APPENDIX G

VMT ANALYSIS

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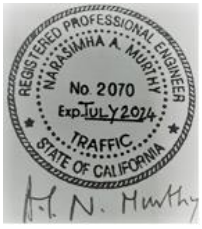
TRAFFIC STUDY

Richard T. Steed Memorial Park Expansion

247 Avenida, La Pata San Clemente, CA 92673



December 2022

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TRAFFIC STUDY

Richard T. Steed Memorial Park Expansion

247 Avenida, La Pata, San Clemente, CA 92673

Prepared for

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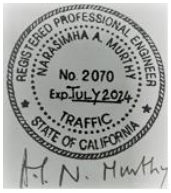

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December 2022

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TRAFFIC STUDY

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1.0 introduction

CWE has prepared this traffic study for the purpose of developing the project trip generation for the proposed expansion of the existing Richard T Steed Park and to determine any potential project effect on Vehicle Miles Traveled (VMT). This traffic study is part of the Initial Study (IS) and Mitigated Negative Declaration (MND) for the proposed Richard T. Steed Memorial Park/Baron Von Willard Dog Park Master Plan Update, located at the southwest intersection of Avenida La Pata and Calle Extremo.

The trip generation for the project will be estimated using the Institute of Transportation (ITE) trip generation rate (11th Edition) for the specific land use; if such land use is not available, alternative trip generation criteria or methodology will be proposed based on current practice. The VMT analysis will be per the California Environmental Quality Act (CEQA) and the County of Orange's screening criteria for non-retail project trip generation. If required potential mitigation measures will be listed under Traffic Demand Management (TDM).

2.0 Project Trip Generation

The proposed project is to add new activities to the park. The park is open all days of the weekdays and weekends, most days the park is open from 6 a.m. to 10 p.m. Appendix A shows the existing park and facilities available and the future conceptual plan for expanding the park. The trip generation was estimated using the ITE Trip Generation Handbook, 11th Edition, for the park using the number of employees as recommended by the city for the weekdays and weekends (Saturday and Sunday). The city indicated that there will be 2 employees during weekdays and the number of employees may vary from 4 to 6 during weekends. In the ITE Trip Generation Handbook, no separate a.m. and p.m. trip rates are not provided for the weekends (Saturday and Sunday). Table 1 shows weekdays total trips and both the a.m. and p.m. peak hour trips.

Table 1: Trip Generation Using Total Number of Employees - Weekday

	Trip Generation Rates				**a.m. peak hour**			**p.m. peak hour**		
Item	Landuse	ITE Code	Units	Total Trips	**In**	**Out**	**Total**	**In**	**Out**	**Total**
1	Public Park	411	Employees	59.53	**0.57**	**0.43**	**5.18**	**0.44**	**0.56**	**7.41**
	WEEKDAY									
	Total Trips by the Project									
Item	Landuse	ITE Code	Units	Total Trips	**In**	**Out**	**Total**	**In**	**Out**	**Total**
1	Public Park	411	**2**	**119**	**6**	**4**	**10**	**7**	**8**	**15**

Source: ITE Trip Generation, 11th Edition — Note: Maximum employees is considered for calculations

Tables 2A and 2B shows total trips for weekend Saturday with 4 and 6 employees, respectively.

Table 2A: Trip Generation Using Total Number of Employees (4) - Weekend (Saturday)

	Trip Generation Rates			Peak Hour			
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	Employees	122.29	0.48	0.52	15.24
	WEEKEND						
	Total Trips by the Project						
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	4	**489**	29	32	61

Source: ITE Trip Generation, 11th Edition — Note: Maximum employees is considered for calculations

Table 2B: Trip Generation Using Total Number of Employees (6) - Weekend (Saturday)

	Trip Generation Rates			Peak Hour			
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	Employees	122.29	0.48	0.52	15.24
	WEEKEND						
	Total Trips by the Project						
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	6	**734**	44	47	91

Source: ITE Trip Generation, 11th Edition — Note: Maximum employees is considered for calculations

Tables 3A and 3B shows total trips for weekend Sunday with 4 and 6 employees, respectively.

