2.6 Transportation and Traffic

This section presents a summary of the potential transportation-related impacts of the Project. The analysis presented herein is based on the Questhaven Traffic Impact Study (TIS) authored by CR Associates, dated March 2023, included as *Appendix L1* to this EIR, and the Questhaven Local Transportation Analysis (LTA), dated ~~April~~ September 2024, included as *Appendix L2* to this EIR.

2.6.1 Analysis Methodology

The traffic analysis presented in this Section was conducted by CR Associates in accordance with the County of San Diego Traffic Study Guidelines (County TSG) and the CEQA Statute and Guidelines. Land development projects within the County of San Diego are required to conduct a detailed transportation VMT analysis for each land use component of the Project, unless the Project is presumed to have less than significant impacts based on Table 1 of the County TSG.[1] Projects or parts of a project that do not meet screening requirements are required to conduct a detailed transportation analysis. Because the Project does not meet the County TSG screening requirements, a detailed VMT analysis was conducted.

On December 28, 2018, updates to the California Environmental Quality Act (CEQA) Guidelines were approved by the Office of Administrative Law (OAL). As required by Senate Bill (SB) 743, Threshold b. of the CEQA Guidelines for the topic of Transportation now requires an evaluation of impacts due to VMT, which replaced the Level of Service (LOS) criteria (i.e., automobile delay) that was used in the past to evaluate potential effects to transportation under CEQA. Pursuant to CEQA Guidelines Section 15064.3(a), "…a project's effect on automobile delay shall not constitute a significant environmental impact." However, because both the County's General Plan Mobility Element and City of San Marcos General Plan Mobility Element contain a policy addressing LOS, LOS is discussed in this section in the context of General Plan policy consistency only.

2.6.2 Existing Conditions

2.6.2.1 Existing Roadway Network

The following is a description of the two major roadways located within the immediate vicinity of the Project site. Figure 2.5-1, *Existing Roadway Network*, depicts the existing traffic conditions and intersections within the Project site's vicinity.

Rancho Santa Fe Road is a six-lane roadway with a raised median between Melrose Drive and Avenida Soledad. The posted speed limit is 55 miles per hour. On-street parking is prohibited. North County Transit District (NCTD) Bus Route #304 is serviced along the corridor. According to the City of Carlsbad General Plan Mobility Element, Rancho Santa Fe Road is classified as an Arterial Street.

San Elijo Road is a four-lane roadway with a raised median between Rancho Santa Fe Road and 690 feet south of Baker Street. San Elijo Road splits into two two-lane one-way roadways 690 feet south

[1] See Table 2.1 of the Project's TIS for further detail on the County VMT screening criteria.

of Baker Street and converges back into a four-lane roadway with a raised median at Schoolhouse Way. The posted speed limit is 45 miles per hour between Rancho San Fe Road and 690 feet south of Baker Street, 25 miles per hour between 690 feet south of Baker Street and Elfin Forest Road (westbound), and 35 miles per hour between Elfin Forest Road (westbound) and Hope Street. On-street parallel parking is allowed between Boundary Lane and Schoolhouse Way. According to the City of San Marcos General Plan Mobility Element, San Elijo Road is classified as a 4-lane Major Road.

2.6.2.2 Existing Bicycle Network

Class II bicycle facilities are provided along both sides of San Elijo Road and Rancho Santa Fe Road within the vicinity of the Project site.

2.6.2.3 Existing Pedestrian Conditions

As shown on Figure 2.5-3, *Existing Pedestrian Conditions*, sidewalks are present along both sides of Rancho Santa Fe Road in the vicinity of the Project site. Sidewalks are present along both sides of San Elijo Road, with the exception of a dirt path approximately 1,940 feet in length between Fallsview Road and Boundary Lane, which includes the segment of San Elijo Road that fronts the Project site.

2.6.2.4 Existing Transit

North County Transit District (NCTD) Bus Route #304 is located in the vicinity of the Project site; however, the nearest stop is located approximately one mile from the Project site. Route #304 connects the Palomar College Transit Center to the Encinitas Station with 43 bus stops. Operation starts at 4:58 AM and ends at 8:23 PM between Monday through Friday and between 7:23 AM to 8:23 PM on Saturday. Route #304 currently does not operate on Sundays. This route operates on 40-minute headways. There are no planned transit facility stops adjacent to or within one mile of the Project site.

2.6.2.5 Existing Average Vehicle Miles Traveled

Using the San Diego Association of Governments (SANDAG) ABM 2 model (Series 14, base year 2016) the regional average resident vehicle miles traveled per person (VMT/Capita) is 19.0 miles.

2.6.2.6 Existing Traffic Volume Conditions

Although CEQA requires that the basis of transportation analysis be based on VMT, an assessment of vehicle volumes on the local circulation network was nonetheless conducted and is documented in *Appendix L2* as part of the Project's LTA. Traffic counts showed that all study area intersections operate at LOS D or better during both the AM and PM peak hours under existing conditions, with the exception to two intersections. The intersection of San Elijo Road (southbound) / Baker Street experiences LOS E conditions during the AM peak hour, primarily due to the westbound left-turn movement which experiences particularly high delay compared to all other movements at this intersection. The intersection of Schoolhouse Way / San Elijo Road experiences LOS E conditions during the AM peak hour primarily due to the high volume of vehicle trips and associated delay for the westbound left-turn movement. Most of these vehicle trips are student drop-off trips at both San Elijo Elementary and Middle Schools.

2.6.3 Regulatory Setting

State

Senate Bill 743

In September 2013, the Governor's Office signed SB 743 into law, starting a process that changed the way transportation impact analysis is conducted under CEQA. In response to the passage of SB 743, the Governor's Office of Planning and Research (OPR) was required to amend the CEQA Guidelines to provide a new approach to evaluating transportation impacts. These changes include the elimination of LOS which measures automobile delay as an analysis metric as the basis for determining significant impacts. The mandate of SB 743 was to devise an alternative traffic impact evaluation criterion that would promote the reduction of GHG emissions as well as foster the development of multi-modal transportation networks and a diversity of land uses. SB 743 further suggested that a measurement such as VMT would be appropriate method to evaluate traffic impacts. VMT is defined as a measurement of miles traveled by vehicles within a specified region and for a specified time period. VMT is calculated based on individual vehicle trips generated and their associated trip lengths. In January 2016, the OPR issued the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, which provided recommendations for updating the CEQA Guidelines and in December 2018 OPR issued the accompanying Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory). Subsequently OPR and the Office of the Secretary of Natural Resources finalized the CEQA Guidelines for implementing SB 743 and as of July 1, 2020, the requirement to determine transportation impacts based on VMT applies statewide.

