:00	1	3	0	0	4	15:00	96	70	0	0	166	
03:15	3	4	0	0	7	15:15	103	66	0	0	169	
03:30	0	6	0	0	6	15:30	103	85	0	0	188	
03:45	4	8	9	22	30	15:45	105	407	77	298	705	
04:00	3	5	0	0	8	16:00	96	59	0	0	155	
04:15	3	2	0	0	5	16:15	116	81	0	0	197	
04:30	3	7	0	0	10	16:30	110	88	0	0	198	
04:45	9	18	9	23	41	16:45	93	415	90	318	733	
05:00	5	6	0	0	11	17:00	98	87	0	0	185	
05:15	14	20	0	0	34	17:15	92	88	0	0	180	
05:30	11	17	0	0	28	17:30	86	84	0	0	170	
05:45	21	51	24	67	118	17:45	72	348	96	355	703	
06:00	21	22	0	0	43	18:00	81	62	0	0	143	
06:15	20	25	0	0	45	18:15	99	69	0	0	168	
06:30	24	38	0	0	62	18:30	89	60	0	0	149	
06:45	32	97	48	133	230	18:45	75	344	64	255	599	
07:00	33	53	0	0	86	19:00	71	53	0	0	124	
07:15	55	96	0	0	151	19:15	66	50	0	0	116	
07:30	61	79	0	0	140	19:30	57	44	0	0	101	
07:45	71	220	67	295	515	19:45	58	252	53	200	452	
08:00	66	60	0	0	126	20:00	70	47	0	0	117	
08:15	76	65	0	0	141	20:15	75	44	0	0	119	
08:30	61	72	0	0	133	20:30	57	29	0	0	86	
08:45	53	256	51	248	504	20:45	49	251	32	152	403	
09:00	64	54	0	0	118	21:00	39	23	0	0	62	
09:15	55	56	0	0	111	21:15	34	22	0	0	56	
09:30	64	57	0	0	121	21:30	35	34	0	0	69	
09:45	61	244	57	224	468	21:45	25	133	18	97	230	
10:00	46	44	0	0	90	22:00	30	15	0	0	45	
10:15	48	44	0	0	92	22:15	22	11	0	0	33	
10:30	47	61	0	0	108	22:30	17	12	0	0	29	
10:45	56	197	40	189	386	22:45	16	85	12	50	135	
11:00	65	43	0	0	108	23:00	20	10	0	0	30	
11:15	54	46	0	0	100	23:15	11	14	0	0	25	
11:30	51	57	0	0	108	23:30	17	13	0	0	30	
11:45	69	239	44	190	429	23:45	11	59	19	56	115	
TOTALS	1363	1435			2798	TOTALS	3121	2521			5642	
SPLIT %	48.7%	51.3%			33.2%	SPLIT %	55.3%	44.7%			66.8%	

DAILY TOTALS				NB 4,484	SB 3,956	EB 0	WB 0					Total 8,440
AM Peak Hour	07:30	07:15		07:15	PM Peak Hour	15:45	17:00					16:15
AM Pk Volume	274	302		555	PM Pk Volume	427	355					763
Pk Hr Factor	0.901	0.786		0.919	Pk Hr Factor	0.920	0.924					0.963
7 - 9 Volume	476	543	0	0	1019	4 - 6 Volume	763	673	0	0	1436	
7 - 9 Peak Hour	07:30	07:15		07:15	4 - 6 Peak Hour	16:15	17:00					16:15
7 - 9 Pk Volume	274	302	0	0	555	4 - 6 Peak Hour	417	355	0	0	763	
Pk Hr Factor	0.901	0.786	0.000	0.000	Pk Hr Factor	0.899	0.924	0.000	0.000			0.963

CLASSIFICATION

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	9	3	0	0	0	0	0	0	0	0	0	0	12
01:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
04:00	0	16	1	0	1	0	0	0	0	0	0	0	0	18
05:00	0	40	11	0	0	0	0	0	0	0	0	0	0	51
06:00	0	73	22	0	2	0	0	0	0	0	0	0	0	97
07:00	1	172	43	0	4	0	0	0	0	0	0	0	0	220
08:00	1	221	29	2	3	0	0	0	0	0	0	0	0	256
09:00	3	191	40	2	5	2	1	0	0	0	0	0	0	244
10:00	2	157	34	3	1	0	0	0	0	0	0	0	0	197
11:00	1	200	32	0	4	2	0	0	0	0	0	0	0	239
12:00 PM	1	202	31	0	1	3	1	0	0	0	0	0	0	239
13:00	0	219	36	0	9	0	0	0	1	0	0	0	0	265
14:00	0	263	54	2	3	1	0	0	0	0	0	0	0	323
15:00	1	341	52	1	11	1	0	0	0	0	0	0	0	407
16:00	0	348	64	0	3	0	0	0	0	0	0	0	0	415
17:00	1	298	45	0	4	0	0	0	0	0	0	0	0	348
18:00	1	291	50	0	2	0	0	0	0	0	0	0	0	344
19:00	2	217	28	0	5	0	0	0	0	0	0	0	0	252
20:00	1	222	27	0	1	0	0	0	0	0	0	0	0	251
21:00	0	120	13	0	0	0	0	0	0	0	0	0	0	133
22:00	0	79	5	0	1	0	0	0	0	0	0	0	0	85
23:00	0	56	3	0	0	0	0	0	0	0	0	0	0	59
Totals	15	3759	628	10	60	9	2	1						4484
% of Totals	0%	84%	14%	0%	1%	0%	0%	0%						100%