Table 3A: Trip Generation Using Total Number of Employees (4) - Weekend (Sunday)

	Trip Generation Rates			Peak Hour			
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	Employees	137.82	0.34	0.66	13.82
	WEEKEND						
	Total Trips by the Project						
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	4	**551**	19	36	55

Source: ITE Trip Generation, 11th Edition — Note: Maximum employees is considered for calculations

Table 3B: Trip Generation Using Total Number of Employees (6) - Weekend (Sunday)

	Trip Generation Rates			Peak Hour			
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	Employees	137.82	0.34	0.66	13.82
	WEEKEND						
	Total Trips by the Project						
Item	Landuse	ITE Code	Units	Total Trips	In	Out	Total
1	Public Park	411	6	**827**	28	55	83

Source: ITE Trip Generation, 11th Edition — Note: Maximum employees is considered for calculations

The weekend Sunday total trips are more than weekend Saturday, but the peak period trips on Sunday are less than Saturday peak hour trips.

3.0 Site Access, Circulation and Parking

The main access road to the Richard Steed Park is through Avenida La Pata, which is oriented in a north-south direction. At the entrance there is a gate with a 40-foot driveway, which is stop controlled and closed during non-operational hours. The park operates weekdays and both the weekends. On all days it operates from 6 a.m. to 10 p.m. Avenida La Pata dead ends with a U-turn provided to go back north on Avenida La Pata at Calle Extremo Road, approximately 800 feet to the south of the park entrance.

3.1 Traffic Count – Avenida La Pata - ADT

The Average Daily Traffic (ADT) between the park entrance and the last intersection before the park entrance. The ADT was collected on Thursday, Friday, and Saturday. The traffic flow at the count location is oriented eastbound and westbound along Avenida La Pata as shown in Figure 1.

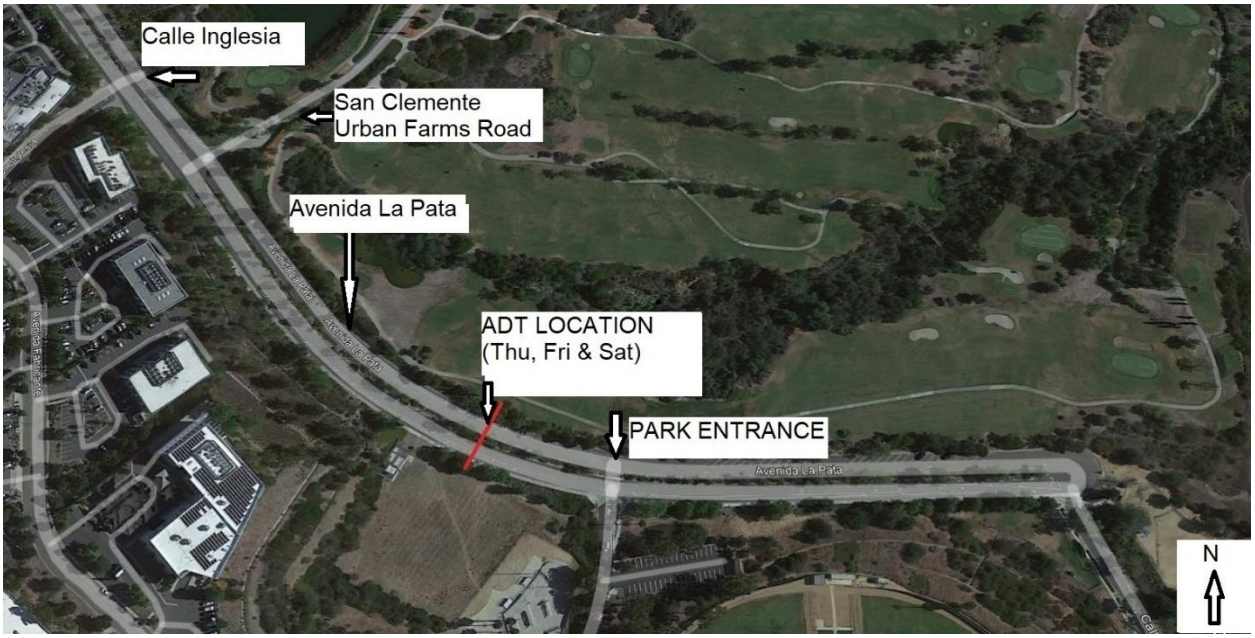


Figure 1: Traffic Count Location (ADT)

The ADT data are shown in Figures 2A, 2B and 3 at the count location for Thursday, Friday, and Saturday, including the Average Hourly Week Traffic.

The Avenida La Pata Is four lanes roadway-oriented east-west at the count location. The hourly capacity of a 2-lane urban arterial depends on other factors. The ideal capacity per lane is 1,900 passenger car equivalents per hour per lane. The capacity of separated 4 lane roadways even at 1,700 vehicles per lane per hour is 3,400 vehicles

per hour for both the lanes. The current road is isolated from all the traffic that is expected to the west of the park entrance after Calle Del Cerro.