Local

SANDAG San Diego Forward: The 2021 Regional Plan

The SANDAG San Diego Forward: The 2021 Regional Plan (2021 Regional Plan) was adopted by the SANDAG Board of Directors on December 10, 2021, and includes the region's Regional Transportation Plan (RTP); Sustainable Community Strategy (SCS), as required by SB 375; and Regional Comprehensive Plan. The 2021 Regional Plan provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. The SCS describes coordinated transportation and land use planning that exceeds the State's target for reducing per capita greenhouse gas (GHG) emissions set by the California Air Resources Board (CARB).

One of the core strategies to achieve the 2021 Regional Plan goals is to implement innovative demand and system management. This involves reducing solo driving and congestion through increased remote work, carsharing, vanpooling, pricing strategies, and parking management programs that leverage partnerships and technology. The transportation system envisioned in the 2021 Regional Plan SCS includes "5 Big Moves": Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and Next Operating System.

County of San Diego Transportation Study Guide

The County's Transportation Study Guide (TSG) provides criteria on how projects should be evaluated for consistency related to the County's transportation goals, policies and plans, and through procedures established under CEQA. The TSG aids in determining appropriate mitigation under CEQA, as well as site-specific improvements to the transportation system to accommodate project traffic. The TSG provides guidance on how to conduct transportation VMT analysis based on the project type and number of driveway trips, as well as the threshold where a project is considered to have a significant transportation-related impact. Table 2.6-2, *Summary of VMT Analysis Approach and Significance Thresholds*, displays a summary of the guidance for the different project types.

County of San Diego General Plan Mobility Element

The County's General Plan Mobility Element provides a framework for a balanced, multi-modal transportation system within the unincorporated areas of the County of San Diego. The Mobility Element includes a description of the County's transportation network and the goals and policies that address safety, efficiency, maintenance, and management of the transportation. The San Diego General Plan Mobility Element includes Policy M-2.1 that addresses LOS criteria for Mobility Element roads suggesting LOS D and higher as an acceptable standard in most circumstances. Other applicable policies address access to Mobility Element roads, environmentally sensitive road design, roadway noise buffers, safe and compatible roads, and a safe and efficient multi-modal system. Additionally, the County of San Diego Mobility Element contains Policy M-5.2, that addresses mitigation for impacts of road improvements and/or design modifications on adjacent communities.

City of San Marcos General Plan

The Project site is located in unincorporated San Diego County; however, all study roadway facilities are located within the cities of San Marcos and Carlsbad. The Project's LTA does not include the analysis of any intersections or roadway segments under the jurisdiction of the County. Thus, in coordination with City of San Marcos staff, the Project's LTA evaluates potential transportation-related inconsistencies with the City of San Marcos General Plan Mobility Element (Mobility Element) or the City of San Marcos Transportation Impact Analysis (TIA) Guidelines (November 2020).

The City of San Marcos General Plan's Mobility Element identifies the proposed transportation network and strategies needed to support buildout of the City according to its General Plan. The Mobility Element's policies promote a balanced, multimodal transportation network while minimizing environmental and neighborhood impacts. The Mobility Element contains policies that address walking, streets, transit, regional collaboration, bicycling, parking, the movement of goods, and other components of a transportation system. Policy M-1.4 address LOS, stating that LOS D or better for vehicles as a prioritized mode, which generally provides facilities that have minimum vehicle congestion during peak periods and where most motorists are delayed less than 55 seconds at a signal (or less than one signalized cycle). Together, the City's Mobility Element policies advance a strategy for relieving congestion and increasing transportation choices. The relevant goals and policies from the Mobility Element are analyzed below in Section 2.5.3.1.

2.6.4 Analysis of Project Effects and Determinations as to Significance

Direct, indirect, and cumulatively considerable impacts pertaining to transportation are evaluated herein based on specified thresholds identified in the CEQA Guidelines, Appendix G, and in the County Guidelines for Determining Significance, including the following:

- Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018
- County of San Diego Transportation Study Guidelines, September 2022.

The County's Guidelines for Determining Significance are generally intended to address the questions posed in Appendix G of the CEQA Guidelines. In 2018, the CEQA Guidelines were updated and several of the questions listed in Appendix G were revised, deleted, or modified. Accordingly, this EIR analyzes the impacts from the Project using questions posed in Appendix G Section XVII, Transportation.

2.6.4.1 Potential Conflicts with Transportation Programs, Plans, Ordinances, and Policies

Guideline for the Determination of Significance

A significant transportation impact would occur if implementation of the Project would result in the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Guideline Source

The threshold of significance is based on Appendix G of the CEQA Guidelines.

Analysis

The analysis herein focuses on the Project's consistency with the SANDAG San Diego Forward: The 2021 Regional Plan (2021 Regional Plan) and the City of San Marcos General Plan Mobility Element, which are the two primary applicable transportation plans relevant to the Project and the roadway infrastructure that would be affected by the Project.

Policies Pertaining to Alternative Transportation Modes

The Project is found to be consistent with policies pertaining to transportation modes other than solo-drive vehicles addressed in SANDAG's Regional Plan and the County and City of San Marcos' General Plan Mobility Elements. Specifically, the Project's design would maintain the site-adjacent bike lane and soft surface trail on San Elijo Road that fronts the Project site. Pedestrians and bicyclists traveling to and from the Project site would use proposed Street "D" and Street "E" to reach the trail and bike lane system along San Elijo Road. Further, the Project design is compatible with the regional

trail system. The Project's design provides for a privately maintained parking lot that would be open for public use at the terminus of Street "E." The parking lot would provide public parking access to existing trail systems located south of the Project site. The Project also includes the installation of a new trail segment on-site that would connect the proposed parking lot to the existing Copper Creek Trail.

Table 2.6-1, *City of San Marcos Mobility Element Consistency Analysis*, addresses the Project's consistency with other relevant City of San Marcos General Plan Mobility Element policies.

Policies Pertaining to Roadway Operations

As previously stated, and pursuant to CEQA Guidelines Section 15064.3(a), "…a project's effect on automobile delay shall not constitute a significant environmental impact." However, County of San Diego General Plan Mobility Element contains Policy M-5.2, related to reducing impacts on adjacent communities. Additionally, City of San Marcos General Plan Mobility Element contains Policy M-1.4, related to maintaining an LOS of D or better on City roadways, and County of San Diego General Plan Mobility Element contains Policy M-2.1, related to maintaining LOS D and higher on Mobility Element Roads. As such, an evaluation of the Project's effects on LOS is below. Also refer to the Project's LTA included as *Appendix L2* to this EIR.

