DRAFT
ENVIRONMENTAL IMPACT REPORT

RANCHO SANTA FE ROUNDABOUTS PROJECT
SCH# 2007101081

Lead Agency:

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

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LIST OF ACRONYMS AND ABBREVIATIONS

ACOE	U.S. Army Corps of Engineers
ADI	Area of Direct Impact
ADT	average daily trips
AMSL	above mean sea level
BFM	bonded fiber matrix
BMP	Best Management Practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Administration
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
County DPW	County of San Diego Department of Public Works
Covenant	Rancho Santa Fe community's protective covenant
CWA	Clean Water Act
dB(A), dBA	A-weighted decibels
DPLU	County Department of Planning and Land Use
EIR	Environmental Impact Report
ESA	Environmentally Sensitive Area
EUA Report	Equestrian Usage Assessment Report
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
HLP	habitat loss permit
HSWA	Hazardous and Solid Waste Act
HWCL	Hazardous Waste Control Law
I-5	Interstate 5
I-15	Interstate 15
LARA	Local Agricultural Resource Assessment
LID	Low Impact Development
LLG	Linscott, Law and Greenspan Engineers
LOS	Level of Service
MEI	maximally exposed individual
MPH	miles per hour
MS4s	Municipal Separate Storm Sewer Systems
MSCP	Multiple Species Conservation Program
NAAQS	National Ambient Air Quality Standards

NAC	noise abatement criterion
NCCP	Natural Communities Conservation Plan
NCP	National Contingency Plan
NO_2	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O_3	ozone
OHWM	Ordinary High Water Mark
OSHA	Occupational Safety and Health Administration
PAMA	Pre-Approved Mitigation Area
Pb	lead
$PM_{2.5}$	fine particulate matter
PM_{10}	suspended particulate matter
ppm	parts per million
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gas
RPO	Resource Protection Ordinance
RSFCSD	Rancho Santa Fe Community Services District
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SLT	screening level threshold
SO_2	sulfur dioxide
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAIC	Technology Associates International Corporation
TMDL	total maximum daily load
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
Williamson Act	Williamson Act Contract or the provisions of the California Land Conservation Act of 1965
$\mu g/m^3$	micrograms per cubic meter

SUMMARY

S.1 Project Synopsis

The County of San Diego Department of Public Works (County DPW) proposes to construct traffic roundabouts at the following three intersections along Paseo Delicias in the unincorporated community of Rancho Santa Fe in northwest San Diego County:

- Paseo Delicias/El Camino del Norte/Del Dios Highway (El Camino del Norte)
- Paseo Delicias/El Montevideo/La Valle Plateada (El Montevideo/La Valle Plateada)
- Paseo Delicias/Via de la Valle/La Fremontia (Via de la Valle/La Fremontia)

Paseo Delicias is a two-lane road between Via de la Valle and El Camino del Norte that is heavily used by through traffic during morning and afternoon commute periods for travel between Interstate 15 (I-15) and Interstate 5 (I-5). This high volume of traffic creates significantly long queues at each of these controlled intersections. To avoid long waits, some motorists divert onto other narrow residential roadways, creating potential traffic conflicts and delays to residents accessing their driveways.

S.1.1 Location/Boundary

The proposed project is located at three intersections and their approaching street segments along approximately 2.6 miles of Paseo Delicias between Via de la Valle and El Camino del Norte in the unincorporated community of Rancho Santa Fe.

S.1.2 Project's Component Parts

The roundabouts would be built according to Federal Highway Administration (FHWA) guidelines for design of rural roundabouts and would allow traffic to enter each roundabout without stop-sign controls at any of the intersecting street segments. Yield signs would be installed at the entry to the roundabouts to require vehicles approaching each roundabout to yield the right-of-way to vehicles already within the roundabout. Combination pedestrian/equestrian crossings would be installed and would be delineated by crosswalk markings in the pavement. Push-button crossing controls would activate in-pavement lighting and flashing warning signs and a safety island would be installed to enable pedestrians to pause between the lanes of traffic. New landscaping would also be installed at each of the roundabouts.

The El Camino del Norte roundabout would have three intersecting street segments and would need to be widened on the northwest and northeast corners to accommodate the roundabout. Retaining walls would be constructed on the north and south sides of Paseo Delicias and Del Dios Highway.

The El Montevideo/La Valle Plateada roundabout would have four intersecting street segments and would need to be widened and shifted slightly in a northeasterly direction. No widening would be required at the southwest side of the intersection. Existing bus stops on Paseo Delicias would be relocated farther to the east and west of the roundabout.

The Via de la Valle/La Fremontia roundabout would have three intersecting street segments and would include the closure of the western intersection of La Fremontia to convert a loop street to a cul-de-sac. A landscaped area would be constructed between the La Fremontia cul-de-sac and the roundabout. The southwest and southeast corners at the intersection of Paseo Delicias/Via de la Valle would need to be widened to accommodate the roundabout and for the realigned equestrian trail that would follow along the southeast side of the intersection. Existing bus stops on Paseo Delicias would be relocated to match the alignment of the roundabout.

South of the proposed roundabout, the intersection of Las Colinas with Via de la Valle would be realigned to the south to intersect Via de la Valle at a right angle. Transition lanes to facilitate right turns into and out of Las Colinas and a left turn pocket into Las Colinas would also be constructed. Two private driveways on Las Colinas would be lengthened to connect with the realigned roadway. West of the roundabout, the eastern access to a circular driveway at a private residence on the south side of Paseo Delicias would be closed. Ingress and egress to the private residence would be maintained via the western side of the circular driveway.

S.2 Summary of Significant Effects and Mitigation Measures That Reduce or Avoid the Significant Effects

Table S.1 provides a brief summary of each potential environmental effect found to be significant with implementation of the proposed project, the mitigation measures that would reduce or avoid that effect, and the conclusion as to whether the effect is reduced to below a level of significance by applying the mitigation measures. The table also includes the subchapters of this Environmental Impact Report (EIR) where each topic is analyzed in detail.

S.3 Areas of Controversy

The California Environmental Quality Act (CEQA) Guidelines Section 15123(b)(2) states that an EIR shall identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The County issued a Notice of Preparation (NOP) for the Rancho Santa Fe Roundabouts Project on October 15, 2007, and received 14 written communications by mail, email, and fax during the NOP comment period. The County also held a public meeting in Rancho Santa Fe on January 9, 2007. Verbal comments from that meeting and from subsequent letters and emails received by the Road and Traffic Committee of the Rancho Santa Fe Association are included in a letter to the County from the Rancho Santa Fe Association.

The preference for traffic signals rather than roundabouts or the request for inclusions of traffic signals as an EIR alternative was stated in several of the communications received. Access to driveways was also expressed as a concern by some respondents. The comments also raised general concerns regarding safety, noise, and headlights at the roundabouts as well as to potential impacts to the community's historic character.

S.4 Issues to Be Resolved by the Decision-Making Body

The County Board of Supervisors would be required to make decisions concerning the significant biological resource impacts that can be avoided and/or reduced to less than significant with mitigation measures. Findings are required to be adopted for each significant impact that shows the project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact. The Board of Supervisors must also determine that adopted mitigation measures are feasible and would be implemented during the design and construction phases of the project.

S.5 Project Alternatives

Alternatives are required to be identified and evaluated to determine if they would lessen or avoid significant impacts identified in Chapter 2.0. While Transportation and Circulation impacts are determined to be less than significant in Section 3.1.14 of this EIR, the Signalized Intersections Alternative is included in Chapter 4.0 in response to public comments received on the NOP; it is also analyzed as an alternative that would avoid significant project impacts to biological resources. The following two alternatives are compared in this EIR to the proposed project and are listed here in order of environmental superiority based on the detailed analysis in Chapter 4.0:

- Signalized Intersections Alternative
- No Project Alternative

S.5.1 Signalized Intersections Alternative

The Signalized Intersections Alternative would alter the three project intersections by installing traffic signals and restriping each intersection. All roadway improvements would be located within the existing rights-of-way at each intersection and equestrian crossings would occur at the current crosswalks. For the Via de la Valle intersection, the existing single lane on Via de la Valle northbound would be separated into one left turn lane and one right turn lane approaching the intersection with Paseo Delicias; La Fremontia would be closed to traffic on the western end of the loop, leaving access open on the eastern end with the existing stop sign control on La Fremontia; and the existing Las Colinas alignment at the intersection with Via de la Valle would remain the same with a stop sign control on Las Colinas.

S.5.2 No Project Alternative

Under the No Project Alternative, the roundabouts would not be installed and no other alterations or improvements to the existing intersection configurations would be made. The environmental setting would remain the same as described in Section 1.4 of this EIR and no change would be made to the existing intersection stop controls, equestrian crossing facilities, roadway widths, or roadway striping and signage.

Table S.1
Summary of Significant Effects and Mitigation Measures

Impact No. and Description of Impact	Mitigation Measure	Significance After Mitigation
2.1 Biological Resources		
BI-1. Construction activities for the proposed roundabouts that directly or indirectly affect sensitive habitats and species would be a *significant impact*.	M-BI-1. Construction contractors shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of non-compliance. This program should be conducted by a qualified biologist.	Less Than Significant
BI-2. One coast live oak individual was identified in disturbed habitat on the edge of the project site footprint north of Paseo Delicias at the Via de la Valle/La Fremontia intersection (see Figure 2.1.3). As currently designed, construction of the proposed project is not anticipated to result in impact to the root zone or direct removal of the coast live oak specimen; however, in the event that the coast live oak could not be avoided during construction, the resulting impact to this species would be considered a *significant direct impact*.	M-BI-2a. Within 30 days prior to commencement of construction the following sensitive biological resources shall be located and flagged by the project biologist: at the El Camino del Norte intersection, sensitive habitats south of the project footprint and California adolphia northwest of the project footprint; at the Via de la Valle/La Fremontia intersection, coast live oak within disturbed habitat north of the project footprint. An Environmentally Sensitive Area (ESA) shall be established and demarcated by orange construction fencing to protect these sensitive vegetation types and plants from construction-related impacts. The orange construction fencing around the coast live oak shall be installed at the edge of the tree canopy to preclude root zone impacts to this tree. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any associated sensitive plants. M-BI-2b. In the event that impacts to the one coast live oak individual occur, five replacement 5-	Less Than Significant

Impact No. and Description of Impact	Mitigation Measure	Significance After Mitigation
	gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. The trees shall be monitored for a period of 5 years. In the event that coast live oak individuals do not successfully establish within the monitoring period, replacement individuals shall be planted.	
BI-3. Impacts to raptor nests caused by removal of large trees within the impact zone would be a *significant direct impact*, and impacts to nesting raptors from noise from construction activity would be a *significant indirect impact*.	M-BI-3a. To avoid direct impacts to tree-nesting raptors from vegetation clearing and indirect impacts from construction activities that may generate excessive noise, vegetation clearing and construction activities shall occur outside of the raptor breeding season (January 15-July 15). M-BI-3b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting raptor surveys conducted within 1 week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 300 feet from the construction site. If nesting activity is detected on-site or within 300 feet of the site, a 300-foot buffer around the nest shall be marked and construction activity within the buffer shall be delayed until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than one week at any time during the raptor breeding season.	Less Than Significant
BI-4. Clearing and grubbing of vegetation and other construction activities that generate excessive noise during the breeding season would have the potential to impact migratory (often California native birds) that are protected under the Migratory Bird Treaty Act. Impacts to nesting birds would result in *significant direct and indirect impacts.*	M-BI-4a. To avoid direct impacts to nesting migratory birds from vegetation clearing and indirect impacts from construction activities that may generate excessive noise, vegetation clearing and construction activities shall occur outside of the avian breeding season (February 15-September 15). M-BI-4b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting bird surveys conducted on-site within 1 week prior to commencement of construction activities. If nesting activity is detected on-site, a 300-foot buffer around the nest shall be delineated and avoided until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than 1 week at any time during the avian breeding season.	Less Than Significant

Impact No. and Description of Impact	Mitigation Measure	Significance After Mitigation
BI-5. Coastal and freshwater marsh is located along an isolated drainage south of the El Camino del Norte intersection (see Figure 2.1.1). Temporary impacts to approximately 0.02 acre of this sensitive habitat from construction of a proposed retaining wall would be considered a *significant direct impact*.	M-BI-5a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. in the drainage area south of the El Camino del Norte intersection and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of the U.S. outside of the approved project limits. M-BI-5b. Prior to any impacts to wetlands and riparian habitat in the drainage area south of the El Camino del Norte intersection, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code. M-BI-5c. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and enhancement of the freshwater marsh through exotic species removal and planting of native freshwater marsh and riparian scrub species, including San Diego marsh elder. M-BI-5d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.	Less Than Significant
BI-6. The drainage located at the Via de la Valle/La Fremontia intersection (see Figure 2.1.3) comprises approximately 0.02 acre of CDFG streambed within a naturalized artificial storm drain surrounded by disturbed habitat. Construction of the roundabout at this intersection would result in permanent impacts to 0.004 acre of non-wetland waters/ephemeral	M-BI-6a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. at the Via de la Valle/La Fremontia roundabout location and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of	Less Than Significant

Impact No. and Description of Impact	Mitigation Measure	Significance After Mitigation
channel and would be considered a *significant direct impact*.	the U.S. outside of the approved project limits. M-BI-6b. Prior to any impacts to wetlands and riparian habitat at the Via de la Valle/La Fremontia roundabout location, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code. M-BI-6c. Permanent impacts to 0.004 acre of non-wetland waters at the Via de la Valle/La Fremontia roundabout location shall be mitigated on-site south of the retaining wall at the El Camino del Norte roundabout at a 2:1 mitigation to impact ratio through the restoration and enhancement of the existing channel involving exotic species removal and planting of native freshwater marsh and riparian scrub species along the margins of the channel. M-BI-6d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.	
BI-7. As currently designed, construction of the proposed project would not result in any permanent impacts to Diegan coastal sage scrub habitat. However, temporary impacts to approximately 0.07 acre of coastal sage scrub at the El Camino del Norte roundabout location would be considered a *significant direct impact*.	M-BI-7. Temporary construction impacts to Diegan coastal sage scrub habitat shall be mitigated by restoration on-site at a 1:1 mitigation to impact ratio through revegetation of the manufactured slope of the retaining wall at the El Camino del Norte roundabout with native Diegan coastal sage scrub vegetation.	Less Than Significant
BI-8. As currently designed, the proposed project would result in temporary impacts to a total of approximately 0.02 acre of ACOE jurisdictional wetlands at the El Camino del Norte intersection (see Table 2.1.4). Removal of vegetation or discharge of fill to ACOE jurisdictional wetlands at this location would be considered a *significant direct impact*.	M-BI-8. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and enhancement of the freshwater marsh through exotic species removal and planting of native freshwater marsh and riparian scrub species.	Less Than Significant

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CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND SETTING

1.1 Project Objectives

The County of San Diego Department of Public Works (County DPW) proposes to construct traffic roundabouts at the following three intersections along Paseo Delicias in the unincorporated community of Rancho Santa Fe in northwest San Diego County (see Figures 1.1 and 1.2):

- Paseo Delicias/El Camino del Norte/Del Dios Highway (El Camino del Norte)
- Paseo Delicias/El Montevideo/La Valle Plateada (El Montevideo/La Valle Plateada)
- Paseo Delicias/Via de la Valle/La Fremontia (Via de la Valle/La Fremontia)

Paseo Delicias is a two-lane road between Via de la Valle and El Camino del Norte that provides a link between Interstate 15 (I-15) along Via Rancho Parkway and Del Dios Highway and connects to other westbound local roads for access to Interstate 5 (I-5). Vehicles travel rapidly on this stretch of road, as it is one of few roads in this area that connects I-15 to I-5. Two of the three intersections along Paseo Delicias (El Montevideo/La Valle Plateada and Via de la Valle/La Fremontia) are all-way stop sign controlled and drivers must wait in significantly long queues at each of the controlled intersections. The third intersection (El Camino del Norte) is stop controlled only on El Camino del Norte. To avoid long waits, some motorists divert onto other narrow residential roadways, creating potential traffic conflicts and delays to residents accessing their driveways.

The objective of the proposed project is to ease existing traffic congestion at three intersections primarily caused by through traffic traveling eastbound and westbound during the morning and evening peak commuter periods. At the request of the community, a roundabout feasibility study was completed in 2004, which determined that roundabouts at the three subject intersections would improve Level of Service (LOS) for these intersections during peak hours. Traffic congestion would be eased by constructing roundabouts along Paseo Delicias at the three intersections. Improved safety for pedestrian and equestrian crossings at the three intersections is also an objective of the project. Medians, crosswalks, and warning signs would improve safety for pedestrian and equestrian crossings.

The San Dieguito Community Plan, which includes Rancho Santa Fe, contains a goal that “urban-type street improvements such as gutters, curbs, sidewalks and extensive street lighting should not be installed.” This goal is consistent with the Rancho Santa Fe community’s protective covenant (the Covenant) to preserve the community’s rural character and to limit streets to two lanes.

1.2 Project Description

The proposed project would involve the construction of roundabouts to replace existing stop sign controls, as described below and illustrated in Figure 1.3, at the following intersections:

- Paseo Delicias/El Camino del Norte/Del Dios Highway (El Camino del Norte)
- Paseo Delicias/El Montevideo/La Valle Plateada (El Montevideo/La Valle Plateada)
- Paseo Delicias/Via de la Valle/La Fremontia (Via de la Valle/La Fremontia)

The proposed project improvements would be constructed within the existing right-of-way at the El Camino del Norte and Via de la Valle/La Fremontia intersections. Approximately 0.6-acre of right-of-way would need to be acquired at the southeast corner of the El Montevideo/La Valle Plateada intersection.

1.2.1 Project's Component Parts

The roundabouts would be built according to Federal Highway Administration (FHWA) guidelines for design of rural roundabouts, which are consistent with the existing roadway conditions on Paseo Delicias in terms of lane width, speed limit, and to allow use by large trucks. Traffic operations at each of the three intersections would be similar with installation of the proposed roundabouts. Traffic entering each roundabout would not be stop controlled at any of the intersecting street segments. Yield signs would be installed at each entry to the roundabouts to require vehicles approaching each roundabout to yield the right-of-way to vehicles already within the roundabout. The entering vehicles would merge into the counter-clockwise flow of a single lane of traffic. Through traffic on Paseo Delicias would complete a one-half circle on the roundabout and continue in a westbound or eastbound direction. Vehicles turning onto intersecting streets would complete a one-quarter or three-quarter circle on the roundabout and would be able to exit onto any of the intersecting street segments.

The Rancho Santa Fe Association has designated equestrian trail crossings at the Paseo Delicias/Via de la Valle/La Fremontia intersection and Paseo Delicias/El Camino del Norte/Del Dios Highway intersection, and an undesignated trail crossing is at Paseo Delicias/El Montevideo/La Valle Plateada. Combination pedestrian/equestrian crossings would be delineated by crosswalk markings in the pavement at each intersection. Push-button controls at the road crossings would activate in-pavement crosswalk lighting and flashing warning signs located approximately 200 feet from the crossing would simultaneously illuminate. The push-button controls would be placed at an appropriate height for an equestrian or pedestrian to activate the crossing signals. Safety islands would also be installed in the medians to enable pedestrians to pause between the lanes of traffic.

The center of each roundabout would be landscaped and curbs would be installed around the perimeter of each roundabout to direct the circular flow of traffic. Curbs would also be installed for the raised medians at the approach to each roundabout. Asphaltic-concrete dikes and decomposed granite walkways would also be installed for pedestrian safety to link the crosswalks at each intersection. Figures 1.4 through 1.6 illustrate the proposed roundabout designs at each of the following intersections:

El Camino del Norte Intersection

The El Camino del Norte roundabout would have three intersecting street segments: Paseo Delicias approaching from the west, Del Dios Highway from the east, and El Camino del Norte from the north (see Figure 1.4). The intersection would be widened on the northwest and northeast corners to accommodate the roundabout. Retaining walls would be constructed on the north and south sides of Paseo Delicias and Del Dios Highway. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout. As shown in Figure 1.4, the equestrians approaching the roadway from the existing trail would be rerouted along the shoulders of Paseo Delicias to access the proposed crosswalk to be located just west of the roundabout. Two driveways on the west side of El Camino del Norte are proposed to be combined and will be provided access to El Camino del Norte north of the proposed splitter island. Combining these driveways will allow full driveway access for the residence located at the northwest corner of the El Camino del Norte intersection.

El Montevideo/La Valle Plateada Intersection

The El Montevideo/La Valle Plateada roundabout would have four intersecting street segments: Paseo Delicias from the west and east, El Montevideo from the north, and La Valle Plateada from the south (see Figure 1.5). To accommodate the roundabout, the intersection would be widened and shifted slightly in a northeasterly direction. No widening would be required at the southwest side of the intersection. Existing bus stops on Paseo Delicias would be relocated farther to the east and west of the roundabout.

Via de la Valle/La Fremontia Intersection

The Via de la Valle/La Fremontia roundabout would have three intersecting street segments: Paseo Delicias from the west and east and Via de la Valle from the south, and would include the closure of the western La Fremontia intersection (see Figure 1.6). La Fremontia would become a cul-de-sac and a landscaped area would be constructed between the cul-de-sac and the roundabout. The southwest and southeast corners at the intersection of Paseo Delicias/Via de la Valle would be widened to accommodate the roundabout and for the realigned equestrian trail that would follow along the southeast side of the intersection, as shown in Figure 1.6. Existing bus stops on Paseo Delicias would be relocated to match the alignment of the roundabout.

South of the proposed roundabout, the intersection of Las Colinas with Via de la Valle would be realigned to the south to intersect Via de la Valle at a right angle. This

realignment would allow continuous traffic flow through the three street segments in the roundabout and allow full access to Las Colinas from Via de la Valle. Transition lanes to facilitate right turns into and out of Las Colinas and a left turn pocket into Las Colinas would also be constructed. Two private driveways on Las Colinas would be lengthened to connect with the realigned roadway. West of the roundabout, the eastern access to a circular driveway at a private residence on the south side of Paseo Delicias would be closed. Ingress and egress to the private residence would be maintained via the western side of the circular driveway. The roundabout would require a retaining wall on the southeast side of the intersection. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout and cul-de-sac. Left-out access from a residential driveway located on the northwest corner of the intersection of Via de la Valle and Paseo Delicias will be prohibited due to the presence of the proposed splitter island on the eastbound approach of Paseo Delicias to the intersection with Via de la Valle. The Village Community Presbyterian Church at the southeast corner of the intersection is proposing a redevelopment of the church property that would include a reconfigured parking lot. The proposed church improvements would not conflict with the planned roundabouts and include additional parking.

1.2.2 Technical, Economic, and Environmental Characteristics

Technical and environmental considerations affecting the design of the project are the following:

- To maintain the existing equestrian trail crossings at all intersections along Paseo Delicias
- To comply with goals of the San Dieguito Community Plan to avoid installation of “urban-type street improvements such as gutters, curbs, sidewalks, and extensive street lighting”
- To comply with the community plan and County Circulation Element designation of the Paseo Delicias corridor as a two-lane road
- To avoid impacting structures, landscaping, and other features associated with known historic properties in the project area
- To provide safe pedestrian/equestrian crossings at each of the project intersections

1.3 Project Location

The proposed project is located at three intersections and their approaching street segments along approximately 2.6 miles of Paseo Delicias between Via de la Valle and El Camino del Norte in the unincorporated community of Rancho Santa Fe in the County of San Diego (see Figures 1.1, 1.2, and 1.3). The proposed project is located

approximately 20 miles north of downtown San Diego and approximately 5 miles east of the Pacific Ocean.

1.4 Environmental Setting

The project area is located in the unincorporated community of Rancho Santa Fe in north San Diego County. The project area is situated on the coastal terraces of San Diego County between approximately 180 and 240 feet above mean sea level (AMSL)..

Existing land uses in the project area consist primarily of large estate homes, many of which also contain agricultural groves or equestrian facilities. Development in the area began in the early 1900s and the current land use character of the area was established in the 1920s by the Santa Fe Land Improvement Company. In 1927, the Covenant was adopted by community landowners, creating a document that regulated architecture and land use. This document continues to ensure the unifying style originally envisioned by the Santa Fe Land Improvement Company. This aesthetic oversight within the Covenant continues today with an Art Jury established within the Rancho Santa Fe Association to review all development of private property within the Covenant. The Rancho Santa Fe Riding Club and Saddle Club and 45 miles of riding trails are available to owners of property within the Covenant area. The Via de la Valle/La Fremontia and El Montevideo/La Valle Plateada intersections are entirely within the Covenant and the El Camino del Norte intersection is at the east boundary of the Covenant.

The Via de la Valle/La Fremontia intersection is located within the portion of Rancho Santa Fe where commercial and medium density multi-family residential uses are permitted (the village area). Adjacent to the Via de la Valle/La Fremontia intersection are single-family residences on lots ranging in size from less than 15,000 square feet to over 0.5 acre. The Village Community Presbyterian Church and its nursery school are located at the southeast corner of the intersection. The Rancho Santa Fe Association owns an approximately 1.5-acre parcel within the La Fremontia loop road and a smaller parcel at the southeast corner of Via de la Valle and Las Colinas. Both Rancho Santa Fe Association parcels are undeveloped and used by equestrians.

Single-family residential land uses continue east of the Via de la Valle/La Fremontia intersection, with parcel sizes increasing from less than 1 acre to over 4 acres in size. Typical lot sizes at the El Montevideo/La Valle Plateada intersection are 1 to 2 acres. At the El Camino del Norte intersection, lot sizes are typically 2 to 5 acres and also include several larger lots, including a property over 40 acres in size with large groves, horse stables, and well-manicured landscaping, including an artificial stream course.

Currently, the Via de la Valle/La Fremontia and El Montevideo/La Valle Plateada intersections are all-way stop controlled. The El Camino del Norte intersection is stop controlled on El Camino del Norte approaching Paseo Delicias/Del Dios Highway.

Vehicles traveling along or accessing this roadway corridor must wait in long queues during peak commute periods at each of the three controlled intersections.

1.4.1 Vegetation Communities

The vegetation communities observed within the project area were classified by using species composition to determine community types. This section provides a general description of conditions within the study area surrounding each of the proposed roundabout locations. Additional descriptions of the habitat types found within the study area of each intersection are found in Section 2.1 of this EIR.

<u>El Camino del Norte Intersection</u>

The vegetation types surrounding this intersection consist of coastal sage scrub, non-native grasslands, orchards and vineyards, and disturbed and developed habitats. A drainage channel containing freshwater marsh habitat extends along the south side of Paseo Delicias/Del Dios Highway.

<u>El Montevideo/La Valle Plateada Intersection</u>

This intersection is surrounded by urban/disturbed habitats. The northeast corner contains parcels zoned for rural residential but are currently undeveloped.

<u>Villa de la Valle/La Fremontia Intersection</u>

Vegetation at this intersection includes non-native eucalyptus trees (*Eucalyptus* sp.), California and Peruvian pepper trees (*Schinus molle* and *S. terebinthifolius*), and pines (*Pinus* spp.), and native coast live oaks (*Quercus agrifolia*), all of which occur within disturbed and developed habitat areas. A small amount of jurisdictional wetlands and associated ephemeral streambed also occurs within the disturbed and developed areas at this location.

1.4.2 Wildlife

The project area supports a low diversity of wildlife species due to the high level of disturbance and habitat fragmentation caused by development in the vicinity. Many of the wildlife species observed or detected in the study area are commonly found in the urban interface or on disturbed habitat, such as the house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchus*), California ground squirrel (*Spermophilus beecheyi*), and pocket gopher (*Thomomys bottae*). Other urban dwelling native species that may occur in the area include the raccoon (*Procyon lotor*) and coyote (*Canus latrans*).

1.4.3 Jurisdictional Resources

Wetlands and unvegetated waters are considered a sensitive resource by several regulatory agencies, including the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), Regional Water Quality Control Board (RWQCB), and the County of San Diego.

A formal delineation to interpret and identify the limits of regulatory jurisdiction was conducted at each project intersection and a total of 0.61 acre was determined to potentially have both ACOE and CDFG jurisdictional resources. Jurisdictional resources for both agencies totaled 0.01 acre at the El Montevideo/La Valle Plateada study area, 0.05 acre at the Via de la Valle/La Fremontia study area, and 0.55 acre at the El Camino del Norte study area. Additional descriptions of jurisdiction resources at each intersection are found in Section 2.1 of this EIR.

1.4.4 Regional Context

The study area is located within the County of San Diego's North County Multiple Species Conservation Program (MSCP) planning area. Because the North County MSCP has not yet been approved, the project is not currently subject to Natural Communities Conservation Plan (NCCP) program regulations. The project site is also outside of the planned Pre-Approved Mitigation Area (PAMA), which is the area within which the North County MSCP habitat preservation system would be created.

1.5 Intended Uses of the EIR

This EIR is an informational document that will inform public agency decision-makers and the public generally of the significant environmental effects of the project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

1.5.1 Matrix of Project Approvals/Permits

Table 1.1 lists the project approvals and permits for which this EIR is intended to be used and the agencies that are expected to use the EIR in their decision-making.

1.5.2 Related Environmental Review and Consultation Requirements

Pursuant to the requirements of Section 15365 of the California Environmental Quality Act (CEQA) Guidelines, the County prepared a Notice of Preparation (NOP) of this EIR, which included distribution to CDFG and the San Diego RWQCB. The NOP was circulated for 30 days beginning on October 15, 2007. The public review was subsequently extended and the circulation period ended on November 28, 2007. The NOP and public comments received during the NOP scoping process are provided in Appendix A to this EIR.

1.6 Project Inconsistencies with Applicable Regional and General Plans

The project was reviewed for consistency with the regional and general plans listed below:

- San Diego County General Plan
- San Dieguito Community Plan
- San Diego Air Pollution Control District Air Quality Management Plan (Regional Air Quality Standards)
- Water Quality Control Plan for the San Diego Basin

This review identified no inconsistencies with these plans.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

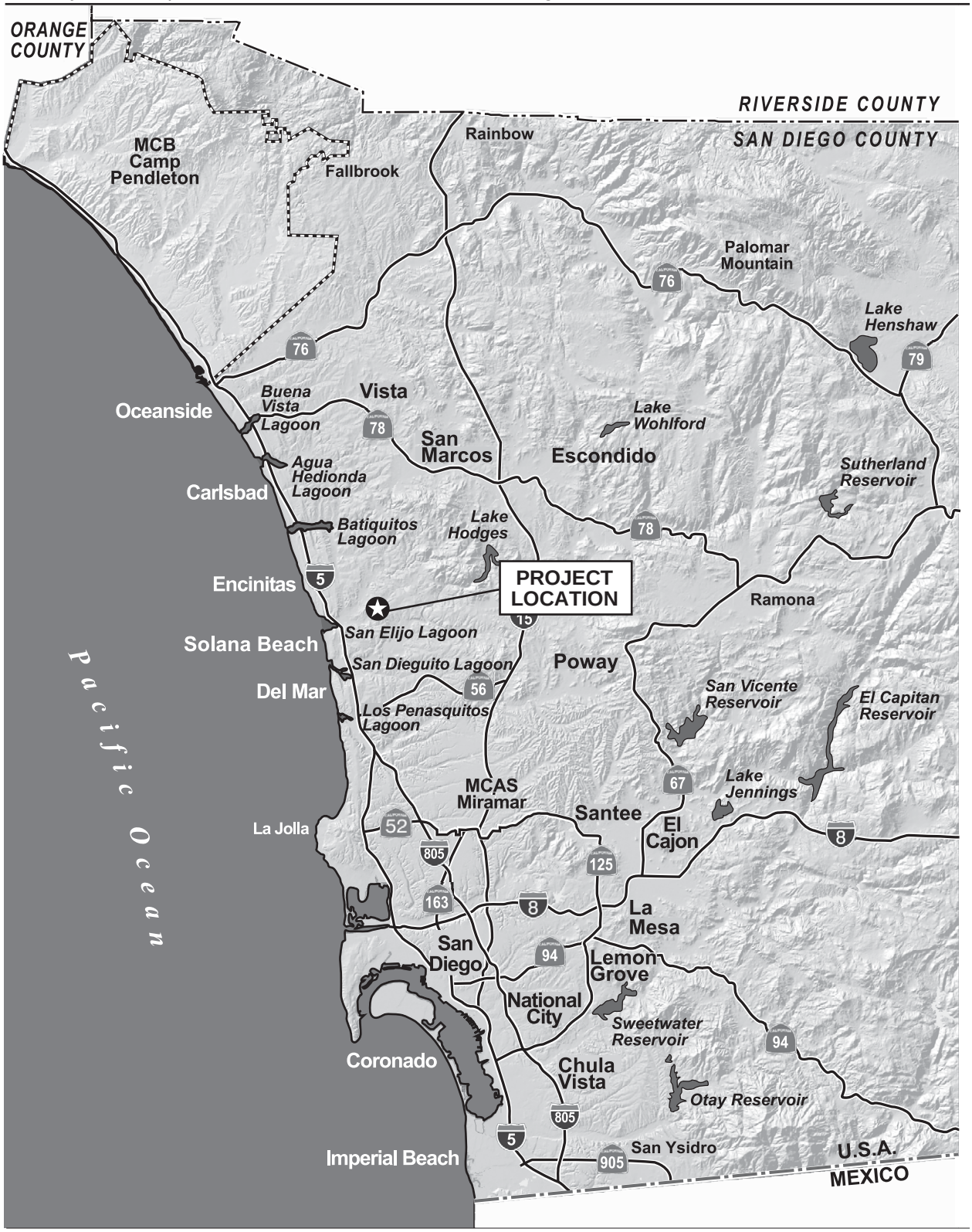
State CEQA Guidelines Section 15355 defines cumulative effects as "two or more individual effects which when considered together are considerable or which compound or increase other environmental impacts." Research was conducted at the County Department of Planning and Land Use (DPLU) to identify a list of past, present, and reasonably anticipated future projects (cumulative projects) for the Rancho Santa Fe Roundabouts Project. This research identified six development projects that are either planned or have been recently built in nearby portions of the San Dieguito Community Plan area (see Figure 1.7). Table 1.2 lists the projects and provides a brief summary of each project. This listing provides the basis for the cumulative impact discussion provided in each of the issue area analyses. The nearest cumulative project is the redevelopment of the Village Community Presbyterian Church at the southeast corner of the Via de la Valle/La Fremontia intersection.

1.8 Growth-Inducing Impacts

For purposes of CEQA, growth-inducing impacts may result if the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. This includes projects that would remove obstacles to population growth or that could tax existing community facilities, requiring construction of new facilities that could cause significant environmental effects.

Implementation of the Rancho Santa Fe Roundabouts Project would have no significant growth inducing impacts. The project proposes the construction of roundabouts at three intersections to ease existing traffic congestion primarily caused by through traffic traveling between I-15 and I-5 during the morning and evening peak commute periods. The project does not propose, nor would it require, any zoning or land use designation changes that could result in economic growth or encourage development of additional

housing in the project area. The project area is almost fully developed within the medium density Rancho Santa Fe village area and also along the lower density Paseo Delicias corridor where residential lot sizes of 1 acre and larger are required. There are, however, larger properties that could be subdivided, particularly in the area around the El Camino del Norte intersection; however, their development is not dependent on construction of the roundabouts. Future development in compliance with the low residential density permitted by the San Dieguito Community Plan would not be expected to cause a significant population increase in the project area. While the project would ease traffic congestion, it does not provide any new roads or other infrastructure improvements that would remove an obstacle to growth, nor would the project require construction of any additional new facilities.