Figures 2A and 2B shows the maximum eastbound and westbound traffic between 7:00 a.m. and 9:00 a.m. is 100 and 40 vehicles per hour, respectively. Similarly, the maximum eastbound and westbound traffic flow between 4:00 p.m. and 6 p.m.is 40 and 140 vehicles per hour, respectively. Figure 3 shows the combined eastbound and westbound ADT volumes.

The capacity of each arterial lane is 1700 vehicles per hour, hence there is no significant impact on the arterial as well as any nearby intersections in the vicinity, including the park entrance considering the hourly traffic volume. There is a midday peak, but at these hours there is no work trips in the area, hence it has no impact on the local traffic.

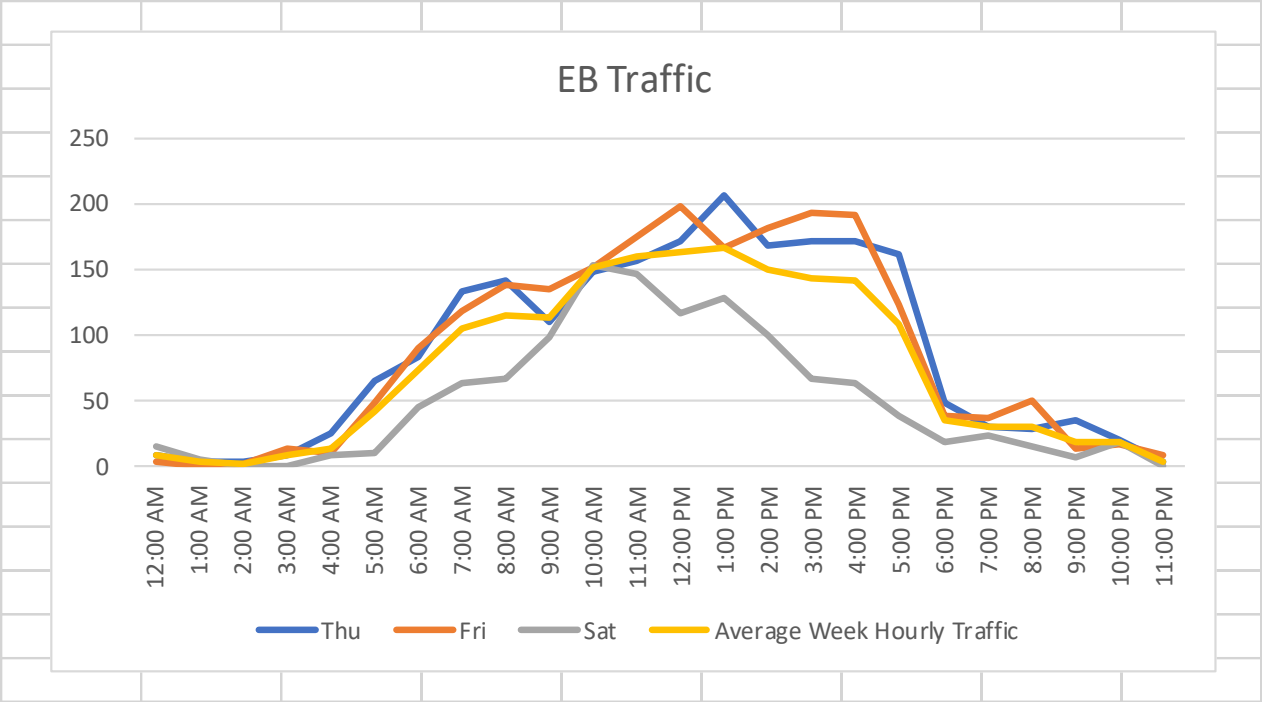


Figure 2A: Eastbound Traffic (ADT)