AM Volumes	8	1103	220	7	20	4	1	0	0	0	0	0	0	1363			
% AM	0%	25%	5%	0%	0%	0%	0%							30%			
AM Peak Hour	09:00	08:00	07:00	10:00	09:00	09:00	09:00							08:00			
Volume	3	221	43	3	5	2	1							256			
PM Volumes	7	2656	408	3	40	5	1	0	1	0	0	0	0	3121			
% PM	0%	59%	9%	0%	1%	0%	0%							70%			
PM Peak Hour	19:00	16:00	16:00	14:00	15:00	12:00	12:00		13:00					16:00			
Volume	2	348	64	2	11	3	1		1					415			
Directional Peak Periods		AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes						
All Classes		Volume	476	↔	11%	Volume	504	↔	11%	Volume	763	↔	17%	Volume	2741	↔	61%

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	18	3	0	0	0	0	0	0	0	0	0	0	21
01:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
02:00	1	10	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22
04:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
05:00	1	53	10	0	3	0	0	0	0	0	0	0	0	67
06:00	0	110	21	0	2	0	0	0	0	0	0	0	0	133
07:00	1	241	47	1	4	1	0	0	0	0	0	0	0	295
08:00	1	210	33	1	1	1	0	0	1	0	0	0	0	248
09:00	1	186	35	1	0	1	0	0	0	0	0	0	0	224
10:00	0	157	27	0	4	0	1	0	0	0	0	0	0	189
11:00	0	151	32	0	4	2	1	0	0	0	0	0	0	190
12:00 PM	0	175	32	0	2	0	0	0	0	0	0	0	0	209
13:00	0	218	42	0	5	2	1	0	0	0	0	0	0	268
14:00	1	217	38	0	6	1	0	0	0	0	0	0	0	263
15:00	2	244	46	1	4	0	0	1	0	0	0	0	0	298
16:00	3	270	43	0	2	0	0	0	0	0	0	0	0	318
17:00	0	293	61	0	1	0	0	0	0	0	0	0	0	355
18:00	1	211	37	0	5	0	1	0	0	0	0	0	0	255
19:00	0	175	22	0	3	0	0	0	0	0	0	0	0	200
20:00	4	134	14	0	0	0	0	0	0	0	0	0	0	152
21:00	0	79	17	0	1	0	0	0	0	0	0	0	0	97
22:00	0	44	6	0	0	0	0	0	0	0	0	0	0	50
23:00	0	51	5	0	0	0	0	0	0	0	0	0	0	56
Totals	16	3299	576	4	47	8	4	1	1					3956
% of Totals	0%	83%	15%	0%	1%	0%	0%	0%	0%					100%

AM Volumes	5	1188	213	3	18	5	2	0	1	0	0	0	0	1435
% AM	0%	30%	5%	0%	0%	0%	0%	0%	0%					36%
AM Peak Hour	02:00	07:00	07:00	07:00	07:00	11:00	10:00		08:00					07:00
Volume	1	241	47	1	4	2	1		1					295
PM Volumes	11	2111	363	1	29	3	2	1	0	0	0	0	0	2521
% PM	0%	53%	9%	0%	1%	0%	0%	0%	0%					64%
PM Peak Hour	20:00	17:00	17:00	15:00	14:00	13:00	13:00	15:00						17:00
Volume	4	293	61	1	6	2	1	1						355
Directional Peak Periods		AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes			
All Classes		Volume		%	Volume		%	Volume		%	Volume		%	
		543	↔	14%	477	↔	12%	673	↔	17%	2263	↔	57%	

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	27	6	0	0	0	0	0	0	0	0	0	0	33
01:00	0	25	2	0	0	0	0	0	0	0	0	0	0	27
02:00	1	16	0	0	0	0	0	0	0	0	0	0	0	17
03:00	0	24	6	0	0	0	0	0	0	0	0	0	0	30
04:00	0	37	3	0	1	0	0	0	0	0	0	0	0	41
05:00	1	93	21	0	3	0	0	0	0	0	0	0	0	118
06:00	0	183	43	0	4	0	0	0	0	0	0	0	0	230
07:00	2	413	90	1	8	1	0	0	0	0	0	0	0	515
08:00	2	431	62	3	4	1	0	0	1	0	0	0	0	504
09:00	4	377	75	3	5	3	1	0	0	0	0	0	0	468
10:00	2	314	61	3	5	0	1	0	0	0	0	0	0	386
11:00	1	351	64	0	8	4	1	0	0	0	0	0	0	429
12:00 PM	1	377	63	0	3	3	1	0	0	0	0	0	0	448
13:00	0	437	78	0	14	2	1	0	1	0	0	0	0	533
14:00	1	480	92	2	9	2	0	0	0	0	0	0	0	586
15:00	3	585	98	2	15	1	0	1	0	0	0	0	0	705
16:00	3	618	107	0	5	0	0	0	0	0	0	0	0	733
17:00	1	591	106	0	5	0	0	0	0	0	0	0	0	703
18:00	2	502	87	0	7	0	1	0	0	0	0	0	0	599
19:00	2	392	50	0	8	0	0	0	0	0	0	0	0	452
20:00	5	356	41	0	1	0	0	0	0	0	0	0	0	403
21:00	0	199	30	0	1	0	0	0	0	0	0	0	0	230
22:00	0	123	11	0	1	0	0	0	0	0	0	0	0	135
23:00	0	107	8	0	0	0	0	0	0	0	0	0	0	115
Totals	31	7058	1204	14	107	17	6	1	2					8440
% of Totals	0%	84%	14%	0%	1%	0%	0%	0%	0%					100%