Near-Term 2024 Conditions - Intersections

All intersections in the Project's LTA study area would operate at an acceptable LOS D or better during both AM and PM peak hours under Near-Term Year 2024 Base conditions, with exception to the following four intersections:

- Melrose Drive / San Elijo Road – LOS E during AM peak hour and LOS F during PM peak hour. The Project is anticipated to increase delay by 3.7 seconds during AM peak hour and 7.0 seconds during the PM peak hour when compared to the 2024 Base conditions.
- Street "E" / San Elijo Road – LOS F during the PM peak hour. The Project is anticipated to increase delay by 37.9 seconds during AM peak hour and 75.9 seconds during the PM peak hour when compared to the 2024 Base conditions.
- San Elijo Road (southbound) / Baker Street – LOS E during AM peak hour. The Project is anticipated to increase delay by 18.3 during the AM peak hour and 5.2 seconds during the PM peak hour when compared to the 2024 Base conditions.
- Schoolhouse Way / San Elijo Road – LOS E during AM peak hour. This is primarily due to the high volume of vehicle trips and associated delay for the westbound left-turn movement. Most of these vehicle trips are student drop-off trips at both San Elijo Elementary and Middle Schools.

The implementation of the Project would increase the delay at the four intersections listed above and projected to operate at substandard LOS E under Near-Term Year 2024 Base with Project conditions.

The Project would increase delay by more than 2.0 seconds at three of the four intersections. Therefore, based upon County of San Diego Mobility Element Policy M-5.2, City of San Marcos Mobility Element Policy M-1.4 and the standards set forth in the City of San Marcos TIA Guidelines, the Project's contribution of vehicles to these intersections would be inconsistent with City of San Marcos Mobility Element Policy M-1.4 at the following intersections:

- Melrose Drive / San Elijo Road – LOS E
- Street "E" / San Elijo Road – LOS E
- San Elijo Road (southbound) / Baker Street – LOS E

Near-Term 2024 Conditions - Roadway Segments

Under Near-Term 2024 conditions, the following roadway segment would operate below LOS D:

- San Elijo Road, between Street "E" and Baker Street – LOS E

The Project would trigger the roadway segment operating at acceptable LOS D to operate at unacceptable LOS E and would increase the volume/capacity ratio by more than 0.02. Therefore, based upon Mobility Element Policy M-1.4 and the standards set forth in the City of San Marcos TIA Guidelines, the Project's contribution of vehicles to the roadway segment mentioned above would be inconsistent with Mobility Element Policy M-1.4.

Horizon Year 2035 Conditions - Intersections

The Project is consistent with the County of San Diego General Plan's land use designations; therefore, intersection analysis was not required to be conducted in the Horizon Year, which considers build out of long range conditions based on General Plan land use assumptions.

Horizon Year 2035 Conditions - Roadway Segments

Under Horizon Year 2035 conditions, the following roadway segment would operate below LOS D:

- San Elijo Road, east of Schoolhouse Way – LOS F

Although the roadway segment identified above is projected to continue operating at a substandard LOS with the addition of Project traffic, the increase in V/C ratio due to the Project is less than 0.02. Therefore, based upon the standards set forth in the City of San Marcos TIA Guidelines, the Project's contribution of vehicles to this roadway segment would not be inconsistent with Mobility Element Policy M-1.4.

Conclusion

The Project would add vehicles to the local roadway system and contribute towards three City of San Marcos intersections and one roadway segment operating at below LOS D under Near-Term 2024 conditions and thus would conflict with the City's General Plan Mobility Element Policy M-1.4. The Project's contribution to the City's inability to meet Policy M-1.4 would be significant and, in order to comply with County of San Diego Mobility Element M-5.2,would require implementation of intersection and roadway improvements to reduce impacts. City of San Marcos Mobility Element states that complying with Policy M-1.4 supports "other General Plan goals such as providing environmental protections and enhancing community character" **(Significant Direct Impact TRANS-1)**. Impacts under Horizon Year 2035 conditions would be less than significant.

2.6.4.2 Vehicle Miles Traveled

Guideline for the Determination of Significance

A significant transportation impact would occur if implementation of the Project would result in the following:

- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Guideline Source

The threshold of significance is based on Appendix G of the CEQA Guidelines.

Analysis

Because the Project is calculated to generate fewer than 2,400 average daily trips (ADT), and is a residential project, per the County TSG, a VMT analysis is required to be conducted by identifying the location of the Project on the County's VMT per Resident map.

The Project's VMT per Resident would be considered the same as the VMT per Resident of the Traffic Analysis Zone where the Project is located because the distance to services and amenities would be the same within the Project site and development in the surrounding Traffic Analysis Zone. The Project also has the option to use the SANDAG Regional Travel Demand Model to determine the Project's VMT per Resident, which determines the VMT per resident based on a VMT Map prepared by SANDAG. For purposes of this analysis, the SANDAG Regional Travel Demand Model was used to determine the Project's VMT per resident. A residential project is considered to have a less than significant impact if a project's VMT per Resident is 15 percent or more below the VMT regional average (i.e., less than or equal to 85 percent of the regional average VMT per Resident). The regional average resident VMT/Capita is 19.0 miles and 85 percent of 19.0 miles is 16.07 miles.

In accordance with the County TSG, the Project's two land use components, a 0.3-acre neighborhood park and 76 residential units (including seven affordable housing units), are evaluated separately.

VMT Analysis – Neighborhood Park

The 0.3-acre Neighborhood Park was first evaluated using the screening criteria provided by the County TSG and the information in Table 2.6-2. Because the Neighborhood Park is limited in size and is anticipated to generate two vehicle trips per day, it was determined that the Neighborhood Park meets the "Locally Serving Public Facilities" screening criteria. The County TSG defines Locally Serving Public Facilities as facilities that serve the surrounding community or public facilities that have passive uses. These types of facilities may be presumed to have a less-than-significant impact. As such, the Neighborhood Park component of the Project would result in a less-than-significant VMT impact.

VMT Analysis – Residential

The 76 residential units proposed as part of the Project do not meet any of the screening criteria provided by the County, therefore, a detailed VMT analysis was conducted using the SANDAG San Diego Regional Travel Demand Model SB-743 VMT Map for the Year 2016 scenario (SANDAG 2016 VMT Map). While the Project buildout year is 2024, the Year 2016 scenario was selected to ensure a conservative review because future year scenarios may include Transportation Demand Measures (TDMs) that are currently not available. Table 2.6-3, *VMT Impact Analysis – Residential*, summarizes the VMT analysis results for the Project. As shown in Table 2.6-3, the Project's residential land use is calculated to generate a VMT per Resident of 24.1 miles, which exceeds the significance threshold of 16.07 miles. Therefore, the residential component of the Project would have a significant VMT impact **(Significant Direct Impact TRANS-2)**.

2.6.4.3 Potential Transportation Safety Hazards

Guideline for the Determination of Significance

A significant transportation impact would occur if implementation of the Project would result in the following:

- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Guideline Source

The threshold of significance is based on Appendix G of the CEQA Guidelines.