0 3.75 7.5 15 Miles

1" = 7.5 Miles

Figure 1.1
Regional Map

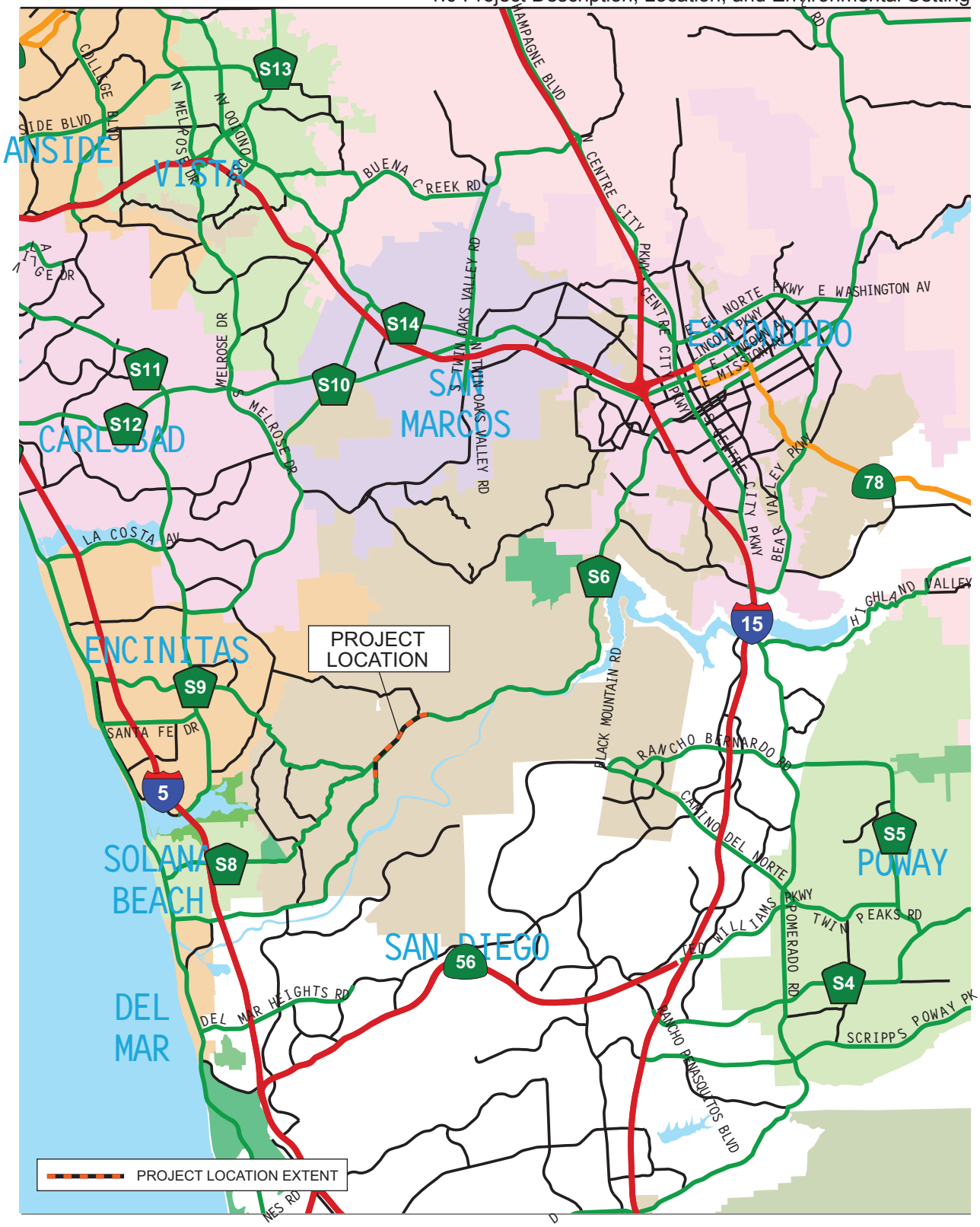


Figure 1.2
Vicinity Map

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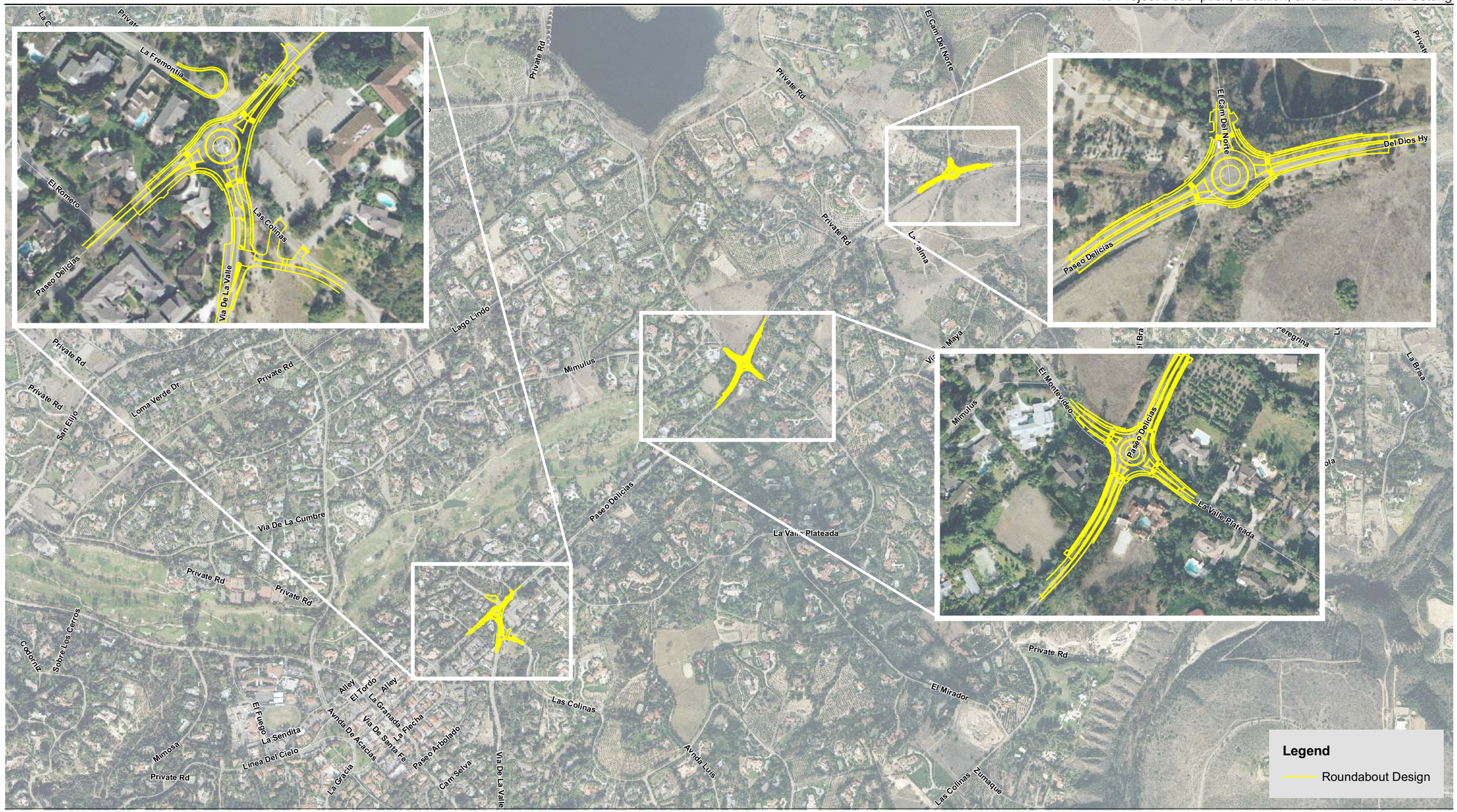

Source: AirPhotoUSA 2006; TAIC 2008

1,000 500 0 1,000 Feet

Scale: 1:12,000; 1 inch = 1,000 feet

Figure 1.3
Proposed Roundabouts

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Source: AirPhotoUSA, Jan 2006; SanGIS 2006; TAIC 2008

125 62.5 0 125 Feet

Scale: 1:1,200; 1 inch = 100 feet

Figure 1.4
Paseo Delicias/El Camino del Norte/Del Dios Highway Intersection

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Source: AirPhotoUSA, Jan 2006; SanGIS 2006; TAIC 2008

125 62.5 0 125 Feet

Scale: 1:1,600; 1 inch = 133 feet

Figure 1.5
Paseo Delicias/El Montevideo/La Valle Plateada Intersection

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Source: AirPhotoUSA, Jan 2006; SanGIS 2006; TAIC 2008

125 62.5 0 125 Feet

Scale: 1:1,500; 1 inch = 125 feet

Figure 1.6
Paseo Delicias/Via de la Valle/La Fremontia Intersection

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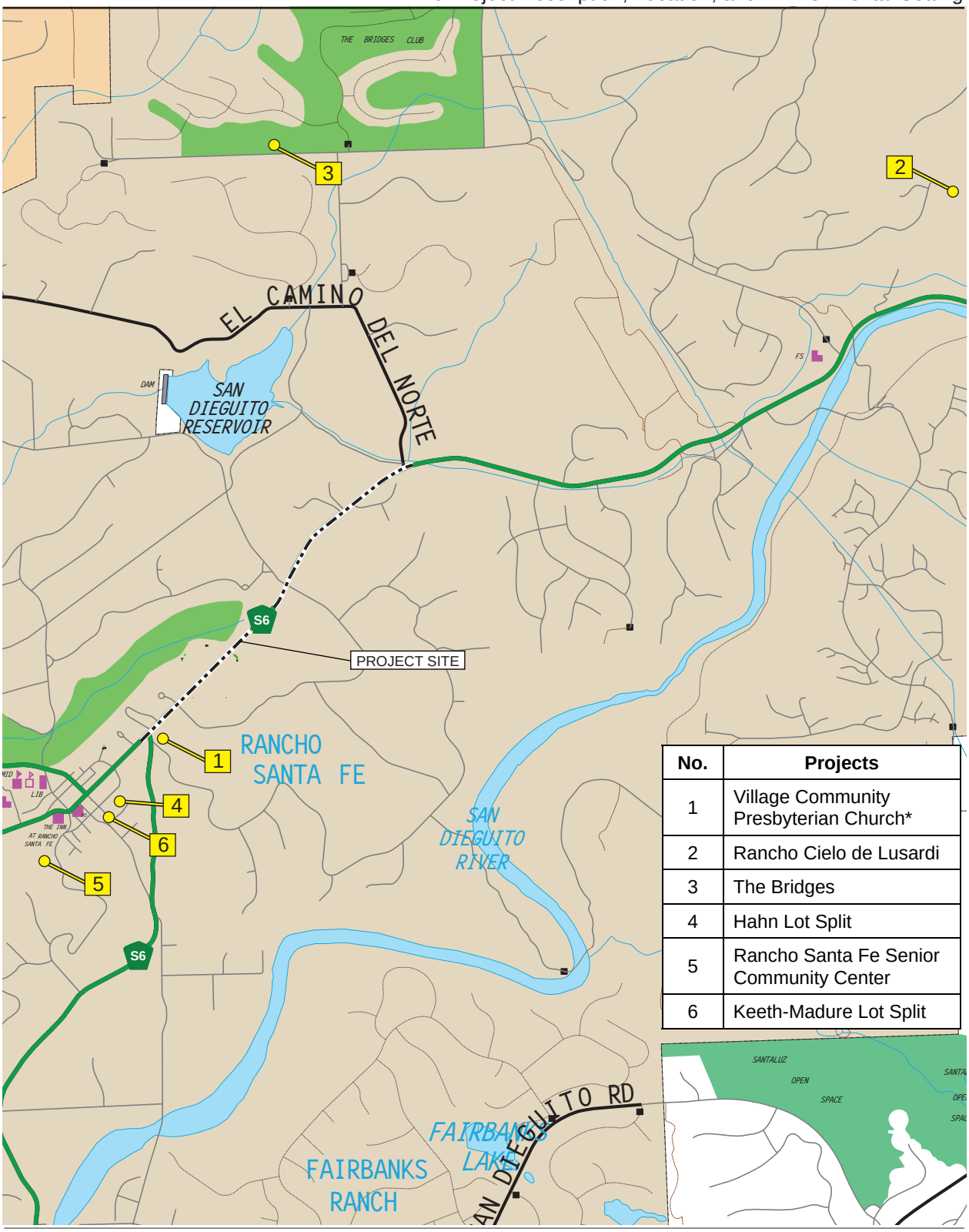

No.	Projects
1	Village Community Presbyterian Church*
2	Rancho Cielo de Lusardi
3	The Bridges
4	Hahn Lot Split
5	Rancho Santa Fe Senior Community Center
6	Keeth-Madure Lot Split

0 1250 2500 5000 Feet

Scale is Approximate

Figure 1.7
Cumulative Projects

P:\2007\07080002 RSF Traffic Circles\6Graphics\Figures\Figure 7 cumulative.ai dbrady 3/26/08

Table 1.1
Project Approvals and Permits

County of San Diego
Project Approval/Certification of EIR Acquisition of Road Rights-of-Way
San Diego Regional Water Quality Control Board
Clean Water Act Permit Section 401 Certification General Construction Storm Water Permit
U.S. Army Corps of Engineers
Clean Water Act Section 404 Permit
California Department of Fish and Game
Fish and Game Code Section 1600 Streambed Alteration Agreement

Table 1.2
Cumulative Projects

Project Name	Case Number	Map Indicator	Location	Project-Related Impacts	Status	Project Description
County of San Diego						
Village Community Presbyterian Church	P72-108W	1	Intersection of Paseo Delicias and Via de la Valle	Additional traffic on Paseo Delicias and at the Via de la Valle/La Fremontia and El Montevideo/ La Valle Plateada intersections	In Process	Major Use Permit Modification for a new fellowship hall and classrooms
Rancho Cielo de Lusardi	TM5058	2	Approximately 1 mile north of the El Camino del Norte intersection	Loss of 12 acres of southern mixed chaparral, 1 acre of eucalyptus woodland, and 3 acres of disturbed habitat	Approved and Constructed	14-lot residential subdivision
The Bridges	P85-084	3	Approximately 1.5 miles northeast of the El Camino del Norte intersection	EIR (1999) found the proposed project will have significant biological impacts to California gnatcatchers. Other impacts are to horse trail access, archaeology, noise, erosion, circulation, and erosion and sedimentation.	Approved and Developed	Planned residential development and golf course
Hahn Lot Split	TPM20536	4	Approximately 0.25 mile southwest of the Via de la Valle/La Fremontia intersection	Categorical Exemption	Approved	Minor Subdivision
Rancho Santa Fe Senior Community Center	P02-013	5	Approximately 0.5 mile southwest of the Via de la Valle/La Fremontia intersection	Negative Declaration – no impacts identified or mitigation measures required	Approved	Major Use Permit for community center
Keeth-Madure Lot Split	TPM20406	6	Approximately 0.25 mile southwest of the Via de la Valle/La Fremontia intersection	Categorical Exemption	Approved	Minor Subdivision

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CHAPTER 2.0 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

2.1 Biological Resources

This section presents a discussion of biological resources that would be affected by the proposed project. This analysis is based on a Biological Resources Technical Report prepared by Technology Associates International Corporation (TAIC) for the project that is included in the EIR as Appendix B. The report contains a description of the biological setting including habitats and vegetation communities in the area of the three roundabouts. Data regarding biological resources present in the project area were obtained through a review of pertinent literature and through field reconnaissance conducted in November 2006 through March 2007. Field surveys consisted of mapping vegetation communities, preparing inventories of the plant and wildlife species observed, observing signs of wildlife and potential wildlife movement corridors, and conducting focused surveys for the federally listed threatened California gnatcatcher (*Polioptila californica californica*). Additionally, on February 28 and March 11, 2008, TAIC conducted a formal jurisdictional delineation survey of the project survey area to identify and delineate the limits of ACOE jurisdiction pursuant to Section 404 of the CWA and CDFG jurisdiction pursuant to Section 1602 of the California Fish and Game Code. The study area consisted of the area of potential impact (project footprint) and a 100-foot-wide area immediately beyond the limits of the project footprint of each proposed roundabout for a total study area of 27.63 acres. For the gnatcatcher surveys, all suitable gnatcatcher habitat within 500 feet of the project footprint of the three roundabouts was included in the surveys.

2.1.1 Existing Conditions

2.1.1.1 Habitat Types/Vegetation Communities

As shown in Figures 2.1.1, 2.1.2, and 2.1.3 and listed in Table 2.1.1, the 27.63-acre project study area contains approximately 0.38 acre of natural habitat, including coastal and valley freshwater marsh (0.06 acre) and Diegan coastal sage scrub (0.32 acre). The majority of the land within the study area is developed (e.g., homes, ornamental landscaping, and paved areas). Other vegetation communities within the study area include orchards and vineyards (e.g., citrus orchard), disturbed habitat (areas that are mowed regularly or are dominated by invasive plant species), and freshwater in a cement-lined pond northeast of the El Camino del Norte intersection. The characteristics of the vegetation communities and urban/developed areas within the study areas are discussed below. The classification of vegetation communities in this document follows the Oberbauer revision (Oberbauer 2005) to the Holland Classification System (Holland 1986). Holland codes are included in parentheses.

Freshwater (13140)

Freshwater refers to open water areas, including reservoirs, lakes, ponds, and relatively large sloughs, channels, and rivers or streambeds that contain water throughout the year. Freshwater is considered a sensitive habitat by county, state, and Federal agencies due to its wildlife habitat value. The open freshwater in the study area occurs at the El Camino del Norte intersection and consists of 0.39 acres in an artificial cement-lined pond, surrounded by ornamental landscaping on the northeastern corner of this intersection (see Figure 2.1.1).

Coastal and Valley Freshwater Marsh (52410)

Coastal and valley freshwater marsh habitat within the study area occurs at the El Camino del Norte intersection and consists of 0.06 acre within a drainage channel at the bottom of an embankment along the south side of Paseo Delicias/Del Dios Highway (see Figure 2.1.1). The coastal and valley freshwater marsh at this intersection location consists primarily of broadleaf cattail (*Typha latifolia*) and also includes bulrushes (*Scirpus* spp.), nutsedges (*Cyperus* spp.), San Diego marsh elder (*Iva hayesiana*), and watercress (*Rorippa nasturtium-aquaticum*). San Diego marsh elder was not identified in the project impact footprint.

Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub within the study area occurs in fragments along the south side of the El Camino del Norte intersection; the fragments total 0.32 acre (see Figure 2.1.1). Diegan coastal sage scrub is considered a sensitive upland habitat by local, state, and federal agencies due to its habitat value for sensitive wildlife, most notably the federally listed as threatened coastal California gnatcatcher. Coastal sage scrub is composed of low, soft-woody subshrubs to about 3 feet high, many of which are drought-deciduous. The study area contains three small, isolated fragments of Diegan coastal sage scrub. One of these fragments is a small (0.08 acre) patch of intact coastal sage scrub that is fairly diverse, containing California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), bush monkeyflower (*Mimulus aurantiacus*), toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus berberidifolia*), lemonadeberry (*Rhus integrifolia*), and coyote brush (*Baccharis pilularis*). The strip is adjacent to a disturbed area of regularly mowed invasive non-native vegetation consisting mostly of fennel, tocalote, non-native grasses, and mustards.

The other two fragments of coastal sage scrub are disturbed and contain a low diversity of facultative coastal sage scrub species mixed in with many non-natives. One of these is a thin 0.11-acre fragment located along the road embankment. The other fragment consists of a small 0.13-acre patch of coyote brush located between the freshwater marsh and another large, regularly mowed field of invasive non-native annual grasses and other annual and perennial species. This fragment is surrounded by non-native plants such as hottentot fig (*Carpobrotus edulis*), eucalyptus (*Eucalyptus* spp.),

Peruvian pepper trees (*Schinus* spp.), mustards (*Brassica* spp.) and non-native grasses (*Bromus* spp.).

Orchards and Vineyards (18100)

Within the study area approximately 0.56 acre of citrus grove occurs on the northeastern corner of the El Montevideo intersection.

Disturbed Habitat (11300)

Disturbed habitat is characterized by areas that have been physically disturbed, no longer support native habitat, and often have been invaded by non-native species. The disturbance is great enough that the habitat can no longer be considered a disturbed phase of a native or naturalized vegetation community. If vegetation exists, it typically consists of invasive non-native species or native species that are associated with disturbance. Examples of this habitat type include areas that have been graded or repeatedly cleared, dirt parking lots, and unpaved roads. A total of approximately 6.35 acres of disturbed habitat occurs within the intersection study areas.

Approximately 0.01 acre of non-vegetated waters consisting of ephemeral channel/ streambed and 0.10 acre of disturbed, degraded wetland is located on the south side of Paseo Delicias at the El Camino del Norte intersection consisting of ornamental non-native and native species within disturbed upland habitat (Figure 2.1.1).

The Via de la Valle/La Fremontia intersection study area contains 0.02 acre of non-vegetated waters consisting of streambed within a naturalized artificial storm drain and 0.03 acre of disturbed, degraded wetlands populated by ornamental non-native and native species within disturbed upland habitat (Figure 2.1.3).

Urban/Developed (12000)

Urban/developed areas do not support native vegetation due to large amounts of debris, grading, or other physical alteration of the land. Developed land is characterized by permanent structures or by ornamental landscaping that requires irrigation. Approximately 19.95 acres of developed land occur within the study areas, consisting mainly of homes, ornamental landscaping, paved areas, and a concrete-lined artificial pond located at the northeastern corner of the El Camino del Norte intersection.

In addition, the El Montevideo/La Valle Plateada intersection study area contains 0.01 acre of non-vegetated waters consisting of an ephemeral stream that is surrounded by ornamental non-native species within developed upland habitat (Figure 2.1.2).

2.1.1.2 Special Status Species

Special status species are those plant and wildlife species that are state or federally listed as endangered, threatened, or rare; listed by CDFG or the California Native Plant Society (CNPS) as special plants or special animal; listed by the County of San Diego as sensitive on Lists A through D for plants or in Groups 1 or 2 for animals; or covered species listed in Table 3-5 of the *Final Multiple Species Conservation Program MSCP Plan*, August 1998.

A total of 41 species of vascular plants (19 native and 22 non-native) and 14 species of wildlife (11 birds, and 3 mammals) were observed during the surveys as shown in Appendices A and B of the Biological Resources Technical Report (provided as Appendix B to this EIR). Of these, only California adolphia (*Adolphia californica*) and San Diego marsh elder (*Iva hayesiana*) are special status species. Neither of these species was found within the project impact footprint.

Special Status Plant Species

A query of the sensitive species databases identified records of occurrence for two sensitive plant species within 1.86 miles of the study area. These species, Orcutt's spineflower (*Chorizanthe orcuttiana*), a CNPS List 1B species, and Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), a CNPS List 1B species, were not observed during the field surveys and no suitable habitat for these species was identified within the study area. However, two additional sensitive species were observed during the biological resources inventory surveys for this project, California adolphia, a CNPS List 2 species and County of San Diego Sensitive Plant List B species, and San Diego marsh elder, also a County of San Diego Sensitive Plant List B species. Three California adolphia individuals were found on an embankment on the northern side of Paseo Delicias west of El Camino del Norte, outside of the project impact footprint, in a mixed disturbed/ornamental vegetation community (Figure 2.1.1). San Diego marsh elder was found in the coastal and valley freshwater marsh habitat on the south side of Paseo Delicias and east of El Camino del Norte, outside of the project impact footprint.

In addition, three coast live oak (*Quercus agrifolia)* individuals occur among ornamental landscaping within the Via de la Valle/La Fremontia intersection study area (see location in Figure 2.1.3). Coast live oaks are protected by the Oak Woodlands Conservation Act of 2004, which requires mitigation for impacts to mature oak trees.

Due to the level of development in and surrounding the study area, much of the flora observed by TAIC biologists was typical of that found in urban or disturbed environments. Many of the plants were ornamentals or non-native invasive species, such as Russian-thistle (*Salsola tragus*), sweet fennel (*Foeniculum vulgare*), mustards, fountain grass (*Pennisetum setaceum*), and castor bean (*Ricinus communis*), among others. Non-native trees, such as eucalyptus and Peruvian pepper trees, were also

common. See Appendix B for a full inventory of plants observed during the 2006 biological surveys.

Special Status Wildlife Species

A query of sensitive species databases identified records of occurrence for three sensitive wildlife species within 1.86 miles of the study area. These species included Dulzura pocket mouse (*Chaetodipus californicus femoralis*), a CDFG Species of Special Concern, Quino checkerspot butterfly (*Euphydryas editha quino*), a federally-listed as endangered species, and coastal California gnatcatcher, a federally-listed as threatened species. A thin strip of moderate quality coastal sage scrub habitat occurs around the El Camino del Norte intersection. It is considered potentially suitable habitat for the coastal California gnatcatcher. Five hundred feet southeast of the El Camino Real intersection was surveyed and no gnatcatchers were detected. The nearest known occurrences are shown in Figure 2.1.4. The habitat within the study area was determined not to be suitable for any of these species due to high levels of traffic noise, dominance of disturbed and developed habitat, invasive species, and habitat fragmentation.

Raptors and migratory birds are also considered special status wildlife species. Raptors have limited amounts of foraging habitat in the study area and the majority of suitable foraging habitat is outside the project area. However, there is potential for nesting of both raptors and migratory birds in the study area in the native and ornamental vegetation.

The study area supports a low diversity of wildlife species due to the high level of disturbance and habitat fragmentation caused by development in the vicinity. Many of the wildlife species observed or detected in the study area are commonly found in the urban interface or on disturbed habitat, such as the house finch, American crow, California ground squirrel, and pocket gopher. Other urban dwelling native species that may occur in the area include the raccoon and coyote. A list of species observed within the study area during the current biological surveys is in Appendix B.

2.1.1.3 Jurisdictional Wetlands and Waterways

Wetlands and unvegetated waters are considered a sensitive resource by several regulatory agencies, including the ACOE, CDFG, RWQCB, and the County of San Diego. Section 404 of the CWA of 1972 regulates activities that result in the discharge of dredged or fill material into wetlands and other waters of the U.S. Waters of the U.S., as defined by the ACOE, include navigable waters, interstate waters, and all other waters where the use, degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries.

Pursuant to Section 401 of the CWA, in the State of California ACOE jurisdictional wetlands and other waters of the U.S., such as those identified within the study area, would also be subject to the regulatory jurisdiction of the RWQCB.

The CDFG has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under California Fish and Game Code sections 1600 to 1607. A stream is defined by CDFG as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation, including intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams, and watercourses with subsurface flows.

ACOE Jurisdictional Resources

A wetland delineation was performed of the study area, which consisted of the project impact area and a 100-foot area immediately beyond the perimeter of the each of the roundabout sites. As shown in Table 2.1.2, ACOE jurisdictional wetlands and/or waters of the U.S. were identified within the study area at the El Camino del Norte and El Montevideo/La Valle Plateada intersections. At both of these project sites, the limits of CDFG jurisdictional streambed and wetland habitat are identical to the limits of waters of the U.S. and wetlands regulated by the ACOE and RWQCB. These jurisdictional waters within the study area are shown in Figures 2.1.5 and 2.1.6.

The largest ACOE jurisdictional wetland comprises 0.16 acre and occurs along the south side of Paseo Delicias at El Camino del Norte (Figure 2.1.5). This wetland extends along a drainage feature at the bottom of a steep embankment and contains approximately 0.06 acre of cattail-dominated freshwater marsh and 0.10 acre of disturbed habitat, which were observed to meet the definition of ACOE wetlands. Broadleaf cattail-dominated freshwater marsh is an obligate wetland vegetation community commonly found in association with ACOE jurisdictional wetlands. East of the freshwater marsh habitat, this drainage also exhibits indicators of an Ordinary High Water Mark (OHWM), indicative of an ephemeral drainage, and was determined to comprise 0.01 acre of other (non-wetland) waters of the U.S.

In addition to this 0.01 acre ephemeral drainage ditch on the south side of the roadway, other non-wetland waters of the U.S. located within the study area at this roundabout include a concrete-lined artificial pond located at the northeastern corner of the intersection and a 54-inch-diameter corrugated metal pipe overflow culvert which conveys water beneath Paseo Delicias. The pond is an impoundment of a blue line stream that enters the pond at the north end, outside of the study area and exits through the culvert at the south end. Including the pond, drainage culvert and ephemeral ditch, the total acreage of ACOE jurisdictional non-wetland waters of the U.S. at the El Camino del Norte intersection is approximately 0.39 acre.

At the El Montevideo/La Valle Plateada intersection there is approximately 0.01 acre of ACOE jurisdictional waters of the U.S. within an ephemeral stream that is conveyed beneath Paseo Delicias via a 60-inch corrugated metal pipe culvert (Figure 2.1.6). The drainage appears to have been connected to a blue-line stream which, according to historic U.S. Geological Survey (USGS) mapping, terminated less than 200 feet west of the study area boundary.

CDFG Jurisdictional Resources

Categories of habitats regulated by CDFG identified within the study area included freshwater marsh, freshwater and other wetlands, and non-vegetated waters (see Table 2.1.2). CDFG jurisdictional streambed includes the OHWM of the ACOE jurisdictional waters of the U.S. that were mapped at the El Camino del Norte and El Montevideo/La Valle Plateada study areas (see Figures 2.1.5 and 2.1.6). In addition, a small drainage (0.02 acre) of CDFG jurisdictional streambed in the form of a naturalized artificial storm drainage was located north of the Via de la Valle/La Fremontia intersection, east of La Fremontia (Figure 2.1.7).

The ACOE jurisdictional wetlands (0.16 acre total) that were identified within the El Camino del Norte intersection study area are also under CDFG jurisdiction. In addition, two very small vegetated wetlands (0.03 acre total) associated with the naturalized storm drain were observed in disturbed habitat within the Via de la Valle/La Fremontia intersection study area and are considered to be under the jurisdiction of CDFG.

2.1.1.4 Wildlife Corridors and Habitat Linkages or Habitat Connectivity and Wildlife Corridors

Wildlife corridors and habitat linkages are essential in geographically diverse settings to maintain healthy and genetically viable animal communities. Habitat linkages can be defined as areas of natural open space that provide connectivity to regional biological resources and are wide enough to allow relatively free movement of wildlife species along multiple paths between important resources. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat “islands” that function as stepping stones for dispersal and movement (especially for birds and flying insects).

Site conditions within the study areas are mostly characterized by disturbed or developed habitat. The habitat quality at the three intersections is impacted by urban edge effects, which create unsuitable habitat. Therefore, the study areas do not function as a habitat linkage or movement corridors for terrestrial wildlife. Also, they are not part of any regional linkage or corridor.

The small fragment of coastal sage scrub at the eastern edge of the study area at El Camino del Norte may function for dispersal of the coastal California gnatcatcher, as this species has been documented in the vicinity of the study area (see Figure 2.1.4). However, regular mowing, the small size, and level of isolation, this fragment is only expected to provide habitat for short-term occupancy. In addition, no gnatcatchers were

observed during focused protocol surveys conducted between December 2007 and March 2008.

2.1.2 Relevant Policies, Ordinances, and Adopted Plans

2.1.2.1 Natural Community Conservation Planning Act of 1991

The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFG is the principal state agency implementing the NCCP Program. Plans developed in accordance with the NCCP Act provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or areawide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. The project site is not within an adopted NCCP but is within the North County MSCP Subarea planning area, which is currently in preparation.

2.1.2.2 Habitat Loss Permit Ordinance (No. 8365)

Section 4(d) of the Federal Endangered Species Act (FESA) allows incidental take of the federally listed coastal California gnatcatcher if it results from activities conducted pursuant to either an approved NCCP or (during the period that an NCCP is being prepared) the NCCP Conservation Guidelines and Process Guidelines. These NCCP guidelines provide a process for issuance of a habitat loss permit (HLP), which local agencies may adopt. The County of San Diego's HLP Ordinance establishes a process for the issuance of coastal sage scrub HLPs, in accordance with the NCCP guidelines, which authorize the disturbance or removal of coastal sage scrub in areas outside of an adopted NCCP. Since the project site is not within an adopted NCCP, impacts to coastal sage scrub would normally require a County HLP. However, based on the USFWS/CDFG letter dated February 2, 1995 (Specific Exemptions To and Recommended Format For Reviewing Requests For Interim Habitat Loss Permits), projects that cause the loss of less than 1.0 acre of coastal sage scrub habitat that is not occupied by California gnatcatchers and would not otherwise preclude design of the reserve system, are exempt from the Federal and State interim habitat loss (Special 4(d) Rule) approval process and do not require an HLP. The proposed project will impact less than 1.0 acre (0.07 acre) of unoccupied CSS and therefore does not require an HLP. However, all losses of coastal sage scrub must still be reported to the subregional accounting entity and counted toward the North County MSCP Subarea 5% loss allocation.

2.1.2.3 Resource Protection Ordinance

The San Diego County Resource Protection Ordinance (RPO) was adopted in 1989 and amended in March 2007. The RPO restricts to varying degrees impacts to natural resources such as wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and historical sites. Certain land use projects are subject to the requirement to

prepare a Resource Protection Study under the RPO. However, public projects, such as the proposed project, are exempt in accordance with Article V, Section 3 of the RPO.

2.1.3 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for biological resources are based on criteria provided in Appendix G of the State CEQA Guidelines. A significant impact would result if the project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
4. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2.1.3.1 Special Status Species

<u>Guideline for the Determination of Significance</u>

A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

Analysis of Impacts

Local, State, and Federal Listed Species

Special Status Plant Species

As discussed in Section 2.1.1.2, four special status plant species have a moderate potential to occur on the project site. Two of these species were observed during surveys conducted for the project, California adolphia, which is a CNPS List 2 and County of San Diego Sensitive Plant List B species and San Diego marsh elder, also a County of San Diego Sensitive Plant List B species. Three California adolphia individuals were found on the northern side of Paseo Delicias west of El Camino del Norte, in a mixed disturbed/ornamental vegetation community. San Diego marsh elder was found on the south side of Paseo Delicias, east of El Camino del Norte, outside of the project impact footprint.

As currently designed, construction of the proposed project is not anticipated to remove any California adolphia specimens; however, the California adolphia plants are located right on the edge of the impact footprint (see Figure 2.1.1). In the event that any California adolphia could not be avoided during construction, the resulting impact to this species would be considered *less than significant* because the removal would impact less than five percent of the population (3 individuals). Also, as currently designed, construction would temporarily impact the coastal and valley freshwater marsh, but not within the area where San Diego marsh elder was located, and would result in *no impact* to this species because it is located outside of the project impact footprint. Although direct impacts to California adolphia and marsh elder were found to be less than significant or not significant, failure to implement appropriate measures during construction to avoid activities that affect sensitive habitats and species would be a *significant impact* (BI-1).

In addition, one mature coast live oak tree is located on the edge of the project site footprint at the Via de la Valle/La Fremontia intersection (see Figure 2.1.3). As currently designed, construction of the proposed project is anticipated to avoid impacting the coast live oak tree, including direct removal or compaction impacts to the root zone. In the event that impacts to the coast live oak tree cannot be avoided during construction, the resulting impact would be considered *a significant direct impact* pursuant to Senate Bill 1334, which states conversion of oak woodland is subject to CEQA (BI-2).

Special Status Wildlife Species

As discussed in Section 2.1.1.2, three special status wildlife species have a potential to occur on the project site. None of these were observed during surveys conducted for the project. Several gnatcatcher observations have been documented in the vicinity of the El Camino del Norte intersection, although none have been recorded within the 500-foot survey area surrounding the area of potential effects. No gnatcatchers were

detected during the focused protocol surveys conducted for the proposed project. This roundabout project site is considered unsuitable to support coastal California gnatcatchers due to the small amount (0.32 acre) of coastal sage scrub habitat occurring on-site and the high level of fragmentation and relative isolation of the habitat patches on the project site (surrounded by unsuitable and highly disturbed habitat). Based on the absence of gnatcatchers and lack of suitable habitat on-site or within 500 feet of the project site, the impacts of the proposed project on the coastal California gnatcatcher would be *less than significant*.

Raptors

The study area supports several different vegetation communities, including disturbed/developed habitats that contain limited amounts of ornamental vegetation, such as large eucalyptus and pepper trees, as well as several coast live oak trees, which may provide potential nesting habitat for tree-nesting raptors. Impacts to raptor nests caused by removal of large trees within the impact zone would be a *significant direct impact*, and impacts to nesting raptors from noise from construction activity would be a *significant indirect impact* (BI-3).

Vegetation communities in the study area, including limited amounts of coastal sage scrub and disturbed/developed habitats, may provide marginal foraging habitat for raptor species. The majority of suitable raptor foraging habitat is located outside the project footprint for each of the roundabouts. Due to the highly disturbed conditions of these communities on the project site, and the small total quantity of project-related impacts, the impacts of the proposed project on raptor foraging habitat would be considered *less than significant*.

Migratory Birds

Clearing and grubbing of vegetation during the breeding season would have the potential to directly impact nesting migratory birds that are protected under the Migratory Bird Treaty Act. Migratory birds include many native California species. In addition, construction activities that generate excessive noise would have the potential to indirectly impact some of these bird species that may be nesting in the vicinity of the project. Impacts to nesting migratory birds would result in *significant direct and indirect impacts* (BI-4).

2.1.3.2 Riparian Habitat or Sensitive Natural Communities

Guideline for the Determination of Significance

A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.

Analysis of Impacts

The project would result in *significant direct, permanent impacts* to 0.004 acre of non-vegetated waters within disturbed habitat considered jurisdictional streambed by the CDFG (Tables 2.1.3 and 2.1.4). Jurisdictional waters are considered sensitive habitats and are discussed in Section 2.1.3.3. The project would result in *significant direct, temporary impacts* to 0.07 acre of Diegan coastal sage scrub, and 0.02 acre of coastal and valley freshwater marsh (Table 2.1.3).

Coastal and Valley Freshwater Marsh

Temporary impacts to approximately 0.02 acre of coastal and valley freshwater marsh from construction of a proposed retaining wall would be considered a *significant direct impact* due to the temporary removal of a sensitive habitat from the site (BI-5).

Non-vegetated waters

Non-vegetated waters, although located within disturbed or developed habitat, are considered sensitive habitats. Permanent impacts to 0.004 acre of non-vegetated ephemeral streambed at the Via de la Valle/La Fremontia intersection would be considered a *significant direct impact* due to removal of a sensitive habitat from the site (BI-6).

Diegan Coastal Sage Scrub

Temporary construction impacts could occur within an area of approximately 0.07 acre of coastal sage scrub not occupied by CAGN at the El Camino del Norte roundabout location. An HLP is not required for projects impacting less than 1.0 acre of unoccupied coastal sage scrub, therefore this project does not require an HLP. However, the temporary impacts would be considered a *significant direct impact* due to the removal of a sensitive habitat from the site (BI-7).

2.1.3.3 Federal Wetlands

Guideline for the Determination of Significance

A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Analysis of Impacts

As currently designed, the proposed project would result in temporary impacts to a total of approximately 0.02 acre of ACOE jurisdictional wetlands at the El Camino del Norte intersection (see Table 2.1.4). Removal of vegetation or discharge of fill to ACOE jurisdictional wetlands and waters of the U.S. at these locations would be considered a *significant direct impact* (BI-8).

2.1.3.4 Wildlife Movement and Nursery Sites

Guideline for the Determination of Significance

A significant impact to biological resources would occur if the project would:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Analysis of Impacts

Site conditions within this study area are mostly characterized by disturbed or developed habitat. The habitat quality of the study area is impacted by edge effects of the urban interface, which create unsuitable habitat for wildlife movement. Therefore, the study area does not function as a habitat linkage or movement corridor for terrestrial wildlife. In addition, given the disturbed quality and large urban interface, the study area is not used by wildlife as a nursery site.