AM Volumes	13	2291	433	10	38	9	3	0	1	0	0	0	0	2798
% AM	0%	27%	5%	0%	0%	0%	0%	0%	0%					33%
AM Peak Hour	09:00	08:00	07:00	08:00	07:00	11:00	09:00		08:00					07:00
Volume	4	431	90	3	8	4	1		1					515
PM Volumes	18	4767	771	4	69	8	3	1	1	0	0	0	0	5642
% PM	0%	56%	9%	0%	1%	0%	0%	0%	0%					67%
PM Peak Hour	20:00	16:00	16:00	14:00	15:00	12:00	12:00	15:00	13:00					16:00
Volume	5	618	107	2	15	3	1	1	1					733
Directional Peak Periods		AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes			
All Classes		Volume		%	Volume		%	Volume		%	Volume		%	
		1019	↔	12%	981	↔	12%	1436	↔	17%	5004	↔	59%	

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

SPEED

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	2	6	1	1	1	0	0	0	12
01:00	0	0	0	1	1	4	3	3	2	0	1	0	0	15
02:00	0	1	0	0	1	1	0	2	1	0	0	0	0	6
03:00	0	0	0	0	0	1	4	2	1	0	0	0	0	8
04:00	0	0	1	0	1	2	4	4	6	0	0	0	0	18
05:00	0	0	0	0	2	8	9	19	9	4	0	0	0	51
06:00	0	0	0	2	3	12	32	31	9	4	4	0	0	97
07:00	0	1	0	5	11	54	72	56	17	3	1	0	0	220
08:00	0	2	1	2	20	59	119	42	10	0	1	0	0	256
09:00	1	4	2	5	29	54	96	38	14	1	0	0	0	244
10:00	0	0	0	0	23	60	68	32	12	2	0	0	0	197
11:00	2	3	2	0	16	65	70	60	16	5	0	0	0	239
12:00 PM	0	1	0	3	27	65	77	52	11	3	0	0	0	239
13:00	1	1	0	5	20	77	75	53	24	7	2	0	0	265
14:00	0	2	0	2	28	72	96	91	25	5	1	1	0	323
15:00	0	2	1	11	38	89	140	86	27	9	1	3	0	407
16:00	1	0	0	5	35	113	165	74	19	3	0	0	0	415
17:00	1	1	0	4	22	87	117	85	25	4	1	1	0	348
18:00	0	2	2	9	28	83	133	68	18	1	0	0	0	344
19:00	0	1	3	9	28	79	73	46	12	1	0	0	0	252
20:00	0	0	0	3	31	90	82	31	13	1	0	0	0	251
21:00	0	0	1	3	11	30	37	33	14	4	0	0	0	133
22:00	0	0	0	2	3	15	27	26	8	2	2	0	0	85
23:00	1	0	1	1	3	14	22	13	3	1	0	0	0	59
Totals	7	21	14	72	382	1136	1527	948	297	61	14	5	0	4484
% of Totals	0%	0%	0%	2%	9%	25%	34%	21%	7%	1%	0%	0%	0%	100%

AM Volumes	3	11	6	15	108	322	483	290	98	20	7	0	0	1363	
% AM	0%	0%	0%	0%	2%	7%	11%	6%	2%	0%	0%			30%	
AM Peak Hour	11:00	09:00	09:00	07:00	09:00	11:00	08:00	11:00	07:00	11:00	06:00			08:00	
Volume	2	4	2	5	29	65	119	60	17	5	4			256	
PM Volumes	4	10	8	57	274	814	1044	658	199	41	7	5	0	3121	
% PM	0%	0%	0%	1%	6%	18%	23%	15%	4%	1%	0%	0%		70%	
PM Peak Hour	13:00	14:00	19:00	15:00	15:00	16:00	16:00	14:00	15:00	15:00	13:00	15:00		16:00	
Volume	1	2	3	11	38	113	165	91	27	9	2	3		415	
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes			
All Speeds			Volume	476	↔	%	504	↔	%	763	↔	%	2741	↔	61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Sweetwater Rd	North Bound	36	42	42	48	53	4484
Sweetwater Rd	South Bound	41	47	47	54	58	3956

SPEED

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	0	2	9	6	3	1	0	0	21
01:00	0	0	0	0	1	1	0	5	4	1	0	0	0	12
02:00	0	0	0	2	1	0	1	4	3	0	0	0	0	11
03:00	0	0	0	0	0	0	3	3	9	4	1	2	0	22
04:00	0	0	0	0	0	1	0	7	4	10	1	0	0	23
05:00	0	0	0	1	0	0	3	8	19	14	12	9	1	67
06:00	0	0	0	0	1	6	21	48	38	16	0	1	0	133
07:00	3	1	3	1	7	16	66	110	59	19	8	2	0	295
08:00	0	1	0	0	4	17	63	91	46	20	4	2	0	248
09:00	0	0	0	2	9	21	55	75	44	14	4	0	0	224
10:00	0	0	0	3	4	6	49	61	41	20	5	0	0	189
11:00	0	0	0	1	7	14	50	58	38	21	0	1	0	190
12:00 PM	0	1	0	0	7	13	54	77	32	18	6	1	0	209
13:00	0	2	1	5	8	20	88	88	45	8	3	0	0	268
14:00	3	1	0	3	1	18	61	81	69	21	3	1	1	263
15:00	0	1	0	2	2	30	63	101	65	25	7	0	2	298
16:00	1	0	0	3	3	19	66	123	72	25	4	1	1	318
17:00	0	0	0	0	2	22	90	158	67	14	2	0	0	355
18:00	0	1	0	3	4	15	59	101	52	15	4	1	0	255
19:00	0	1	0	0	7	14	64	71	36	6	1	0	0	200
20:00	2	0	1	0	2	17	35	48	26	12	6	3	0	152
21:00	0	0	0	0	2	5	24	33	21	6	4	1	1	97
22:00	0	1	0	0	0	2	12	11	17	4	3	0	0	50
23:00	0	0	0	0	0	3	11	14	12	13	1	2	0	56
Totals	9	10	5	28	72	263	945	1396	820	307	77	19	5	3956
% of Totals	0%	0%	0%	1%	2%	7%	24%	35%	21%	8%	2%	0%	0%	100%