Analysis

There would be no hazardous design features resulting from incompatible uses introduced by the Project. The Project's residential land use is consistent with the site's land use designation in the County of San Diego General Plan and is a compatible land use for the surrounding area.

The Project site is undeveloped under existing conditions. As shown in Figure 2.5-2, *Site Access*, San Elijo Road abuts the northern boundary of the property and would provide access via two new private streets, Street "D" and Street "E", which would connect the Project site to San Elijo Road. The Project's access points are also shown on Figure 2.5-2.

- *Street "E" / San Elijo Road* – The proposed private driveway, named as Street "E", is proposed to be located at the eastern end of the Project site. It is an existing T-intersection leg (south) that connects to San Elijo Road and currently provides access to the Loma San Marcos ~~EdenPark~~ recreational facility. As part of the Project's design, this intersection would be improved to satisfy both County and City of San Marcos standards as follows and would be required to meet all sight distance criteria:

  - Re-construct the existing driveway to County/City standards, to be determined during final engineering.

  - Restripe the existing buffer bike lanes along San Elijo Road to the City of San Marcos' traffic engineer satisfaction.

- *Street "D" / San Elijo Road* – This proposed private driveway, named as Street "D", is located at the western end of the property. It would form a side-street stop-controlled, right-in/right-out T-intersection with San Elijo Road and would be required to meet all site distance criteria. This access point includes one inbound lane and one outbound lane.

Internal to the Project site, the residential lots would be accessed from a number of private internal roads to provide adequate internal circulation and access. Site access and the internal circulation roadways would not increase hazards due to a geometric design feature.

The Project would meet City of San Marcos and County standards for roadway design and avoidance of traffic hazards, which would occur as part of standard review required as part of final engineering. Roadway and intersection geometrics of the Project were assumed in the analysis to be identical to existing geometrics because the Project would not modify any roadway or intersection geometrics, with the exception of Project access points. No adverse design features, physical configurations, or other conflicting features such as curves, slopes, walls, or other barriers that may adversely affect the movement of roadway users are proposed as part of the Project. The Project would have a less-than-significant impact in relation to traffic hazards and design features. Therefore, the Project would result in less-than-significant impacts due to incompatible uses on the Project site.

2.6.4.4 Emergency Access

Guideline for the Determination of Significance

A significant transportation impact would occur if implementation of the Project would:

- Result in inadequate emergency access.

Guideline Source

The threshold of significance is based on Appendix G of the CEQA Guidelines.

Analysis

As discussed in EIR Section 3.11, *Public Services*, and Section 3.14, *Wildfire*, emergency services and access would be assured to the Project site. As shown on Figure 1-6, *Site Access Plan,* and described above, emergency access to the Project site would be provided via two Project driveways connecting with San Elijo Road. All on-site roadways would be constructed to County and City of San Marco standards to ensure adequate emergency access and emergency turn around. Therefore, the Project would not result in inadequate emergency access and this potential impact would be less than significant. During construction, a temporary traffic control plan would be implemented as a standard condition of approval to ensure maintained vehicle flow on San Elijo Road and at the existing San Elijo Road/Street "E" intersection. The temporary traffic control plan is required to comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices (CMUTD).

2.6.5 Cumulative Impact Analysis

In regard to compliance with programs, plans, ordinances, and policies that pertain to the transportation system, the Project's contribution of vehicles to the roadway system would be inconsistent with City of San Marcos General Plan Mobility Element Policy M-1.4, which seeks to achieve LOS D or better on Mobility Element roadways. The Project's LTA (*Appendix L2*) includes a cumulative analysis that includes land use assumptions for existing and future development projects forecasted by SANDAG, as well as anticipated development projects in the City of San Marcos. The list of the cumulative developments included in the analysis is included in Table 1-3, *Cumulative Developments*, of the EIR. LOS analyses were conducted using the methodologies described in Chapter 2.0 of the Project's LTA.

Under the Near-Term 2024 analysis scenario, the Project would contribute vehicles to the following intersections that operate below LOS D, which would also receive additional vehicles from other cumulative development projects.

- Melrose Drive / San Elijo Road – LOS E during AM peak hour and LOS F during PM peak hour
- Street "E" / San Elijo Road – LOS F during AM and PM peak hours
- San Elijo Road (southbound) / Baker Street – LOS E during AM and PM peak hours
- Schoolhouse Way / San Elijo Road – LOS E during AM peak hour

Three of the above listed intersections would experience an increase in delay of more than 2.0 seconds as a result of the Project's added vehicles. Therefore, based upon Mobility Element Policy M-1.4 and the standards set forth in the City of San Marcos TIA Guidelines, the Project would result in cumulatively considerable impacts at the following three intersections **(Significant Cumulatively Considerable Impact TRANS-1)**:

- Melrose Drive / San Elijo Road
- Street "E" / San Elijo Road
- San Elijo Road (southbound) / Baker Street

All study area roadway segments would continue to operate at acceptable LOS D or better under Near-Term Year 2024 Base with Project conditions, with the exception of the following:

- San Elijo Road, between Street "E" and Baker Street.

The Project's addition of vehicles to the above roadway segment would trigger the roadway segment operating at acceptable LOS D to operate at unacceptable LOS E and would increase the volume/capacity ratio by more than 0.02. Therefore, based upon Mobility Element Policy M-1.4 and the standards set forth in the City of San Marcos TIA Guidelines, the Project would result in cumulatively considerable impacts along the roadway segment **(Significant Cumulatively Considerable Impact TRANS-1)**:

The Project would have a significant VMT impact and thus would make a cumulatively considerable contribution to a cumulative VMT impact in the San Diego region **(Significant Cumulatively Considerable Impact TRANS-2)**.

The Project would have less than significant impacts related to hazards from design or incompatible uses during construction and operation, and with respect to emergency access. Thus, given that the Project's impacts would be less than significant, the Project would not result in cumulatively considerable impacts to transportation hazard or emergency access.

2.6.6 Significance of Impacts Prior to Mitigation

Significant Direct and Cumulatively Considerable Impact TRANS-1*:* The Project would not conflict with applicable programs, plans, ordinances, or policies addressing alternative modes of travel such as pedestrian, bicycle, and transit. The Project would, however, contribute vehicles to three intersections and one roadway segment that are calculated to operate below LOS D standards, which would be inconsistent with the City of San Marcos Mobility Element Policy M-1.4. The Mobility Element states that complying with Policy M-1.4 supports other General Plan goals such as providing environmental protections and enhancing community character. Thus, the Project's impact would be significant on a direct and cumulatively considerable basis.

Significant Direct and Cumulatively-Considerable Impact TRANS-2*:* The Project's residential land use is calculated to generate a VMT per Resident of 24.1 miles, which exceeds the significance threshold of 16.07 miles. Therefore, the residential component of the Project would have a significant VMT impact on a direct and cumulatively considerable basis.