The small fragment of coastal sage scrub habitat at the eastern edge of the study area at El Camino del Norte is moderate quality habitat with a diverse native community. However, given its small size and isolation, the disturbance to vegetation surrounding this patch from regular mowing, and the negative results of the focused survey for the California coastal gnatcatcher, this habitat fragment is not expected to provide habitat for long-term occupancy or movement and is not expected to contribute to the genetic flow, migration, or colonization potential for this species.

Because no major wildlife movement corridors or nursery sites occur within the study area, impacts to wildlife movement or use of native wildlife nursery sites from the proposed project would be *less than significant*.

2.1.3.5 Local Policies, Ordinances, Adopted Plans

Guideline for the Determination of Significance

A significant impact to biological resources would occur if the project would:

- Conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

Analysis of Impacts

The draft North County MSCP Plan that will cover this area is currently being prepared but is not yet final or applicable to this project. Within San Diego County, impacts to coastal sage scrub habitat are covered under the County's Section 4d Interim HLP. However, as this project impacts less than 1.0 acre of unoccupied (by CAGN) coastal sage scrub, it is exempt from the HLP. As currently designed, the proposed project's impacts to coastal sage scrub are temporary, would be mitigated on-site, and would not exceed the subregional 5 percent cumulative impact conservation guideline. Therefore, the project would result in *no impact* to local policies, ordinances, or adopted plans.

2.1.4 Cumulative Impact Analysis

Most of the cumulative projects listed in Table 1.3 are located in existing developed areas within the Rancho Santa Fe Village. Environmental studies conducted for cumulative project numbers 2 and 3, located approximately 1 and 1.5 miles north and northeast of the El Camino del Norte roundabout, respectively, identify impacts to southern mixed chaparral and other upland vegetation communities. These upland communities would provide habitat for sensitive plant species and for wildlife species including coastal California gnatcatcher and would also provide wildlife movement corridors. Riparian and wetland habitats impacts were not identified for these projects.

The proposed project's potential impact to sensitive species would be limited to the El Camino del Norte intersection where California adolphia, a CNPS List 2 and County of San Diego List B species, exist. None of the other projects had impacts to this CNPS List 2 or County of San Diego List B species. Therefore, there are no cumulative impacts to California adolphia.

No coastal California gnatcatcher or other sensitive wildlife species would be impacted by the proposed project, with the exception of potential temporary construction impact to migratory birds. In addition, construction impacts would occur to 0.07 acre of unoccupied coastal sage scrub habitat, for which on-site restoration would be provided.

None of the other projects had impacts to coastal sage scrub habitat; therefore there are not cumulative impacts to coastal sage scrub habitat.

The proposed project would also result in permanent impacts to 0.004 acre of non-wetland waters at the Via de la Valle roundabout and temporary impacts would occur to 0.02 acre of jurisdictional wetlands associated with coastal and valley freshwater marsh at the El Camino del Norte roundabout location. None of the other projects had impacts to these resources. Therefore, there are no cumulative impacts to non-wetland waters or jurisdictional wetlands.

The proposed project's impacts to sensitive biological resources are limited to those species described above. None of the other projects had impacts to these same resources and, therefore, cumulative impacts to biological resources are *less than significant*.

2.1.5 Significance of Impacts Prior to Mitigation

Construction activities for the proposed roundabouts that directly or indirectly affect sensitive habitats and species would be a *significant impact* (BI-1).

One coast live oak individual was identified in disturbed habitat on the edge of the project site footprint north of Paseo Delicias at the Via de la Valle/La Fremontia intersection (see Figure 2.1.3). As currently designed, construction of the proposed project is not anticipated to result in impact to the root zone or direct removal of the coast live oak specimen; however, in the event that the coast live oak could not be avoided during construction, the resulting impact to this species would be considered a *significant direct impact* (BI-2).

Impacts to raptor nests caused by removal of large trees within the impact zone would be a *significant direct impact*, and impacts to nesting raptors from noise from construction activity would be a *significant indirect impact* (BI-3).

Clearing and grubbing of vegetation and other construction activities that generate excessive noise during the breeding season would have the potential to impact migratory (often California native birds) that are protected under the Migratory Bird Treaty Act. Impacts to nesting birds would result in *significant direct and indirect impacts* (BI-4).

Coastal and freshwater marsh is located along an isolated drainage south of the El Camino del Norte intersection (see Figure 2.1.1). Temporary impacts to approximately 0.02 acre of this sensitive habitat from construction of a proposed retaining wall would be considered a *significant direct impact* (BI-5).

Construction of the roundabout at the Via de la Valle/La Fremontia intersection would result in permanent impacts to 0.004 acre of non-wetland waters/ephemeral channel and would be considered a *significant direct impact* (BI-6).

As currently designed, construction of the proposed project would not result in any permanent impacts to Diegan coastal sage scrub habitat. However, temporary impacts to approximately 0.07 acre of coastal sage scrub at the El Camino del Norte roundabout location would be considered a *significant direct impact* (BI-7).

As currently designed, the proposed project would result in temporary impacts to a total of approximately 0.02 acre of ACOE jurisdictional wetlands at the El Camino del Norte intersection (see Table 2.1.4). Removal of vegetation or discharge of fill to ACOE jurisdictional wetlands at this location would be considered a *significant direct impact* (BI-8).

2.1.6 Mitigation Measures

M-BI-1. Construction contractors shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of non-compliance. This program should be conducted by a qualified biologist.

M-BI-2a. Within 30 days prior to commencement of construction the following sensitive biological resources shall be located and flagged by the project biologist: at the El Camino del Norte intersection, sensitive habitats south of the project footprint and California adolphia northwest of the project footprint; at the Via de la Valle/La Fremontia intersection, coast live oak within disturbed habitat north of the project footprint. An Environmentally Sensitive Area (ESA) shall be established and demarcated by orange construction fencing to protect these sensitive vegetation types and plants from construction-related impacts. The orange construction fencing around the coast live oak shall be installed at the edge of the tree canopy to preclude root zone impacts to this tree. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any associated sensitive plants.

M-BI-2b. In the event that impacts to the one coast live oak individual occur, five replacement 5-gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. The trees shall be monitored for a period of 5 years. In the event that coast live oak individuals do not successfully establish within the monitoring period, replacement individuals shall be planted.

M-BI-3a. To avoid direct impacts to tree-nesting raptors from vegetation clearing and indirect impacts from construction activities that may generate excessive noise, vegetation clearing and construction activities shall occur outside of the raptor breeding season (January 15-July 15).

M-BI-3b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting raptor surveys conducted within 1 week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 300 feet from the construction site. If nesting activity is detected on-site or within 300 feet of the site, a 300-foot buffer around the nest shall be marked and construction activity within the buffer shall be delayed until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than one week at any time during the raptor breeding season.

M-BI-4a. To avoid direct impacts to nesting migratory birds from vegetation clearing and indirect impacts from construction activities that may generate excessive noise, vegetation clearing and construction activities shall occur outside of the avian breeding season (February 15-September 15).

M-BI-4b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting bird surveys conducted on-site within 1 week prior to commencement of construction activities. If nesting activity is detected on-site, a 300-foot buffer around the nest shall be delineated and avoided until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than 1 week at any time during the avian breeding season.

M-BI-5a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. in the drainage area south of the El Camino del Norte intersection and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of the U.S. outside of the approved project limits.

M-BI-5b. Prior to any impacts to wetlands and riparian habitat in the drainage area south of the El Camino del Norte intersection, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code.

M-BI-5c. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and enhancement of the freshwater marsh

through exotic species removal and planting of native freshwater marsh and riparian scrub species, including San Diego marsh elder.

M-BI-5d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.

M-BI-6a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. in the drainage area at the Via de la Valle/La Fremontia roundabout location and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of the U.S. outside of the approved project limits.

M-BI-6b. Prior to any impacts to wetlands and riparian habitat in the drainage area at the Via de la Valle/La Fremontia roundabout location, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code.

M-BI-6c. Permanent impacts to 0.004 acre of non-wetland waters at the Via de la Valle/La Fremontia roundabout location shall be mitigated on-site south of the retaining wall at the El Camino del Norte roundabout at a 2:1 mitigation to impact ratio through the restoration and enhancement of the existing channel involving exotic species removal and planting of native freshwater marsh and riparian scrub species along the margins of the channel.

M-BI-6d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.

M-BI-7. Temporary construction impacts to Diegan coastal sage scrub habitat shall be mitigated by restoration on-site at a 1:1 mitigation to impact ratio through revegetation of the manufactured slope of the retaining wall at the El Camino del Norte roundabout with native Diegan coastal sage scrub vegetation.

M-BI-8. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and enhancement of the freshwater marsh

through exotic species removal and planting of native freshwater marsh and riparian scrub species.

2.1.7 Conclusion

Construction of the roundabout improvements would occur within areas considered biologically sensitive due to the potential presence of raptors or migratory birds, where sensitive habitats or species are known to exist, and where wetlands, and/or non-wetland waters of the U.S. are located. Mitigation measures are proposed to avoid or mitigate temporary or permanent impacts to these sensitive resources. Implementation of a contractor education program per Mitigation Measure M-BI-1 will ensure that the construction contractors and personnel are aware of the importance of avoiding sensitive biological resources and of the procedures required to do so. Implementation of Mitigation Measure M-BI-2a requires that within 30 days prior to construction within native habitat, sensitive plants, including California adolphia and coast live oak, adjacent to the project footprint will be flagged and delineated with orange construction fencing. Mitigation Measure M-BI-2b requires that if avoidance of coast live oak is infeasible, mitigation shall occur on-site at a 5:1 ratio. Mitigation Measure M-BI-3a, M-BI-3b, M-BI-4a, and M-BI-4b include avoidance and minimization measures such as time restrictions for construction activities. Avoidance of wetlands, riparian habitats, and/or non-wetland waters of the U.S. outside of the approved project limits are required by Mitigation Measure M-BI-5a by delineating the areas with orange construction fencing. Mitigation for temporary and permanent impacts to wetlands, riparian habitats, and/or non-wetland waters of the U.S. are required by Mitigation Measures M-BI-5b, M-BI-5c, M-BI-5d, M-BI-6a, M-BI-6b, M-BI-6c, M-BI-6d, and M-BI-8. Mitigation for temporary impacts to coastal sage scrub is required by M-BI-7. Implementation of these mitigation measures would reduce all impacts to Biological Resources to *less than significant*.

Legend

- Study Area
- Permanent Impact
- Temporary Impact
- California adolphia

Code	Vegetation Type
CSS	Diegan Coastal Sage Scrub
DEV	Urban/Developed
DIS	Disturbed Habitat
FWM	Coastal and Valley Freshwater Marsh
FW	Freshwater

Source: Technology Associates 2008

NO SCALE

Figure 2.1.1
El Camino Del Norte
Biological Resources within the Study Area

Legend

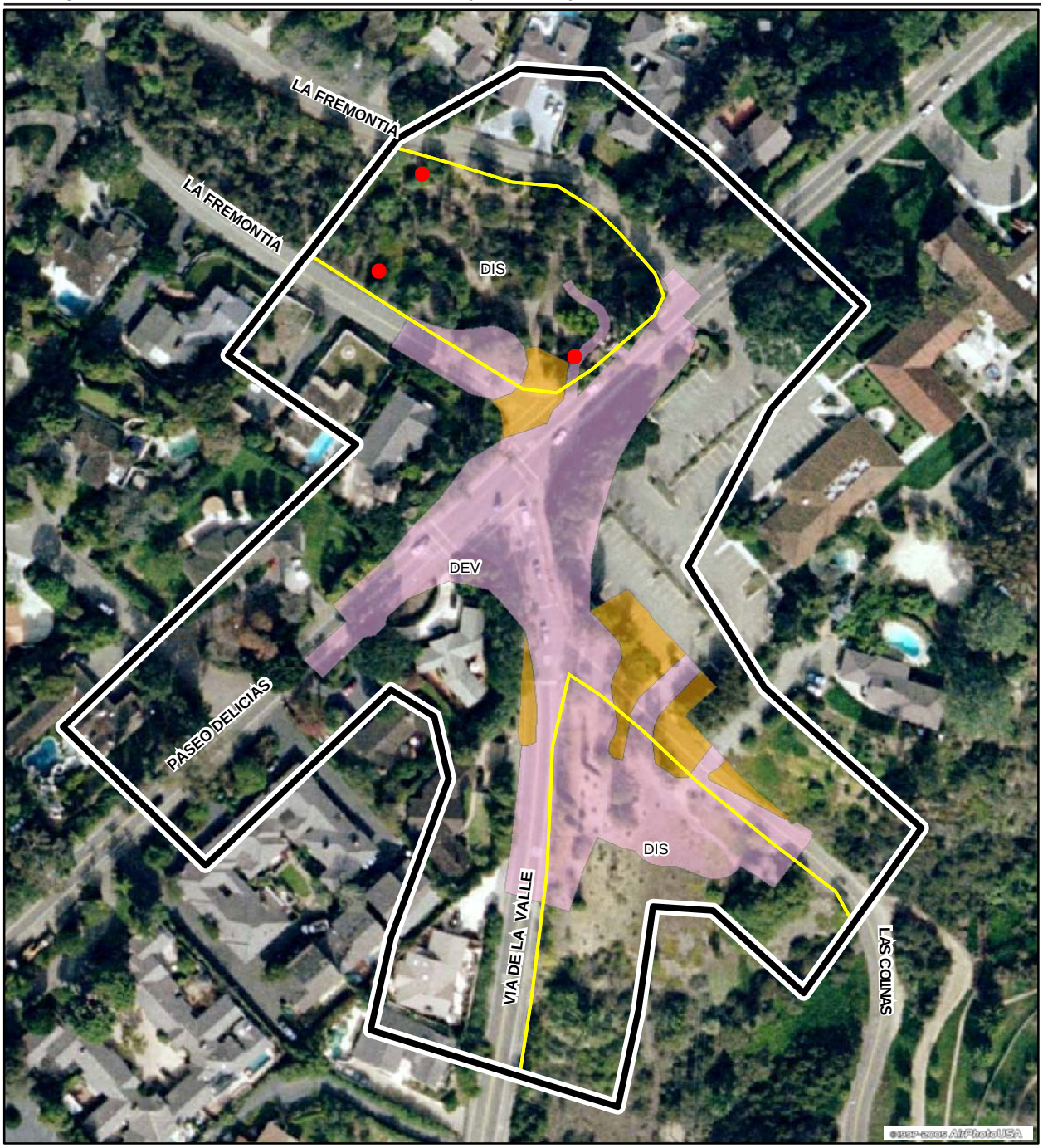
- Study Area
- Permanent Impact
- Temporary Impact
- Vegetation Boundary

Code	Vegetation Type
DEV	Urban/Developed
DIS	Disturbed Habitat
ORC	Orchards and Vineyards

Source: Technology Associates 2008

NO SCALE

Figure 2.1.2
El Montevideo/La Valle Plateada
Biological Resources within the Study Area



Legend

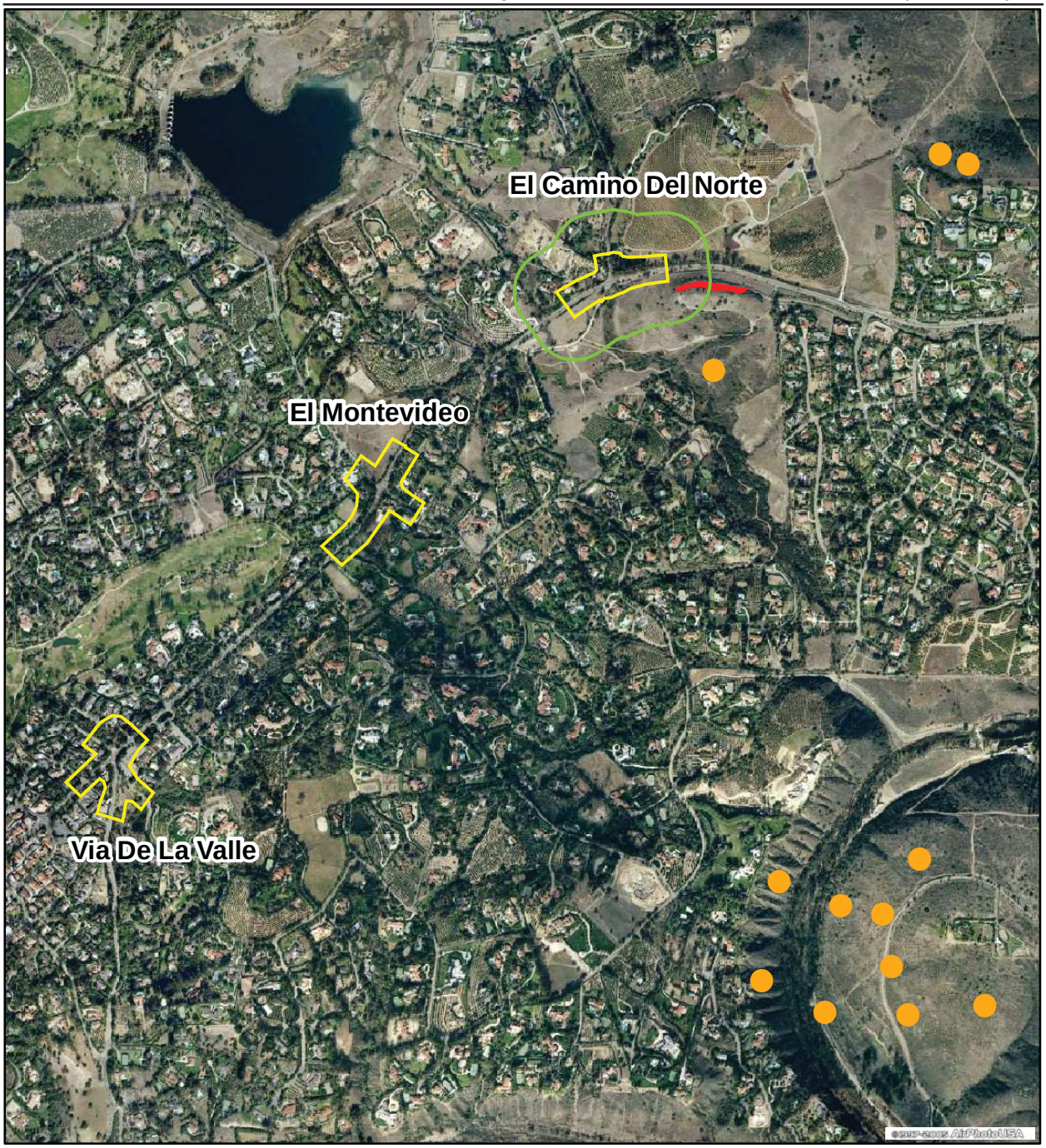
- Study Area
- Permanent Impact
- Temporary Impact
- Coast Live Oak

Code	Vegetation Type
DEV	Urban/Developed
DIS	Disturbed Habitat

Source: Technology Associates 2008

NO SCALE

Figure 2.1.3
Via de la Valle/La Fremontia
Biological Resources within the Study Area



Legend

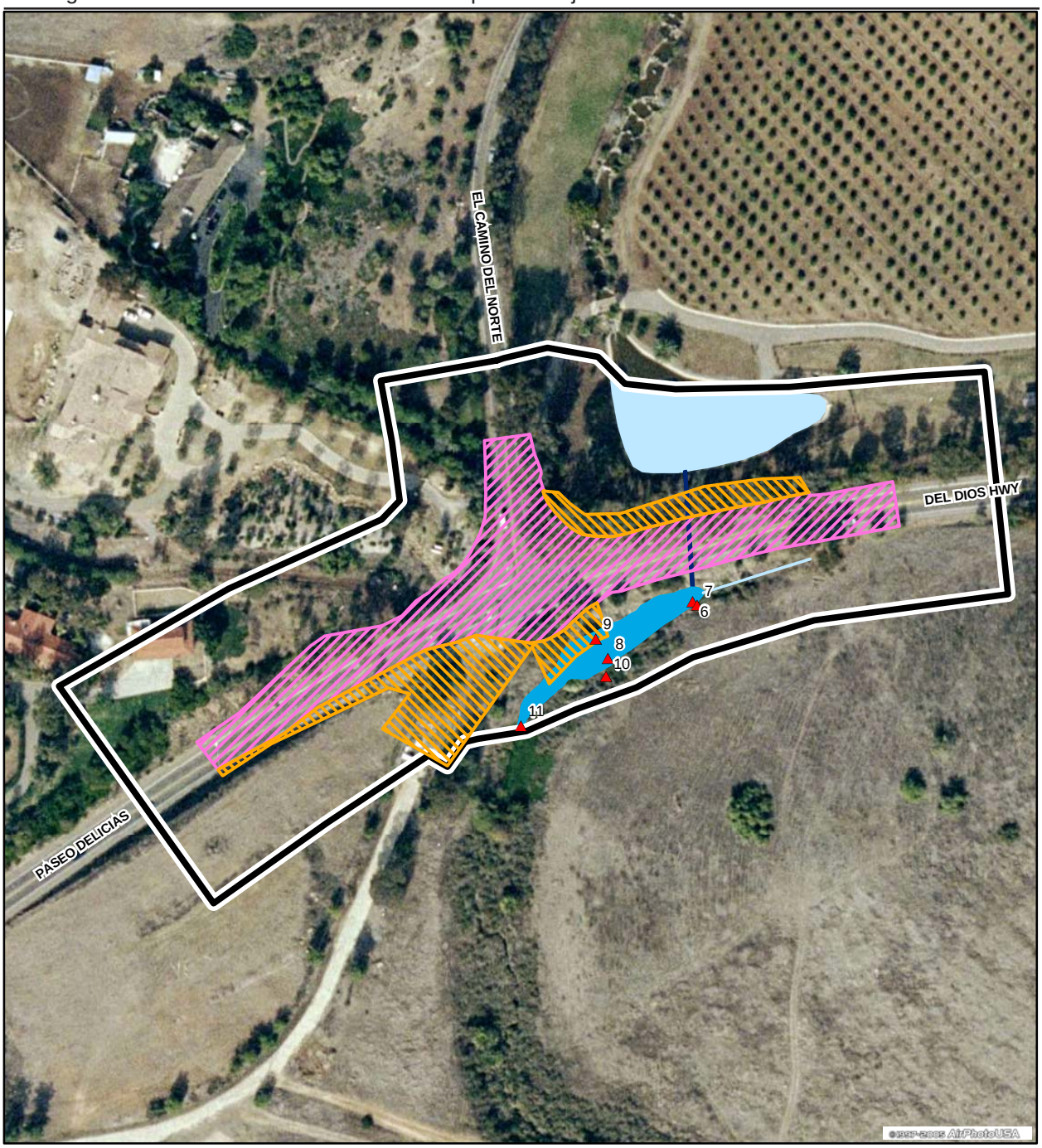
- Study Area
- California Gnatcatcher Locations (1991-2002)
- Suitable Gnatcatcher Habitat (Coastal Sage Scrub)
- RSFR Gnatcatcher Survey Area

Source: Technology Associates 2008

Feet

0 1,280

Figure 2.1.4
California Gnatcatcher Locations



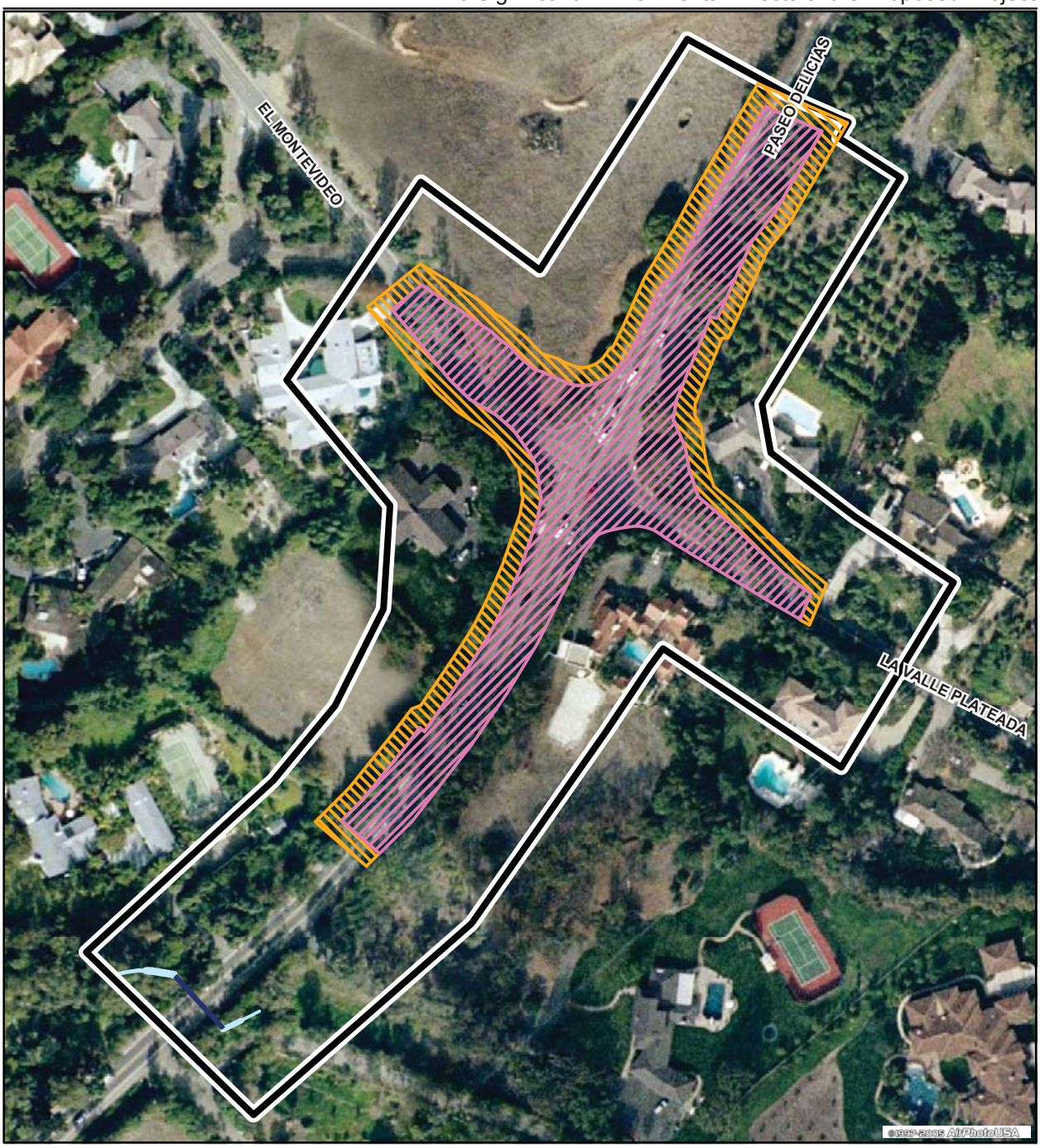
Legend

- Study Area
- Permanent Impact
- Temporary Impact
- ACOE Wetlands & CDFG Wetland/Riparian
- ACOE Waters of the US (Non-Wetland) and CDFG Streambed
- Culverts, etc. (Jurisdictional, Non-Impacted)
- Wetland Sampling Point

Source: Technology Associates 2008

Feet
0 150

Figure 2.1.5
Wetlands and Waters of the U.S.
El Camino del Norte



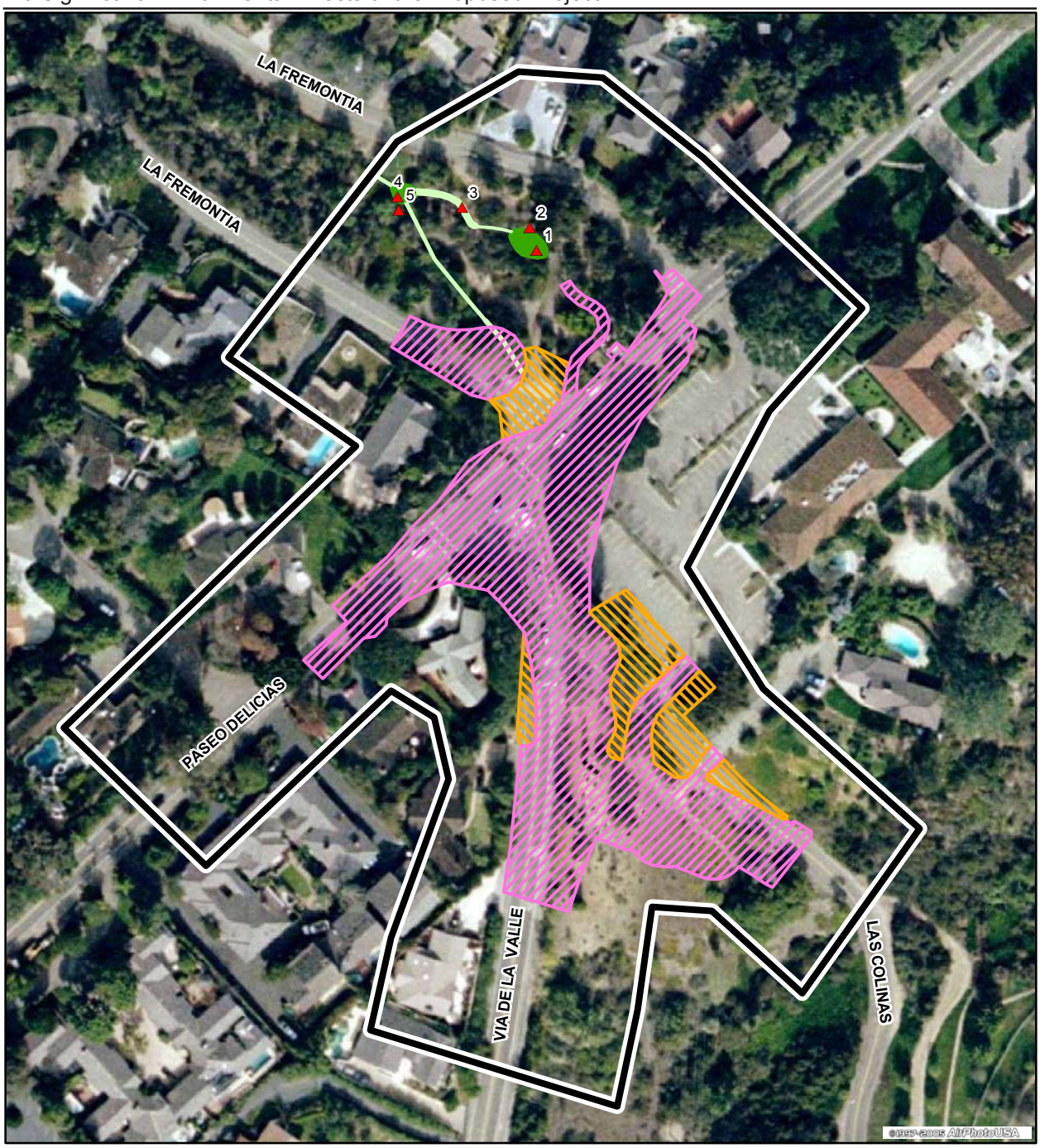
Legend

- Study Area
- Permanent Impact
- Temporary Impact
- ACOE Wetlands & CDFG Wetland/Riparian
- ACOE Waters of the US (Non-Wetland) and CDFG Streambed
- Culverts, etc. (Jurisdictional, Non-Impacted)

Source: Technology Associates 2008

Feet
0 150

Figure 2.1.6
Wetlands and Waters of the U.S.
El Montevideo/La Valle Plateada



Legend

- Study Area
- Permanent Impact
- Temporary Impact
- CDFG Wetland/Riparian
- CDFG Streambed
- Wetland Sampling Point

Source: Technology Associates 2008

Feet
0 130

Figure 2.1.7
Wetlands and Waters of the U.S.
Via de la Valle/La Fremontia

Table 2.1.1
Vegetation Communities within the Study Area

Sensitive Vegetation Community[1]	El Camino del Norte[2]	El Montevideo/ La Valle Plateada[2]	Via de la Valle/La Fremontia[2]	Total[2]
Riparian Habitat				
Freshwater (13140)	0.39	0.00	0.00	0.39
Coastal and Valley Freshwater Marsh (52410)[3]	0.06	0.00	0.00	0.06
Upland Habitat				
Diegan Coastal Sage Scrub (32500)[3]	0.32	0.00	0.00	0.32
Orchards and Vineyards (18100)	0.00	0.56	0.00	0.56
Disturbed Habitat (11300)	2.06[4]	1.86	2.43[5]	6.35
Urban/Developed (12000)	4.33	8.41[6]	7.21	19.95
TOTAL HABITAT	**7.16**	**10.83**	**9.64**	**27.63**

[1] Holland codes are given in parentheses.
[2] Vegetation communities shown in acres.
[3] Habitats regulated or considered sensitive by federal, state, regional, or local agencies.
[4] Includes 0.09 acre of highly disturbed, degraded wetlands and 0.01 acre of non-vegetated waters within disturbed habitat.
[5] Includes 0.03 acre of highly disturbed, degraded wetlands and 0.02 acre of non-vegetated waters within disturbed habitat.
[6] Includes 0.01 acre of non-vegetated waters within developed habitat.

Table 2.1.2
Acreages of ACOE/RWQCB/CDFG Jurisdictional Wetlands and Waters of the U.S. within the Study Area

Jurisdictional Waters	El Camino del Norte	El Montevideo	Via de la Valle	Total
ACOE Wetlands and CDFG Wetlands / Riparian	0.16	0.00	0.00	0.16
CDFG Wetlands / Riparian (outside of ACOE jurisdiction)	N/A	N/A	0.03	0.03
ACOE Waters of the U.S. and CDFG Streambed	0.39	0.01	0.00	0.40
CDFG Streambed (outside of ACOE jurisdiction)	N/A	N/A	0.02	0.02
Total Jurisdictional Resources	**0.55**	**0.01**	**0.05**	**0.61**

Table 2.1.3
Acreages of Habitat/Vegetation Communities and Impacts

Habitat / Vegetation Community	Existing	Impacts (Permanent)	Impacts (Temporary)	Total Impacts
Diegan Coastal Sage Scrub[1]	0.32	0.00	0.07	0.07
Orchards/Vineyards	0.56	0.00	0.07	0.07
Disturbed Habitat	6.35	0.92[2]	0.49	1.41
Urban/Developed	19.95	4.58	1.29	5.87
Coastal and Valley Freshwater Marsh[1]	0.06	0.00	0.02	0.02
Freshwater[1]	0.39	0.00	0.00	0.00
TOTAL	**27.63**	**5.50**	**1.94**	**7.44**

[1] Habitats considered sensitive by local, state, and/or Federal jurisdictions
[2] Includes permanent impacts to 0.004 acre of CDFG jurisdictional non-vegetated channel within disturbed habitat at the Via de la Valle/La Fremontia intersection. Impacts to jurisdictional resources are identified in Table 2.1.4.

Table 2.1.4
Acreages of ACOE/RWQCB/CDFG Jurisdiction and Project Impacts

Jurisdiction	Total Jurisdiction in Study Area	Impacts (Permanent)	Impacts (Temporary)	Total Impacts
ACOE Wetlands and CDFG Wetlands / Riparian	0.16	0.00	0.02	0.02
CDFG Wetlands / Riparian (outside of ACOE jurisdiction)	0.03	0.00	0.00	0.00
ACOE Waters of the U.S. and CDFG Streambed	0.40	0.00	0.00	0.00
CDFG Streambed (outside of ACOE jurisdiction)	0.02	0.004	0.00	0.004
Total Jurisdictional Resources	**0.61**	**0.004**	**0.02**	**0.024**

CHAPTER 3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not to Be Significant as Part of the EIR Process

Effects evaluated as potentially significant during the EIR process that were concluded during the EIR process not to be significant are Aesthetics and Visual Quality; Agricultural Resources; Air Quality; Cultural Resources; Geological Hazards, Soils, and Paleontological Resources; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation and Circulation; and Utilities and Service Systems.

3.1.1 Aesthetics and Visual Quality

This section considers potential impacts to visual resources and potential effects to the visual character of the community upon project implementation. The information and analysis in this section is based on the Visual Impact Assessment prepared by EDAW, Inc. and included as Appendix C of this EIR.

3.1.1.1 Existing Conditions

Visual Character

The proposed project is located in the rural community of Rancho Santa Fe, which is primarily composed of large one- or two-story custom residential estates on large lots and with extensive landscaping. Although the community was originally built uniformly in the Spanish Revival style, more recent development has resulted in varied architectural styles, shapes, and construction materials. Agricultural groves and horse keeping are common in the community and their presence adds to the rural setting of the area. Other than the residential properties, the area surrounding the project site is characterized by vegetated vacant land, minor agricultural land use, and minor commercial land use within the Rancho Santa Fe Village.

The project site encompasses three intersections and their approaching street segments along Paseo Delicias and Del Dios Highway between Via de la Valle and El Camino del Norte. Within the project area, Paseo Delicias and Del Dios Highway, like most roads in the community, are two-lane roads without curbs or sidewalks. Dirt walkways or equestrian trails occur in a few areas along these roads, but are not continuous, and trees or other landscaping frequently extend to the edge of the roadway.

Project Viewshed

The geographic limit for the visual assessment is the viewshed boundary, which is defined as the surrounding geographic area from which the project is likely to be seen,

based on topography, land use patterns, and landscaping. The viewshed for the project was determined in the field and through analysis of aerial and topographic maps.

The project viewshed is a transportation corridor through a rural residential area. At each of the three intersections, the viewshed is limited to the vegetation/landscaping, topography, and structures on either side of Paseo Delicias and Del Dios Highway. The proposed project may also be visible from the residences located on the surrounding hillsides that have unobstructed views. As previously discussed, large residential estates are located primarily along the project site. Landscaping varies from property to property, but typically there are clusters of ornamental or native trees near many of the homes and along the road and surrounding hillsides.