AM Volumes	3	2	3	12	34	85	318	490	306	140	33	9	0	1435			
% AM	0%	0%	0%	0%	1%	2%	8%	12%	8%	4%	1%	0%	0%	36%			
AM Peak Hour	07:00	07:00	07:00	10:00	09:00	09:00	07:00	07:00	07:00	11:00	05:00	03:00		07:00			
Volume	3	1	3	3	9	21	66	110	59	21	9	2		295			
PM Volumes	6	8	2	16	38	178	627	906	514	167	44	10	5	2521			
% PM	0%	0%	0%	0%	1%	4%	16%	23%	13%	4%	1%	0%	0%	64%			
PM Peak Hour	14:00	13:00	13:00	13:00	13:00	15:00	17:00	17:00	16:00	15:00	15:00	20:00	15:00	17:00			
Volume	3	2	1	5	8	30	90	158	72	25	7	3	2	355			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6				Off Peak Volumes			
All Speeds		Volume	543	↔	14%	Volume	477	↔	12%	Volume	673	↔	17%	Volume	2263	↔	57%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Sweetwater Rd	North Bound	36	42	42	48	53	4484
Sweetwater Rd	South Bound	41	47	47	54	58	3956

SPEED

Sweetwater Rd N/O Quarry Rd

Day: Tuesday

Date: 7/27/2021

City: La Presa

Project #: CA21_040132_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	2	8	10	7	4	1	0	0	33
01:00	0	0	0	1	2	5	3	8	6	1	1	0	0	27
02:00	0	1	0	2	2	1	1	6	4	0	0	0	0	17
03:00	0	0	0	0	0	1	7	5	10	4	1	2	0	30
04:00	0	0	1	0	1	3	4	11	10	10	1	0	0	41
05:00	0	0	0	1	2	11	17	38	23	16	9	1	0	118
06:00	0	0	0	4	4	18	53	79	47	20	4	1	0	230
07:00	3	2	3	6	18	70	138	166	76	22	9	2	0	515
08:00	0	3	1	2	24	76	182	133	56	20	5	2	0	504
09:00	1	4	2	7	38	75	151	113	58	15	4	0	0	468
10:00	0	0	0	3	27	66	117	93	53	22	5	0	0	386
11:00	2	3	2	1	23	79	120	118	54	26	0	1	0	429
12:00 PM	0	2	0	3	34	78	131	129	43	21	6	1	0	448
13:00	1	3	1	10	28	97	163	141	69	15	5	0	0	533
14:00	3	3	0	5	29	90	157	172	94	26	4	2	1	586
15:00	0	3	1	13	40	119	203	187	92	34	8	3	2	705
16:00	2	0	0	8	38	132	231	197	91	28	4	1	1	733
17:00	1	1	0	4	24	109	207	243	92	18	3	1	0	703
18:00	0	3	2	12	32	98	192	169	70	16	4	1	0	599
19:00	0	2	3	9	35	93	137	117	48	7	1	0	0	452
20:00	2	0	1	3	33	107	117	79	39	13	6	3	0	403
21:00	0	0	1	3	13	35	61	66	35	10	4	1	1	230
22:00	0	1	0	2	3	17	39	37	25	6	5	0	0	135
23:00	1	0	1	1	3	17	33	27	15	14	1	2	0	115
Totals	16	31	19	100	454	1399	2472	2344	1117	368	91	24	5	8440
% of Totals	0%	0%	0%	1%	5%	17%	29%	28%	13%	4%	1%	0%	0%	100%

AM Volumes	6	13	9	27	142	407	801	780	404	160	40	9	0	2798
% AM	0%	0%	0%	0%	2%	5%	9%	9%	5%	2%	0%	0%	0%	33%
AM Peak Hour	07:00	09:00	07:00	09:00	09:00	11:00	08:00	07:00	07:00	11:00	05:00	03:00	07:00	
Volume	3	4	3	7	38	79	182	166	76	26	9	2		515
PM Volumes	10	18	10	73	312	992	1671	1564	713	208	51	15	5	5642
% PM	0%	0%	0%	1%	4%	12%	20%	19%	8%	2%	1%	0%	0%	67%
PM Peak Hour	14:00	13:00	19:00	15:00	15:00	16:00	16:00	17:00	14:00	15:00	15:00	15:00	15:00	16:00
Volume	3	3	3	13	40	132	231	243	94	34	8	3	2	733
Directional Peak Periods				AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes	
All Speeds				Volume	%	Volume	%	Volume	%	Volume	%	Volume	%	
				1019	12%	981	12%	1436	17%	5004	59%			

Street Name	Direction	15th	50th	Average	85th	95th	ADT
Sweetwater Rd	Summary	37	44	44	52	56	8440