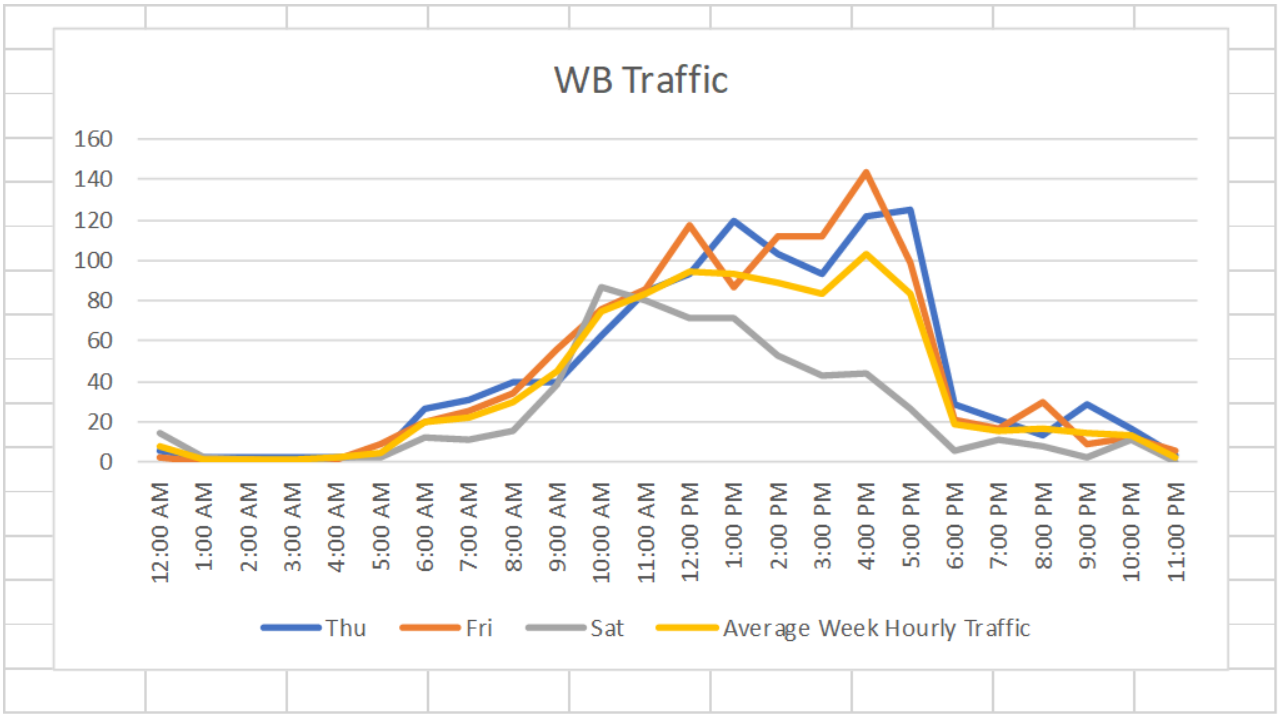


Figure 2B: Eastbound Traffic (ADT)

In addition, if we consider the Average Week Hourly Traffic (AWHT) in Figure 3 during a.m. and p.m. peak hours in the eastbound and westbound directions is 55 and 50 vehicles.