Open space areas are located throughout Rancho Santa Fe and adjacent to the proposed project. The surrounding hillsides and topography create a dramatic scenic backdrop to the Rancho Santa Fe area. The hills, which contain native vegetation, ornamental landscaping, agricultural groves, and are punctuated with single-family homes, create a varied and visually interesting horizon.

Viewer Response

Viewer response consists of two elements: (1) viewer sensitivity and (2) viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a project. Viewer sensitivity is defined by the viewers' concern for scenic quality and how the viewers respond to change in the visual resources that make up the view. Local values and goals may give visual significance to landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Persons who frequent a certain area may be sensitive to projects that fall short of local visual goals. Viewer exposure is typically assessed based on the number of viewers exposed to the resource change, the type of viewer activity, the duration of their view, the speed at which the viewer moves, and the position of the viewer. High viewer exposure may increase the potential significance of a change in the visual environment.

Sensitive viewer groups include local motorists, community residents, commercial area employees and customers, and equestrian and pedestrian users.

Local Motorists

Local motorists on Paseo Delicias, Del Dios Highway, El Camino del Norte, El Montevideo, La Valle Plateada, Via de la Valle, and La Fremontia would typically have a high awareness of the proposed project and foreground views, though the views are of short duration.

In addition, there are bus stops located along the corridor. Individuals waiting at these nearby bus stops would have a foreground view of the roundabouts and have a high

awareness of the proposed project. However, these viewers would have a short-duration view as they board/exit the bus and travel in and out of the area.

Community Residents

Residents with homes immediately adjacent to the project site have direct foreground views of the project site but are few in number. A small number of the surrounding residents have midrange views; however, these views are limited depending on their location, distance from the proposed project site, and obstructions in their views.

Commercial Area Employees and Customers

Small businesses are located west of the Via de la Valle/La Fremontia intersection in the Rancho Santa Fe Village. Although this area has the potential to attract viewers each day, there is a short-duration midrange view of the proposed project from this area because of the topography. Employees and visitors to the commercial area would have a low exposure to the proposed project.

Equestrian, Pedestrian, and Bicycle Users

Local residents who use the equestrian trails would typically have a high awareness of the proposed project, although equestrians on the trails adjacent to the project site would have short-duration foreground views of the proposed project as they pass by the intersections. Pedestrians and bicyclists would have similar exposure to the project.

3.1.1.2 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The following significance thresholds for aesthetics and visual quality impacts are based on Appendix G of the CEQA Guidelines. A significant impact to aesthetics and visual quality would occur if the project would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially degrade the existing visual character or quality of the site and its surroundings.
3. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Scenic Vistas/Visual Character

Guideline for the Determination of Significance

- Have a substantial adverse effect on a scenic vista.
- Substantially degrade the existing visual character or quality of the site and its surroundings.

Analysis of Impacts

Figures 3.1.1 through 3.1.6 provide a conceptual landscape plan and visual simulation for each of the proposed roundabout improvements. Due to the generally similar visual character at each of the project intersections, the following analysis encompasses potential impacts at each of the intersections.

During the construction phase of the project, there would be exposure of bare soil from vegetation clearing, storage of construction equipment and vehicles, and stockpiles of road materials that would be visible to residents and motorists.

The proposed roundabouts would introduce a new design to the existing intersections. The proposed project would include installation of concrete curbs around the landscaped roundabouts and splitter islands at each approach to the roundabouts. These features are essential elements to the function of the roundabouts and for the safety of pedestrian and equestrian crossings at each intersection. The project also proposes to include decomposed granite walkways and asphalt dikes to connect the crosswalks at each of the intersections.

However, the roundabouts would be constructed to include landscape and other design enhancements consistent with the existing rural character of the area. The proposed roundabouts would not significantly impair the public's visual enjoyment of the area. Although the roundabouts would constitute a noticeable change, the urban elements of roadways and intersections already exist at these locations. Therefore, the design would not be out of place or adversely affect the community's rural setting. Of those vantage points from which the roundabouts would be noticeable in the foreground, views from these vantage points would not be on a constant basis. Such views would be apparent to passing motorists, equestrians, pedestrians, individuals at the nearby bus stops, and from surrounding residences.

Clear to partially obstructed views of the proposed roundabouts are possible from outside the front of the single-family homes at each intersection. There are only a few residences in the vicinity, and very few would have a direct line of sight of the proposed roundabouts after their construction. These viewers currently have views of existing roads and intersections. For these viewers, the roundabouts would constitute only a part of the view and the sensitivity to this change in the visual environment would be low. Possible partial views may occur from the distant foothills and mountains, located

northwest of the project site; however, views from these locations would encompass an expansive area, of which the project site would constitute only a small part. For these viewers, the roundabouts would form part of the background view and the sensitivity to this change in the visual environment would be low. Distant views would be preserved.

As motorists, bus riders, and others travel through the intersections, they would experience short duration foreground views of the proposed roundabouts. Sensitivity to this change in the visual environment would be low because the views would be of short duration.

There are no scenic vistas in the project area. There are no state scenic highways within the project area and the Paseo Delicias corridor is not designated on the County's Scenic Highway System map (County of San Diego 1993).

Overall, construction-related effects to the visual character of the area would be temporary and, therefore, the viewer's sensitivity to this change in visual character and quality would be *less than significant*. Completion of the roundabout improvements would result in a minor change to existing visual elements and to the community's visual character and quality and, therefore, visual impacts from implementation and operation of the proposed roundabouts related to effects on a scenic vista or degrading visual character would be *less than significant*.

Scenic Resources

Guideline for the Determination of Significance

The project would have a significant impact to aesthetics if the project would:

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Analysis of Impacts

The project would not require the removal of existing rock outcroppings, historic buildings, or other substantial scenic resources. Mature trees within the project site would be avoided when feasible. In addition, while some trees may require removal to accommodate the roundabouts, the conceptual landscape plans incorporate replacement tree plantings to maintain the visual character of vegetation in the area. There are no state scenic highways within the project area and the Paseo Delicias corridor is not designated on the County's Scenic Highway System map (County of San Diego 1993). Therefore, there would be *no impact* to scenic resources within a state scenic highway.

Lighting and Glare

Guideline for the Determination of Significance

The project would have a significant impact to aesthetics if the project would:

- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Analysis of Impacts

The proposed project's potential impact from new light sources would be limited to flashing warning signs at each road's approach to the roundabouts and lights embedded in the pavement at the crosswalks. These lights would be manually activated by an equestrian or pedestrian wanting to cross. These lights would most frequently be activated during daylight hours. Street lights are not proposed to be installed and no other new light sources would be introduced into the project area. In addition, because the road is relatively level and at the same approximate elevation as the adjacent residences, the headlights from vehicles traveling along this corridor would not create any new light or glare issues in comparison to the existing condition. Therefore, the potential for light and glare impacts would be *less than significant*.

3.1.1.3 Cumulative Impact Analysis

The project area can generally be described as large lot estate single-family residential development. Projects in the vicinity of the proposed roundabout improvements that were considered for the cumulative analysis of aesthetics and visual quality impacts are mapped in Figure 1.7 and listed in Table 1.2. The identified cumulative projects are residential development with the exception of the Village Community Presbyterian Church, which is proposing construction of a new fellowship hall and classroom at an existing facility, and the Rancho Santa Fe Senior Community Center in the Rancho Santa Fe Village area. None of the cumulative projects identified aesthetics and visual quality as a significant environmental issue. With implementation of the proposed project combined with other projects in the area, the visual environment would continue to be primarily large lot estate single-family residential with nearby commercial and community service facilities serviced by rural type roads. By avoiding removal of any significant landscape features, limiting road widening to the three intersections, installing native plants and landscape materials of cultural value to the community at the roundabouts, and preserving the existing landscape character along the road corridor, the proposed project's contribution to the cumulative visual impact would not be cumulatively considerable. Therefore, cumulative impacts to aesthetics and visual quality in the cumulative study area would be *less than significant*.

3.1.1.4 Conclusions

The proposed roundabouts would introduce a new design to the existing intersections. However, the roundabouts would be constructed to include landscape and other design enhancements that complement the surrounding rural character. The proposed roundabouts would not significantly impair the public's visual enjoyment of the area. New light sources would be limited to flashing warning signs at each road's approach to the roundabouts, and manually activated pedestrian crossing lights embedded in the pavement at the crosswalks. These lights would most frequently be activated during daylight hours. No street lights would be installed. Therefore, the aesthetics and visual resources impact would be *less than significant*.

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80 40 0 80 Feet

Scale: 1 inch = 80 feet

Figure 3.1.1
Conceptual Landscape Design - Paseo Delicias/Del Dios Highway/El Camino del Norte

P:\2008\08080120 Rancho Santa Fe Roundabouts EIR\6Graphics\Figures\Figure 3.1.1 concept landscape delicias_Env Effects.ai dbrady 6/24/08

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Figure 3.1.2
Visual Simulation at El Camino del Norte/Del Dios Highway Looking West

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Source: TetraTech 2007; Kern County 2007; USGS 2007; WorleyParsons 2007

80 40 0 80 Feet

Scale: 1 inch = 80 feet

Figure 3.1.3
Conceptual Landscape Design - Paseo Delicias/El Montevideo/La Valle Plateada

P:\2008\08080120 Rancho Santa Fe Roundabouts EIR\6Graphics\Figures\Figure 3.1.3 concept landscape montevideo_Env Effects.ai dbrady 6/24/08

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Figure 3.1.4
Visual Simulation at El Montevideo/La Valle Plateada/Paseo Delicias Looking East

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Source: TetraTech 2007; Kern County 2007; USGS 2007; WorleyParsons 2007

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Scale: 1 inch = 80 feet

Figure 3.1.5
Conceptual Landscape Design - Paseo Delicias/Via de la Valle/La Fremontia

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Figure 3.1.6
Visual Simulation at Via de la Valle/La Fremontia Looking North

3.1.2 Agricultural Resources

The information in this section considers impacts to agricultural resources. The information and analysis in this section have been compiled based on site visits and photos of the project area, and based on review of the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation.

3.1.2.1 Existing Conditions

The project is located in an area where agricultural groves are frequently found on residential estate lots and are an important part of Rancho Santa Fe's development history. There are only a few properties with frontage along the Paseo Delicias project corridor that contain agricultural uses. These are all located east of the El Montevideo/ La Valle Plateada intersection and include three properties on the south side of Paseo Delicias and two on the north side at Caminito de Conejos (see Figure 3.1.7). These are all on properties of 2 to 5 acres in size. The largest agricultural operation is at the northeast corner of Del Dios Highway and El Camino del Norte and is on property approximately 40 acres in size.

Farmland Mapping and Preservation Programs

The State FMMP categorizes developed agricultural lands based on soil quality, growing season, and availability of water supply to produce sustained high yields. Lands designated as Prime Farmland contain the best combination of physical and chemical features able to sustain long-term agricultural production. Other State farmland mapping categories in descending order are Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Urban and Built-Up Land, Other Land, and Water Bodies are also mapped. Within the general project area, Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are mapped only at the northeast corner of Del Dios Highway and El Camino del Norte (California Department of Conservation 2008a). All other lands adjacent to the project corridor are mapped as Urban and Built-Up Land and Other Land.

Soil types considered suitable for designation as Prime Farmland are located immediately adjacent to the project corridor on the 40-acre property at the northeast corner of Del Dios Highway and El Camino del Norte. In addition, though mapped as Urban and Built-Up Land and Other Land by the FMMP, all four corners of the El Montevideo/La Valle Plateada intersection contain soil types suitable for designation as Prime Farmland. No soil types suitable for designation as Farmland of Statewide Importance occur in the immediate project area.

No lands within or near the project area are within an agricultural preserve established under the California Land Conservation Act of 1965 (Williamson Act) or are subject to a Williamson Act Contract for agricultural use pursuant to that Act.

3.1.2.2 Analysis of Project Effects and Determination as to Significance

The significance thresholds for direct agricultural impacts are based on criteria provided in Appendix G of the State CEQA Guidelines, the County's Guidelines for Determining Significance – Agricultural Resources (2007a), and the County's Local Agricultural Resource Assessment (LARA) Model. These thresholds are intended to ensure conformance with existing regulatory standards, as well as to provide both adequate evaluation of potential impacts to agricultural resources, and protection of such resources where appropriate.

A significant impact to agricultural resources would result if any of the following are met:

1. The project site has important agricultural resources as defined by the LARA Model and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of the site for agricultural use.
2. The project proposes a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.
3. The project proposes a school, church, day care or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.
4. The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of offsite agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture on land under a Williamson Act Contract.
5. The project conflict(s) with a Williamson Act Contract or the provisions of the California Land Conservation Act of 1965 (Williamson Act).

<u>Direct Conversion of Prime, Unique, or Important Farmlands</u>

<u>Guideline for the Determination of Significance</u>

A significant direct impact to agricultural resources would occur if:

- The project site has important agricultural resources as defined by the LARA Model; the project would result in the conversion of agricultural resources that

meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of the site for agricultural use.

Analysis of Impacts

The County utilizes the LARA Model for determining the importance of an agricultural resource (County of San Diego 2007a). The LARA Model identifies three required factors in determining a site's importance: water, climate, and soil quality. In addition, the LARA Model evaluates a site based on three complementary factors: surrounding land use, land use consistency, and topography. Due to the limited effect the project would have on prime farmland soils and Prime Farmland or Farmland of Statewide Importance FMMP designations, and the project's avoidance of direct permanent impact to any existing agricultural operations, an impact analysis using the LARA Model was considered not necessary for analyzing the potential agricultural impacts of the project.

The proposed project improvements would permanently convert approximately 0.27 acre of land designated as prime farmland soils for use as public right-of-way at the El Montevideo/La Valle Plateada intersection. However, the State FMMP designation in this area is Urban and Built-Up Land (California Department of Conservation 2008a). No prime farmland soils exist at the other two intersections. This use of prime farmland soils for the proposed project would not "substantially impair the ongoing viability of the site[s] for agricultural use" nor require the removal of any developed farmland. In addition, the County Guidelines for Determining Significance for Agricultural Resources identifies "road improvements/widening" as an example of projects that would not typically substantially impair the ongoing viability of agricultural use. Therefore, the project's impact on prime farmland soils would be *less than significant*.

Indirect Impacts to Agricultural Resources

Guidelines for the Determination of Significance

The project would have a significant indirect impact on agricultural resources if:

- The project proposes a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.
- The project proposes a school, church, day care or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

- The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture on land under a Williamson Act Contract.

Analysis of Impacts

The project proposes roadway improvements within one-quarter mile of active agricultural operations. However, roadway improvements are not considered an incompatible land use with agricultural operations and would not result in any additional land use conflicts than may already be present under existing conditions. In addition, roadway improvements would not result in a concentration of people within 1 mile of an agricultural operation. Further, no Williamson Act Contract lands exist within 1 mile of the project site. Therefore, the proposed project would have *no indirect impacts* to agricultural resources.

Conflict with Agricultural Zoning and Williamson Act Contracts

Guideline for the Determination of Significance

A significant direct impact to agricultural resources would occur if:

- The project conflict(s) with a Williamson Act Contract or the provisions of the California Land Conservation Act of 1965 (Williamson Act).

Analysis of Impacts

The project site does not contain Williamson Act Contract lands and, therefore, the project would have *no impact* with respect to a Contract or the provisions of the Williamson Act.

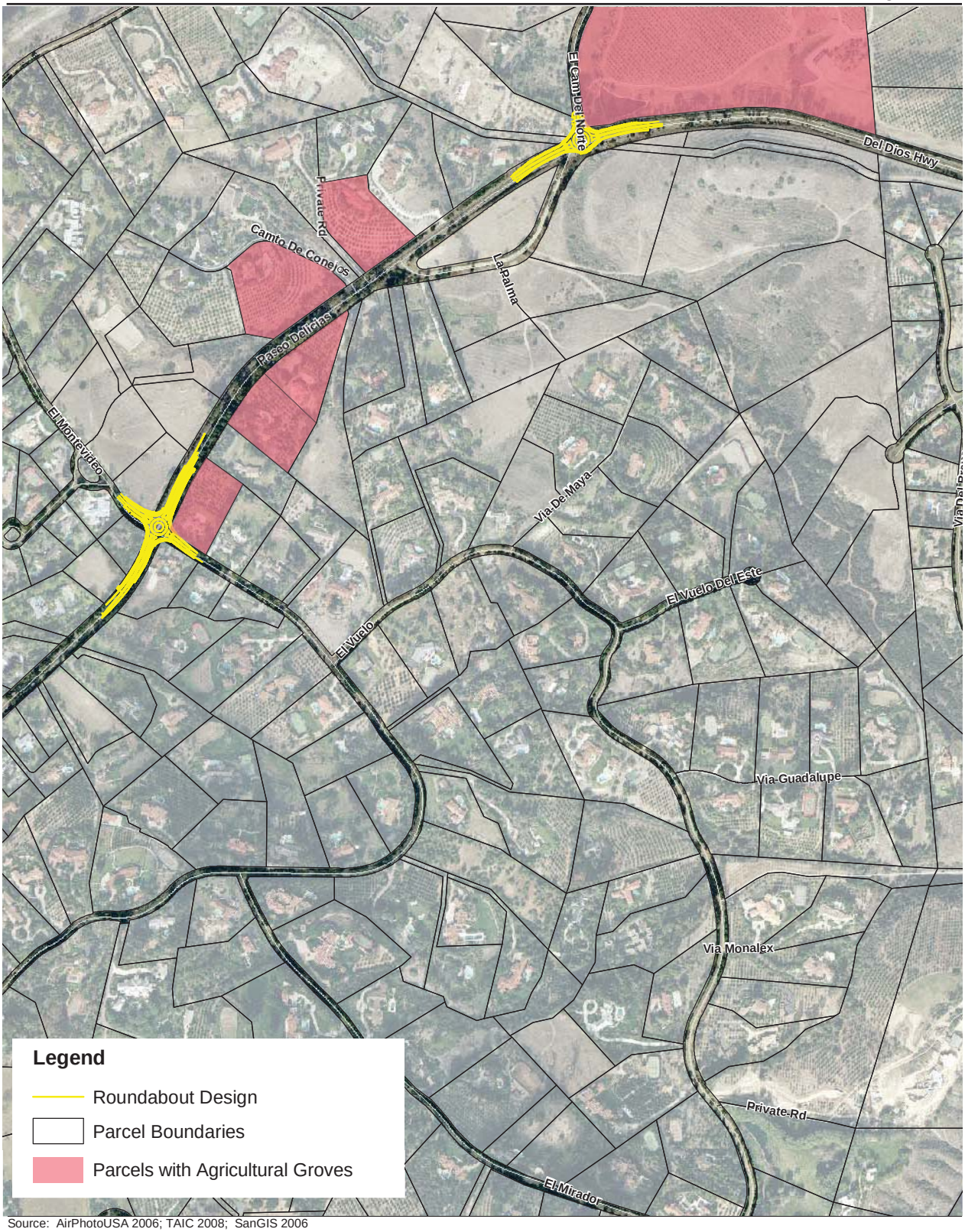
3.1.2.3 Cumulative Impact Analysis

The proposed project would not result in impacts to important agricultural lands and, therefore, would not contribute to the loss of important farmlands. The continuing urbanization of the Rancho Santa Fe area, San Diego County, and the state of California is resulting in a cumulative reduction in agricultural land. However, because the project would not directly or indirectly impact significant agricultural resources, *no cumulatively significant impacts* would result from the implementation of the proposed project.

3.1.2.4 Conclusions

The proposed project would not result in significant impacts to agricultural resources. Although prime farmland soils and FMMP-designated farmlands exist in the project area

and a small area of land mapped as prime farmland soils would be impacted, the proposed project would not convert existing agricultural operations to non-agricultural use or affect the ongoing viability of agricultural use in the area due to direct or indirect project impacts. Therefore, the impact would be *less than significant*.



Source: AirPhotoUSA 2006; TAIC 2008; SanGIS 2006

750 375 0 750 Feet

Scale: 1:9,000; 1 inch = 750 feet

Figure 3.1.7
Existing Agricultural Uses

3.1.3 Air Quality

The information in this section considers impacts to air quality. The information and analysis in this section have been compiled based on site visits and an Air Quality Analysis Technical Report that was prepared for the project and is attached as Appendix D to this EIR.

3.1.3.1 Existing Conditions

Regulatory Setting

The Federal Clean Air Act (CAA) (U.S. Code § 7401) requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect the public health, safety, and welfare from known or anticipated effects of air pollution. The CAA also requires the U.S. Environmental Protection Agency (USEPA) to periodically review the standards to ensure that they provide adequate health and environmental protection and to update those standards as necessary. Current standards are set for sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), suspended particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb). These pollutants are collectively referred to as criteria pollutants. The California Air Resources Board (CARB) has established additional standards that are generally more restrictive than the NAAQS known as the California Ambient Air Quality Standards (CAAQS). Federal and state standards for criteria pollutants are shown in Appendix D.

Specific geographic areas are classified as either “attainment” or “nonattainment” for each criteria pollutant based on the comparison of measured data with federal and state standards. If an area is redesignated from nonattainment to attainment for a specific criteria pollutant, the CAA requires a revision of the State Implementation Plan (SIP) and preparation of a maintenance plan that demonstrates how the air quality standard will be maintained for at least 10 years. The San Diego Air Pollution Control District (SDAPCD) is responsible for the monitoring of air pollution, the preparation and implementation of the San Diego County portion of the SIP, and the promulgation of SDAPCD Rules and Regulations. The San Diego County portion of the SIP includes strategies and tactics, called the Regional Air Quality Strategy (RAQS) to be used to attain and maintain acceptable air quality in the county.

The San Diego Air Basin (SDAB) currently meets the federal standards for all criteria pollutants except O_3 and meets state standards for all criteria pollutants except O_3, $PM_{10,}$ and $PM_{2.5}$. San Diego County was formally redesignated by the USEPA as an O_3 attainment area on July 28, 2003, and a maintenance plan was approved. On April 15, 2004, the USEPA issued the initial designations for the 8-hour O_3 standard and the SDAB is currently classified as “basic” nonattainment. Basic is the least severe of the six degrees of O_3 nonattainment. The SIP prepared by the SDAPCD for O_3 was approved by the CARB on May 24, 2007, and is awaiting federal approval. The SIP must demonstrate how the 8-hour O_3 standard will be attained by 2009. The SDAB

currently falls under a federal "maintenance plan" for CO, following a 1998 redesignation as a CO attainment area.

Ambient air pollutant concentrations in the SDAB are measured at 10 air quality monitoring stations operated by the SDAPCD. The SDAPCD air quality monitoring station that represents the project area, climate, and topography in the SDAB is the Escondido – East Valley Parkway monitoring station, located at 600 East Valley Parkway, Escondido, approximately 9 miles northeast of the project area. The station monitors CO, nitrogen oxides (NO_X), O_3, PM_{10}, and $PM_{2.5}$. Table 3.1.1 summarizes the excesses of standards and the highest pollutant levels recorded at the Escondido station for the years 2004 through 2006.

Existing Air Quality Setting

Existing land uses in the project area consist primarily of large estate homes, many of which also contain agricultural groves or equestrian facilities. Land uses near the Paseo Delicias/Via de la Valle intersection are single-family residences on lots ranging in size from less than 15,000 square feet to over 0.5 acre. The Village Community Presbyterian Church and its nursery school for children aged 2 to 5 years old are located at the northeast corner of the intersection and the Rancho Santa Fe Elementary and Middle School is located approximately 0.4 mile to the west. Medium density multi-family residences are also located nearby to the southwest. At the El Montevideo/La Valle Plateada and El Camino del Norte intersections, single-family homes are typically on 1- to 5-acre lots and also include several larger homesites.

Sensitive air quality receptors are land uses where persons are especially sensitive to elevated pollutant concentrations. Generally these persons are the young, elderly, and sick. Therefore, the sensitive land uses are schools, hospitals, resident health care facilities, and day care centers. For the purposes of CEQA analysis in San Diego County, the definition of a sensitive receptor also includes residents (County of San Diego 2007b). The Air Quality Analysis in Appendix D identifies the project's sensitive air quality zone as being a 100-foot-wide corridor centered on Paseo Delicias. The Village Community Presbyterian Church nursery school and single-family residences are the sensitive receptors located within this corridor.

3.1.3.2 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for air quality impacts are based on criteria provided in Appendix G of the CEQA Guidelines, County of San Diego Guidelines for Determining Significance (County of San Diego 2007b), and County of San Diego Screening Level Thresholds for Air Quality, as shown in Table 3.1.2. These guidelines will be used to determine if the project is in compliance with federal, state, and local guidelines. A significant impact to air quality would result if the project would:

1. Conflict with or obstruct the implementation of the San Diego Regional Air Quality Strategy (RAQS) and/or applicable portions of the SIP.
2. Result in emissions that exceed 250 pounds per day of NO_X or 75 pounds per day of volatile organic compounds (VOCs).
3. Result in emissions of CO that when totaled with the ambient air concentrations would exceed a 1-hour concentration of 20 parts per million (ppm) or an 8-hour average of 9 ppm.
4. Result in emissions of $PM_{2.5}$ that exceed 55 pounds per day.
5. Result in emissions of PM_{10} that exceed 100 pounds per day and increase the ambient PM_{10} concentration by 5 micrograms per cubic meter ($\mu g/m^3$) or greater at the maximum exposed individual.
6. Have a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs and, because of this direct impact, it would also have a significant cumulatively considerable net increase.
7. In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines.
8. Not conform to the RAQS and/or have a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs, and have a significant cumulatively considerable net increase.
9. Cause roadway intersections or segments to operate at or below an LOS E and create a CO hotspot and a cumulatively considerable net increase of CO.
10. Place sensitive receptors near CO hotspots or create CO hotspots near sensitive receptors.
11. Result in exposure to Toxic Air Contaminants (TACs) resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology or result in a health hazard index greater than one.
12. Either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

Conformance to the Regional Air Quality Strategy

Guideline for the Determination of Significance

A significant impact to air quality would occur if the project would:

- Conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

Analysis of Impacts

On April 15, 2004, the USEPA designated the SDAB as nonattainment for the new 8-hour O_3 standard. The proposed project is intended to reduce congestion and improve the efficiency of vehicles operating on this portion of Paseo Delicias. As shown in Table 3.1.3 and based on the existing and estimated year 2030 average PM peak traffic speeds (LLG 2008), the roundabouts would result in a decrease in per vehicle emissions due to improved operational efficiencies of the intersections and along the Paseo Delicias corridor as a whole. As the project would not result in an adverse increase in long-term emissions, the project is considered to conform to the SIP, would result in a *less than significant* impact on regional air quality, and would not conflict with applicable air quality improvement plans of the County or State.

Conformance to Federal and State Ambient Air Quality Standards

Guidelines for the Determination of Significance

A significant impact to air quality would occur if the project would:

- Result in emissions that exceed 250 pounds per day of NO_X or 75 pounds per day of VOCs.
- Result in emissions of CO that when totaled with the ambient air concentrations would exceed a 1-hour concentration of 20 parts ppm or an 8-hour average of 9 ppm.
- Result in emissions of $PM_{2.5}$ that exceed 55 pounds per day.
- Result in emissions of PM_{10} that exceed 100 pounds per day and increase the ambient PM_{10} concentration by 5 micrograms per cubic meter ($\mu g/m^3$) or greater at the maximum exposed individual.

Analysis of Impacts

Construction Impacts

The principal pollutants emitted during construction would be PM_{10} and $PM_{2.5}$ from fugitive[1] dust created during clearing, grading, and road construction activities, including vehicles travelling on unpaved areas. As stated in the project's Air Quality Analysis, typically about 50 percent of fugitive dust is made up of relatively large particles, greater than 100 microns in diameter, which tend to settle within 20 to 30 feet of their source. Small particles, less than 100 microns in diameter, can travel nearly 330 feet before settling to the ground, depending on wind speed. These smaller particles also contribute to visibility and nuisance impacts, and include PM_{10} and $PM_{2.5}$, which are potential health hazards.

A secondary source of pollutants during construction would be the engine exhaust from construction equipment. The principal pollutants of concern would be NO_X and reactive organic gas (ROG)[2] emissions that would contribute to the formation of O_3, which is a regional nonattainment pollutant.

A quantitative estimate of project-related construction emissions was included in the Air Quality Analysis in Appendix D. The model used for the analysis was URBEMIS 2002 (version 8.7.0) (RIMPO 2005), which was developed through consultation with the CARB and air districts throughout California.

To meet state requirements under CEQA, the proposed project is assessed against the County daily air emission screening level thresholds (SLTs) identified in Table 3.1.2, which represent less than significant (or "*de minimis*") levels. The *de minimis* limit for CO in an area under a maintenance plan is 550 pounds per day. The *de minimis* limits for Basic O_3 (8-hour) nonattainment are 250 pounds per day for NO_X and 75 pounds per day for ROG. The federal *de minimis* limits for PM_{10} and $PM_{2.5}$ nonattainment are 100 and 55 pounds per day, respectively. Although the SDAB is not a federal nonattainment area for PM_{10} or $PM_{2.5}$, it is a state nonattainment area. Therefore, use of this threshold would represent a conservative threshold.

Construction and demolition activities are anticipated to occur over an approximate 8-month period, with each intersection taking approximately two months to complete. The estimated maximum daily construction-related air emissions associated with each phase of construction are shown in Table 3.1.4. Total air emissions associated with construction of all three intersections are presented in Table 3.1.5.

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[1] "Fugitive" is a term used in air quality analysis to denote emission sources that are not confined to stacks, vents, or similar paths.

[2] The Guideline for conformance to federal and state ambient air quality standards cites VOC emissions; however, the URBEMIS analysis uses ROGs, which, for the project, would be the same as VOCs.

As shown in Tables 3.1.4 and 3.1.5, emissions from the project construction would not exceed the County SLTs or the general conformity *de minimis* limits. While no significant construction-related impacts to air quality have been identified, the following project design measures to control dust and particulates, including diesel particulate emissions, are to be incorporated into the project's construction specifications:

- Minimize land disturbance.
- Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas.
- Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
- Cover all trucks hauling dirt when traveling at speeds greater than 15 miles per hour.
- Stabilize the surface of dirt piles if not removed within 2 days.
- Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
- Minimize unnecessary vehicular and machinery activities.
- Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway.
- Revegetate disturbed land, including vehicular paths created during construction, to avoid future off-road vehicular activities.
- Remove unused material.
- Locate construction equipment and truck staging and maintenance areas as far as feasible and nominally downwind of schools, active recreation areas, and other areas of high population density.

Construction of the proposed project would not exceed the following San Diego County thresholds for daily construction emissions (see Table 3.1.4): 250 pounds per day of NO_X or 75 pounds per day of VOCs; emissions of CO that, when totaled with the ambient air concentrations, would exceed a 1-hour concentration of 20 parts ppm or an 8-hour average of 9 ppm; emissions of $PM_{2.5}$ that exceed 55 pounds per day; emissions of PM_{10} that exceed 100 pounds per day and increase the ambient PM_{10} concentration by 5 micrograms per cubic meter ($\mu g/m^3$) or greater at the maximum exposed individual (MEI). Therefore, construction impacts to air quality would be *less than significant*.

Operational Impacts

Vehicle emission factors vary with the type of vehicle and vehicle speed. Mobile source emission factors were generated for a range of average vehicle speeds using EMFAC 2007 (CARB 2007) for year 2009, which represent existing plus project vehicle emission

conditions, and for future year 2030 conditions. Output sheets for EMFAC 2007 are provided in Appendix D. Emission factors are shown in Table 3.1.3. Emissions are based on the default average vehicle fleet for San Diego County. The average temperature was set at 60ºF and the relative humidity was set at 50 percent. The average PM peak traffic speeds of vehicles traveling through all three intersections (LLG 2008) were used to develop emission factors.

As shown in Table 3.1.3, installation of the roundabouts would lower per vehicle emission rates of pollutants in comparison to the existing intersection configurations. Additionally, the project itself would not generate additional traffic but is intended to accommodate projected regional growth and allow for acceptable roadway operations through intersection improvements.

As the project would not generate traffic, and no other air emission sources are associated with the operation of the project, the proposed project would have a *less than significant* operational impact on federal and state ambient air quality standards.

Global Climate Change/Greenhouse Gas Emissions

Assessment of the long-term air quality and global climate change impacts as a result of roadway improvement projects differ from development projects that generate new vehicle trips. Increases in vehicle trips contribute to an increase in air pollutant and greenhouse gas emissions both locally and within the air basin as a whole. Development projects may also contribute to traffic congestion, which can decrease the efficiency of motor vehicle operations and cause further increases in air pollutant and greenhouse gas emissions.

As shown in Table 3.1.3 and based on the existing and estimated year 2030 average PM peak traffic speeds (LLG 2008), the roundabouts would result in a decrease in per vehicle emissions due to improved operational efficiencies of the intersections and along the Paseo Delicias corridor as a whole. Since the proposed roadway improvements will modestly reduce the long-term generation of greenhouse gas emissions by reducing traffic congestion, the project's incremental contribution of greenhouse gases to cumulative climate change impacts are considered *less than significant.*

Cumulatively Considerable Net Increase of Criteria Pollutants

Guidelines for the Determination of Significance of Construction Impacts

A significant impact to air quality would occur if the project would:

- Have a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs and, because of this direct impact, it would also have a significant cumulatively considerable net increase.

- In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines.

Analysis of Construction Impacts

As discussed above under "Conformance to Federal and State Ambient Air Quality Standards," the principal pollutants emitted during construction would be PM_{10} and $PM_{2.5}$ from fugitive dust created during clearing, grading, and road construction activities. A secondary source of pollutants during construction would be NO_X and ROG emissions from construction equipment. Tables 3.1.4 and 3.1.5 and the analysis of project-related construction emissions concluded that the project would result in *de minimis* levels of these pollutants. Project design measures to control dust and particulates, including diesel particulate emissions, are to be incorporated into the project's construction specifications. Therefore, the proposed project's direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs would be *less than significant*. Discussion of potential cumulative construction impacts is in Section 3.1.3.3.

Guidelines for the Determination of Significance of Operational Impacts

A significant impact to air quality would occur if the project would:

- Not conform to the RAQS and/or have a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs, and have a significant cumulatively considerable net increase.
- Cause roadway intersections or segments to operate at or below an LOS E and create a CO hotspot and a cumulatively considerable net increase of CO.

Analysis of Operational Impacts

As also discussed above under "Conformance to Federal and State Ambient Air Quality Standards," the potential pollutant generation of the proposed improvements on Paseo Delicias would be reduced in comparison to the current intersection configurations. This analysis was based on estimated average daily trips (ADT) in 2009 and 2030 and determined that the proposed project would have a *less than significant* operational impact.

The analysis above under "Conformance to the Regional Air Quality Strategy" determined that, in comparison to the current intersection configurations, the proposed roundabouts would not result in an increase in vehicle operations but would potentially increase the efficiency of vehicles operating on the roadway, i.e., vehicles operating on

Paseo Delicias would operate at higher speeds and would emit less pollutants per vehicle. Therefore, the project would not result in an increase in long-term emissions within the SDAB, would not be in conflict with the RAQS, would not have a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs, and would result in a *less than significant impact* on regional air quality.

In addition, the project would reduce CO emissions in comparison to the existing intersection configurations (see Table 3.1.3). By removing stop signs and allowing traffic to move smoothly through each intersection, time spent by vehicles idling at stop signs and the resulting CO emissions during idling, would be eliminated. The proposed project would improve the level of service at each intersection and would not cause roadway intersections to operate at or below LOS E. The proposed project would also not create a CO hotspot. The impact would be *less than significant*. Discussion of potential cumulative construction impacts is in Section 3.1.3.3.

Impacts to Sensitive Receptors

Guidelines for the Determination of Significance

A significant impact to air quality would occur if the project would:

- Place sensitive receptors near CO hotspots or create CO hotspots near sensitive receptors.
- Result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology or result in a health hazard index greater than one.

Analysis of Construction Impacts from CO Hotspots

Sensitive air quality receptors exist at the residential properties adjacent to the roadway corridor and at the church property. As discussed above under “Conformance to Federal and State Ambient Air Quality Standards,” the proposed project was assessed against the County daily air emission SLTs identified in Table 3.1.2, which shows the *de minimis* limit for CO to be 550 pounds per day. Per Table 3.1.4, the estimated maximum daily construction-related CO emissions associated with each phase of construction would be less than 550 pounds per day. Therefore, daily emissions from the project construction would not exceed the County trigger levels and the project would have a *less than significant* impact from CO hotspots affecting sensitive receptors.

Analysis of Construction Impacts from TAC - Diesel Particulate Matter

Diesel PM is a TAC. Construction-related activities would result in short-term project-generated emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment for demolition, site preparation, paving, installation of utilities, materials

transport and handling, and other miscellaneous activities. The potential cancer risk from the inhalation of diesel PM outweighs the potential non-cancer health impacts. At this time, neither SDAPCD nor the County has adopted a methodology for analyzing such impacts, and do not recommend the completion of health risk assessments for construction-related emissions of TACs.

The primary factor used to determine health risk is the dose to which receptors are exposed. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance, meaning that a longer exposure period would result in a higher exposure level for the MEI. Thus, the risks estimated for a MEI are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project (Salinas, pers. comm., 2004).

Generation of diesel PM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would require less than one year. Additionally, the use of diesel-powered construction equipment in any one area would likely occur for no more than a few months and would cease when construction is completed in that area. Since the dose to which the receptors are exposed is the primary factor used to determine health risk and dose is positively correlated with time, if the duration of proposed construction activities near any sensitive receptor were 8 months, the exposure would be less than 1 percent of the total exposure period used for health risk calculation. Therefore, diesel PM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the MEI or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than 1 for the MEI. Therefore, this impact would be *less than significant*.