Appendix B – Synchro 10 Intersection Analysis Worksheets

Sweetwater Road and Quarry Road Intersection Analysis

1: Sweetwater Rd & Quarry Rd

Existing

Timing Plan: AM Peak

Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
----------	-----	-----	-----	-----	-----	-----

Lane Configurations			
---------------------	--	--	--

Traffic Vol, veh/h	5	3	255	4	1	296
--------------------	---	---	-----	---	---	-----

Future Vol, veh/h	5	3	255	4	1	296
-------------------	---	---	-----	---	---	-----

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	-	-	-	-	-
----------------	---	---	---	---	---	---

Veh in Median Storage, #	0	-	0	-	-	0
--------------------------	---	---	---	---	---	---

Grade, %	0	-	0	-	-	0
----------	---	---	---	---	---	---

Peak Hour Factor	42	38	90	50	25	79
------------------	----	----	----	----	----	----

Heavy Vehicles, %	2	2	2	2	2	2
-------------------	---	---	---	---	---	---

Mvmt Flow	12	8	283	8	4	375
-----------	----	---	-----	---	---	-----

Major/Minor

Minor1 Major1 Major2

Conflicting Flow All	670	287	0	0	291	0
----------------------	-----	-----	---	---	-----	---

Stage 1	287	-	-	-	-	-
---------	-----	---	---	---	---	---

Stage 2	383	-	-	-	-	-
---------	-----	---	---	---	---	---

Critical Hdwy	6.42	6.22	-	-	4.12	-
---------------	------	------	---	---	------	---

Critical Hdwy Stg 1	5.42	-	-	-	-	-
---------------------	------	---	---	---	---	---

Critical Hdwy Stg 2	5.42	-	-	-	-	-
---------------------	------	---	---	---	---	---

Follow-up Hdwy	3.518	3.318	-	-	2.218	-
----------------	-------	-------	---	---	-------	---

Pot Cap-1 Maneuver	422	752	-	-	1271	-
--------------------	-----	-----	---	---	------	---

Stage 1	762	-	-	-	-	-
---------	-----	---	---	---	---	---

Stage 2	689	-	-	-	-	-
---------	-----	---	---	---	---	---

Platoon blocked, %	-	-	-	-	-	-
--------------------	---	---	---	---	---	---

Mov Cap-1 Maneuver	420	752	-	-	1271	-
--------------------	-----	-----	---	---	------	---

Mov Cap-2 Maneuver	420	-	-	-	-	-
--------------------	-----	---	---	---	---	---

Stage 1	762	-	-	-	-	-
---------	-----	---	---	---	---	---

Stage 2	686	-	-	-	-	-
---------	-----	---	---	---	---	---

Approach

WB NB SB

HCM Control Delay, s	12.3	0	0.1
----------------------	------	---	-----

HCM LOS	B		
---------	---	--	--

Minor Lane/Major Mvmt

NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	510	1271	-
------------------	---	---	-----	------	---

HCM Lane V/C Ratio	-	-	0.039	0.003	-
--------------------	---	---	-------	-------	---

HCM Control Delay (s)	-	-	12.3	7.8	0
-----------------------	---	---	------	-----	---

HCM Lane LOS	-	-	B	A	A
--------------	---	---	---	---	---

HCM 95th %tile Q(veh)	-	-	0.1	0	-
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Sweetwater Road and Quarry Road Intersection Analysis

1: Sweetwater Rd & Quarry Rd

Existing

Timing Plan: PM Peak

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B		A		
Traffic Vol, veh/h	1	1	418	3	3	335
Future Vol, veh/h	1	1	418	3	3	335
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	38	75	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	470	8	4	345

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	827	474	0	0
Stage 1	474	-	-	-
Stage 2	353	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	341	590	-	1084
Stage 1	626	-	-	-
Stage 2	711	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	339	590	-	1084
Mov Cap-2 Maneuver	339	-	-	-
Stage 1	626	-	-	-
Stage 2	707	-	-	-

Approach	WB	NB	SB
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HCM Control Delay, s 13.5 0 0.1

HCM LOS B

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	431	1084	-
HCM Lane V/C Ratio	-	-	0.019	0.004	-
HCM Control Delay (s)	-	-	13.5	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Sweetwater Road and Quarry Road Intersection Analysis
1: Sweetwater Rd & Quarry Rd

Existing with Project
Timing Plan: AM Peak

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B		A		
Traffic Vol, veh/h	9	6	255	8	5	296
Future Vol, veh/h	9	6	255	8	5	296
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	38	90	50	25	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	16	283	16	20	370
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	701	291	0	0	299	0
Stage 1	291	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	405	748	-	-	1262	-
Stage 1	759	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	397	748	-	-	1262	-
Mov Cap-2 Maneuver	397	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.8	0		0.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	496	1262	-	
HCM Lane V/C Ratio	-	-	0.075	0.016	-	
HCM Control Delay (s)	-	-	12.8	7.9	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Sweetwater Road and Quarry Road Intersection Analysis
1: Sweetwater Rd & Quarry Rd

Existing with Project
Timing Plan: PM Peak

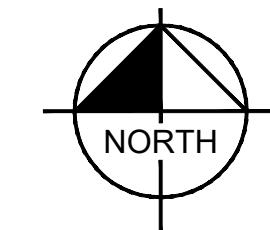
Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B		A		
Traffic Vol, veh/h	7	6	418	8	8	335
Future Vol, veh/h	7	6	418	8	8	335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	38	75	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	24	470	21	11	345
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	848	481	0	0	491	0
Stage 1	481	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	332	585	-	-	1072	-
Stage 1	622	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	328	585	-	-	1072	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	411	1072	-	
HCM Lane V/C Ratio	-	-	0.127	0.01	-	
HCM Control Delay (s)	-	-	15	8.4	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0	-	