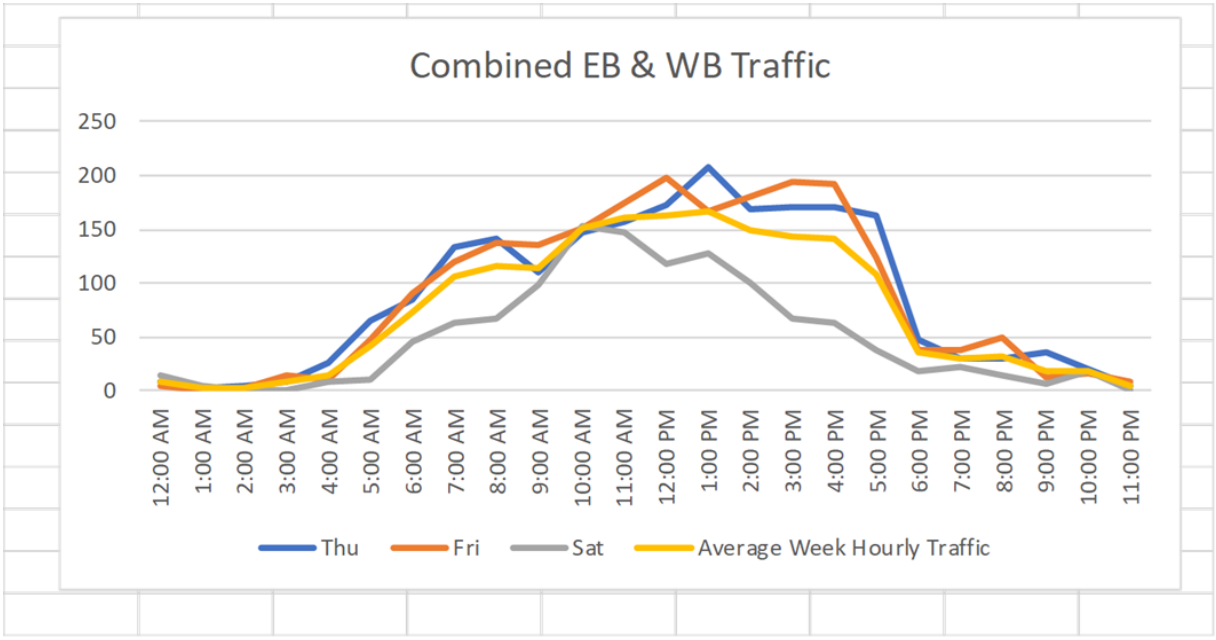
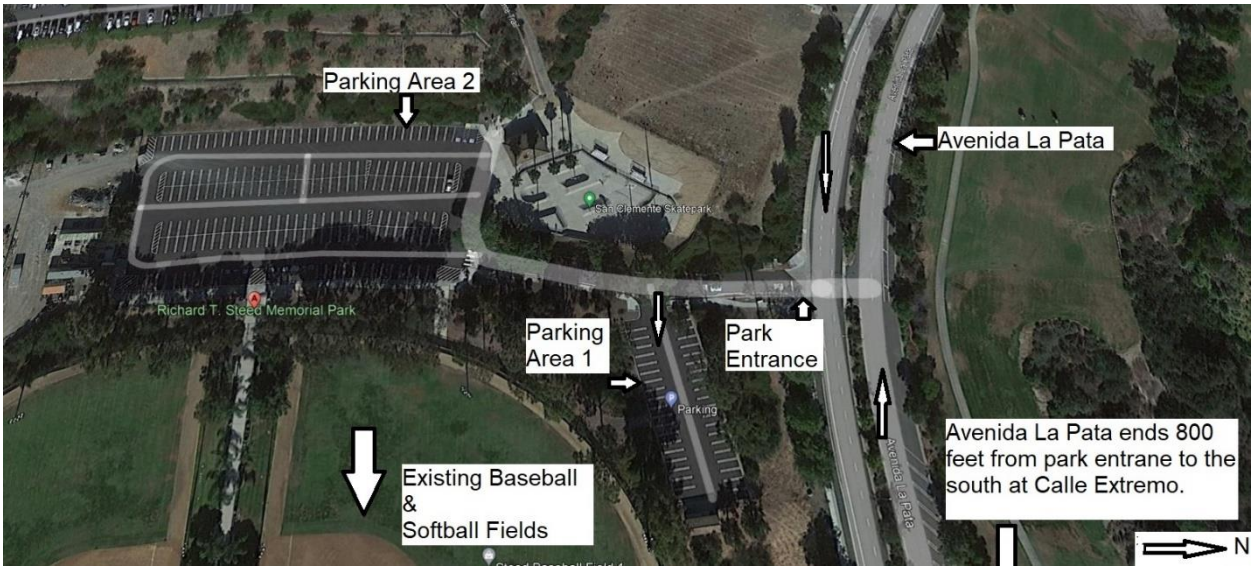


Figure 3: Combined Eastbound and Westbound Traffic (ADT)

3.2 Parking

As shown in Figure 4, there are two parking areas, one is a smaller parking area (for the dog park) and another a larger parking area. There are10 additional parallel parking spaces available for visitors. The total parking spaces available currently is 245. With the proposed project, an additional 100 parking spaces will be added to accommodate the new activities shown in Appendix B. The total parking with the proposed development when completed will be 345 spaces.



Source: Google Map **Figure 4: Park Access Road, Entrance/Exit and Parking Areas**

4.0 Project Vehicle Miles Travel (VMT) Analysis

4.1 Background

SB 743 updates the way transportation impacts are measured in California. In 2018, the California Office of Administrative Law cleared the revised CEQA guidelines for use. Among the changes to the guidelines were removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. The city has not adopted the SB743 CEQA Guidelines, but they use OPR (Office of Planning and Research) recommendations as a basis for their VMT requirements. Additionally, the state law also provides guidance to evaluate the project's impacts related to VMT. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household, or in any other measure. Therefore, the project VMT impacts were analyzed based on the CEQA and Orange County's VMT guidelines.

4.2 Methodology

The VMT guidelines provide screening criteria for projects within the city. Projects that could not be screened out by the screening criteria should conduct further VMT analysis to identify project related VMT impacts. The Technical Advisory Committee (TAC) provides details on appropriate "screening guidelines" which can be used to identify when a proposed land use project can result in a less than significant impact without conducting a more detailed traffic analysis.

Screening thresholds are listed below.

- Project Type Screening
- Transit Priority Area (TPA)
- Affordable Residential Development (ARD)
- Non-Retail Development (schools, parks, and community center)

The project must meet only one of the above criteria to result in less than significant VMT.