<u>Analysis of Operations Impacts from CO and TAC - Diesel Particulate Matter</u>

The proposed project does not involve development of housing, employment centers, or other attractions and thus would not generate traffic but would accommodate future traffic volumes by providing increased efficiency via improved intersection capacity on Paseo Delicias. Therefore, because the project itself would not measurably increase traffic volume or the percentage of vehicles in cold start mode, health risks associated with TACs would not be increased. A review of the Traffic Impact Analysis (see Section 3.1.14 and Appendix K) indicates that under existing conditions all three intersections operate at LOS F during the AM or PM peak hour. Under the near-term future conditions with the roundabouts, no intersection would operate at LOS E or F during the AM or PM peak hour. Under year 2030 conditions, all three intersections would operate at LOS F without the proposed project. Under year 2030 conditions with roundabouts,

no intersection would operate at LOS E or F during the AM or PM peak hour. Therefore, the project would result in *less than significant* CO and TAC impacts.

Odor Impacts

Guideline for the Determination of Significance

A significant impact to air quality would occur if the project would:

- Either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

Analysis of Impacts

The current operation of Paseo Delicias does not generate objectionable odors and construction and operation of the roundabouts would not cause a change in the use of Paseo Delicias in a manner that would cause objectionable odors to be created. Therefore, potential odor impacts of the proposed project would be *less than significant*.

3.1.3.3 Cumulative Impact Analysis

Cumulative Construction Impacts

As discussed in Section 3.1.3.2, potential construction emissions do not exceed the County SLTs for Air Quality Analysis. Of the cumulative projects described in Section 1.7 and shown in Figure 1.7, the two larger land development projects (numbers 1 and 2) are over 1 mile from the nearest project construction site and thus would not contribute to cumulative construction air quality impacts. The Village Community Presbyterian Church is located at the Via de la Valle intersection and could potentially contribute to air quality construction impacts. However, it primarily involves construction and/or remodeling of buildings on a relatively level site and would not involve substantial grading. The other nearby projects are relatively minor infill developments in the more densely urbanized portion of the Rancho Santa Fe Village and construction of these projects would also not be expected to involve substantial grading. Should construction activities by the church and the other nearby projects occur simultaneously with construction at the Via de la Valle intersection, standard construction dust and emission control measures would avoid cumulative adverse air quality effects and *impacts would be less than significant*.

Cumulative Operational Impacts

As shown in Table 3.1.3, installation of the roundabouts would lower per vehicle emission rates of pollutants in comparison to the existing intersection configurations. In addition, the project itself would not generate additional traffic but would accommodate

projected regional growth and allow for acceptable roadway operations through intersection improvements. Thus, the overall effect of the project would result in a general improvement in air quality through increased vehicle efficiency, i.e., vehicles operating on Paseo Delicias would operate at higher speeds and would emit less air pollutants. Thus, the cumulative operational air quality impacts of the proposed project and the cumulative projects would be *less than significant*.

The Traffic Impact Analysis included a year 2030 analysis, which utilized forecast future traffic volumes on the Del Dios Highway/Paseo Delicias corridor for year 2030 that were prepared by San Diego Association of Governments (SANDAG). Thus, air emissions from traffic generated by future regional growth are included in these forecast traffic volumes. The Village Community Presbyterian Church is an existing facility that would be expanding and potentially result in increased air emissions from increased vehicle trips. However, these air emissions are also accounted for in the various types of motor vehicle trips that are associated with residential use in the current and year 2030 traffic forecasts. As shown in Table 3.1.3, the proposed roundabouts, in comparison to the current intersection configurations, would result in a decrease in per vehicle emissions due to improved operational efficiencies of the intersections and along the Paseo Delicias corridor as a whole. Thus, the cumulative operational air quality impacts of the proposed project and the cumulative projects would be *less than significant*.

3.1.3.4 Conclusions

In comparison to the current intersection configurations, the proposed roundabouts would result in a net decrease in all criteria air pollutants. The project would not result in an adverse increase in long-term emissions and conforms to the SIP. Therefore, the project would result in a less than significant impact on regional air quality and would not conflict with applicable air quality improvement plans of the County or State. Construction air emission impacts would not exceed the County trigger levels or the general conformity *de minimis* limits and would also have a less than significant impact. Project design measures to control dust and particulates, including diesel particulate emissions, are to be incorporated into the project's construction specifications. In addition, the current operation of Paseo Delicias would not change in a manner that would cause objectionable odors during construction and operation of the roundabouts. Therefore, potential air quality and odor impacts of the proposed project would be *less than significant*.

Table 3.1.1
Ambient Air Quality Summary – Escondido, East Valley Parkway

Pollutant Standards	2004	2005	2006
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	3.61	3.10	3.61
Number of Days Standard Exceeded			
NAAQS 8-hour (>9.0 ppm)	0	0	0
CAAQS 8-hour (>9.0 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.080	0.076	0.071
Annual Average (ppm)	0.018	0.017	0.017
Number of Days Standard Exceeded			
CAAQS 1-hour	0	0	0
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.099	0.095	0.108
Maximum 8-hour concentration (ppm)	0.086	0.079	0.096
Number of Days Standard Exceeded			
NAAQS 1-hour (>0.12 ppm)	0	0	0
CAAQS 1-hour (>0.09 ppm)	2	1	3
NAAQS 8-hour (>0.08 ppm)	2	0	2
Sulfur Dioxide (SO_2)			
Maximum 24-hour concentration (ppm)	0.016	0.005	*
Second highest 24-hour concentration (ppm)	0.013	0.005	*
Annual Average (ppm)	0.003	0.003	*
Number of Days Standard Exceeded	*	*	*
NAAQS 24-hour (>0.14 ppm)	0	0	*
CAAQS 24-hour (>0.04 ppm)	0	0	*
Particulate Matter (PM_{10})[a]			
National maximum 24-hour concentration ($\mu g/m^3$)	57.0	42.0	51.0
National second highest 24-hour concentration ($\mu g/m^3$)	42.0	38.0	43.0
State maximum 24-hour concentration ($\mu g/m^3$)	58.0	42.0	52.0
State second highest 24-hour concentration ($\mu g/m^3$)	42.0	39.0	44.0
National[b] annual average concentration ($\mu g/m^3$)	27.5	23.9	24.1
State[c] annual average concentration ($\mu g/m^3$)	27.3	23.9	24.2
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 $\mu g/m^3$)[c]	0	0	0
CAAQS 24-hour (>50 $\mu g/m^3$)[c]	1	0	1
Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration ($\mu g/m^3$)	67.3	43.1	40.6
Second highest 24-hour concentration ($\mu g/m^3$)	48.7	41.3	34.7
Third highest 24-hour concentration ($\mu g/m^3$)	41.1	39.5	31.8
Fourth highest 24-hour concentration ($\mu g/m^3$)	40.5	36.9	31.6
National[b] annual average concentration ($\mu g/m^3$)	14.1	*	11.5
State[c] annual average concentration ($\mu g/m^3$)	14.1	*	11.5
Number of Days Standard Exceeded			
NAAQS 24-hour (>65 $\mu g/m^3$)	1	0	0

* Data unavailable
[a] Measurements usually collected every 6 days.
[b] National annual average based on arithmetic mean.
[c] State annual average based on geometric mean.
Source: CARB 2007

Table 3.1.2
Regional Pollutant Emission Screening Levels (Pounds per Day)

ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	Pb
75	250	550	250	100	55	3.2

Table 3.1.3
Emission Factors (Grams per Mile)

Pollutant	Existing		Year 2030	
	Current Configuration 23 mph	Roundabouts 28 mph	Current Configuration 23 mph	Roundabouts 28 mph
ROG	0.223	0.181	0.068	0.056
CO	4.312	3.896	1.351	1.244
NO_X	0.968	0.919	0.28	0.259
SO_X	0.005	0.005	0.005	0.004
PM_{10}	0.043	0.036	0.031	0.025
$PM_{2.5}$	0.04	0.033	0.029	0.023

Source: CARB 2007

Table 3.1.4
Estimated Maximum Daily Construction Emissions (Pounds per Day)

	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Roadway Demolition	7.3	56.1	54.3	0.0	3.0	2.4
Grading and Excavation	10.4	65.6	87.4	0.0	12.5	4.4
Utilities and Subgrade	13.9	75.7	160.6	0.0	3.2	2.7
Paving	6.1	34.9	29.7	0.1	1.3	0.3
San Diego County Thresholds	*75*	*250*	*550*	*250*	*100*	*55*

Source: RIMPO 2005

Table 3.1.5
Estimated Total Construction Emissions (Tons per Year)

	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Roadway Demolition	0.02	0.18	0.17	0.01	0.01
Grading and Excavation	0.07	0.43	0.58	0.09	0.03
Utilities and Subgrade	0.77	4.09	9.20	0.18	0.16
Paving	0.01	0.10	0.09	0.00	0.00
8-Month Total	0.87	4.80	10.04	0.28	0.20
De Minimis Limits	*100*	*100*	*100*	*100*	*100*

Source: RIMPO 2005

3.1.4 Cultural Resources

The information in this section considers impacts to cultural resources. The information and analysis in this section have been compiled based on site visits and photos of the project area, and a Historical Resources Evaluation Report prepared for the project by EDAW, which is attached as Appendix E. In addition, an Archaeological Survey Report was also prepared by EDAW and is attached as Appendix F. Cultural resources are prehistoric and historic sites, districts, or any other physical evidence of human activity considered significant to a culture, subculture, or a community for scientific, traditional, religious, or other reasons. Factors determining a resource's significance are its integrity, design, associations with important events or persons, and age.

3.1.4.1 Existing Conditions

Cultural History

Regional Prehistory

The earliest well-documented sites in the San Diego area belong to the San Dieguito complex, thought to be over 9,000 years old (Warren 1967). In areas adjacent to the coast, many Paleoindian period sites have probably been covered by rising sea levels since the end of the Pleistocene. In more inland regions, alluvial sedimentation in valley areas may have covered these materials. The stable mesa landforms in the region, the abundance of appropriate lithic material for tool-making, and soil exposures have made the foothills an important area for Paleoindian research. The proposed project lies within the foothills.

Historic Period and Development of Rancho Santa Fe

Cultural activities within San Diego County between the late 1700s and the present provide a record of Native American, Spanish, Mexican, and American occupation and land use. Rancho Santa Fe grew out of Rancho San Dieguito, which was originally granted to Don Juan Maria Osuna in 1840 and consisted of 8,824 acres. Osuna used the land for raising cattle and horses and some farming. Two adobe structures were constructed on the rancho to house the Osuna family.

In 1906, the Santa Fe Land Improvement Company, a subsidiary of the Santa Fe Railroad, bought all but 374 acres of Rancho San Dieguito to plant eucalyptus trees to provide wood for railroad ties, an enterprise that was not successful. In 1915 Santa Fe Land began the process of subdividing the property into lots of suitable size to raise cattle and to grow grain, beets, and other vegetables. The San Dieguito Mutual Water Company was incorporated in 1917 to construct what is now Lake Hodges Dam. A flume was also constructed to deliver the water to the community.

In 1920, Santa Fe Land Improvement Company hired noted landscape engineer Leone G. Sinnard to plan and implement an agriculturally based rural community that also included a 10-block Civic Center area that was divided into four main components: a business and administrative area including a hotel, garage, and store; a group of four adjoining blocks divided into rectangular lots (presumably for residential use); a school building; and an open-air theater. Several smaller, irregularly shaped lots were also included in the community. The concept of this Civic Center was of a centralized, compact, mixed-use space where the business of the community could be conducted. The San Diego architectural firm of Requa & Jackson was then selected to design the Civic Center area and assigned an architect in their office, Lilian Rice, who was born in National City, to manage the project.

From 1922 to 1927, the development of Rancho Santa Fe occupied most of Rice's time and energy. Her commercial and residential architectural styles commonly contained white or natural-colored adobe walls and red-tiled roofs. In addition, patios and courtyards were integral to many designs along with semi-tropical foliage such as palms, bougainvillea, and banana trees. Rice's designs were sensitive to the natural features in their surroundings as she often preserved rocks and trees in place. In addition, she incorporated open-beamed ceilings, tiled surfaces, and a variety of floor plans. After leaving Requa & Jackson in 1928 to start her own firm, she continued to work in Rancho Santa Fe designing residential, commercial, and civic buildings until her death in 1938.

The Santa Fe Land Improvement Company next hired Charles H. Cheney, a well-known city planner from Palos Verdes, to work on a permanent set of protective restrictions. Cheney had extensive experience with development of several communities in northern and southern California, including the Palos Verdes Estates where he lived, and developed a set of protective restrictions for Rancho Santa Fe based upon his Palos Verdes model. These restrictions led to the establishment of the Rancho Santa Fe Association, a nonprofit organization that was responsible for maintaining the architectural, horticultural, and land-use restrictions established by the Santa Fe Land Improvement Company. The Covenant included regulations for zoning, land use, building height, setbacks, property sales, and architectural styles and specified that "…homes and other structures conform to what is broadly known as Spanish architecture, which includes Italian and Mediterranean motifs as well as Monterey and Californian styles." Architectural restrictions were to be supervised by an Art Jury, which was required to approve all building plans before construction began.

Historical Resources

Records searches were conducted by the South Coastal Information Center and the San Diego Museum of Man in November 2006 and February 2007, respectively, using a 0.25-mile radius surrounding the project site for built resources, including historic districts, buildings, structures, and objects. The records searches included a review of various lists of historic properties and historic maps, which resulted in identification of

two historic resources within the project area: the Historic Planned Community of Rancho Santa Fe (California Historic Landmark No. 982) and a portion of the Lake Hodges Flume, which is associated with the initial development of Rancho Santa Fe. The Historic Planned Community of Rancho Santa Fe is well known for its influence on development patterns across the state, its association with significant persons, and its distinctive characteristics of a planned community.

Archaeological Resources

The records searches also revealed that 15 prehistoric archaeological resources have been recorded within 1 mile of the project's Area of Direct Impact (ADI). Two of these are within 0.25 mile of the project; one consisting of a sparse artifact scatter of ceramics, scrapers, flakes, and mano fragments and the other consisting of a sparse artifact scatter of flakes and groundstone fragments.

An intensive pedestrian archaeological field survey of the ADI and adjacent areas was conducted by EDAW archaeologists on May 21, 2007. The survey was performed in 10-meter transects. A total of 13.8 acres was surveyed that included 5.6 acres of the 5.8-acre ADI. A total of 0.2 acre of the ADI was not surveyed due to inaccessibility or a slope greater than 30 percent. The intensive pedestrian archaeological field survey did not identify any archaeological resources.

In addition to the records searches, the California Native American Heritage Commission was contacted in December 2006 to conduct a sacred lands search. The result of the sacred lands search was negative; no sacred lands exist within 100 feet of the ADI.

3.1.4.2 Analysis of Project Effects and Determination as to Significance

Significance thresholds for cultural resources are derived from Appendix G of the CEQA Guidelines and County of San Diego Guidelines for Determining Significance (County of San Diego 2007c). A significant impact to cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the U.S. Secretary of Interior Standards.
2. Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

3. Disturb any human remains, including those interred outside of formal cemeteries.
4. Proposes activities or uses damaging to significant cultural resources as defined by the County Resource Protection Ordinance (RPO) and fails to preserve those resources.

Impact to Historical and Archaeological Resources

Guidelines for Determining Significance

A significant impact to cultural resources would occur if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the U.S. Secretary of Interior Standards.
- Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

Analysis of Impacts

Historical Resources

The project would not cause a substantial adverse change to the community's association with historic trends or persons; its distinctive characteristics of large lots, rural charm, orchard acreage, irrigation, prominent building sites, landscape features, and viewsheds; and its unified architectural style of Spanish Colonial Revival. Paseo Delicias was part of the original rural street circulation plan, which was distinguished by cobble curbs, gutters, and walls, as character-defining furnishings. The analysis conducted in the preparation of the Historical Resources Evaluation Report concluded that the proposed project, as designed, would not cause a substantial adverse change in the community's significant characteristics, nor would it substantially alter the character of the road. The proposed project is consistent with the surrounding landscape and would add compatible landscaping, cobble paving, and entry monumentation. In addition, EDAW determined from the Rancho Santa Fe Irrigation District, owner of the historic flume, that the portion of the flume within the El Camino del Norte roundabout had been replaced with an underground pipe. Therefore, the project's potential impact to these historic resources would be *less than significant*.

A built environment pedestrian survey was also conducted by EDAW, which identified a drainage channel within the proposed El Camino Del Norte roundabout that is concrete-lined and carries runoff water south of Del Dios Highway. The channel's width is 3 to 5 feet at the top and 6 inches at the bottom. Its depth ranges from 12 to 18 inches. This resource was recorded by EDAW staff and determined to be a common, minor infrastructure element that would not be eligible for historic records listing.

The EDAW survey also identified two properties located adjacent to the proposed roundabout improvements, the Johnston Residence at 7052 La Valle Plateada and the residence on County Assessor Parcel No. 266-321-13-00, which are more than 50 years old. They were not recorded nor assessed for significance because the project would not require acquisition of any portion of these properties and, therefore, there would be *no direct or indirect impact* to these historic resources.

Archaeological Resources

Based on the results of the records searches, site inspections, and contact with the California Native American Heritage Commission, the proposed project would not cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines as there would be *no impact* to archaeological resources.

Disturbance to Human Remains

Guideline for the Determination of Significance

A significant impact to cultural resources would occur if the project would:

- Disturb any human remains, including those interred outside of formal cemeteries.

Analysis of Impacts

Based on the results of the records searches, site inspections, and contact with the California Native American Heritage Commission, the project would have *no impact* to known human remains, including those interred outside of formal cemeteries.

Damage County Resource Protection Ordinance-defined Significant Cultural Resources

Guideline for the Determination of Significance

A significant impact to cultural resources would occur if the project:

- Proposes activities or uses damaging to significant cultural resources as defined by the County RPO and fails to preserve those resources.

Analysis of Impacts

Based on the results of the records searches, site inspections, and contact with the California Native American Heritage Commission, the project would have a *less than significant impact* to historic resources and *no impact* to archaeological resources and, therefore, would not damage RPO-defined significant cultural resources.

3.1.4.3 Cumulative Impact Analysis

Potential cultural resource impacts are specific to individual sites and types of uses proposed. For the proposed project, archaeological and historic resources are known to occur within the study area, though no significant resources were identified that would be directly affected by the project. Of the cumulative projects identified in Table 1.2, archaeological resources were identified only for The Bridges project (number 3), which was evaluated in an EIR prepared in 1999 and the project has now been constructed. Because construction of the proposed roundabouts would avoid known significant cultural resources, the project's contribution to cumulative cultural resource impacts would be *less than significant*.

3.1.4.4 Conclusions

The project would not cause a substantial adverse change to the community's association with historic development trends or persons and its unified architectural style of Spanish Colonial Revival; and there would be no direct or indirect impact to existing residences adjacent to the proposed project improvements that are more than 50 years old. Based on the results of the records searches, site inspections, and contact with the California Native American Heritage Commission, the project would have a *less than significant impact* to historic resources and *no impact* to archaeological resources.

3.1.5 Geological Hazards, Soils, and Paleontological Resources

The information in this section considers impacts to geological hazards, soils, and paleontological resources. The information and analysis in this section have been compiled based on geotechnical, soils, and paleontological maps maintained by the California Department of Conservation and the County Department of Planning and Land Use.

3.1.5.1 Existing Conditions

Geologic Setting

The geologic structure of the project area is composed of sedimentary rock deposits from the tertiary period, which lasted from 65 million years to 1.8 million years before the present time. During this period, soil sediments were progressively compacted and, under pressure from upper layers of sediments, were converted to rock by the process of lithification. Soil types in the project area are primarily Huerhuero loams, 2 to 9 percent slopes and 15 to 30 percent slopes. Also present are Altamont clay, 5 to 9 percent slopes and 9 to 15 percent slopes; and San Miguel rocky silty loam, 9 to 30 percent slopes (United States Department of Agriculture 1973).

Seismicity

A pre-quaternary fault, which is the oldest and least potentially active type of fault zone, is located north of the project site, extending northeast from the San Dieguito Reservoir. The closest active fault, Elsinore Fault, is approximately 30 miles to the east. The Probablistic Seismic Hazards Map on the California Department of Conservation website (2008b) shows the project to be located in an area that is expected to be subject to less frequent and lower levels of shaking from earthquakes.

Liquefaction

Liquefaction is caused by the vibration of loose fine sand or silt that is saturated with water. Severe ground shaking during an earthquake may cause soils to flow like a liquid. Any building or structure built on the saturated soils may float, sink, or tilt. These conditions are most likely to occur in areas of fine sand and silt such as in broad river valleys or adjacent to lagoons. These areas of potential liquefaction do not exist within the immediate project area.

Landslides

Landslides occur when masses of earth and rock move downslope as a unit. This can occur as a result of grading activities that steepen existing slope contours, from saturating the slope with water, and from vibration during an earthquake. There are no

severely steep slope conditions in the immediate project area that would cause the project site to be susceptible to landslides resulting from any of these occurrences.

Paleontological Resources

Sedimentary rock deposits, such as those that occur at the project site, have the potential to contain fossils within sediment layers that were deposited and compacted over millions of years. County paleontological sensitivity mapping shows the El Camino del Norte intersection to contain soil formations of moderate and high sensitivity for the presence of fossils and both the El Montevideo/La Valle Plateada and Via de la Valle intersections to contain soil formations of high sensitivity.

3.1.5.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for geology and soils, including paleontological resources, are based on criteria provided in Appendix G of the State CEQA Guidelines. The project would have a significant impact to geology and soil or paleontological resources if the project would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
2. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.
3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.
4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.
5. Result in substantial soil erosion or the loss of topsoil.
6. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
7. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
8. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Geologic Hazards

Guidelines for the Determination of Significance

A significant impact related to geologic hazards would occur if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Analysis of Impacts

Fault Rupture and Seismic Ground Shaking

No Alquist-Priolo Earthquake Fault Zones are located within the project area. Although ground movement from earthquakes could occur in the project area, the project does not include the construction of any buildings or other habitable structures and, therefore, potential effects would be limited to pavement cracking or soil movement and there would be a *less than significant impact* from fault rupture and seismic ground shaking.

Liquefaction

The project site is not located in an area where soils, if saturated, would be subject to downhill movement onto the proposed Paseo Delicias improvements and, therefore, there would be *no impact* from liquefaction.

Landslides

The project is not located within a State or County defined landslide hazard zone. In addition, due to the relatively flat nature of the project site, impacts from landslide hazard are anticipated to be *less than significant*.

Geology and Soils

Guidelines for the Determination of Significance

A significant impact to geology and soils would occur if the project would:

- Result in substantial soil erosion or the loss of topsoil.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Analysis of Impacts

Construction of the proposed roadway improvements would maintain the existing grade of Paseo Delicias and would require only limited grading for installation of the three roundabouts. The maximum depth of excavation for roadway work would be approximately 5 feet and retaining walls for areas of fill soils or cut slope stabilization up to a maximum of 12 feet in height may be installed. The minimal ground disturbance would not induce soil instability and grading for the project and would be designed and implemented in compliance with the County Grading, Clearing, and Watercourse Ordinance (County of San Diego 2004), which contains design standards and regulations for maximum slope angles, compaction, use of fill materials, erosion prevention, drainage facilities, and planting of all slopes greater than 3 feet in height. In addition, no expansive soils exist within the project site and no septic tanks or alternative waste water disposal systems are proposed. Therefore, there would be a *less than significant impact* on geology and soils.

Paleontological Resources or Unique Geologic Feature

Guideline for the Determination of Significance

The project would have a significant impact to paleontological resources or unique geologic features if the project would:

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Analysis of Impacts

Construction of the proposed roadway improvements would maintain the existing grade of Paseo Delicias with only minor excavation required to transition the proposed grades at these intersections to the existing off-site grades. The maximum depth of excavation

would be approximately 5 feet for roadway work; and retaining walls for areas of fill soils or slope stabilization up to a maximum of 12 feet in height may be installed. The area where the proposed roundabouts would be located consists of an existing roadway and areas of landscaping or native vegetation that are approximately at grade with the existing roadway. No areas of rock outcrops, abrupt elevation changes, or other unique geologic features are located within or near the proposed improvements.

The County's paleontological guidelines state that fossils are most likely to be encountered in or below the substratum horizon where parent soil materials are intact. Typically, soils above the substratum horizon have been eroded by water and root damage, causing fossils to decompose. However, fossils could still occur much nearer the surface, particularly along mesa tops. Because Paseo Delicias runs along a ridgeline separating two drainage basins and with sedimentary deposits occurring in the substratum, the potential exists for fossils to be located nearer to the surface. However, the substratum in the project area is estimated to be over 20 feet below the surface. Because grading and excavation activities would be occurring in areas previously disturbed and would not penetrate into the substratum horizon, potential impacts to paleontological resources are considered *less than significant.*

3.1.5.3 Cumulative Impact Analysis

Potential cumulative geologic impacts (considering all proposed and in-progress development in the project area) consist of loss of unique geologic features, substantial alteration of the topography, or triggering or acceleration of erosion or slope failures. Seismic impacts (ground shaking or ground failure) are not cumulative. Geotechnical conditions are localized and generally unique to each site. Approved projects and those under review are subject to soils and stability analysis and cannot be constructed unless each project is determined to be geotechnically feasible. The projects within the cumulative impact study area are conditioned through the site plan review and development process to either avoid construction on dangerous geotechnical formations or incorporate design treatments to avoid potential cumulative geotechnical hazards from impacting other projects. Therefore, adverse cumulative geotechnical conditions resulting from cumulative projects do not exist, and cumulative impacts are *less than significant.*

Table 1.2 summarizes the geology and soils impacts of cumulative projects that are applicable to the proposed project. Additional details for each of these projects are provided in Table 1.2 and each project is depicted in Figure 1.7. Construction of the proposed project would require only relatively minor grading that would not result in substantial landform alteration that might contribute to cumulative geologic impacts.

According to CEQA, the importance of paleontological resources comes from the research value and the information that they contain. Therefore, the issue that must be explored in a cumulative analysis is the cumulative loss of information resulting from impacts to paleontological resources. The potential for paleontological resources is

determined based on the presence of geologic formations with proven paleontological resources (i.e., known fossil occurrences). For projects considered less than significant, the paleontological resources are either not impacted or are preserved through salvage and recordation. As discussed in Section 3.1.5.2, impacts from the proposed project to known paleontological resources would be less than significant because grading would not extend into the parent material below the soils. Therefore, the project's lack of impacts means it would not contribute to the cumulative loss of paleontological resources, and cumulative impacts to paleontological resources would be *less than significant*.

3.1.5.4 Conclusions

The location and type of soils occurring in the project area and other geotechnical considerations do not pose geologic hazards at the project site. In addition, the limited amount of grading required at each intersection and standard reviews during County grading permit code compliance and inspection procedures would ensure significant impacts related to geology and soils do not occur. While paleontological resources have a potential to occur in the area, the limited amount and depth of grading and standard County monitoring requirements would enable salvage and preservation of any fossils that are uncovered. Therefore, geologic hazards, soils, paleontological resources, and unique geologic feature impacts would be *less than significant*.

3.1.6 Hazards and Hazardous Materials

This section presents a discussion of impacts to the public from potential hazards and hazardous materials. The information and analysis in this section have been compiled based on site visits and a Phase I Environmental Site Assessment that was prepared for the project by SOTA Environmental is attached as Appendix G.

Hazardous materials and wastes are defined and regulated in the United States by federal, state, and local regulations, including those administered by the USEPA, the U.S. Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation. The California Environmental Protection Agency (Cal EPA) and several regional and local agencies, including the County Department of Environmental Health, have developed regulations and guidelines for the management of hazardous materials and waste, for the purpose of protecting public health and the environment in California. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous wastes are defined in the Code of Federal Regulations Title 40 Part 20 and also in the California Code of Regulations (CCR), Title 22, Section 66261.3.

Federal

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the USEPA to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for clean up when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List (NPL), which is a list of contaminated sites warranting further investigation by the USEPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

State

The California Hazardous Waste Control Law (HWCL) is administered by the Cal EPA to regulate hazardous wastes. While the HWCL is generally more stringent than the

federal RCRA, until the USEPA approves the California program, both the state and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

The CCR, Title 22, Section 66261.10 provides the following definition for hazardous waste:

> *…a waste that exhibits the characteristics may: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed or otherwise managed.*

According to CCR Title 22, substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated or is being stored prior to proper disposal.

Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances, including strong acids and bases such as sulfuric (battery) acid or lye are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances may cause explosions or generate gases or fumes. Explosives, pressurized canisters, and pure sodium metal (which react violently with water) are examples of reactive materials.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as “mixed wastes.” Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses.

Hazardous Material Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the work place. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Chapter 3.2). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

3.1.6.1 Existing Conditions

Hazardous Materials

The Phase I Environmental Site Assessment included a site reconnaissance of the subject properties located along the Paseo Delicias corridor within the project area and interviews with persons knowledgeable about the subject properties, and a review of government agency records and historical uses of the subject properties.

The subject properties, located in northwestern San Diego County are primarily composed of single-family residential and undeveloped properties. SOTA reviewed historical aerial photographs, historical city directories, and historical topographic maps to obtain historical information on the subject properties. The historical topographic maps reviewed include maps from 1901 to 1996 and aerial photographs from 1939 to 2002. Historical records reviewed did not indicate uses associated with the storage, transfer, or disposal of hazardous materials and/or landfill sites on the subject properties.

A records review of federal, state, and San Diego County environmental regulatory databases was conducted by SOTA within a 1-mile radius of the project site and is reported in Appendix G. This database search did not identify any records that posed an environmental concern for the subject properties. Historical records reviewed did not indicate property development or uses different than current use. No hazardous materials use, generation, storage (other than small quantity household type use), or disposal was identified on the subject properties.

Wildland Fire and Fire Protection

The project area is largely developed with estate residential and urban uses. However, interspersed within the developed areas and nearby to the north and east are areas of native vegetation that can ignite easily and burn at very high temperatures. Wildfires have recently occurred in the area that resulted in firestorm conditions and loss of residences in Rancho Santa Fe and adjacent communities. The Rancho Santa Fe Fire Protection District serves the project area with a headquarters fire station at 16936 El Fuego, approximately one-quarter mile west of the Via de la Valle intersection, and

from Station 4 located in the Cielo community approximately 2 miles east of the El Camino del Norte intersection. Additional fire stations are located in the Fairbanks Ranch and Bernardo Lakes Estates/4S Ranch communities.

3.1.6.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for hazards and hazardous materials impacts are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to hazards and hazardous materials would result if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
5. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas where residences are intermixed with wildlands.

Hazardous Materials

Guidelines for the Determination of Significance

A significant environmental impact would occur if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Analysis of Impacts

The Phase I Environmental Site Assessment and review of historical documents did not reveal past uses associated with the storage, transfer, or disposal of hazardous materials and/or landfill sites on the subject properties.

The project is the construction of roundabouts at three locations. During the demolition and construction phase of the proposed project, gasoline, diesel fuel, lubricating oil, grease, and paint would be used at the site, which are typical substances used for construction projects. In general, small amounts of these materials would be on-site at any one time. No acutely hazardous materials would be used on-site during construction of the project. The transport, use, and disposal of hazardous materials would be in compliance with applicable hazardous materials laws. The materials handled would not pose a significant risk to off-site residents or workers. County inspectors would conduct routine inspections during grading and construction to ensure proper spill prevention practices are occurring and would determine whether oil leaks or spills have occurred and would direct that cleanup be immediately conducted. Therefore, the proposed intersection improvements would have *less than significant impacts* associated with hazardous materials with respect to the transport, use, or disposal of hazardous materials, release of hazardous materials, and emitting or handling acutely hazardous materials or waste within one-quarter mile of an existing or proposed school.

Interference with an Emergency Response Plan

Guideline for the Determination of Significance

A significant environmental impact would occur if the project would:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Analysis of Impacts

The proposed project would maintain the existing roadway system to enable emergency access or evacuation through the project area and would improve traffic operations in comparison to the existing conditions in both the short term and with year 2030 traffic volumes. As such, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the proposed intersection improvements would have *no impacts* related to interference with emergency response plans.

Wildland Fire and Fire Protection

Guidelines for the Determination of Significance

The project would have a significant environmental impact if:

- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas where residences are intermixed with wildlands.

Analysis of Impacts

While potentially hazardous fire conditions exist in the project area, construction of the roundabouts would not increase the likelihood of a fire, create new sources of flammable vegetation, or increase the need for emergency fire response. Therefore, the project would have *no impact* on wildland fire and fire protection.

3.1.6.3 Cumulative Impact Analysis

The projects on the cumulative project list are residential, a church, and a senior citizen community center, uses that typically do not necessitate transport or use of hazardous materials or generate hazardous conditions. The cumulative project sites identified as numbers 1, 4, 5, and 6 in Figure 1.7 are within the 1-mile database search conducted during the Phase 1 Environmental Site Assessment, which identified no hazardous materials records within this area. Cumulative project sites identified as numbers 2 and 3 in Figure 1.7 are 1.5 and 1 mile, respectively, from the nearest portion of the project site. Both are residential developments, one including a golf course, and would not contribute to potential hazardous materials conditions affecting the proposed project site.

Construction of the project as well as other proposed projects in the study area could increase the potential for exposure of people to hazardous materials or health risks associated with disturbance of hazardous materials. However, each project would be required to comply with the applicable laws and regulations identified at the beginning of this section to avoid any cumulative risk of adverse public health effects associated with the use, storage, and transport of hazardous materials and impacts would be *less than significant*.

In addition, all development within the Rancho Santa Fe area is subject to potential wildfires requiring adequate emergency response and evacuation routes. The proposed project would not increase overall traffic in the project area in comparison to future conditions without the project and would not adversely affect the function of Del Dios Highway, Paseo Delicias, or Via de la Valle to serve as emergency response and evacuation routes. Therefore, the project would result in a *less than significant cumulative impact* related to hazards and hazardous materials and wildland fire and fire protection.

3.1.6.4 Conclusions

While potentially hazardous fire conditions exist in the project area, construction of the roundabouts would not increase the likelihood of a fire or increase the need for emergency fire response. In addition, no recognized hazardous environmental conditions were identified associated with the subject properties. Therefore, the project would have *less than significant impacts* on hazards and hazardous materials, and wildland fire and fire protection.

3.1.7 Hydrology and Water Quality

The information in this section considers impacts to hydrology and water quality. The information and analysis in this section have been compiled based on site visits and photos of the project area, and based on a Water Quality Technical Study (Nolte Associates 2008) prepared for the project, which is attached as Appendix H to this EIR. In addition, the *Plans for Construction of Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte* by David Evans and Associates is cited in this section and is available for review at the offices of the County DPW, Environmental Services Unit, at 5469 Kearny Villa Road, Suite 305 (858-874-4042).

3.1.7.1 Existing Conditions

Vegetation and Drainage

The general project area is heavily vegetated with trees, shrubs, grass fields, and orchards. There are currently no sidewalks along Paseo Delicias and stormwater runoff is conveyed via shallow swales located along the roadway and in culverts at the intersections along Paseo Delicias that are used to convey water under the roads. The project area is located on the ridgeline (divide) of the San Dieguito and Carlsbad watersheds. Paseo Delicias/Del Dios Highway is the high point along the divide. Drainage from the east side of the Via de la Valle/La Fremontia intersection, from the El Montevideo/La Valle Plateada intersection, and from the El Camino del Norte intersection generally flows south toward the San Dieguito River and to the ocean at the San Dieguito Lagoon. Drainage from the west side of the Via de la Valle/La Fremontia intersection flows north toward the golf course and the La Orilla Tributary to the San Elijo Lagoon.

Water Quality

The EPA lists the San Elijo Lagoon as experiencing impairments to beneficial uses due to excessive coliform bacteria and sediment loading from upstream sources. The Pacific Ocean at the mouth of the San Dieguito River is listed by the USEPA as an impaired water body due to elevated coliform bacteria. The San Dieguito Lagoon is especially sensitive to the effects of pollutants and oxygen depletion due to restricted or intermittent tidal flushing. Both the San Elijo and San Dieguito coastal lagoons represent critical regional resources that provide freshwater and estuarine habitats for numerous plant and animal species.

Relevant Policies, Ordinances, and Adopted Plans

Federal and State Regulations and Programs

The federal CWA is the principal statute governing water quality. The CWA established the basic framework for regulating discharges of pollutants into the nation's waters, a

permit system known as the National Pollutant Discharge Elimination System (NPDES). The NPDES program requires permits for the discharge of pollutants from any point source (including storm water discharges) into “waters of the United States.” As defined in the CWA, "waters of the United States" applies to surface waters, rivers, lakes, estuaries, coastal waters, and wetlands. In California, the authority to implement the NPDES program is delegated to the State Water Resources Control Board (SWRCB). In 1987, the CWA was broadened to require that EPA regulate storm water discharges through use of NPDES storm water permits. In 1990, the CWA was amended to require the regulation of discharges from Municipal Separate Storm Sewer Systems (MS4s) into existing waterways.

In addition, Section 303(d) of the CWA requires states to develop a list of “impaired” water bodies that may require additional protection to ensure established water quality standards are achieved and maintained. For these water bodies, the state is required to develop appropriate total maximum daily loads (TMDLs). TMDLs are the sum of the individual pollutant load allocations for point sources, nonpoint sources, and natural background conditions for a designated water body.

The Porter-Cologne Water Quality Control Act (California Water Code, Division 7) requires that any person proposing to discharge wastes that could affect the quality of “waters of the state” file a Report of Waste Discharge to the appropriate RWQCB. In March 2003, the SWRCB began requiring NPDES permit compliance for discharges from construction activities that disturb 1 acre or more of soil. Within the project area, permits that govern and restrict the amount of pollutants that can be discharged into ground or surface waters are issued by the San Diego RWQCB. Because the project footprint is greater than 1 acre, this project will be subject to the State Permit requirements.