Appendix C – Quarry Road Turning Movement Concepts



GRAPHIC SCALE IN FEET
0 15 30 60





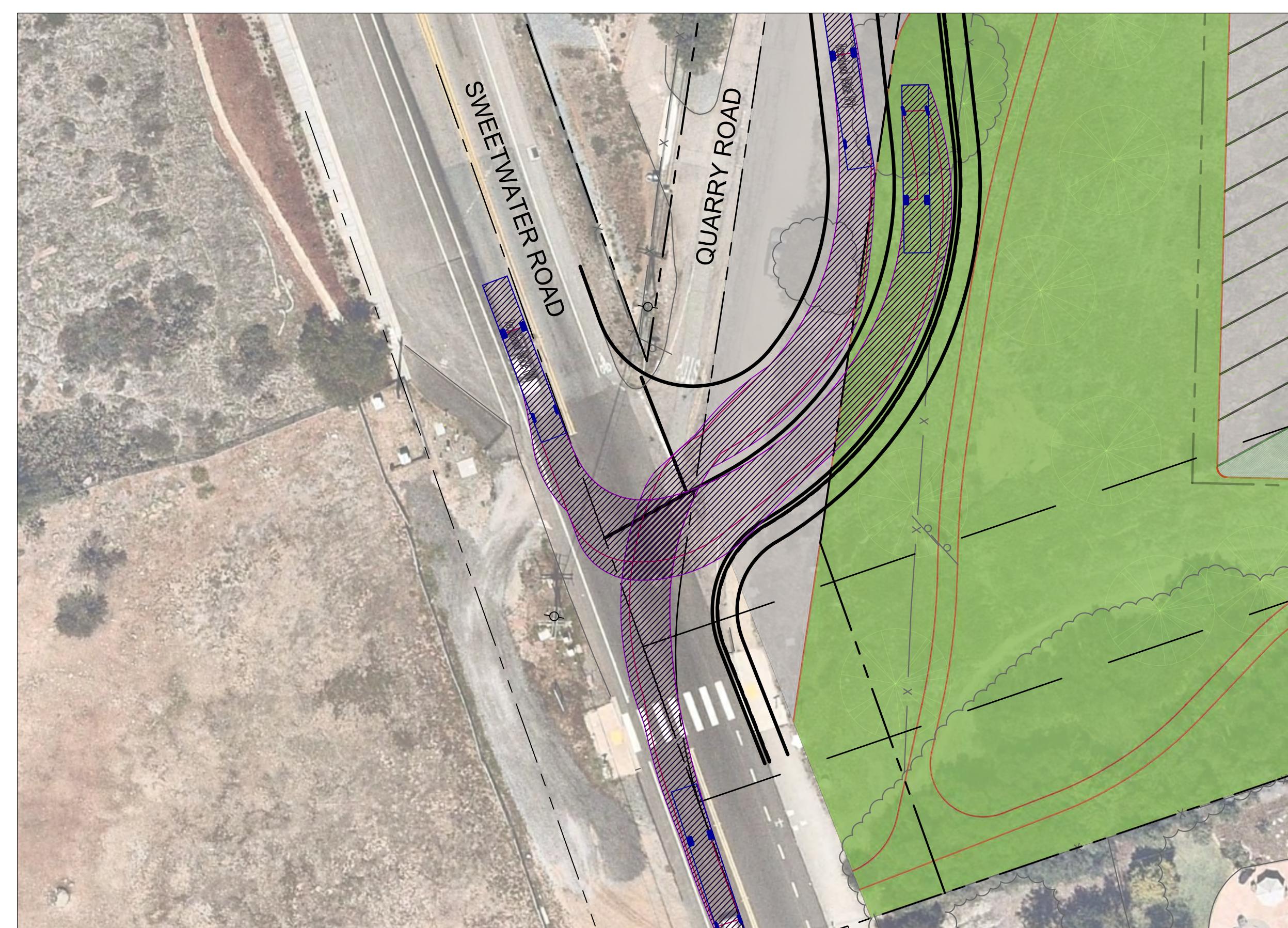