4.2.1 Project Type Screening

1. Projects that are consistent with the current Sustainable Communities Strategy (SCS) or General Plan, and that generate or attract fewer than 110 trips per day, are assumed to cause a less than significant impact. The project generates 119 trips during weekdays with 2 employees (Table 1). The weekend trips are much higher than weekdays.

   Using the daily trips criterion, the project would not be eligible for this criterion.

4.2.2 Transit Priority Area (TPA)

Consistent with guidance identified, projects located within a Transit Priority Area, which is within ½-mile of an existing "major transit stop," or an existing stop along a "high-quality transit corridor" may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

1. Has a Floor Area Ratio (FAR) of less than 0.75
2. Includes more parking for use by residents, customers, or employees of the project than required by the authority.
3. Is inconsistent with the applicable SCS.
4. Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Based on this screening tool the proposed *project is not* present in a "major transit corridor" nor it is within ½ mile of a transit stop or along a high-quality transit corridor.

*The project is **not** eligible for this screening using the transit corridor criterion.*

4.2.3 Affordable Residential Development (ARD)

The TAC states "adding affordable housing to infill locations generally improves jobs housing match, in turn shortening commutes and reducing VMT." Further the TAC states that "a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less than significant impact on VMT."

*This proposed project does not include an affordable housing component; hence this screening criterion is **not** applicable.*

4.2.4. Non-Retail Development

The proposed project is to add new activities in an existing public park in the City of San Clemente, and to expand the existing parking spaces from 245 to 345 (addition of 100 new parking spaces).

This project is a non-retail existing public park, which is a local-serving public facility that is presumed to have a less than significant impact on VMT. This would include government facilities intended to serve the local public, parks, and public elementary schools, public middle schools, and public high schools. In addition, the types of land use such as public facilities, recreation and parks are perceived *as community-serving and not independent trip generators* on the scale of residences or workplaces.

The project is deemed to have a less than significant impact on VMT.

4.3 VMT Impact – No Impact

The proposed project is providing services to the local community for recreation, walks and biking. The families (parents) in the community would be dropping off and picking up the children on their game days, and few come to the park to watch, walk, and bike.

In addition, there are no additional trips generated as these are local, re-directed traffic from traveling to more distant locations for the same services, thus contributing to lowering the VMT.

The project has less than significant VMT impact as it is an essential land use in accordance with the set criteria and screening and is assumed to have negligible impact upon the city VMT per CEQA guidelines. The public park expansion is a necessary local in-person community service and assists to reduce the VMT, given that the trips are from residents and the trips will be made irrespective of the distance, considering the need for recreational activities.

5.0 Traffic Demand Management (TDM)

The following TDM is recommended for the expanded park, they are:

1.0 Park opening and closing times should be placed near the entrance and exit points.
2.0 Parking areas for specific uses (ex: dog area) should be identified and placed at appropriate places for visitors to see and use.
3.0 The parks amenities such as bicycle stand, washrooms, baseball & softball areas should use proper signs with directional arrows for visitors ease of use and identification.