Regional and Local Regulations and Programs

San Diego County is situated within the jurisdiction of the San Diego RWQCB, which implements water quality protection standards through the issuance of permits for water discharges. Water quality objectives for waterways in San Diego County are specified in the Water Quality Control Plan for the San Diego Basin, prepared by the San Diego RWQCB. The most recent version of the San Diego Basin Plan is dated 1994, which was prepared in compliance with the provisions of the CWA and the Porter-Cologne Water Quality Control Act.

Permits relevant to the proposed project include:

- Statewide Construction Activity General Permit Order No 99-08-DWQ (NPDES Permit No. CAS000002)

  Prior to starting any construction, the County would file a Notice of Intent (NOI) to comply with the Construction Activity General Permit. The County would also be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) that

would include information on Best Management Practices (BMPs) to be used during the construction. The Statewide Construction Activity General Permit is scheduled to be renewed in fall of 2008. The only new permit requirement that would affect the design would pertain to hydromodification (i.e., runoff reduction) and the requirement to maintain the pre-development runoff volumes.

- The San Diego County MS4 Permit Order No. 2007-0001 (NPDES Permit No. CAS0108758)

  This project increases the impervious area by more than 5,000 square feet and therefore will be classified by the County of San Diego as a priority project and subject to the County's Municipal Permit. To comply with the Municipal Permit, the County will prepare a Storm Water Management Plan (SWMP) that explains BMPs that will be implemented to control pollutants post-construction. The SWMP would be prepared during the design phase.

  The San Diego County Municipal Permit was revised on January 24, 2007, and the County of San Diego was required to comply with the new permit beginning on March 24, 2008. Two of the items that may affect the Roundabouts Project include (1) new requirements on Low Impact Development (LID) and (2) Hydromodification. All priority projects will require LID, or draining to pervious areas, to be implemented on the site. This may include use of natural swales for drainage (versus conveying stormwater underground in pipes). Effective March 24, 2009, the County will be required to develop a Hydromodification Plan for projects that disturb 1 acre of previously undeveloped land.

County regulations applicable to the project are:

- The County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance

  This ordinance is designed to protect the health, safety, and general welfare of San Diego County residents; protect water resources and improve water quality; cause the use of management practices by the County and its citizens that will reduce the adverse effects of polluted runoff discharges on waters of the state; secure benefits from the use of storm water as a resource; and ensure the County is in compliance with applicable state and federal law. It seeks to promote these purposes by the following actions:

  1. Prohibiting polluted non-storm water discharges to the storm water conveyance system;
  2. Establishing minimum requirements for storm water management, including source control requirements, to prevent and reduce pollution;
  3. Establishing requirements for development project site design to reduce storm water pollution and erosion;

4. Establishing requirements for the management of storm water flows from development projects, both to prevent erosion and to protect and enhance existing water-dependent habitats;
5. Establishing standards for the use of off-site facilities for storm water management to supplement on-site practices at new development sites; and
6. Establishing notice procedures and standards for adjusting storm water and non-storm water management requirements where necessary.

- The County of San Diego Grading, Clearing and Watercourses Ordinance

  This ordinance regulates the design and practice of grading, clearing, and filling of land through establishment of design requirements and procedures, including grading plan check and site inspections. This process includes the following measures for the protection of water resources and water quality to ensure the County is in compliance with applicable state and federal law:

  1. Requires hydrology and hydraulic calculations for the proposed storm drains and sizing rock riprap energy dissipaters for any storm drains to reduce storm runoff to non-erosive velocities;
  2. Requires a SWPPP for any ground disturbance greater than 1 acre and an NOI to be filed with the SWRCB;
  3. Requires a SWMP and Storm Water Maintenance Plan to be prepared, which shall include an erosion control plan showing appropriate BMPs to be installed and maintained during the course of construction;
  4. Requires preparation of landscape and irrigation plans for all slopes greater than 15 feet high as a part of the grading plan set and, to prevent slope erosion after grading is complete, requires establishment of vegetation on all slopes greater than 3 feet high;
  5. Requires weekly site visits by the civil engineer of record during the course of construction to observe the BMPs in place, make any recommendations for upgrade, and file a report with the County stating the observations and progress of grading; and
  6. Requires installation of post-construction BMPs prior to the acceptance of the grading by the County.

3.1.7.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for hydrology and water quality impacts are based on criteria provided in Appendix G of the CEQA Guidelines, County of San Diego Guidelines for Determining Significance – Water Quality (2007d), and County of San Diego Guidelines for Determining Significance – Hydrology (2007e). A project will

generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to have a significant effect on hydrology, absent specific evidence of such an effect:

1. The project will substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in adverse impacts from erosion or siltation on- or off-site.
2. The project will result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.
3. The project will result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a Flood Insurance Rate Map, a County Flood Plan Map, or County Alluvial Fan Map, which would subsequently endanger health, safety, and property due to flooding.
4. The project will place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:
    - Alter the Lines of Inundation resulting in the placement of other housing in a 100-year flood hazard;

      OR
    - Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile, by 1 foot or more in height and in the case of the San Dieguito River, more than two-tenths of a foot in height.
5. The project is a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended, and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities as set forth in Regulatory Ordinances, Section 67.
6. The project does not conform to applicable federal, state or local “Clean Water” statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.
7. Drain to a tributary of an impaired water body listed on the CWA Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.

8. Drain to a tributary of a drinking water reservoir and will contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions.
9. Contribute pollution in excess of that allowed by applicable state or local water quality objectives or will cause or contribute to the degradation of beneficial uses.
10. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Drainage and Landform Alteration

Guidelines for the Determination of Significance

A significant impact to hydrology would occur if the project would:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in adverse impacts from erosion or siltation on- or off-site.
- Result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.

Analysis of Impacts

Based on the *Plans for Construction of the Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte*, prepared for the County by David Evans and Associates, the project area drainage patterns would essentially remain the same post-construction and the project would not alter the existing drainage pattern of the area. Stormwater runoff from the roadway would continue to be conveyed by shallow swales along either side of the road and by culverts at the intersections. However, the project would increase the volume of runoff due to the increased amount of impervious area. To avoid adverse impacts from erosion or siltation on- or off-site from these increased flows, on-site detention would be provided to control the volume and velocity of runoff being discharged to La Orilla Tributary and to natural drainages leading to the San Dieguito River. Therefore, the project would not result in increased velocities or peak flow rates exiting the project site, would not cause flooding downstream, and would not exceed the storm water drainage system capacity serving the site. Provision of the drainage control measures in the project's construction plans and specifications would result in a *less than significant impact* to drainage and landform alteration.

Flood Hazard

Guidelines for the Determination of Significance

A significant environmental impact would occur if the project would:

- Place housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a Flood Insurance Rate Map, a County Flood Plan Map, or County Alluvial Fan Map, which would subsequently endanger health, safety, and property due to flooding.
- Place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:
    - Alter the Lines of Inundation resulting in the placement of other housing in a 100-year flood hazard;

    OR

    - Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile, by 1 foot or more in height.

Analysis of Impacts

No portion of the project site is within a 100-year floodplain and no structures are proposed to be constructed within a 100-year flood hazard area. Therefore, the project would have *no impact* on flood hazards.

Water Quality – Regulatory Compliance

Guidelines for the Determination of Significance

A significant impact to water quality would occur if:

- The project is a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended, and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities as set forth in Regulatory Ordinances, Section 67.
- The project does not conform to applicable federal, state or local “Clean Water” statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

Analysis of Impacts

Construction

The project is a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended, and, therefore, would be required to comply with the standards set forth in the County Stormwater Standards Manual. In compliance with the Statewide General Construction NPDES Permit, the County would submit an NOI to the State Water Regional Control Board (SWRCB) prior to commencement of construction activities and would prepare and implement a SWPPP. The SWPPP would include BMPs that address source reduction and provide measures and controls necessary to avoid release of potential pollutants. Recommended BMPs for the construction phase, based on the "Pl*ans for Construction of Roundabouts at El Montevideo, Via de La Valle, and El Camino del Norte"* by David Evans and Associates, include:

Silt Fence	Check Dams
Fiber Rolls	Gravel Bag Berm
Street Sweeping and Vacuuming	Sanitary/Septic Waste Management
Material Delivery and Storage	Material Delivery and Storage
Stockpile Management	Spill Prevention and Control
Solid Waste Management	Concrete Waste Management
Stabilized Construction Entrance/Exit	Water Conservation Practices
Hydroseeding and/or soil binders (BFM)	Paving and Grinding Operations
Velocity Dissipation Devices	

Implementation of the SWPPP and the construction BMPs in accordance with the project plans and specifications, which are in compliance with federal, state and local regulations, would reduce potential water quality construction impacts to *less than significant*.

Operation

To comply with County, state, and federal water quality regulations, the *Plans for Construction of Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte* by David Evans and Associates has identified the following structural BMPs that would be incorporated into the project:

- *Designing the project to minimize impervious areas*. Retaining walls have been included in the design to minimize grading impacts and soil disturbance to adjacent areas. Instead of impervious asphalt or concrete, pavers will be placed in the center of the roundabouts to promote infiltration of stormwater.

- *Protecting Slopes and Channels*. Stormwater runoff conveyed safely from the tops of manufactured slopes would be designed to avoid slope erosion. Where needed to reduce the velocity of runoff, riprap would be provided at drainage channel outlets to prevent erosion downstream.
- *Efficient Irrigation Systems would be installed in any landscaped areas that require regular irrigation*. This may include installed rain shutoff devices on irrigation systems, flow reducers, or shutoff valves to conserve water use.

In addition to the site and source control BMPs, treatment control BMPs would be incorporated into the final design concept to effectively capture and treat potential pollutants from the project prior to discharging off-site. Treatment control BMPs that are appropriate for the relatively small drainage areas of the project site include bioswales and infiltration trenches. These water quality BMPs would be incorporated into the project plans and specifications to ensure that the project complies with County, state, and federal water quality regulations and, therefore, the impact would be *less than significant*.

Water Quality – Contribution of Pollutants

Guidelines for the Determination of Significance

A significant impact to water quality would occur if the project would:

- Drain to a tributary of an impaired water body listed on the CWA Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.
- Drain to a tributary of a drinking water reservoir and will contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions.
- Contribute pollution in excess of that allowed by applicable state or local water quality objectives or will cause or contribute to the degradation of beneficial uses.

Analysis of Impacts

According to the USEPA's 303(d) list, the San Elijo Lagoon is listed as an impaired water body for bacteria, eutrophy, and sedimentation. The Pacific Ocean shoreline is listed as an impaired water body at the San Elijo Lagoon outlet and at the mouth of the San Dieguito Lagoon for bacteria. Neither of these water bodies is a drinking water reservoir. These locations are approximately 6 miles from the project site.

While the roundabouts would drain to an impaired water body, they would not contribute substantial additional pollutants to the receiving waters because the roundabouts are a

replacement roadway structure and would not generate substantial additional pollutants over the current conditions.

As stated above under Water Quality – Regulatory Compliance, the *Plans for Construction of Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte* by David Evans and Associates has identified structural BMPs that would be incorporated into the project to effectively capture and treat potential pollutants from the project prior to discharging off-site. These water quality BMPs would be incorporated into the project plans and specifications and would reduce potential water quality operational impacts to *less than significant*.

Storm Water Facilities

Guideline for the Determination of Significance

A significant impact to storm water facilities would occur if the project would:

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Analysis of Impacts

The proposed project would use the existing culverts at the intersections along Paseo Delicias to convey water under the roads. There would be a moderate increase in runoff volume due to the increase of approximately 20 percent in impervious surfaces resulting from the roadway improvements. Improvements to the existing drainage system, including additional drainpipe and velocity controls at outlets (such as riprap) would be installed to manage the increase in runoff volume. This project would not require additional upgrades to the capacity of the existing culverts and swales; and would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, the project's impact to storm water facilities would be *less than significant*.

3.1.7.3 Cumulative Impact Analysis

The proposed project would not alter the hydrologic characteristics of the project site and would result in only a minor increase in impervious roadway surfaces, for which on-site detention of runoff would be provided at each intersection. Only the proposed church improvements and the Via de la Valle intersection improvements may involve shared used of natural or improved drainage features. Both projects would be required to comply with County and RWQCB water discharge permit requirements and standard construction and structural BMPs as described in Section 3.1.7.1. Therefore, the cumulative impact would be *less than significant*.

3.1.7.4 Conclusions

Based on the construction plans prepared for the project, the drainage patterns would not be altered and stormwater runoff from the roadway would continue to be conveyed by shallow swales along either side of the road and by culverts at the intersections. On-site detention of runoff would be provided at each intersection to accommodate runoff from minor increases in impervious roadway surfaces. Standard construction and structural BMPs would be provided to comply with County and RWQCB water discharge permit requirements. No potential for flood hazard impacts would occur at the project sites. Therefore, hydrology and water quality impacts would be *less than significant*.

3.1.8 Land Use and Planning

The information in this section considers the potential impacts on existing and planned land use in the area. The information and analysis in this section are based on site visits and photos of the project area and a review of general plan, community plan, and zoning documents of the County Department of Planning and Land Use.

3.1.8.1 Existing Conditions

The project area is located within an area with estate residential, agriculture, undeveloped land, and open space land uses. In the immediate area surrounding the roundabout at El Camino del Norte, the land uses are estate homes, orchards, and undeveloped land. The proposed roundabout at El Montevideo/La Valle Plateada is surrounded by single-family estate homes, some small patches of undeveloped land, and a small area of field crops. The proposed roundabout at Via de la Valle/La Fremontia is immediately surrounded by single-family residential units, estate homes, undeveloped land, and a church that also contains a day care facility, with the main commercial district of Rancho Santa Fe located to the southwest. The residential housing units near all of the proposed roundabouts are generally separated from the main traffic along Paseo Delicias by high walls, fences, and/or lush landscaping.

Relevant Policies, Ordinances, and Adopted Plans

San Dieguito Community Plan

The San Dieguito Community Plan is a statement of goals for the orderly development of the San Dieguito area while maintaining the identities of the many historically established neighborhoods (County of San Diego 1998). Of these neighborhoods, Rancho Santa Fe is the geographic and cultural center for the San Dieguito Community Plan and many of the stated goals are put forth to ensure the lifestyle currently in place is not threatened by the effects of urbanization. The land use section of the San Dieguito Community Plan is generally focused on providing a distribution of land uses that is compatible with the existing character of the community.

The circulation section of the San Dieguito Community Plan also outlines goals to minimize any impacts that would detract from the natural beauty of the area and the quality of life of its citizens, while accommodating a transportation system that includes automobile, bicycle, equestrian, pedestrian, and mass transit networks. Of particular importance to the proposed project is the assertion that a significant alteration to the narrow, meandering roads throughout Rancho Santa Fe would have a detrimental impact upon the character of the area. Goals listed in this section that are relevant to the proposed project are:

- Urban-type street improvements such as gutters, curbs, sidewalks, and extensive street lighting should not be installed because they would detract from the existing, highly desired rural appearance of San Dieguito.
- Significant natural vegetation should be transplanted from the area of road construction rather than destroyed.

3.1.8.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for land use and planning impacts are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to land use and planning would result if the project would:

1. Physically divide an established community.
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Analysis of Impacts

The project would not physically divide an established community because it would be limited to construction of roundabouts at three existing intersections and would maintain the existing alignment and two-lane width of Paseo Delicias/Del Dios Highway in the project area.

Operation of the roundabouts will not alter the narrow, two-lane character of Paseo Delicias; does not propose to install gutters, curbs, and sidewalks; and would not cause a change to the low residential density and rural character of the Rancho Santa Fe community. In addition, the only significant natural vegetation that may be impacted by the project would be one coast live oak at the south side of the El Camino del Norte intersection. An ESA will be established to avoid or minimize impacts to this tree. If the tree is impacted as part of the project, mitigation in the form of five replacement oaks is proposed as discussed in Section 2.1.3.1. These features of the proposed project would be consistent with the goals of the San Dieguito Community Plan cited in Section 3.1.8.1.

As stated in Biological Resources, Section 2.1.2.1, the project site is not within an adopted NCCP but is within the North County MSCP Subarea planning area, which is currently in preparation. Therefore, the project would not conflict with an applicable habitat conservation plan or natural community conservation plan.

Based on the analysis, the project would have *no impact* to land use and planning.

3.1.8.3 Cumulative Impact Analysis

The proposed project would not alter the two-lane character of Paseo Delicias, Via de la Valle, and Del Dios Highway within the project area; would not create a physical division in the community; and would not conflict with any land use or habitat preservation plans. The cumulative projects described in Section 1.7 are also consistent with the San Dieguito Community Plan, are not located within an area with an adopted NCCP, and are compatible with the existing character of the neighborhoods in which they are located. Therefore, the proposed project, together within other known projects in the area, would have *no cumulative impact* relative to land use.

3.1.8.4 Conclusions

The proposed project would result in the construction of roundabouts at three intersections that would not divide the established community. The narrow, two-lane character of Paseo Delicias would not change and gutters, curbs, and sidewalks are not proposed. Therefore, the project would not change the low residential density and rural character of the Rancho Santa Fe community and would have *no impact* to land use and planning.

3.1.9 Mineral Resources

3.1.9.1 Existing Conditions

The project site consists of an existing roadbed and adjacent graded and/or landscaped areas. The area is classified as "Mineral Resource Zone 3" by the California Department of Conservation (1982). This classification is given to areas containing mineral deposits of unknown significance, due to the relative inconclusiveness of available data. No active mineral extraction sites are located near the project area.

3.1.9.2 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The identified significance thresholds for mineral resource impacts are based on criteria provided in Appendix G of the CEQA Guidelines and County of San Diego Guidelines for Determining Significance (County of San Diego 2007f). These criteria and guidelines have been adopted to evaluate if a proposed project would result in the loss of known mineral resources classified MRZ-2 by the State Geologist or other known mineral resources that would be of high economic value, rare, or of finite supply, and would thus be of value to the region or state; or result in the loss of available mineral resources as identified in local or regional planning. A significant impact to mineral resources would occur if the project would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Analysis of Impacts

No construction quality sand and gravel resources are known to occur on the project site and no gemstone deposits have been identified in the project area (County of San Diego 2007f). Also, the project site does not contain any locally-important mineral resource recovery sites. Proposed improvements to the roadway would require minimal grading and, therefore, there would be *no impact* to mineral resources.

3.1.9.3 Cumulative Impact Analysis

Because there are no known mineral resources or mineral resource extraction operations in the immediate vicinity of the project, the project would have *no impact* on cumulative loss of mineral resources.

3.1.9.4 Conclusions

No construction quality sand and gravel resources or gemstone deposits have been identified in the project area. Proposed improvements to the roadway would require minimal grading. No construction quality sand and gravel resources or gemstone deposits are known to occur on the project site and the project site does not contain any locally-important mineral resource recovery sites. Therefore, there would be *no impact* to mineral resources.

3.1.10 Noise

The information in this section considers impacts from noise. This information and analysis in this section have been compiled based on site visits and a Noise Impact Analysis prepared for the project, which is attached as Appendix I to this EIR.

3.1.10.1 Existing Conditions

Noise Setting

Land uses in the project area consist of multi-family residences located west of the Via de la Valle intersection, single-family residences located along both sides of Paseo Delicias from Via de la Valle to east of El Camino del Norte, and the Village Community Presbyterian Church at the intersection of Via de la Valle and Paseo Delicias. Lot sizes range from less than one acre near Via de la Valle to typically 2 to 5 acres east of La Fremontia. Dense landscaping, natural vegetation, or agricultural groves occur along the corridor. Many of the single-family homes near Via de la Valle have minimal setbacks of approximately 20 feet from the roadway, while those farther to the east typically have setbacks in excess of 50 feet. None of the residences are shielded by noise barriers. The Rancho Santa Fe commercial district is located nearby to the west of the Via de la Valle intersection, but it is not a substantial contributor to stationary noise sources in the area since it does not contain industrial or heavy commercial uses.

Noise Methodology

A 24-hour noise measurement was conducted between June 11, 2007, and June 12, 2007, to determine the loudest hour or period. Short-term, 10- to 20-minute, noise measurements were conducted on December 5, 2006, and June 11, 2007, to measure existing traffic noise levels and record general traffic characteristics at selected receptor points. These measurement intervals were sufficient to characterize the hourly traffic noise levels. Short-term noise level measurements taken outside the loudest period were adjusted up or down to reflect the noise levels expected to occur during the loudest period. Detailed measurement data, including noise levels, traffic observations, weather conditions, and comments about measurement locations and non-traffic noise, are included in Appendix I.

Noise Sources

The project's principal relevant noise source is vehicles on the study area roadways, which includes medium and heavy trucks in addition to passenger automobiles. Vehicle mixes for Paseo Delicias, Via de la Valle, and El Camino del Norte were developed from manual field traffic counts and are shown in Table 3.1.6.

Applicable Noise Regulations and Standards

The Noise Element of the County of San Diego General Plan establishes limitations on sound levels that may be received by noise sensitive land uses and requires that an acoustical study be prepared if it appears that sensitive receptors would be subject to noise levels of CNEL equal to 60 decibels (A) or greater. "CNEL" is the Community Noise Equivalent Level, which is a 24-hour averaged measurement based upon A-weighted sound levels used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are written as dB(A) or dBA.

If the acoustical study confirms that greater than 60 dB CNEL would be experienced, modifications that reduce the exterior noise level to less than 60 dB CNEL and the interior noise levels to below 45 dB CNEL must be made to the development. "Development" is defined as any physical development and specifically includes roads. The Noise Element includes special provisions for County road construction projects and interior noise levels in rooms that are usually occupied only a part of the day, such as schools and libraries.

For the purpose of determining the significance of a noise impact, calculations of noise levels cited in this report are average noise levels over a 1-hour period and are expressed as dBA L_{eq}.

The County of San Diego Noise Ordinance establishes prohibitions for disturbing, excessive, or offensive noise. Limits are specified depending on the zoning of a property. The Noise Ordinance also establishes noise limitations for operation of construction equipment.

The FHWA defines a noise impact as occurring when the predicted noise level in the design year approaches or exceeds the applicable noise abatement criterion (NAC), or when the predicted noise level substantially exceeds the existing noise level. Both of the above criteria are applied to the loudest hourly noise level of the day. The NAC for residential use is 67 dBA L_{eq}. Quantitatively, approaching the NAC is defined by the California Department of Transportation (Caltrans) as within 1 dBA, and a substantial increase is defined as 12 dBA (Caltrans 2006b).

Noise Observations, Measurements, and Modeling

A 24-hour noise measurement was conducted between 3:00 p.m., June 11, 2007, and 3:00 p.m., June 12, 2007. The sound level meter was placed 5 feet above the roadway grade and 85 feet from the centerline of Paseo Delicias, south of the El Camino del Norte intersection. A summary of the 24-hour measurement is provided in Table 3.1.7.

Based on the observation of traffic volumes and speeds during the December 2006 and June 2007 measurement periods, the noisiest periods occur during the morning between

8:00 and 9:00 a.m. and in the afternoon between 2:00 and 4:00 p.m. when the highest vehicle volumes occur at full speed.

Sensitive Noise Receptors

Noise sensitive residential land uses (receptors) in the project area are the multi-family residences located west of the Via de la Valle intersection and single-family residences located along both sides of Paseo Delicias from Via de la Valle to east of El Camino del Norte. The Village Community Presbyterian Church at the intersection of Via de la Valle and Paseo Delicias is also a noise sensitive land use. Noise receptor locations that were evaluated for the Noise Impact Analysis are shown in Appendix I (see Figures 6 and 7 in Appendix I). The multi-family developments contain noise sensitive common areas that include pools, tot lots, and picnic/barbecue areas. The church is set back approximately 100 feet from the roadway and does not contain any formal outdoor use areas between the church building and the roadway.

3.1.10.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for noise impacts are based on criteria provided in Appendix G of the CEQA Guidelines and County of San Diego Guidelines for Determining Significance (County of San Diego 2007g). A significant impact to noise would result if:

1. Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code. Section 36.410, Construction Equipment, limits the days and hours of construction to Monday through Saturday, 7 a.m. to 7 p.m.; prohibits construction on Sundays and national holidays; and prohibits construction noise greater than 75 dBA L_{eq} between the hours of 7 a.m. and 7 p.m., measured at or within any developed land used as residential property.
2. Persons would be exposed to excessive groundborne noise or vibrations.
3. Construction of components of the project would expose habitat suitable for threatened or endangered species to noise levels in excess of 60 dBA L_{eq} due to construction activities.
4. Project implementation will result in the exposure of any on- or off-site, existing or reasonably foreseeable future noise sensitive land use to exterior traffic noise of 66 dBA L_{eq} or greater.
5. Project implementation will result in an increase of 12 dBA when compared with existing noise levels.

Construction Activities

Guidelines for the Determination of Significance

A significant construction noise impact would occur if:

- Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code. Section 36.410, Construction Equipment, limits the days and hours of construction to Monday through Saturday, 7 a.m. to 7 p.m.; prohibits construction on Sundays and national holidays; and prohibits construction noise greater than 75 dBA L_{eq} between the hours of 7 a.m. and 7 p.m., measured at or within any developed land used as residential property.
- Persons would be exposed to excessive groundborne noise or vibrations.
- Construction of components of the project would expose habitat suitable for threatened or endangered species to noise levels in excess of 60 dBA L_{eq} due to construction activities.

Analysis of Impacts

Construction noise would be generated by diesel engine-driven construction equipment used for site preparation and grading, removal of existing pavement during realignment of roadway segments, loading, unloading, and placing materials and paving. Diesel engine-driven trucks would bring materials to the site and remove the spoils from roadway demolition and pavement removal.

Under load conditions, diesel engine noise levels may reach as high as 85 to 90 dBA L_{max} at a distance of 50 feet from the equipment. Construction equipment noise is considered a “point source” and is attenuated over distance at a rate of 6 dBA for each doubling of distance. Thus, a noise level of 85 dBA at 50 feet would be 79 dBA at 100 feet and 73 dBA at 200 feet from the source.

During excavating, grading, and paving operations, equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators, such as measurement. Although peak noise levels may be 85 to 90 dBA at a distance of 50 feet during most construction activities, hourly average noise levels 50 feet from the center of the construction activity would be anticipated to be 65 to 75 dBA L_{eq}. Some peak noise levels during pavement breaking would generate noise levels on the order of 90 dBA, but these would be short term and would occur during the normal daytime working hours of 7:00 a.m. and 4:00 p.m., Monday through Saturday. Residences nearest the affected intersections would be approximately 80 feet from the center of proposed construction activities. At this distance average hourly noise levels would be below 75 dBA L_{eq}. Therefore, construction-related noise impact would comply with the County Noise Ordinance and the impact would be *less than significant*. While

no significant construction noise impacts requiring mitigation would occur, the following project design measures to reduce noise levels during construction are to be incorporated into the project's construction specifications:

- Each internal combustion engine shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.
- Work in staging areas that generates loud noises, such as equipment maintenance, shall not occur before 7:00 a.m. or after 7:00 p.m., Monday through Saturday, and shall be prohibited on Sunday.
- If traffic control and construction signs that require power for lighting or flashing are located near residences, the source of power shall be batteries, solar cells, or another quiet source. Gas- or diesel-fueled internal combustion engines shall not be used.

The potential for groundborne noise or vibration would primarily occur during times of pavement breaking, which would be conducted using standard excavation equipment and may include handheld pneumatic jackhammers. As with other construction activities, pavement breaking would occur sporadically and at different locations along the project site, thus limiting the time of occurrence at any particular sensitive receptor. In addition, no blasting would be required for the project. Therefore, the potential for excessive groundborne noise or vibration impact would be *less than significant*.

As discussed in Section 2.1, Biological Resources, several gnatcatcher observations have been documented in the vicinity of the El Camino del Norte project site; however, none have been recorded within 500 feet surrounding the project site and none were detected during the protocol-level focused surveys conducted for the proposed project. Each roundabout project site is considered unsuitable to support coastal California gnatcatchers. Therefore, based on the absence of gnatcatchers and lack of suitable habitat on-site or within 500 feet of the project site, the potential for construction noise to impact threatened or endangered species would be *less than significant*.

Operational Activities

Guidelines for the Determination of Significance

The County Guidelines for Determining Significance for Noise states: "The Noise Element includes special provisions for County road construction projects …" (County of San Diego 2007g). This refers to the following note in Policy 4b of the Noise Element of the County General Plan (County of San Diego 2006):

(c) For County road construction projects, the exterior noise level due to vehicular traffic impacting a noise sensitive area should not exceed the following values:

(i) Federally funded projects: The Noise standard contained in applicable Federal Highway Administration Standards.

(ii) Other projects: 60 decibels (A), except if the existing or projected noise level without the project is 58 decibels (A) or greater, a 3 decibel (A) increase is allowed up to the maximum permitted by Federal Highway Administration Standards.

The applicable FHWA significance guidelines are as follows:

- Project implementation will result in the exposure of any on- or off-site, existing or reasonably foreseeable future noise sensitive land use to exterior traffic noise of 66 dBA L_{eq} or greater or,
- Project implementation will result in an increase of 12 dBA when compared with existing noise levels.

Analysis of Impacts

Compliance with Noise Element Guidelines for Federally Funded County Road Construction Projects

Traffic noise levels were calculated for existing conditions and scenarios without and with the proposed project, at 35 sensitive receptor locations studied along the project route. These data are based on the average noise levels during the existing noisiest daily 1-hour period, which occurred at each receptor location either between 8:00 and 9:00 a.m. or between 2:00 and 4:00 p.m. when the highest vehicle volumes occur at full speed.

The maximum loudest 1-hour noise level would be 65 dBA L_{eq}, which would occur at two residences where the existing noise level is 63 dBA L_{eq}. Because noise levels at sensitive receptors would not equal or exceed 66 dBA L_{eq}, the project's traffic noise impact would be *less than significant*.

Table 3.1.8 is a summary of data from Table 8 in the Noise Impact Analysis (Appendix I) relative to noise increases. Without installation of the roundabouts, increased traffic volume would cause increased traffic noise at most of the receptor sites by approximately 1 dBA L_{eq}. With installation of the proposed roundabouts, increased traffic by year 2030 would cause an increase in traffic noise of approximately 1 or 2 dBA L_{eq} at 32 of the receptor sites and an increase of approximately 3 dBA L_{eq} at 2 of the sites. The increase in noise levels is due to increased traffic volumes and the realignment in the flow of traffic at the roundabouts, which moves traffic closer to some sensitive receptors near the roundabouts. The increased noise levels would be less than 12 dBA and, therefore, the project would comply with County Noise Element exception (c)(i) and the traffic noise impact would be *less than significant*.

Compliance with Noise Element Guidelines for Other County Road Construction Projects

Table 3.1.9 is a summary of data from Table 8 in the Noise Impact Analysis (Appendix I) relative to noise increases along the Paseo Delicias corridor. It identifies 14 receptor sites where existing noise levels are 58 dBA L_{eq} or greater and also shows the change in noise levels with the project. As shown, none of these sites would exceed an increase greater than 3 dBA and, therefore, the project would comply with County Noise Element exception (c)(ii) and the project's traffic noise impact would be *less than significant*.

3.1.10.3 Cumulative Impact Analysis

Of the cumulative projects shown in Figure 1.7, only construction noise associated with the Village Community Presbyterian Church, Hahn Lot Split, and Keeth-Madure Lot Split (numbers 2, 3, 4, and 6, respectively, in Figure 1.7) would be sufficiently near the roundabout construction area to potentially contribute to cumulative noise impacts. Compliance with the noise level restrictions and hours of construction required by the County Noise Ordinance would avoid cumulatively considerable construction phase noise and the potential impact would be *less than significant*.

Noise from vehicles using the proposed intersection improvements would result from forecast future traffic volumes on the Del Dios Highway/Paseo Delicias/Via de la Valle corridor for year 2030 that are based on future growth rates assumed in the SANDAG Traffic Model. Traffic noise generated by future regional growth is assumed in these forecast traffic volumes. Of the projects listed in Table 1.2, the Rancho Cielo de Lusardi, The Bridges, Hahn Lot Split, and Keeth Madure Lot Split would have been included in the SANDAG projections for development based on the permitted densities allowed by the existing San Dieguito Community Plan. Therefore, the operational noise analysis provided in Section 3.1.10.2 would constitute a cumulative impact analysis for these projects. The Village Community Presbyterian Church is an existing facility for which noise generated by church operations has been included in the existing noise measurements collected for the project. Churches also are most actively used during off-peak hours and on weekends and would not significantly contribute to the future peak hour traffic noise conditions anticipated along the Del Dios Highway/Paseo Delicias/Via de la Valle corridor. Therefore, cumulative traffic noise has been adequately addressed in Section 3.1.10.2 and the impact would be *less than significant*.

3.1.10.4 Conclusions

Construction noise would primarily be generated by diesel engine-driven construction equipment used for site preparation, grading, and paving. Residences nearest the affected intersections would be approximately 80 feet from the center of proposed construction activities. At this distance average hourly noise levels below 75 dBA L_{eq} would be in compliance with the County Noise Ordinance and the noise impact would be *less than significant*. In addition, projected future increase in traffic and the

realignment in the flow of traffic closer to some sensitive receptors near the roundabouts would cause an increase of 1 to 3 dBA L_{eq} at 34 of the sensitive receptor sites. This increase would be less than 12 dBA and would not cause noise levels at sensitive receptors to equal or exceed 66 dBA L_{eq}; nor would the noise level increase greater than 3 dBA at the 14 receptor sites where existing noise levels are 58 dBA L_{eq} or greater. Therefore, the project's traffic noise impact would be *less than significant*.

Table 3.1.6
Existing Peak Hour Traffic Volumes

Roadway Segment	Volume by Direction		
	Automobiles	Medium Trucks	Heavy Trucks
Del Dios Highway/Paseo Delicias			
La Granada to Via de la Valle	343	10	5
Via de la Valle to El Montevideo	1,051	31	16
El Montevideo to El Camino del Norte	1,065	32	16
East of El Camino del Norte	1,631	49	24
Via de la Valle			
South of Paseo Delicias	839	25	13
El Camino Del Norte			
North of Paseo Delicias	1,016	30	15

Source: LLG 2008

Table 3.1.7
Summary of 24-Hour Noise Level Measurement

Date	Time	L_{eq} (dBA)	Date	Time	L_{eq}(dBA)
6/12/07	12:00 a.m.	49	6/12/07	12:00 p.m.	60
6/12/07	1:00 a.m.	46	6/12/07	1:00 p.m.	61
6/12/07	2:00 a.m.	44	6/12/07	2:00 p.m.	62
6/12/07	3:00 a.m.	46	6/11/07	3:00 p.m.	62
6/12/07	4:00 a.m.	51	6/11/07	4:00 p.m.	61
6/12/07	5:00 a.m.	60	6/11/07	5:00 p.m.	61
6/12/07	6:00 a.m.	61	6/11/07	6:00 p.m.	61
6/12/07	7:00 a.m.	60	6/11/07	7:00 p.m.	59
6/12/07	8:00 a.m.	62	6/11/07	8:00 p.m.	59
6/12/07	9:00 a.m.	61	6/11/07	9:00 p.m.	56
6/12/07	10:00 a.m.	61	6/11/07	10:00 p.m.	54
6/12/07	11:00 a.m.	61	6/11/07	11:00 p.m.	53

Data compiled by EDAW 2007.

Table 3.1.8
Change in dBA L_{eq} at Sensitive Receptors

Change in dBA L_{eq}	Number of Receptor Site Affected	
	Without Project	With Project
-1	2	1
0	--	--
+1	33	14
+2	--	18
+3	--	2

Table 3.1.9
Change in dBA L_{eq} at Sensitive Receptors with Existing Noise Level of 58 Decibels or Greater

Receptor Site*	dBA L_{eq}		
	Without Project	With Project	Change
1 Church at 6225 Paseo Delicias	60	62	+2
2 Residence at 1630 El Romero	59	62	+3
3 Opens Space at La Fremontia	65	66	+1
4 Opens Space El Montevideo	67	68	+1
5 Residence at 6195 El Montevideo	63	65	+2
6 Opens Space at El Camino del Norte	63	65	+2
14 Residence at 6264 La Fremontia	58	60	+2
15 Residence at 6325 La Valle Plateada	60	63	+3
16 Residence at 6225 Paseo Delicias	63	65	+2
17 Residence at 6332 La Valle Plateada	61	62	+1
25 Residence at 6512 Paseo Delicias	58	60	+2
27 Residence at 6580 Paseo Delicias	58	59	+1
31 Residence at 7057 La Valle Plateada	59	61	+2
35 Residence at 6745 Paseo Delicias	62	64	+2

* Per Table 8, Appendix I

3.1.11 Population and Housing

The information in this section considers impacts to population and housing. The information and analysis in this section have been compiled based on site visits and photos of the project area, and based on records and maps maintained by the County Department of Planning and Land Use.

3.1.11.1 Existing Conditions

The proposed project is located in an area consisting primarily of single-family homes on lots ranging from less than 15,000 square feet to 5 acres in size and with several greater than 10 acres in size. Attached housing units are located west of the project within the Rancho Santa Fe village area. No group housing or congregate care facilities exist in the immediate project area.

3.1.11.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for impacts to population and housing are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to population and housing would result if the project would:

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, by extension of roads or infrastructure).
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

<u>Population Growth</u>

<u>Guideline for Determination of Significance</u>

The project would have a significant environmental impact related to population growth if project implementation would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, by extension of roads or infrastructure).