2.6.7 Mitigation

Intersection and Roadway Improvements

M-TRANS-1 Prior to issuance of the first certificate of occupancy, the Project Applicant shall be required to optimize the traffic signal timing at the intersection of Melrose Drive and San Elijo Road. Signal optimization could include reoptimizing cycle lengths and/or signal splits to better accommodate future traffic demand along the corridor. It is important to note that if signal optimization is implemented, adjacent intersections within the coordinated system should be taken into consideration. ~~Additionally, prior to issuance of the first certificate of occupancy, the north leg of the intersection (Melrose Drive) shall be restriped to accommodate southbound dual left-turn lanes and a shared through-right lane. A striping plan shall be prepared to the satisfaction of the City Engineer.~~

M-TRANS-2 Prior to issuance of the first certificate of occupancy, the Project Applicant shall be required to install a traffic signal at the intersection of Streete "E" and San Elijo Road. Additionally, prior to issuance of the first certificate of occupancy, the south leg of the intersection (Street "E") shall be reconfigured to include dual left-turn lanes and an exclusive right turn lane.

VMT

M-TRANS-3 The Project Applicant shall encourage reduction in VMT by: 1) providing end of trip bicycle facilities by providing a short term bicycle rack at neighborhood park; and 2) implementing commute trip reduction marketing by requiring the HOA to provide marketing materials to residents encouraging carpooling among residents of the community. The Project's homeowner's association (HOA) shall be responsible for providing information to residents about the benefits of VMT reduction as the need arises. A copy of the covenants, conditions, and restrictions (CC&Rs) shall be provided to the County prior to issuance of the first certificate of occupancy.

2.6.8 Conclusion

Significant and Unavoidable Impact TRANS-1: As shown in Table 2.6-6, *Intersection Capacity Analysis for Near-Term Year 2024 Base with Project with Improvement Conditions*, and Table 2.6-7, *Roadway Segment Capacity Analysis for Near-Term Year 2024 Base with Project with Improvement Conditions*, upon implementation, the improvements identified as part of M-TRANS-1 and M-TRANS-2 would improve the LOS at the following intersections and roadway segments to acceptable levels under Near-Term 2024 conditions and would achieve consistency with Mobility Element Policy M-1.4. However, because the mitigation requires the implementation of improvements in the City of San Marcos and the County of San Diego as the Lead Agency for this EIR does not have control over the nature and timing of improvements that would occur in the City of San Marcos, the County cannot assure that the required improvements would be in place at the time of Project occupancy; therefore,

near-term impacts to the following intersections and roadway segment are determined to be significant and unavoidable under Near-Term 2024 conditions until the required improvements are in place:

Intersections

1. Melrose Drive / San Elijo Road
2. Street "E" / San Elijo Road
3. San Elijo Road (southbound) / Baker Street

Roadway Segment

- San Elijo Road, between Street "E" and Baker Street.

Significant and Unavoidable Impact TRANS-2: In regard to reducing VMT, none of the measures provided in the Project's Transportation Impact Study (*Appendix L1*) are readily quantifiable because it is not possible to accurately predict human behavior responses to VMT reduction strategies. The California Air Pollution Control Officers Association (CAPCOA) GHG Handbook provides several mitigation measures for land use projects. The measures that apply to residential development were evaluated to determine whether they are appropriate or feasible for the Project and are shown in Table 2.6-4, *Feasibility of Project TDM Measures & VMT Reduction*. Table 2.6-5, *Feasibility of VMT Reduction Measures*, provides the comprehensive list of the TDM measures from the CAPCOA Handbook and feasibility of implementation for the Project. The comprehensive list of TDM measures from the CAPCOA GHG Handbook is provided in Appendix A of the Project's LTA (*Appendix L2* of this EIR) for reference. As determined by the Project's LTA, none of the measures applicable for the Project are quantifiable measures. Additionally, none of the measures applicable for the Project are feasible measures with the exception of short-term bicycle racks on site, which would be implemented on the Project site. Because none of the applicable TDM measures can be demonstrated to reduce the VMT per resident to a less than 16.07 miles, the Project is considered to have a significant and unmitigated VMT impact.

Table 2.6-1 City of San Marcos Mobility Element Consistency Analysis

Policy	Project Consistency
Goal M-1 **Provide a comprehensive multimodal circulation system that serves the City of San Marcos land uses and provides for the safe and effective movement of people and goods.**	
Policy M-1.4: Utilize multi-modal level of service techniques to evaluate transportation facilities. For identified prioritized modes (based on facility typology), provide the following minimum LOS as shown in Table 3-4 of the General Plan: • LOS D or better for Vehicles as a prioritized mode – Generally provides facilities that have minimum vehicle congestion during peak periods. Most motorists are delayed less than 55 seconds at a signal (or less than one signalized cycle) • LOS D or better for Bicycles – Generally provides bicycle facilities that provide a good level of comfort for average cyclists. • LOS C or better for Pedestrians – Generally provides for wider sidewalks and ensures a peasant and comfortable walking environment. • LOS D or better for Transit – Provides for good transit service levels along prioritized corridors with high frequency service rates. • The City shall allow for flexible LOS where warranted (e.g. accepting a lower LOS than identified above). Warranted locations include those within the Urban Core of San Marcos, or where widening is considered infeasible (financially or environmentally). The City shall continuously update a list of protected locations where flexible LOS is warranted, including Rancho Santa Fe Road (between Grand and Linda Vista, and between Grandon Ave. and Security Place), and Twin Oaks Valley Road (north Windy way).	**Near Term Conflict.** The Project would cause a conflict with Mobility Element Policy M-1.4 and the standards set forth in the City of San Marcos TIA Guidelines at the roadway segment of San Elijo Road, between Street "E" and Baker Street by adding vehicles to the segment and triggering the segment to operate at LOS E. The Project also would deteriorate traffic operations and add more than two seconds of delay to three intersections already operating at LOS E. These include: 1. Melrose Drive / San Elijo Road 2. Street "E" / San Elijo Road 3. San Elijo Road (southbound) / Baker Street The above impacts would occur in the Near Term 2024 condition only.
Goal M-3 **Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City of San Marcos**	
Policy M-3.1: Develop an integrated, multimodal circulation system that accommodates transit, bicycles, pedestrians, and vehicles; provides opportunities to reduce air pollution and greenhouse gas emissions; and reinforces the role of the street as a public space that unites the City of San Marcos.	**No Conflict:** There is an existing soft surface trail directly adjacent to the Project site along San Elijo Road, which is consistent with the City of San Marcos Mobility Element.