4.0 Provide easy to read brochure about park facilities, walking trials and parking areas.

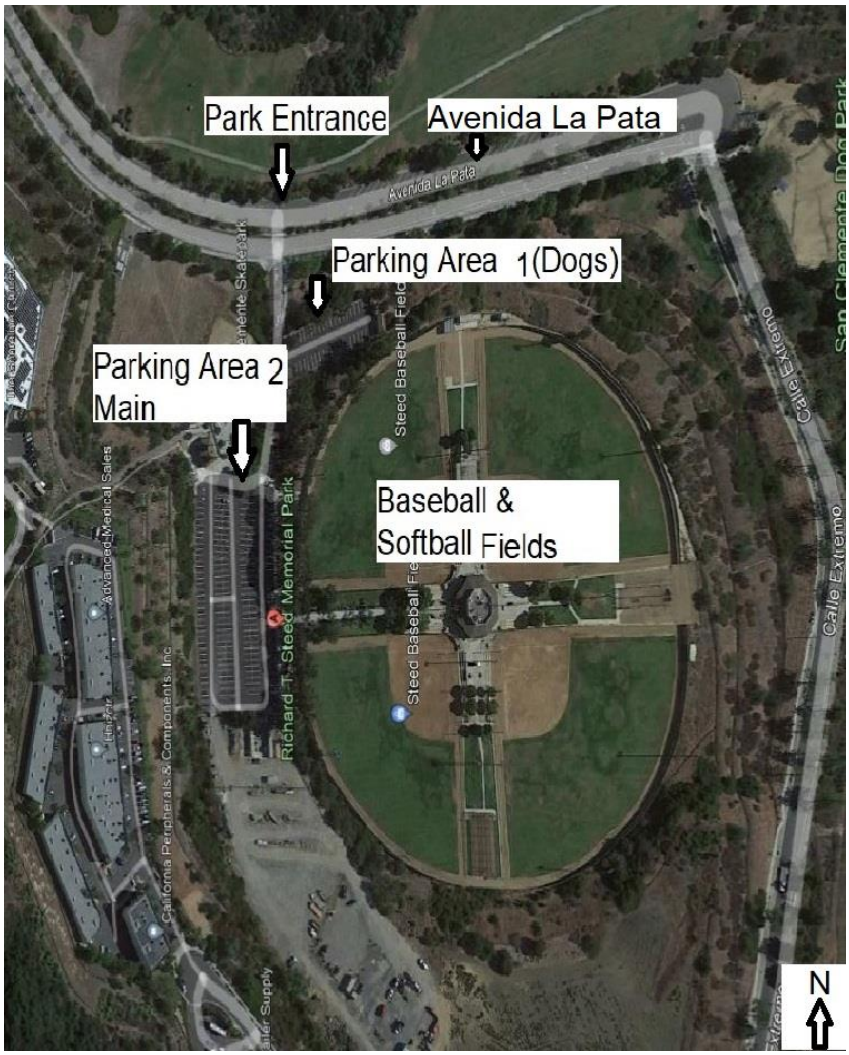
6.0 Conclusions

1. The project is to add(expand) activities as shown and listed in Appendix B to the existing Richard T Steed Memorial Park, San Clemente.
2. The trip generation was estimated using the number of employees (ITE Trip Generation Handbook, 11th Edition) during weekdays and weekends (Saturday and Sunday) and are shown in Tables 1, 2A, 2B, 3A to 3B.
3. The project generates 119 trips during weekdays with 10 and 15 trips during a.m. and p.m. peak periods, respectively.
4. The project generates 489 and 734 daily trips with 4 and 6 employees respectively on a weekend Saturday. The peak period trip generations are 61 and 91, respectively.
5. The project generates 551 and 827 daily trips with 4 and 6 employees respectively on a weekend Sunday. The peak period trip generations are 55 and 83, respectively.
6. The maximum eastbound and westbound traffic between 7:00 a.m. and 9:00 a.m. is 100 and 40 vehicles per hour respectively near the park entrance on Avenida La Pata (Figure 1). The maximum eastbound and westbound traffic flow between 4:00 p.m. and 6 p.m.is 40 and 140 vehicles per hour respectively (Figures 2A & 2B). The peak hour generation by the park is very minimal.
7. Avenida La Pata a four-lane arterial with 2 (two) lanes in each direction and oriented east-west. The capacity of each arterial lane is 1700 vehicles per hour. There is no significant impact on the arterial as well as any nearby intersections considering the hourly traffic volume.
8. Figure 3 shows that the Saturday ADT is less than weekday trips on this stretch of road. Therefore, any additional trips on this stretch of the road during weekends in using the public park is accommodated by the lower volume of work trips on this section.
9. There is no significant impact due to the expansion of the park either during weekdays or weekends, in this section of the roadway or at any nearby intersections as shown in Figure 1.
10. The project has less than significant VMT as it is deemed as an “essential land use in accordance with the set criteria and screening.” It is assumed to have negligible impact upon the city VMT per CEQA guidelines for non-retail uses.
11. The public park expansion is necessary as a local in-person community service and assists to reduce the VMT, given that the trips are from the residents and the trips will be made irrespective of the distance, considering the need for recreational activities.
12. It is recommended to use the Traffic Demand Management listed for the smooth and safe operation of the expanded park.