SU-30 RIGHTS



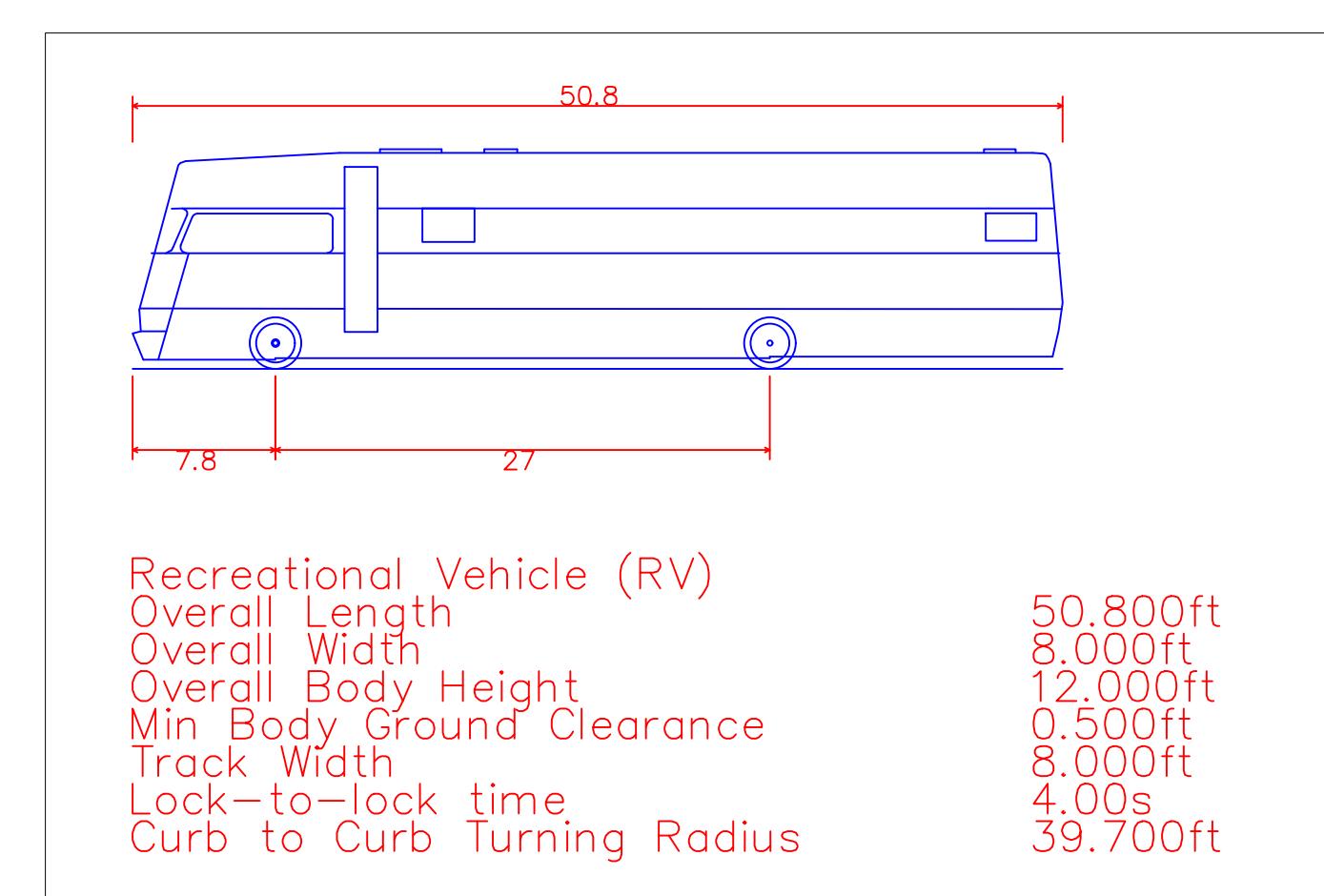
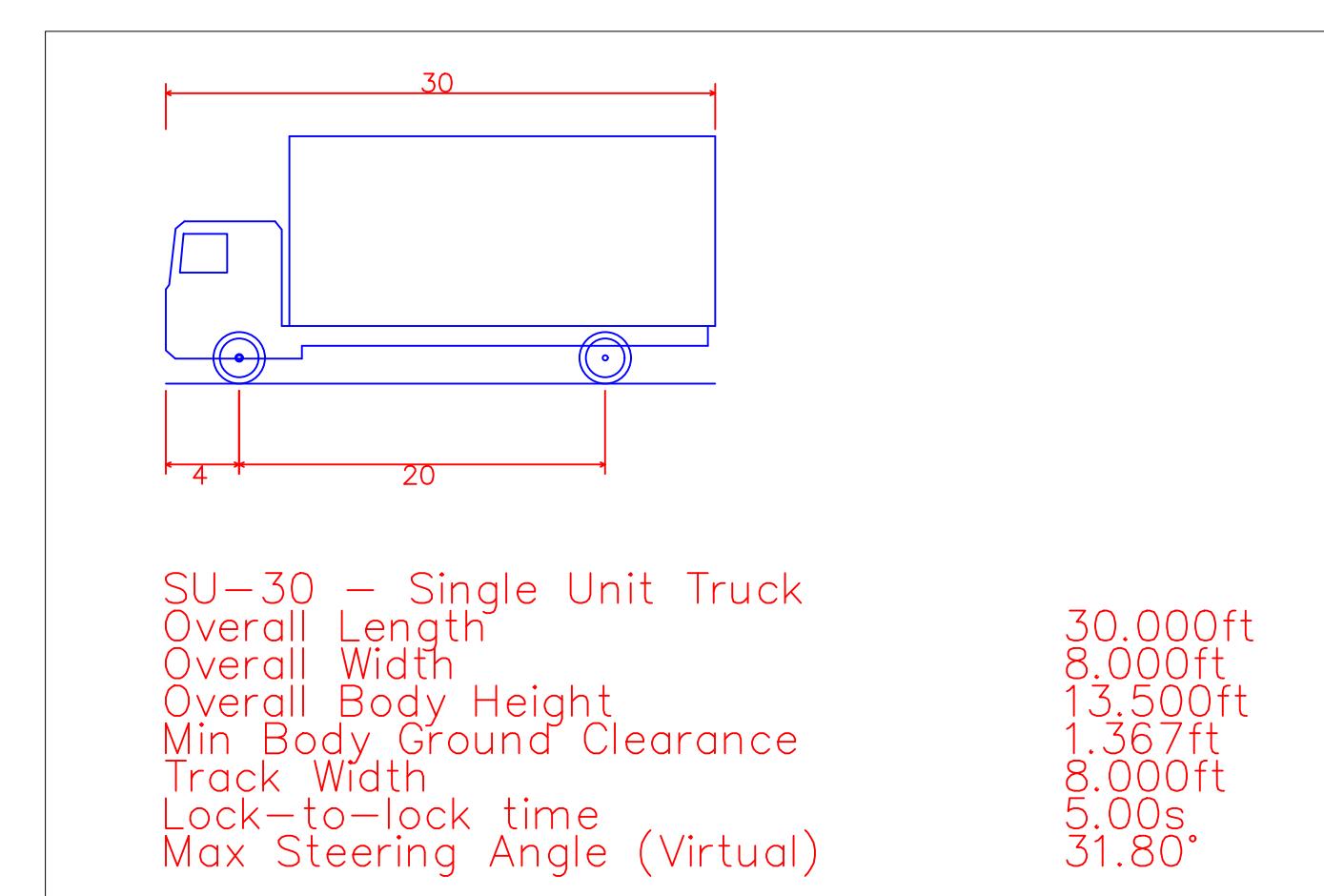
SU-30 LEFTS