<u>Analysis of Impacts</u>

The proposed project would improve three intersections along an existing two-lane roadway and would not include additional lanes or other improvements that would

increase the vehicle capacity of the roadway segments. These improvements to an existing road would not induce population growth directly or indirectly as no new road capacity would be added. Therefore, there would be *no impact* related to population growth.

Displacement of Housing or People

Guidelines for the Determination of Significance

The project would have a significant environmental impact related to displacement of housing or people if project implementation would:

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Analysis of Impacts

The project does not propose, nor would require, the displacement of any existing housing and, therefore, there would be *no impact* related to displacement of housing or people.

3.1.11.3 Cumulative Impact Analysis

The proposed project would not include the extension of roads or infrastructure to areas not currently serviced that would induce population growth directly or indirectly. In addition, the project does not propose nor require the displacement of any existing housing. Therefore, the project would not contribute to any potential cumulative impacts from other projects in the area and would have *no cumulative impact* relative to population and housing.

3.1.11.4 Conclusions

The project would not induce population growth and would not displace existing housing; therefore, there would be *no impact* related to population and housing.

3.1.12 Public Services

The information in this section considers impacts to police, paramedic, water, sewer, and recreational park facilities. Impacts to equestrian recreation are addressed in Section 3.1.13. The information and analysis in this section have been compiled based on site visits and records and maps maintained by the San Diego County Sheriff's Department, the Rancho Santa Fe Community Services District (RSFCSD), and the County Department of Parks and Recreation.

3.1.12.1 Existing Conditions

Police Protection and Paramedic Services

The project area is served by the San Diego County Sheriff's Department, with the nearest station located in Encinitas at 175 N. El Camino Real, which is approximately 5 miles to the west. Traffic control in Rancho Santa Fe, however, is provided by the California Highway Patrol. The Rancho Santa Fe Association also employs the private Rancho Santa Fe Patrol for property security patrol and for response to vehicle accidents within the Covenant. Rancho Santa Fe is within a County Service Area for emergency paramedic services.

Water and Sewer Services

The project area is provided wastewater treatment service by the RSFCSD and water service by the Santa Fe Irrigation District.

3.1.12.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for impacts to public services are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to public services would result if the project would:

1. Have an effect upon, or result in a need for, new or altered police services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
2. Substantially exacerbate the performance levels of existing police service facilities and infrastructure such that significant adverse physical effects to the environment would occur.
3. Have an effect upon, or result in a need for, new or altered water and sewer services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.

4. Substantially exacerbate the performance levels of existing water and sewer facilities and infrastructure such that significant adverse physical effects to the environment would occur.
5. Result in the excessive use of water or exceed available entitlements or resources either individually or cumulatively.

Police Protection and Paramedic Services

Guidelines for the Determination of Significance

A significant impact to public services would occur if the project would:

- Have an effect upon, or result in a need for, new or altered police services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing police service facilities and infrastructure such that significant adverse physical effects to the environment would occur.

Analysis of Impacts

The proposed roadway improvement project would not result in increases in the need for police or paramedic services because no population increases or new development would occur. Furthermore, the project would not cause delays in the provision of police or paramedic services to the area. Therefore, it would not create a need for new or altered police services or infrastructure and there would be *no impact* on police or paramedic services.

Water and Sewer

Guidelines for the Determination of Significance

A significant impact to public services would occur if the project would:

- Have an effect upon, or result in a need for, new or altered water and sewer services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing water and sewer facilities and infrastructure such that significant adverse physical effects to the environment would occur.
- Result in the excessive use of water or exceed available entitlements or resources either individually or cumulatively.

Analysis of Impacts

The proposed project does not propose new development that would require new sewer or water services or infrastructure and, therefore, there would be *no impact* on these public services.

3.1.12.3 Cumulative Impact Analysis

Since the project would have *no impact* relative to police, paramedic, water, sewer, or recreational park facilities, it would not contribute to any potential such impacts from other projects in the area and the cumulative impact would be *less than significant*.

3.1.12.4 Conclusions

The project would not result in an increase in population or new development. Therefore, there would be *no impact* related to public services.

3.1.13 Recreation

This section is included in the EIR because of the unique and historic equestrian uses that could potentially be directly affected by the project. The information and analysis in this section have been compiled based on site visits and the "Rancho Santa Fe Roundabouts Final Equestrian Usage Assessment Report" (EUA Report) that is attached as Appendix J. Preparation of the EUA Report included discussions with equestrians in Rancho Santa Fe and document research pertaining to the history and importance of horses in the community.

3.1.13.1 Existing Conditions

Recreational Facilities

Recreational facilities within the Rancho Santa Fe Covenant area are private facilities and there are no County-maintained neighborhood parks in the immediate project area. The San Dieguito County Park is a regional park located approximately 3 miles to west adjacent to the community of Lomas Santa Fe and provides picnicking, hiking, and other informal recreational activities.

Equestrian Activities

The community of Rancho Santa Fe maintains a relatively rural atmosphere. Horses are kept on local estates and equestrian activities are more prevalent in Rancho Santa Fe than in neighboring communities. The Rancho Santa Fe Association estimates that there are some 1,300 equestrian permit holders within Rancho Santa Fe, with some housing two or more horses. The Rancho Riding Club also boards 110 horses. Key persons who were interviewed for the EUA Report stressed that equestrian activities are an integral part of life in Rancho Santa Fe.

There are approximately 45 miles of designated horse trails in Rancho Santa Fe that are only open to Rancho Santa Fe Association members. These designated trails run through private property, community streets and roadways, and some small easements through public property. Although the full extent is unknown, there are also many "undesignated" trails throughout the area that are used by equestrians and walkers alike. The following three designated trails are located adjacent to the proposed roundabouts, where riders, walkers, and dog-walkers must cross streets at or near the proposed roundabouts:

- The trail crossing at the El Camino Del Norte intersection (see Figure 1.4)
- The trail beginning at La Valle Plateada and continuing east along the south side of Paseo Delicias (see Figure 1.5)
- The trail along Las Colinas, crossing at the Paseo Delicias/Via de la Valle intersection (see Figure 1.6)

Relevant Policies, Ordinances, and Adopted Plans

Applicable planning documents pertaining to recreation/equestrian uses include the San Diego County General Plan, the San Dieguito Community Plan, and the Community Trails Master Plan. Each of these documents specifies the goal of retaining the rural character of the lands within the project area and the equestrian nature of the San Dieguito community of which Rancho Santa Fe is a part.

3.1.13.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for impacts to recreation are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to recreation would result if the project would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
2. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Impacts to Existing Recreational Facilities

Guidelines for the Determination of Significance

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Analysis of Impacts

The project does not propose construction of new housing and, therefore, would not result in an increase in population that would cause physical deterioration of existing park and recreation facilities and there would be *no impact* on recreation.

Equestrian Facilities

Guidelines for the Determination of Significance

- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Analysis of Impacts

The existing equestrian trails would be maintained in their existing locations or routed along the edge of the expanded right-of-way.

Construction Impacts on Existing Equestrian Trails

During construction, use of equestrian trails could be affected or delayed by construction activity. This would be especially true along the designated trails that cross at the proposed El Camino del Norte and Via de la Valle/La Fremontia roundabouts. A trail crossing also exists at the El Montevideo/La Valle Plateada intersection, but it is not a designated trail crossing. Typical construction activities affecting equestrian use could be caused by temporary removal of existing pavement, grading along the road edges, and other temporary alterations to the existing equestrian trail use areas that would be within the proposed construction zone.

Project plans and specifications require that the construction contractor provide for continued equestrian crossing access at the three intersections through temporary trail realignments and from traffic flagging/safety personnel on-site during all construction activities at each intersection. Due to the temporary nature of construction at each intersection and planned construction practices that would provide for continued safe use of trail routes through the construction areas at each intersection, equestrian use impacts would be *less than significant.*

Operational Impacts on Existing Equestrian Trails

Figures 1.4 and 1.6 show the proposed new trail alignments that would be available for equestrian use at the El Camino del Norte and Via de la Valle/La Fremontia roundabouts. These intersections, as well as the El Montevideo/La Valle Plateada intersection would include equestrian crossing signage, warning lights, and push-button-activated in-pavement flashing lights to warn drivers of the need to yield to equestrians at each intersection. The proposed roundabouts would improve safety for equestrian and pedestrian crossings and would continue to allow equestrian use at the roundabouts. Therefore, the project would have *no impact* to equestrian access.

3.1.13.3 Cumulative Impact Analysis

Potential equestrian impacts are specific to the three intersection improvement locations and, therefore, only the Village Community Presbyterian Church would be in a location where cumulative recreation and equestrian impact could occur during construction of each project. The purpose of the project includes improving safety for equestrians and pedestrians at the intersection crossing. Some temporary interruption of equestrian use is expected during construction, but full use of the equestrian trails would be restored with completion of the project. Therefore, there would be *no cumulative impact* relative

to equestrian use and the project would not contribute to any potential impacts from other projects in the area.

3.1.13.4 Conclusions

Rancho Santa Fe trail system users may experience some temporary disturbances from alteration of trails in the construction areas. Project plans and specifications require that the construction contractor provide for continued equestrian crossing access through temporary trail realignments and from traffic flagging/safety personnel on-site during construction. This temporary construction impact would be *less than significant*. Upon completion of the project, there would be *no impact* to continued equestrian use in the project area.

3.1.14 Transportation and Circulation

A Traffic Impact Analysis was prepared for the project by Linscott, Law and Greenspan Engineers (LLG) and is attached as Appendix K. The Traffic Impact Analysis was conducted using the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic (2007h). The following discussion uses the term level of service (LOS) to characterize traffic conditions on local roads. LOS is used to denote the different operating conditions that occur on a given roadway segment at various traffic levels. It takes into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

3.1.14.1 Existing Conditions

Paseo Delicias is a two-lane road between Via de la Valle and El Camino del Norte that provides a link from I-15 to I-5 along Via Rancho Parkway and Del Dios Highway. Though no traffic speed measurements were taken, observations suggest that vehicles tend to travel rapidly on this stretch of road. Recent traffic counts show that the Del Dios Highway/Paseo Delicias corridor carries approximately 20,000 ADT east of El Camino del Norte and approximately 15,000 ADT as it approaches Via de la Valle. As it is one of the few roads in this area that connects I-15 to I-5, it is heavily used during the morning and evening commute periods. As shown in Figure 3.1.8, two of the three intersections along Paseo Delicias (El Montevideo/La Valle Plateada and Via de la Valle/La Fremontia) are all-way stop sign controlled and the third intersection (El Camino del Norte) is stop controlled only on El Camino del Norte. Drivers must wait in long queues at each of these controlled intersections, particularly during peak commuter hours. To avoid long waits, some motorists divert onto other narrow residential roadways, creating potential traffic conflicts and delays to residents accessing their driveways.

<u>Existing Transportation Conditions</u>

<u>Paseo Delicias/Del Dios Highway</u>

The project area segments of these roadways are classified as Light Collectors on the County of San Diego Circulation Element. Paseo Delicias is a two-lane undivided roadway with a posted speed limit of 50 miles per hour (MPH) east of La Valle Plateada and 40 MPH west of La Valle Plateada. No changes to the posted speed limits along Paseo Delicias are proposed as part of the project. Bus stops are provided at regular intervals and there are generally no curbs, gutters, or sidewalks provided.

El Camino Del Norte

El Camino del Norte is classified as a Light Collector on the County of San Diego Circulation Element. It is currently constructed as a two-lane undivided roadway with a posted speed limit of 40 MPH. There are no curbs, gutters, or sidewalks in the vicinity of the study area.

Via de la Valle

From El Camino Real east to Paseo Delicias, Via de la Valle is classified as a Rural Collector on the County of San Diego Circulation Element. Currently, from San Andreas Drive to Paseo Delicias, Via de la Valle is constructed as a two-lane undivided roadway with a 31-foot paved width in some areas and a 50-foot width in others.

Local Roads

El Montevideo, La Valle Plateada, La Fremontia, Las Colinas, Lago Lindo, and Avenida de Acacias are all unclassified streets and are currently constructed as two-lane undivided roadways. La Valle Plateada connects to Paseo Delicias at El Montevideo and east of La Fremontia; and Lago Lindo extends from El Camino del Norte to Via de la Cumbre. Lago Lindo/Avenida de Acacias and La Valle Plateada are used as alternative routes to Paseo Delicias at times during peak periods.

Existing Traffic Volumes and Operations

Figure 3.1.9 shows existing ADT and the AM and PM peak hour turning movements based on traffic counts conducted at each intersection from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. in February 2007. These counts show that Del Dios Highway carries approximately 20,870 ADT east of El Camino del Norte. Paseo Delicias carries 17,440 ADT west of the El Camino del Norte intersection; 14,650 ADT west of the El Montevideo/La Valle Plateada intersection; and 7,310 ADT west of the Via de la Valle/La Fremontia intersection. South of Paseo Delicias the traffic volume on Via de la Valle is 11,740 ADT.

Table 3.1.10 shows existing LOS at the project intersections in the project area. LOS F conditions occur when the average number of seconds a typical vehicle is delayed at each intersection exceeds 50 seconds. All three project intersections operate at LOS F during the AM and PM peak hours. As shown, the minimum peak hour delay at any of the project intersections is 59.1 seconds at the El Montevideo/La Valle Plateada intersection. The delay at each of the other intersections is substantially longer and at El Camino del Norte, the delay exceeds 100 seconds for vehicles turning left onto eastbound Del Dios Highway.

Horizon Year 2030 Traffic Volume and Operations

To forecast future traffic volumes for the Year 2030, the Traffic Impact Analysis utilized the County General Plan 2020 Traffic Model prepared by SANDAG. This model assumes the existing stop signs remain at the three project intersections. Most of the forecast ADT volumes were utilized as reported by the SANDAG model. However, some volumes were revised to ensure that the volumes were consistent with traffic engineering principles and accounted for local cut thru traffic. The forecast ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes. Figure 3.1.10 shows projected year 2030 traffic volumes at each road segment and turn movements at the project intersections with the existing intersection stop sign controls in place.

Hazards to Equestrians, Pedestrians, or Bicyclists

Existing along Paseo Delicias/Del Dios Highway are marked and paved bike lanes on both sides of the road, though no sidewalks are provided for pedestrian use. Observations of equestrian activity were conducted during daylight hours from Thursday through Sunday on non-consecutive days between October 5 and 20, 2007, (see Appendix J) at each of the roundabout locations. No crossings were observed at the El Camino del Norte or El Montevideo/La Valle Plateada intersections. At Via de la Valle, one crossing was observed on Thursday, none on Friday, two on Saturday, and five on Sunday. No pedestrian or bicycle counts have been conducted for the project, though observations indicate fairly frequent use by bicyclists and very light use by pedestrians. An existing equestrian trail is located on the south side of Paseo Delicias extending north for approximately 1,500 feet (see Figure 1.5). Existing equestrian trails cross Las Colinas and Paseo Delicias as shown in Figure 1.6. No pedestrian or equestrian crossing signals exist at the project intersections.

Parking Capacity

No parking is allowed within the existing rights-of-way of the project portions of Paseo Delicias, Del Dios Highway, or Via de la Valle. Standard off-street parking is provided at each of the residences along the Paseo Delicias corridor and at the Village Community Presbyterian Church.

Alternative Transportation

North County Transit District provides bus service along the Paseo Delicias corridor via route 308 between Escondido Transit Center and the Solana Beach Coaster Station.

3.1.14.2 Analysis of Project Effects and Determination as to Significance

The Traffic Impact Analysis prepared for the project evaluated the potential change in LOS that would result from the construction of roundabouts at the three project

intersections in comparison to the existing stop sign controlled conditions. The analysis in this section addresses impacts of the roundabouts in comparison to the existing condition.

Particular attention was paid in the Traffic Impact Analysis to the presence of traffic diverting from Paseo Delicias onto local residential streets in the adjacent neighborhoods, especially on Lago Lindo in the AM peak hour and La Valle Plateada in the PM peak hour. To avoid the traffic congestion on Paseo Delicias in the AM peak hour, traffic was observed to use El Camino del Norte, Lago Lindo, Avenida de Acacias, and other residential streets. Similarly, to avoid the traffic congestion on Paseo Delicias in the PM peak hour, traffic was observed to use La Valle Plateada and other residential streets.

Guidelines for the Determination of Significance

Since the proposed project is an intersection improvement project, intersections, but not street segments, were analyzed and only the significance criteria for intersections are used in this section. The following significance guidelines for transportation and traffic impacts are taken directly from the County's Guidelines for Determining Significance – Transportation and Traffic (County of San Diego 2007h). A significant impact to transportation and traffic would result if the proposed project would:

1. Add a substantial amount of traffic to an existing intersection operating at LOS E or F or an intersection expected to operate at LOS E or F in the future. For signalized intersections, a delay of 2 seconds at LOS E would be considered significant and a delay of 1 second (or 5 trips on a critical movement, i.e., any movement that directly affects the overall performance of the intersection) at LOS F would be considered significant. For unsignalized intersections, the allowable increase in traffic would be 20 trips on a critical movement at LOS E and 5 trips on a critical movement at LOS F.
2. Cause a hazard to pedestrians or bicyclists.
3. The project cannot demonstrate compliance with the standards set forth by the County of San Diego Zoning Ordinance (Sections 6750-6799) and the County of San Diego Off-Street Parking Design Manual.
4. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Construction and Operational Traffic and Circulation Impacts

Threshold for Determination of Significance

The proposed project would cause significant traffic impacts if the project were to:

- Add a substantial amount of traffic to an existing intersection operating at LOS E or F or an intersection expected to operate at LOS E or F in the future. For signalized intersections, a delay of 2 seconds at LOS E would be considered significant and a delay of 1 second (or 5 trips on a critical movement) at LOS F would be considered significant. For unsignalized intersections, the allowable increase in traffic would be 20 trips on a critical movement at LOS E and 5 trips on a critical movement at LOS F.

Analysis of Impacts

Construction Impacts

Construction of the proposed project would require short-term use of heavy construction equipment such as bulldozers, graders, drill rigs, cranes, compressors, generators, haul trucks, and other equipment. No rerouting of traffic or temporary lane closures would be necessary and one lane in each direction would be open at all times.

Traffic control plans indicating temporary signage and striping to accommodate construction needs would be provided. Construction activities would be coordinated with local agencies and property owners to ensure adequate accessibility is maintained during construction. Due to the temporary nature of construction at each intersection and planned traffic control measures to be implemented during construction to maintain access to residents and motorists, impacts to traffic during construction would be *less than significant*.

Near-Term Impacts

Near-term analysis reflects conditions immediately after project construction is complete. Figure 3.1.11 shows traffic volumes at each road segment and turn movements at the project intersections that would occur with construction of the roundabouts. In comparison to Figure 3.1.9, which shows 579 right turns onto El Camino del Norte in the AM peak hour, Figure 3.1.11 shows a reduction to 220 right turns with the roundabout. Figure 3.1.11 also shows an increase from 662 (per Figure 3.1.9) to 1,010 through trips with the roundabout at this intersection. This increase in through trip volume is reflected in the increased ADT and peak hour volumes in the subsequent road segments and intersections under the existing traffic conditions with roundabouts. The eastbound PM peak hour trips also show increased volumes, though the total PM peak hour trips are less than during the AM peak hour.

Intersections

Table 3.1.11 shows that roundabouts at each of the three project intersections would operate at LOS A or B with existing traffic volumes in comparison to LOS F with the existing stop sign configurations. Intersection operations would improve with the

construction of roundabouts and, therefore, the project would have *no adverse impact* on near-term intersection operations.

Segment Operations

The roundabouts are intended to improve the operations of the three intersections by increasing the intersection capacity. The current intersection configuration results in long queues on roadway segments especially during peak traffic periods. The Traffic Impact Analysis shows that improving intersection capacity by constructing roundabouts would have the following effects:

- Travel time delays within the corridor would decrease, especially during the AM and PM peak hours due to reduced queue lengths.
- Traffic flow and average travel speeds along the corridor would improve during AM and PM peak hours with the decrease in travel delays.
- The corridor would be more attractive to drivers currently using local streets, which would minimize out of direction/more circuitous travel.

An increase in vehicles using Paseo Delicias is expected due to the redistribution of existing vehicles from the local streets currently used by some drivers to avoid delays at Paseo Delicias intersections. However, the additional number of redistributed trips would be limited once travel times have equalized. Travel times along the corridor would improve with the proposed project because it would reduce travel delays due to reduced queue lengths at the intersections. Any increase in trips on Paseo Delicias would be a result of redistribution of local traffic rather than from generation of new vehicle trips. Therefore, impacts to roadway segments would be *less than significant*.

Horizon Year 2030 Impacts

Figure 3.1.12 shows 2030 traffic volumes and turn movements with the roundabouts. As with the existing traffic volumes discussed above, most noteworthy is the reduction in westbound right turns during the AM peak hour at El Camino del Norte from 870 (Figure 3.1.10) to 400 (Figure 3.1.12) with the roundabout installed, and the increase from 820 to 1,300 through trips with the roundabout at this intersection.

Intersections

Table 3.1.12 shows that roundabouts at each of the three project intersections would operate at LOS A or B with year 2030 traffic volumes, with the exception of the El Camino del Norte intersection in the AM peak hour, which would operate at LOS D. With no change in the existing stop sign configurations, all project intersections would operate at LOS F, with delays in excess of 100 seconds, by year 2030. While the El Camino del Norte intersection would operate at LOS D and is located on an on-site Circulation Element Road, horizon year 2030 operations with roundabouts would be

improved in comparison to existing stop-sign configurations. Therefore, the proposed project in comparison to the existing condition would have *no impact* on intersections in horizon year 2030.

Hazards to Equestrians, Pedestrians, or Bicyclists

Guideline for Determination of Significance

- Cause a hazard to pedestrians or bicyclists.

Analysis of Impacts

The County's CEQA Guidelines for Transportation and Traffic (County of San Diego 2007h) contain guidelines for hazards to pedestrians or bicyclists, but do not contain specific guidelines for hazards to equestrians. The guidelines for pedestrian or bicyclist hazards consider design or physical features affecting visibility of pedestrians or bicyclists, amount of pedestrian activity, the magnitude of increased use of a roadway due to a proposed project, lack of conformance to County road standards, and whether a project would substantially increase pedestrian or bicycle activity. The project would not adversely affect driver visibility of roadway crossings. The proposed roundabouts would include pedestrian/equestrian crossings that would be delineated by crosswalk markings in the pavement. Push-button crossing controls would activate in-pavement lighting and flashing warning signs; and a safety island would be installed to enable pedestrians, bicyclists, and equestrians to pause between lanes of traffic when crossing at the roundabouts. These features would improve safety of equestrians, pedestrians, or bicyclists and impacts related to hazards to pedestrian, bicyclists, and equestrians would be *less than significant*.

Parking Capacity Impacts

Guideline for Determination of Significance

- The project cannot demonstrate compliance with the standards set forth by the County of San Diego Zoning Ordinance (Sections 6750-6799) and the County of San Diego Off-Street Parking Design Manual.

Analysis of Impacts

The project does not propose a land use for which the County Zoning Ordinance would require off-street parking. All properties affected by the project would maintain access to the required number of off-street parking spaces per the County Zoning Ordinance. Parking for the Village Community Presbyterian Church would be reconfigured as part of a proposed expansion of church facilities pursuant to a modification of its existing major use permit. Therefore, impacts related to parking capacity would be *less than significant.*

Alternative Transportation Impacts

Guideline for Determination of Significance

- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Analysis of Impacts

The project would replace all existing bus stops affected by construction of the roundabouts and would facilitate more efficient movement of buses through the Del Dios Highway/Paseo Delicias corridor. Existing bike lanes would also be retained along both sides of the roadway corridor. As such, impacts would be *less than significant.*

3.1.14.3 Cumulative Impact Analysis

Cumulative Impacts could occur as a result of traffic generated by past, present, and anticipated future projects in the planning area. A list of reasonably foreseeable projects is described in detail in Section 1.7 and summarized in Table 1.2. The Traffic Impact Analysis included a year 2030 analysis, which utilized forecast future traffic volumes on the Del Dios Highway/Paseo Delicias/Via de la Valle corridor for year 2030 that were prepared by SANDAG. Traffic generated by future regional growth is included in these forecast traffic volumes. Each of the projects listed in Table 1.2 would be included in the SANDAG projections for development based on the permitted densities allowed by the existing San Dieguito Community Plan. The intersection and road segment analyses provided in Section 3.1.14.2 for horizon year 2030 would constitute a cumulative impact analysis for the proposed project.

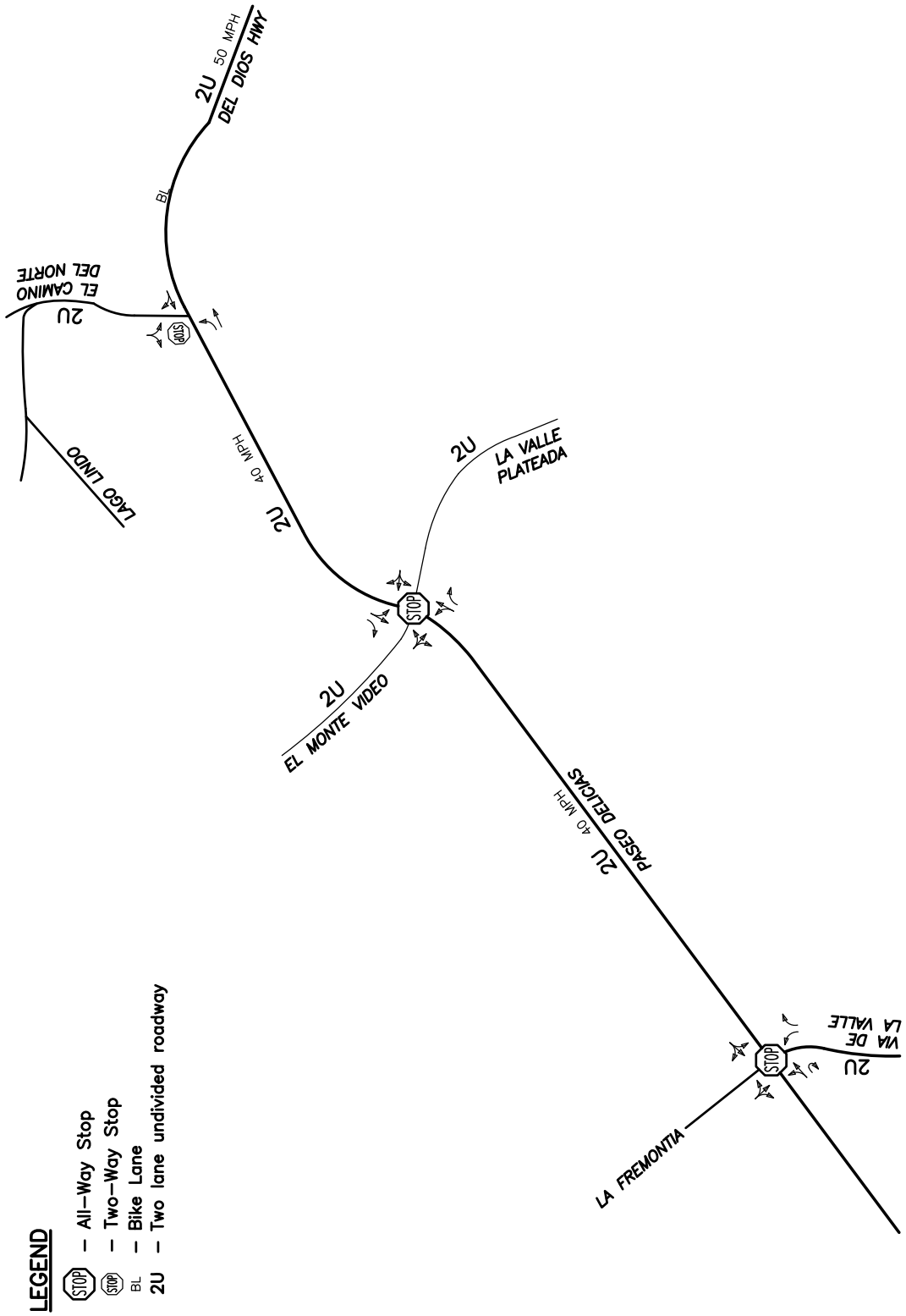
The Village Community Presbyterian Church is an existing facility that currently includes a nursery school. While the proposed expanded church facility is included within the horizon year 2030 forecast, vehicle trips are anticipated to be added directly to the proposed Roundabouts Project area on Paseo Delicias and at the intersections of Via de la Valle/La Fremontia and El Montevideo/La Valle Plateada. However, churches are most actively used during off-peak hours and on weekends and would not significantly contribute to additional ADT during peak hours along the Del Dios Highway/ Paseo Delicias/Via de la Valle corridor.

The proposed Roundabouts Project would not generate new trips but rather would redistribute the existing and future trips in a manner that improves existing and year 2030 operational conditions. Some additional traffic is anticipated to use the Del Dios Highway/Paseo Delicias/Via de la Valle corridor due to the improved operations. As shown in Tables 3.1.11 and 3.1.12, the project would substantially improve operations at the project intersections. The project would not contribute to future conditions in a manner that would be “cumulatively considerable” as defined in CEQA Guidelines §15065 (a)(3) and impacts would be *less than significant*.

3.1.14.4 Conclusion

Installation of the proposed roundabouts would enable the three project intersections to operate at LOS A or B with year 2030 traffic volumes, with the exception of the El Camino del Norte intersection in the AM peak hour, which would operate at LOS D. Without the project, there would be no change in the existing stop sign configurations and all project intersections would operate at LOS F, with delays in excess of 100 seconds, by year 2030. However, through traffic would shift from local streets, such as Lago Lindo, Avenida Acacias, and La Valle Plateada to Del Dios Highway/Paseo Delicias and some additional traffic would use Del Dios Highway/Paseo Delicias due to improved operations at the intersections, reduced queue lengths, improved travel times, and improved travel speeds during peak hours. These changes in travel behavior would result in a redistribution, rather than generation of trips on Del Dios Highway/ Paseo Delicias and, therefore, impacts to roadway segments would be *less than significant*.

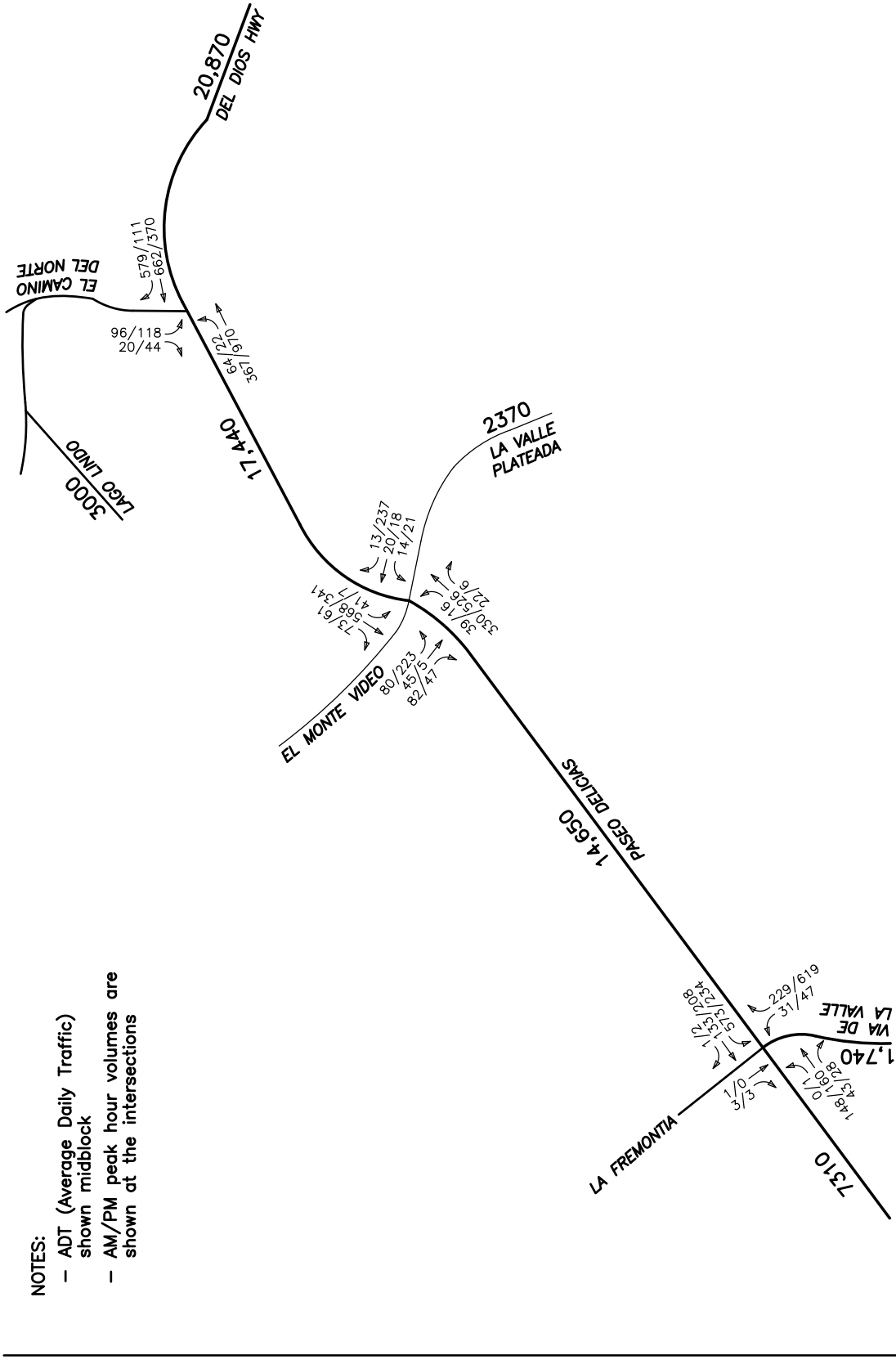
With regard to hazards to equestrians, pedestrians, or bicyclists, the proposed project would not adversely affect driver visibility of roadway crossings and would include pedestrian/equestrian crossings that would be delineated by crosswalk markings in the pavement. Push-button crossing controls would activate in-pavement lighting and flashing warning signs; and a safety island would be installed to enable pedestrians, bicyclists, and equestrians to pause between lanes of traffic when crossing at the roundabouts. These features would improve safety of equestrians, pedestrians, and bicyclists and impacts related to hazards to equestrians, pedestrians, and bicyclists would be *less than significant*. With regard to parking impacts, all properties affected by the project would maintain access to the required number of off-street parking spaces per the County Zoning Ordinance. With regard to alternative transportation, existing bus stops and bike lanes would be retained by the project and the project would cause *no impact*.