Appendix-A

Richard T. Steed Memorial – Existing Facilities

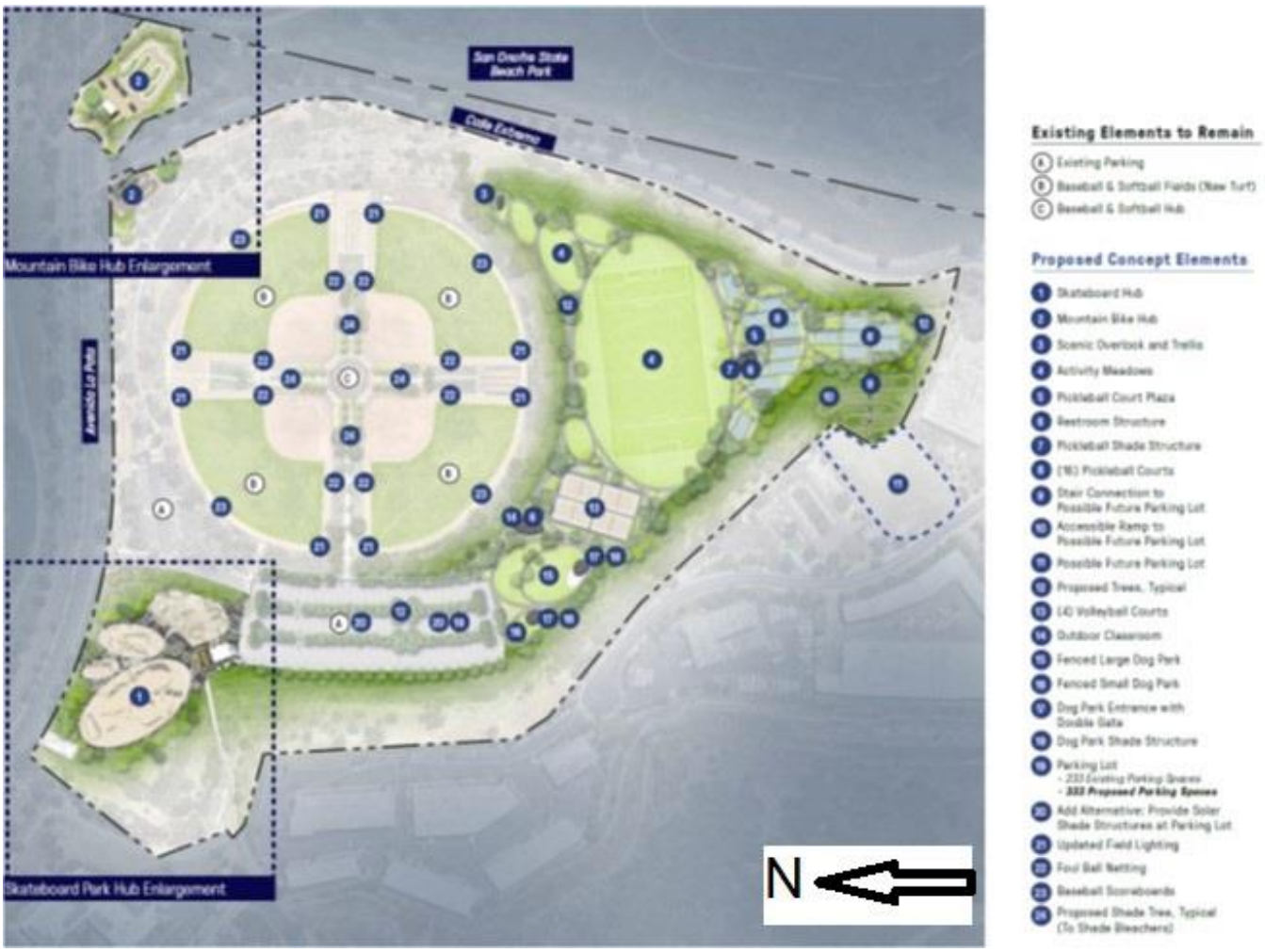
Source: Google Map



Appendix- B

Richard T. Steed Memorial CONCEPT ILLUSTRATIVE PLAN

Source: City of San Clemente



Existing Elements to Remain:

A – Existing Parking

B – Baseball and Softball (Near Turf)

C – Baseball and Softball Hub

Proposed Concept Plan (continued in next page 17)

Proposed Concept Elements

1. Skateboard Hub
2. Mountain Bike Hub
3. Scenic Overlook and Trellis
4. Activity Meadows
5. Pickleball Court Plaza
6. Restroom Structure
7. Pickleball Shade Structure
8. (16) Pickleball Courts
9. Stair Connection to Possible Future Parking Lot
10. Accessible Ramp to Possible Future Parking Lot
11. Possible Future Parking Lot
12. Proposed Trees, Typical
13. (4) Volleyball Courts
14. Outdoor Classroom
15. Fenced Large Dog Park
16. Fenced Small Dog Park
17. Dog Park Entrance with Double Gate
18. Dog Park Shade Structure
19. Parking Lot
    - *233 Existing Parking Spaces*
    - ***333 Proposed Parking Spaces***
20. Add Alternative: Provide Solar Shade Structures at Parking Lot
21. Updated Field Lighting
22. Foul Ball Netting
23. Baseball Scoreboards
24. Proposed Shade Tree, Typical (To Shade Bleachers)