Policy M-3.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians through design, maintenance and law enforcement. Install wider sidewalks and curb extensions at pedestrian crossings (bulb outs) where appropriate.	There are Class II Bicycle Lanes directly adjacent to the Project site along San Elijo Road, which is consistent with the City of San Marcos Bicycle and Pedestrian Master Plan (May 2015).
Policy M-3.3: Provide a pedestrian and bicycle network in existing and new neighborhoods that facilitates convenient and continuous pedestrian and bicycle travel free of major impediments and obstacles.	NCTD Bus Route #304 is located in the vicinity of the Project; however, the nearest stop is located approximately one-mile from the Project site. Route #304 connects the Palomar College Transit Center to the Encinitas Station with 43 bus stops. Operation starts at 4:58 AM and ends at 8:23 PM between Monday through Friday and between 7:23 AM to 8:23 PM on Saturday. Route #304 currently does not operate on Sundays. This route operates on 40-minute headways. There are no planned transit facilities within the Project study area.

Table 2.6-2 Summary of VMT Analysis Approach and Significance Thresholds

Project Type	Approach		Threshold of Significance
	Determine Average VMT by Maps	SANDAG Modeling Required	
Residential, Employment, or Mixed-Use	Less than 2,400 un-adjusted driveway trips	Greater than 2,400 un-adjusted driveway trips	15 percent (15%) below the Regional Average VMT per Resident
Non-Locally Serving Retail/Service, Public Facility, or Other	N/A	All Projects	A net change in total regional VMT

(CR Associates, 2023)

Table 2.6-3 VMT Impact Analysis – Residential

Metric	VMT per Resident (miles/person)
Regional Average	18.9[1]
Significant Impact Threshold (85%)	16.07[2]
Proposed Project	24.1[1]
Significant Impact?	Yes

Notes:
[1] Source = SANDAG Series 14 Year 2016 Base Model
[2] Regional Average (18.9) x 85% = 16.07.

(CR Associates, 2023)

Table 2.6-4 Feasibility of Project TDM Measures & VMT Reduction

Measure	Max VMT Reduction	Applicability	Project's VMT Reduction
Increase Residential Density (GHG Handbook: T-1)	30%	No – The Project design has already maximized permitted residential density on the Project site by clustering development in the northern portion of the Project site. It is not feasible for the Project to further increase number of residential units due to land use constraints and zoning restrictions.	0%
Provide Transit-Oriented Development (GHG Handbook: T-3)	31%	No - The Project is not located near a major transit stop.	0%
Implement Commute Trip Reduction Marketing (GHG Handbook: T-6)	4%	**Yes** – However, not quantifiable for the proposed Project as this measure is aimed at employment projects.	0%
Provide Ridesharing Program (GHG Handbook: T-7)	8%	No – Not functionally feasible or practical for the Project's HOA to host and implement a ridesharing program for 76 single-family residential homes in a suburban setting.	0%

Provide End-of-Trip Bicycle Facility (GHG Handbook: T-9)	4.4%	**Yes -** The Project will provide short term bicycle racks at the Neighborhood Park. Since these racks will likely be utilized by residents in nearby communities, and for a conservative analysis, VMT reduction was not assumed for these amenities. Additionally, not quantifiable for the Proposed Project as this measure is aimed at employment projects.	0%
Limit Residential Parking Supply (GHG Handbook: T-14)	13.7%	No – Not feasible to reduce parking for this residential project given the County's parking requirements and the design of the single-family residential community.	0%
Provide Pedestrian Network Improvement (GHG Handbook T-17)	6.4%	No – Although the project is providing a new trail connection from a proposed parking lot to the Copper Creek Trail it is not feasible for the Project to provide other pedestrian network improvements off-site beyond the Project site. A soft surface trail is already provided along the Project site's frontage with San Elijo Road.	0%
Implement Conventional Carshare Program (GHG Handbook: T-20-A)	0.15%	No – Not functionally feasible or practical for the Project's HOA to implement a conventional carshare program for 76 single-family residential homes in a suburban setting.	0%
Implement Electric Carshare Program (GHG Handbook: T-20-B)	0.18%	No – Not functionally feasible or practical for the Project's HOA to implement a conventional carshare program for 76 single-family residential homes in a suburban setting.	0%
Implement Pedal (Non-Electric) Bikeshare Program (GHG Handbook: T-21-A)	0.02%	No – Not functionally feasible or practical for the Project's HOA to implement a bike share program for 76 single-family residential homes in a suburban setting.	0%
Implement Electric Bikeshare Program (GHG Handbook: T-21-B)	0.06%	No – Not functionally feasible or practical for the Project's HOA to implement an electric bikeshare program for 76 single-family residential homes in a suburban setting.	0%
Implement Scootershare Program (GHG Handbook: T-21-C)	0.07%	No – Not functionally feasible or practical for the Project's HOA to implement a scootershare program for 76 single-family residential homes in a suburban setting.	0%

Integrate Affordable and Below Market Rate Housing	Non-quantifiable	**Yes** - The Project is providing seven affordable homes on the site. However, for a conservative analysis, the potential VMT reductions were not assumed for these units.	0%

(CR Associates, 2023)

Table 2.6-5 Feasibility of VMT Reduction Measures

Mitigation Measure (from CAPCOA Report)	Feasibility
TDM-T-7-Implement Commute Trip Reduction Marketing	Yes - However, not quantifiable for the Proposed Project due to the implementation requirements or measure description in relation to Proposed Project's land use (i.e., a residential project rather than an employment project).
TDM-T-8-Provide Ridesharing Program	No - Not financially feasible for project to host and implement a ridesharing program.
TDM-T-9-Implement Subsidized or Discounted Transit Program	No - Not financially feasible for project to implement discounted transit program.
TDM-T-10-Provide End-of-Trip Bicycle Facilities	Yes - However, not quantifiable for the Proposed Project due to the implementation requirements or measure description in relation to Proposed Project's land use (i.e., a residential project rather than an employment project).
TDM-T-14-Provide Electric Vehicle Charging Infrastructure	No - Although project is providing EV ready infrastructure as well as several EV charging ready visitor guest parking, the requirements to implement this feature are not met. Project must provide EV charging ready spaces beyond what is required per Cal Green building requirement. Additionally, EV charging infrastructure only reduces gas emissions and does not reduce VMT.
TDM-T-15-Limit Residential Parking Supply	No - Not feasible to reduce parking for this residential project.
TDM-T-18-Provide Pedestrian Network Improvement	No - Although the project is providing pedestrian improvements within project site and project frontage, it is not financially feasible to provide pedestrian network improvements beyond the project site.
TDM-T-21-A-Implement Conventional Carshare Program	No - Not financially feasible for project to implement a carshare program.
TDM-T-21-B-Implement Electric Carshare Program	No - Not financially feasible for project to implement an electric carshare program.
TDM-T-22-A-Implement Pedal (Non-Electric) Bikeshare Program	No - Not financially feasible for project to implement a pedal bikeshare program.
TDM-T-22-B-Implement Electric Bikeshare Program	No - Not financially feasible for project to implement an electric bikeshare program.
TDM-T-22-C-Implement Scootershare Program	No - Not financially feasible for project to implement a scootershare program.