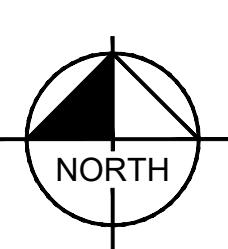
RV RIGHTS

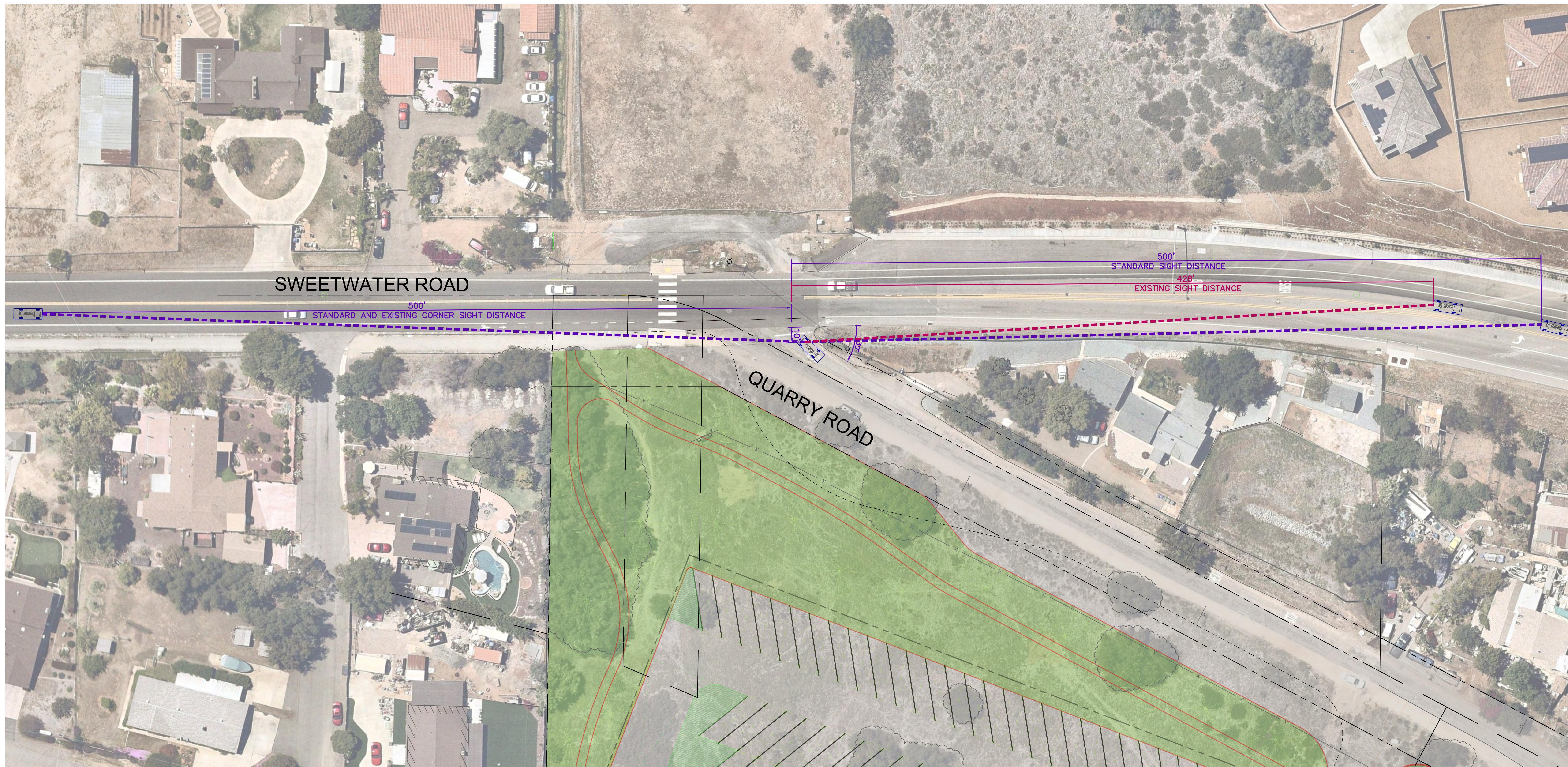


RV LEFTS

VEHICLE PROFILES
(ALL TURNING MOVEMENTS COMPLETED AT 10MPH)

GRAPHIC SCALE IN FEET
 0 15 30 60





SWEETWATER ROAD EXISTING SPEED LIMIT: 45 MPH

COUNTY OF SAN DIEGO STANDARD CORNER SIGHT DISTANCE AT INTERSECTIONS

DESIGN SPEED	CORNER INTERSECTION SIGHT DISTANCE
50 MPH	500 FEET

GRAPHIC SCALE IN FEET
0 15 30 60