(CR Associates, 2024) (CR Associates, 2023)

Table 2.6-6 Intersection Capacity Analysis for Near-Term Year 2024 Base with Project with Improvement Conditions

#	Intersection	Control Type	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS			
1	Melrose Drive / San Elijo Road	Signal	~~45.1~~ 45.4	D	~~41.1~~ 47.0	D	63.0 / 89.1	E / F	~~-17.9~~ -17.6 / -42.1~~48.0~~
2	Street "E" / San Elijo Road	Signal	13.9	B	22.6	C	22.6 / 797.1	C / F	-8.7 / -774.5

3	San Elijo Road (southbound) / Baker Street	Signal	52.4	D	33.1	C	75.7 / 51.4	**E** / D	-23.3 / -18.3

Bold indicates substandard LOS E or F.
(CR Associates, 2024)

Table 2.6-7 Roadway Segment Capacity Analysis for Near-Term Year 2024 Base with Project with Improvement Conditions

Road Segment	ADT w/Traffic Signal	V/C w/Traffic Signal	LOS w/Traffic Signal	ADT w/o Traffic Signal	V/C w/o Traffic Signal	LOS w/o Traffic Signal	ΔV/C	I?
San Elijo Road Street "E" to Baker Street	34,466	0.862	D	35,014	0.875	**E**	-0.013	N

Bold indicates substandard LOS E or F.
(CR Associates, 2024)

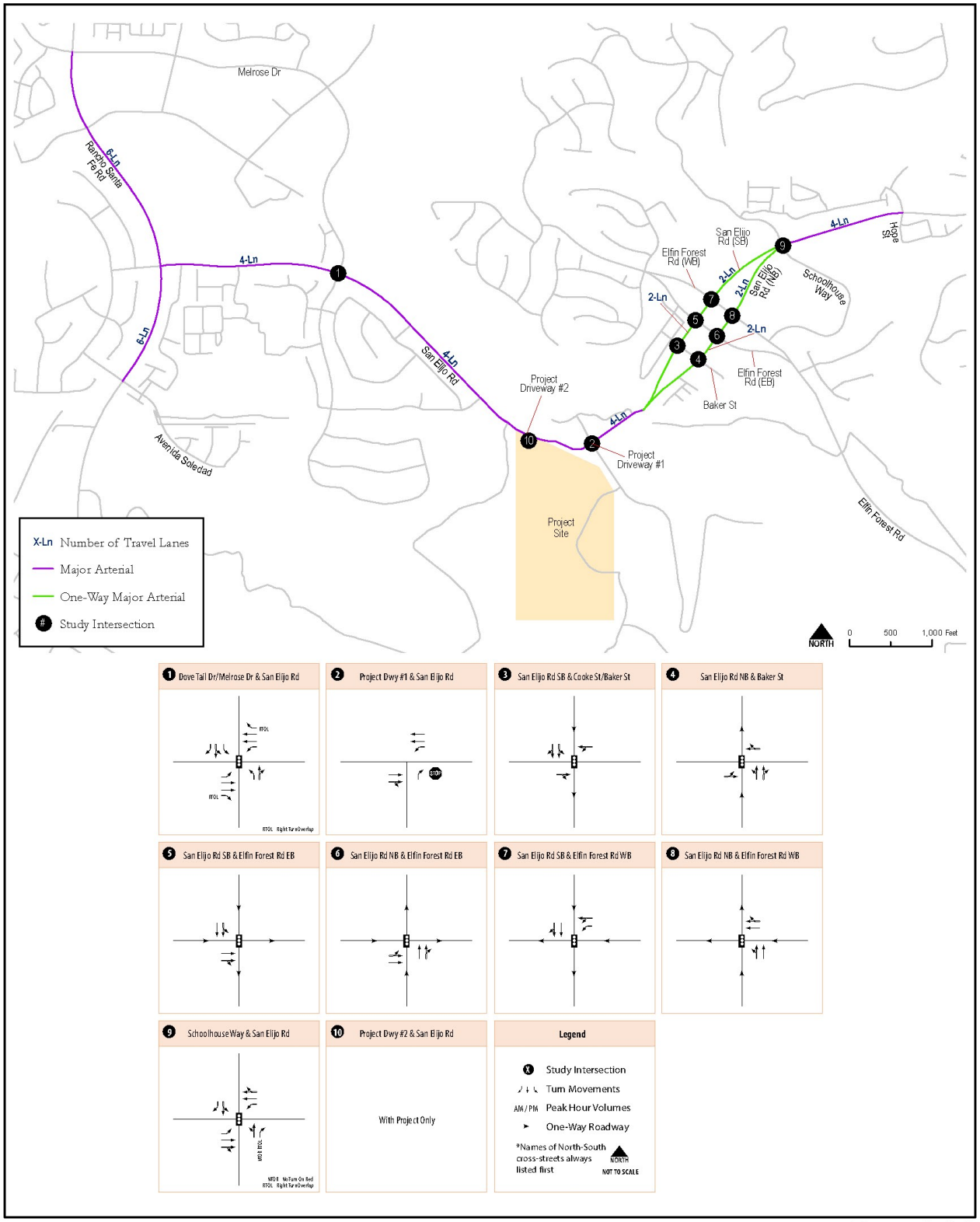
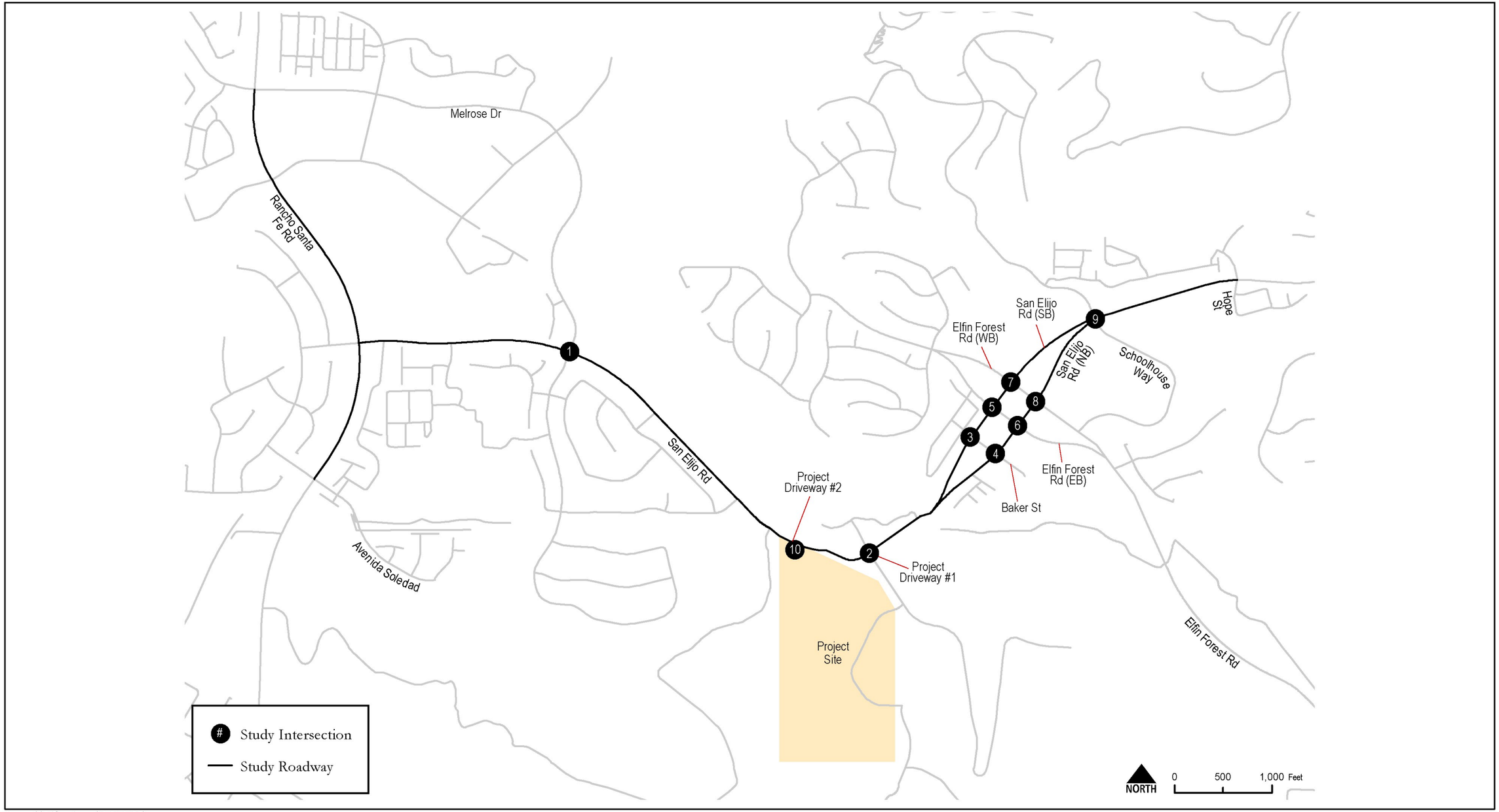


Figure 2.6-1

Not to Scale

Existing Roadway Network

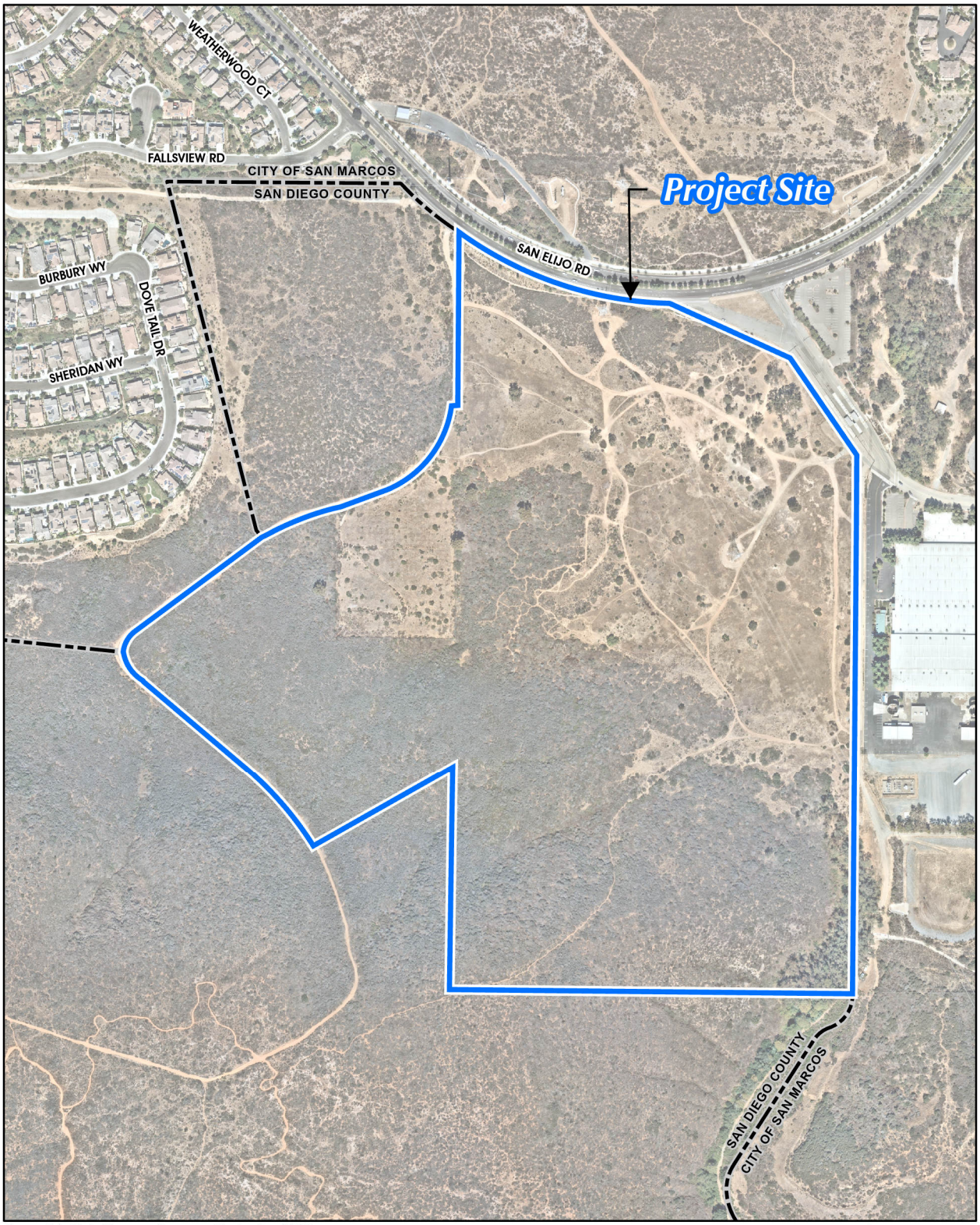


Source(s): Chen Ryan (05-30-2023)

Figure 2.6-2

Not to Scale

Site Access



Source(s): Esri, Nearmap Imagery (September 2022)

Figure 2.6-3

0 125 250 500 Feet

Existing Pedestrian Conditions