Source: Linscott Law & Greenspan, Engineers 2008

Not to Scale

Figure 3.1.8
Existing Traffic Conditions

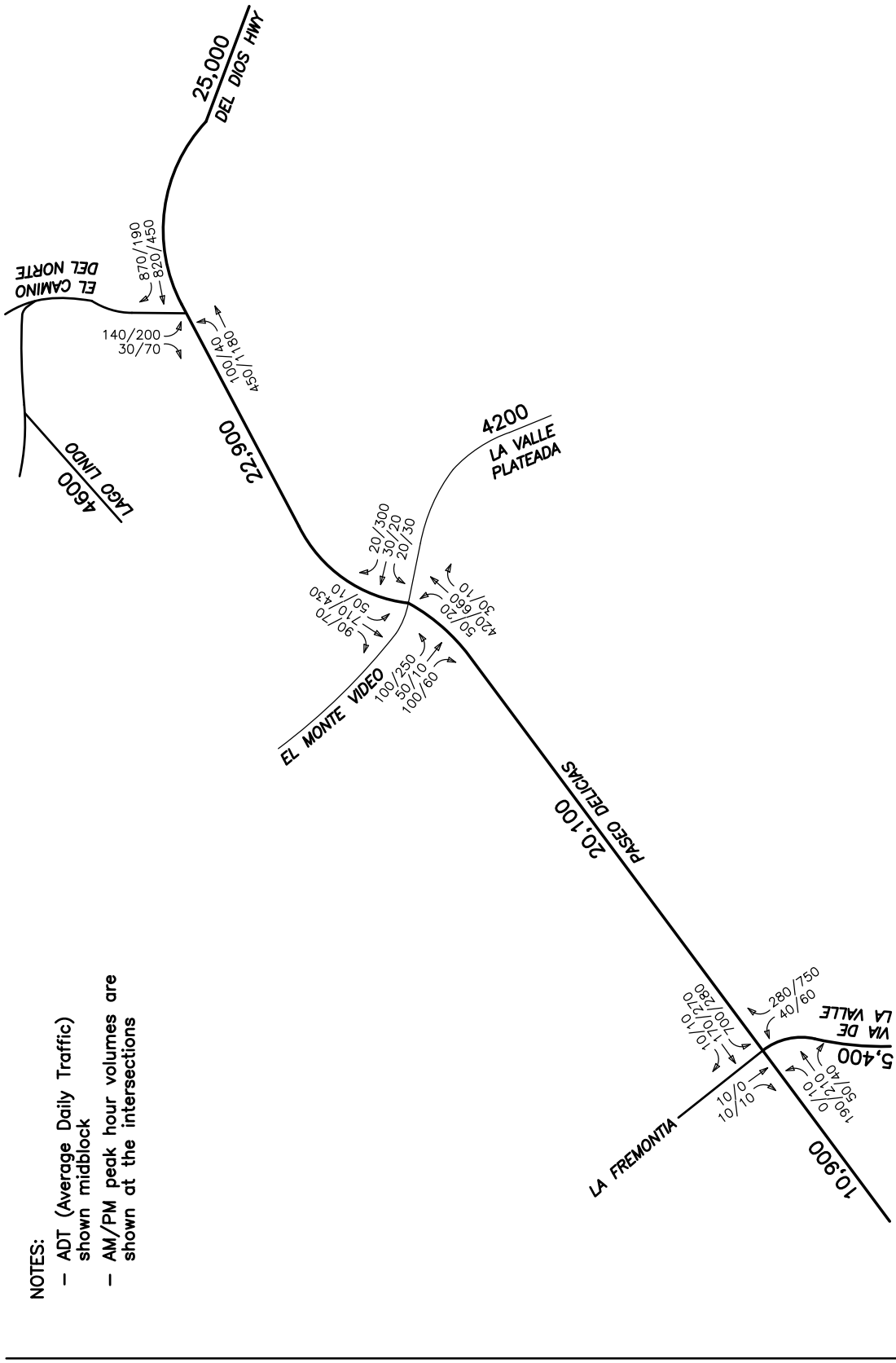


NOTES:
- ADT (Average Daily Traffic) shown midblock
- AM/PM peak hour volumes are shown at the intersections

Source: Linscott Law & Greenspan, Engineers 2008

Not to Scale

Figure 3.1.9
Existing Traffic Volumes



NOTES:
- ADT (Average Daily Traffic) shown midblock
- AM/PM peak hour volumes are shown at the intersections

Figure 3.1.10
2030 Traffic Volumes

Source: Linscott Law & Greenspan, Engineers 2008

Not to Scale

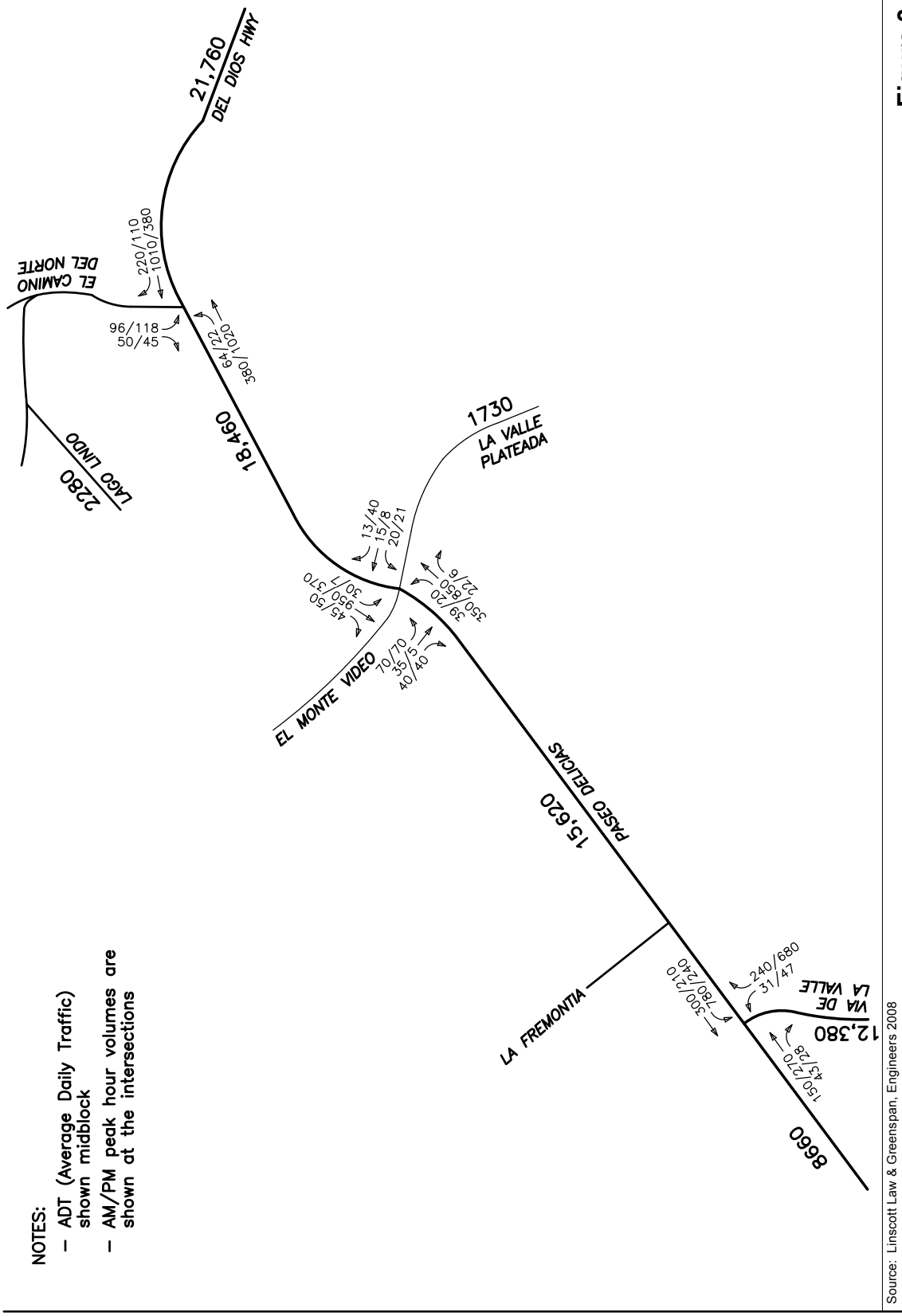
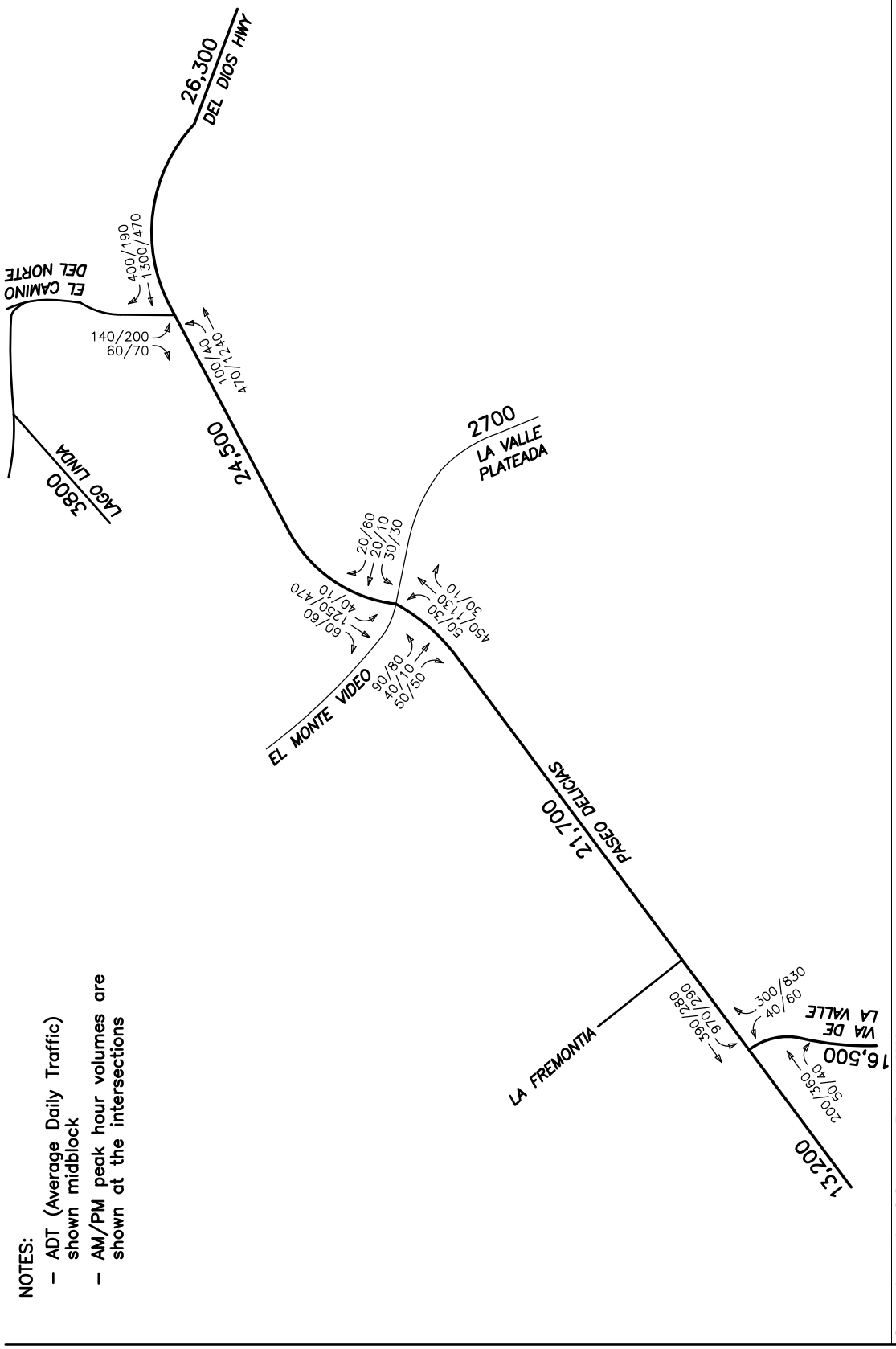


Figure 3.1.11
Traffic Volumes with Roundabouts



NOTES:
- ADT (Average Daily Traffic) shown midblock
- AM/PM peak hour volumes are shown at the intersections

Source: Linscott Law & Greenspan, Engineers 2008

Not to Scale

Figure 3.1.12
2030 Traffic Volumes with Roundabouts

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Table 3.1.10
Existing Intersection Operations

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
Del Dios Hwy/El Camino del Norte	TWSC (SB)	AM	89.0	F[c]
		PM	>100	F[c]
Paseo Delicias/El Montevideo/La Valle Plateada	AWSC	AM	59.1	F
		PM	85.7	F
Paseo Delicias/Via de la Valle	AWSC	AM	99.6	F
		PM	71.9	F

Footnotes:
[a] Average delay expressed in seconds per vehicle
[b] Level of Service
[c] LOS F is for the turn from El Camino del Norte onto Del Dios Hwy and does not relate to traffic on Del Dios Highway

General Notes:
TWSC - Two-Way Stop Controlled intersection; minor street delay is reported
AWSC - All-Way Stop Controlled intersection
SB - Southbound

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

Table 3.1.11
Existing Traffic with Roundabouts - Intersection Operations

Intersection	Peak Hour	Existing with Current Configuration		Existing with Roundabouts	
		Delay[a]	LOS[b]	Delay[a]	LOS[b]
Del Dios Hwy/El Camino Del Norte	AM	89.0	F	7.4	A
	PM	>100	F	6.9	A
Paseo Delicias/El Montevideo/La Valle Plateada	AM	59.1	F	7.2	A
	PM	85.7	F	6.7	A
Paseo Delicias/Via De La Valle	AM	99.6	F	10.5	B
	PM	71.9	F	8.5	A

Footnotes:
[a] Average delay expressed in seconds per vehicle
[b] Level of Service

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

Table 3.1.12
Year 2030 with Roundabouts - Intersection Operations

Intersection	Peak Hour	Year 2030 with Current Configuration		Year 2030 with Roundabouts	
		Delay[a]	LOS[b]	Delay[a]	LOS[b]
Del Dios Hwy/El Camino Del Norte	AM	>100	F	54.9	D
	PM	>100	F	17.7	B
Paseo Delicias/El Montevideo/La Valle Plateada	AM	>100	F	16.4	B
	PM	>100	F	7.7	A
Paseo Delicias/Via De La Valle	AM	>100	F	10.7	B
	PM	>100	F	9.8	A

Footnotes:
a Average delay expressed in seconds per vehicle
b Level of Service

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

3.1.15 Utilities and Service Systems

The information in this section considers impacts to utilities and service systems in the project area. The information and analysis in this section have been compiled based on site visits and maps and records maintained by the RSFCSD, Santa Fe Irrigation District, and the Rancho Santa Fe Association.

3.1.15.1 Existing Conditions

The project area is provided wastewater treatment service by the RSFCSD and water service by the Santa Fe Irrigation District. The RSFCSD also contracts with the Rancho Santa Fe Association to maintain roadside landscaping along the unincorporated County roads within the Rancho Santa Fe Covenant boundary.

3.1.15.2 Analysis of Project Effects and Determination as to Significance

The identified significance thresholds for impacts to utilities and service systems are based on criteria provided in Appendix G of the CEQA Guidelines. A significant impact to utilities and service systems would result if the project would:

1. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
2. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
3. Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
4. Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.
5. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
6. Not comply with federal, state and local statutes and regulations related to solid wastes.

Wastewater Treatment

Guidelines for the Determination of Significance

A significant utilities and service systems impact would occur if the project would:

- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Analysis of Impacts

No wastewater infrastructure is located within the immediate project area and the project does not propose improvements that would require wastewater treatment facilities. Therefore, there would be *no impact* related to wastewater treatment.

Water Supply

Guidelines for the Determination of Significance

A significant utilities and service systems impact would occur if the project would:

- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

Analysis of Impacts

The project would require irrigation of landscaping at each of the roundabout locations but would not require or result in the construction of new water facilities or expansion of existing facilities. Therefore, there would be a *less than significant impact* related to water supply.

Solid Waste Capacity

Guidelines for the Determination of Significance

A significant utilities and service systems impact would occur if the project would not:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state and local statutes and regulations related to solid wastes.

Analysis of Impacts

Construction of the project would require disposal of a relatively small amount of asphalt and green waste, which would be disposed by the construction contractor in accordance with the County's Solid Waste Ordinance (Title 6, Division 8, Chapter 5 of the County Code of Regulatory Ordinances). Compliance with all requirements for recycling would be included in the construction contract. The relatively small amount of solid waste generated by project construction would not affect permitted capacity at any local landfill. Operation of the roundabouts would not generate solid waste. Therefore, there would be a *less than significant impact* related to solid waste.

3.1.15.3 Cumulative Impact Analysis

No significant impacts related to the provision of wastewater treatment, water supply, or solid waste services were identified for the cumulative projects identified in Section 1.7. Since the project would not require wastewater treatment and would have relatively minor requirements for landscape irrigation and solid waste disposal, its contribution to potential cumulative impacts from other projects in the area would be *less than significant*.

3.1.15.4 Conclusions

The project does not require wastewater treatment facilities and would have minor requirements for landscape irrigation and solid waste disposal. Therefore, there would be *less than significant impacts* related to utilities and service systems.

3.2 Effects Found Not Significant as Part of the Initial Study

No environmental initial study was performed for the proposed project. All environmental issue areas are addressed in this EIR.

CHAPTER 4.0 PROJECT ALTERNATIVES

This section implements the requirements set forth in State CEQA Guidelines Section 15126.6 regarding analysis of alternatives in EIRs. Section 15126.6 calls for analysis of a range of reasonable alternatives considering the "rule of reason." As applied to selection and analysis of project alternatives, this means that an EIR need consider only those alternatives necessary to permit a reasoned choice. An EIR need not consider every feasible alternative. Alternatives should be limited to those that meet most of the basic project objectives, are feasible, and would avoid or substantially reduce at least one of the significant effects of the project. The discussion of alternatives in this EIR satisfies those requirements.

CEQA also requires consideration of a "No Project Alternative" and identification of the environmentally superior alternative from among the project alternatives. If the "No Project Alternative" is the environmentally superior alternative, the EIR needs to identify an environmentally superior alternative from among the other alternatives. The discussion of alternatives in this EIR satisfies those requirements.

4.1 Rationale for Alternative Selection

4.1.1 Alternatives Selected for Evaluation

The State CEQA Guidelines require that a No Project Alternative be included in all EIRs. The No Project Alternative typically assumes that there will be no development that would change the existing conditions described in this EIR.

The process of identifying potential alternatives that would relieve traffic congestion at the three project intersections and would provide improved safety for equestrians and pedestrians included community and stakeholder meetings and review of the comments received during the NOP process. From this process, some alternatives were determined to be infeasible, as discussed below. The Signalized Intersections Alternative is analyzed in response to comments received from community residents during the NOP period who preferred traffic signals or requested that they be evaluated in the EIR; it is also analyzed as an alternative that would avoid significant project impacts to biological resources. Table 4.1 provides a comparison between the impacts of the proposed project and each alternative with regard to Biological Resources and Transportation and Circulation.

4.1.2 Alternatives Rejected as Infeasible

4.1.2.1 No Stop Signs on Paseo Delicias at El Montevideo/La Valle Plateada

This alternative would allow continuous flow of traffic on Paseo Delicias through the El Montevideo/La Valle Plateada intersection with stop sign control only for traffic approaching Paseo Delicias on these two streets. The County DPW Traffic Division

advised that when this was done in the past, it caused more accidents and residents requested the four-way stop sign controls.

4.1.2.2 Alternative Route Location

The alternative of a new road that would avoid Paseo Delicias is not evaluated in this document because of the existing developed character of the community, terrain constraints that would require substantial landform alteration, and the high cost to acquire right-of-way and improve a new road. Because of these constraints, analysis of a new road alternative is not considered feasible.

4.2 Analysis of the No Project Alternative

4.2.1 No Project Alternative Description and Setting

Under the No Project Alternative, the roundabouts would not be installed and no other alterations or improvements to the existing intersection configurations would be made. The environmental setting would remain the same as described in Section 1.4 of this EIR and no change would be made to the existing intersection stop controls, equestrian crossing facilities, roadway widths, or roadway striping and signage.

The No Project Alternative would not achieve the project objective, identified in Section 1.1 of this EIR, of easing traffic congestion at the three intersections.

4.2.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

4.2.2.1 Biological Resources

Under the No Project Alternative, the following potentially significant impacts would not occur: impacts to nesting raptors and migratory birds; potential impacts to one coast live oak tree; temporary impacts to 0.02 acre of sensitive wetland and riparian communities/ACOE jurisdictional wetlands; permanent impacts to 0.004 acre of CDFG streambed; and temporary impacts to 0.07 acre of coastal sage scrub. Each of these impacts could be mitigated to less than significant.

4.2.2.2 Transportation and Circulation

Under the No Project Alternative, traffic congestion at the three intersections would continue, resulting in long queues at stop signs and causing some motorists to divert to neighborhood roads during peak hours. The level of service at the three intersections would continue at LOS F and the project objectives would not be met.

4.3 Analysis of the Signalized Intersections Alternative

4.3.1 Signalized Intersections Alternative Description and Setting

The Signalized Intersections Alternative would alter the three project intersections by installing traffic signals and restriping each intersection, as follows:

- **Paseo Delicias/El Camino del Norte/Del Dios Highway (Figure 4.1)**
  - Install traffic signal with a 12-foot-wide through lane in each direction and a 12-foot-wide turn pocket for westbound right turns onto El Camino del Norte, and 5-foot-wide shoulders. Eastbound lane configurations would not be altered.
  - Due to the existing slope, a retaining wall would be installed within the existing right-of-way at the northeast corner of the intersection to accommodate the right turn pocket.
  - No driveway closures would occur.
  - Equestrian trail crossings would occur at the proposed crosswalk.
  - All roadway improvements would be within the existing right-of-way.

- **Paseo Delicias/El Montevideo/La Valle Plateada (Figure 4.2)**
  - Install traffic signal with a 12-foot-wide through lane in each direction, 11-foot-wide left turn pockets in each direction, and 5-foot-wide shoulders on Paseo Delicias eastbound and westbound.
  - El Montevideo and La Valle Plateada road widths would remain the same.
  - Existing bus stops would remain in their current location.
  - Equestrian trail crossings would occur at the current crosswalks.
  - All roadway improvements would be within the existing right-of-way.

- **Paseo Delicias/Via de la Valle/La Fremontia (Figure 4.3)**
  - Install traffic signal with through lanes on Paseo Delicias varying from 12 to 17 feet wide approaching the intersection. An 11-foot-wide left turn pocket would be installed on Paseo Delicias westbound, turning onto Via de la Valle. Five-foot-wide shoulders would be maintained on Paseo Delicias.
  - The existing single lane on Via de la Valle northbound would be separated into one left turn lane and one right turn lane approaching the intersection with Paseo Delicias.
  - La Fremontia would be closed to traffic on the western end of the loop, leaving access open on the eastern end with the existing stop sign control on La Fremontia.

- The existing Las Colinas alignment at the intersection with Via de la Valle would remain the same with a stop sign control on Las Colinas.
- No driveway closures would occur.
- Existing bus stops would remain in their current location.
- Equestrian trail crossings would occur at the current crosswalks.
- All roadway improvements would be within the existing right-of-way.

4.3.2 Comparison of the Effects of the Signalized Intersections Alternative to the Proposed Project

4.3.2.1 Biological Resources

Under the proposed project, the following potentially significant impacts were identified: temporary indirect impacts from construction noise to nesting raptors and migratory birds; potential impacts to one coast live oak tree; temporary impacts to 0.02 acre of sensitive wetland and riparian communities/ACOE jurisdictional wetlands; permanent impacts to 0.004 acre of CDFG streambed; and temporary impacts to 0.07 acre of coastal sage scrub. Each of these impacts would be mitigated to less than significant.

Under the Signalized Intersections Alternative, impacts would occur only for a retaining wall at the northeast corner of the El Camino del Norte intersection where no sensitive biological resources have been identified. Potential temporary indirect impacts from construction noise could occur to nesting or foraging sensitive bird species in the area of the El Camino del Norte intersection, though this impact could be mitigated to less than significant by implementation of Mitigation Measure M-BI-4.

4.3.2.2 Transportation and Circulation

As shown in Table 4.2, the Signalized Intersections Alternative would better improve intersection operations, in comparison to the proposed project, only during the AM peak hour at the El Camino del Norte intersection. During the PM peak hour at the El Camino del Norte intersection and for all other intersections, the proposed project would result in improved AM and PM operations with LOS A and B conditions at each intersection, in comparison to LOS B, C, and D conditions with traffic signals installed at each intersection.

4.4 <u>Environmentally Superior Alternative</u>

While the No Project Alternative and the Signalized Intersections Alternative would avoid or reduce impacts to Biological Resources in comparison to the proposed project, all such impacts from the proposed project would be reduced to less than significant through implementation of the mitigation measures proposed for inclusion in the project per Section 2.1.6 of this EIR. The proposed project would be environmentally superior

to the No Project Alternative and the Signalized Intersections Alternative with respect to Transportation and Circulation in that it would improve traffic operations along the project corridor. As shown in Table 4.2, year 2030 intersection operations would be at LOS F at each of the project intersections if the existing intersection controls remain in place. In comparison to the Signalized Intersections Alternative, the proposed project would result in improved AM and PM operations at each intersection except for AM operations at El Camino del Norte, where there would be an increase in time required for a typical vehicle to clear the intersection with the roundabouts installed. Therefore, because all project impacts to biological resources can be mitigated to less than significant, the proposed project would be considered to be environmentally superior to the No Project and the Signalized Intersections alternatives.

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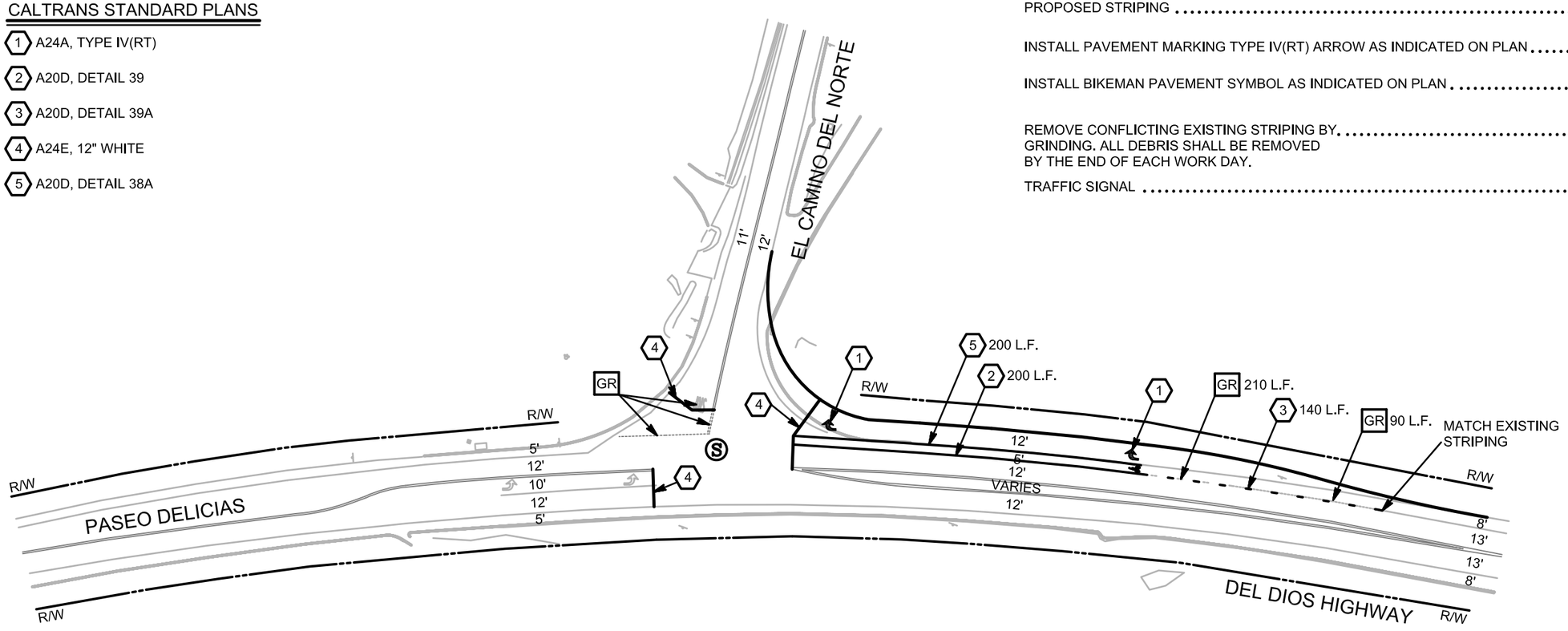
CALTRANS STANDARD PLANS

1. A24A, TYPE IV(RT)
2. A20D, DETAIL 39
3. A20D, DETAIL 39A
4. A24E, 12" WHITE
5. A20D, DETAIL 38A

LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
INSTALL PAVEMENT MARKING TYPE IV(RT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		S



Source: Linscott, Law & Greenspan 2007

70 35 0 70 Feet

Scale: 1 inch = 70 feet

Figure 4.1
Paseo Delicias/El Camino del Norte Signalized Intersection

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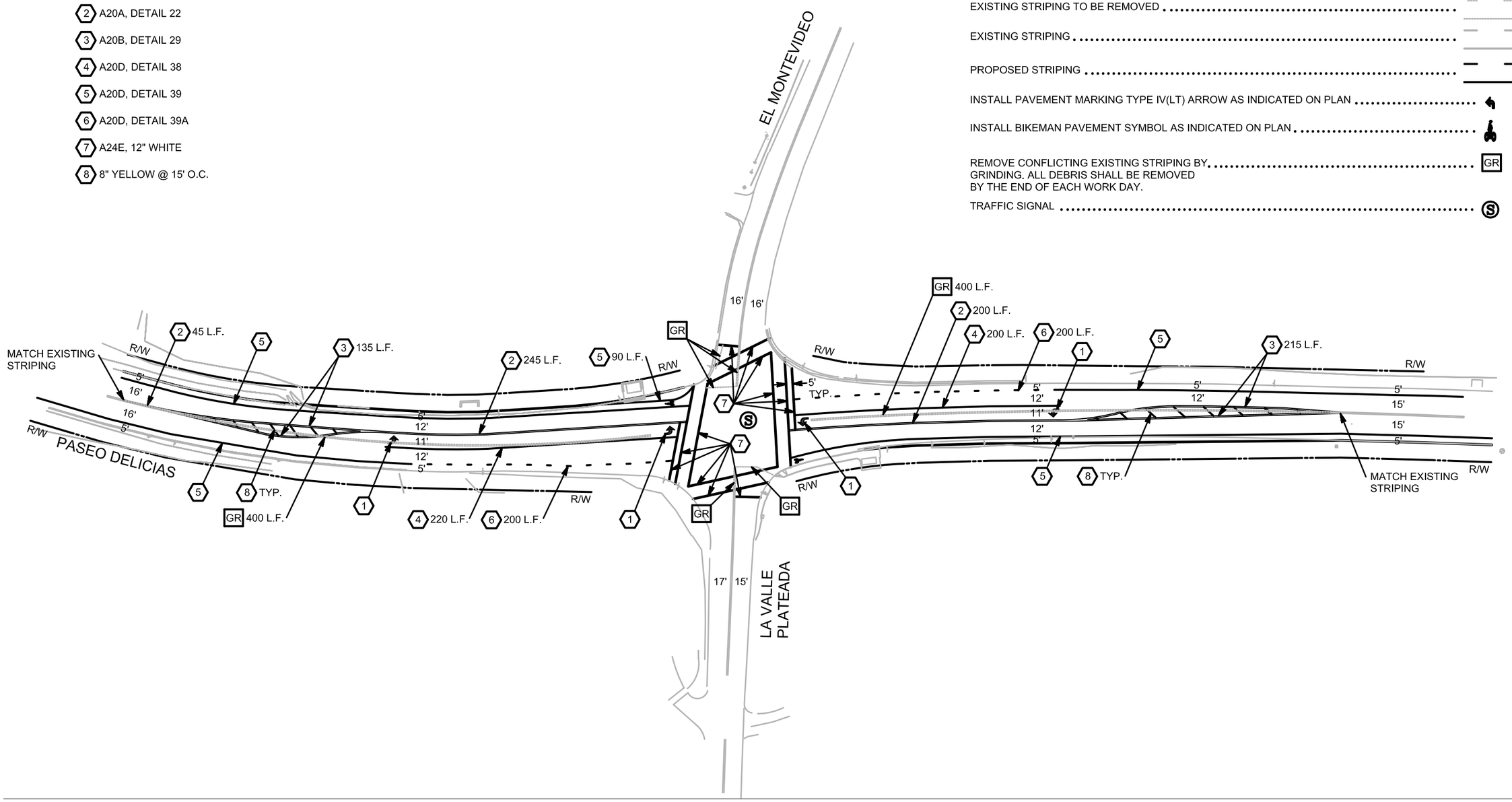
CALTRANS STANDARD PLANS

1. A24A, TYPE IV(LT)
2. A20A, DETAIL 22
3. A20B, DETAIL 29
4. A20D, DETAIL 38
5. A20D, DETAIL 39
6. A20D, DETAIL 39A
7. A24E, 12" WHITE
8. 8" YELLOW @ 15' O.C.

LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
INSTALL PAVEMENT MARKING TYPE IV(LT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		S



Source: Linscott, Law & Greenspan 2007

75 37.5 0 75 Feet

Scale: 1 inch = 75 feet

Figure 4.2
Paseo Delicias/El Montevideo/La Valle Plateada Signalized Intersection

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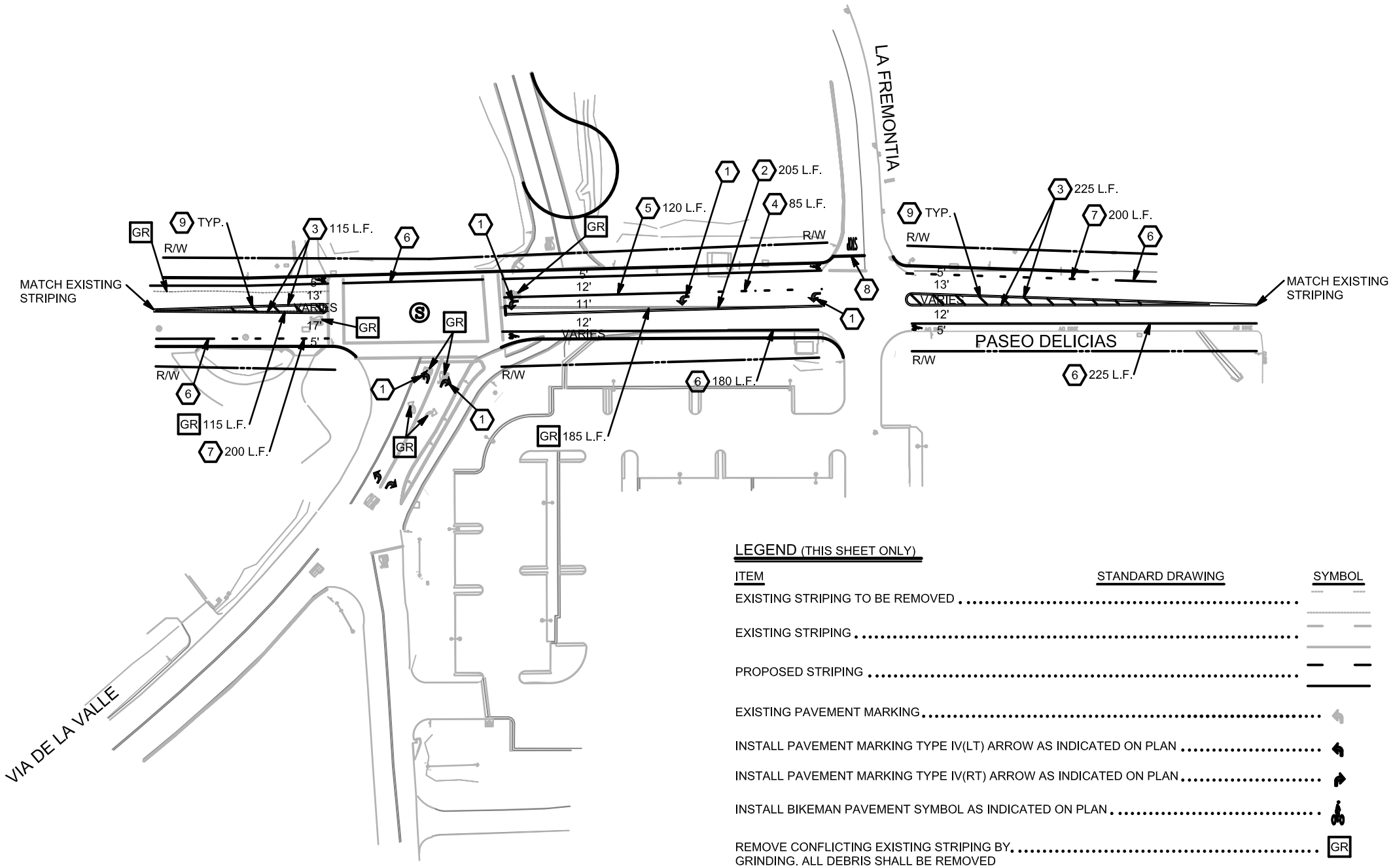
CALTRANS STANDARD PLANS

1. A24A, TYPE IV(LT) OR (RT)
2. A20A, DETAIL 22
3. A20B, DETAIL 29
4. A20C, DETAIL 37B
5. A20D, DETAIL 38
6. A20D, DETAIL 39
7. A20D, DETAIL 39A
8. A24E, 12" WHITE
9. 8" YELLOW @ 15' O.C.



LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
EXISTING PAVEMENT MARKING		
INSTALL PAVEMENT MARKING TYPE IV(LT) ARROW AS INDICATED ON PLAN		
INSTALL PAVEMENT MARKING TYPE IV(RT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		S

Source: Linscott, Law & Greenspan 2007

80 40 0 80 Feet

Scale: 1 inch = 80 feet

Figure 4.3
Paseo Delicias/Via de la Valle Signalized Intersection

P:\2008\08080120 Rancho Santa Fe Roundabouts EIR\6Graphics\Figures\Figure 4.3 de la valle signals_Env Effects.ai dbrady 7/1/08

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Table 4.1
Comparison of Project Alternatives Impacts to Proposed Project Impacts*

Issue Area	Proposed Project	No Project Alternative	Signalized Intersections Alternative
Biological Resources	Less than Significant with Mitigation Incorporated	Less	Less
Transportation and Circulation	Less than Significant	Greater	Greater

* Greater = Alternative results in greater impacts than the proposed project.
Less = Alternative results in less impacts than the proposed project.
Similar = Alternative results in similar impacts as the proposed project.

Table 4.2
Year 2030 Intersection Operations

Intersection	Peak Hour	Year 2030 With Current Configuration		Year 2030 With Traffic Signals[c]		Year 2030 With Roundabouts[d]	
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay[a]	LOS[b]
Del Dios Hwy/El Camino Del Norte	AM	>100	F	42.8	D	54.9	D
	PM	>100	F	32.0	C	17.7	B
Paseo Delicias/El Montevideo/La Valle Plateada	AM	>100	F	40.1	D	16.4	B
	PM	>100	F	19.3	B	7.7	A
Paseo Delicias/Via De La Valle	AM	>100	F	16.1	B	10.7	B
	PM	>100	F	30.9	C	9.8	A

Footnotes:

[a] Average delay expressed in seconds per vehicle.
[b] Level of Service.
[c] Analysis was conducted assuming restriping at some approaches to avoid the need for split phasing on the major street.
[d] Analysis was conducted using aaSidra software. As indicated in Section 3.1, a lower environment factor of 0.95 was utilized for the analysis.

UNSIGNALIZED DELAY/LOS THRESHOLDS		SIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 15.0	B	10.1 to 20.0	B
15.1 to 25.0	C	20.1 to 35.0	C
25.1 to 35.0	D	35.1 to 55.0	D
35.1 to 50.0	E	55.1 to 80.0	E
> 50.1	F	> 80.1	F

General Notes:

Based on the Highway Capacity Manual, since the distance between the three intersections is more than ½ mile, the analysis assumes the intersections as isolated intersections. Therefore, even if one intersection is signalized and the other two intersections have roundabouts, the calculated delay amount for respective analysis will not change.

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CHAPTER 5.0 LIST OF REFERENCES

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2007d Guidelines for Determining Significance and Report Format and Content Requirements Surface Water Quality. July 30.

2007e Guidelines for Determining Significance and Report Format and Content Requirements Hydrology. July 30.

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CHAPTER 6.0 LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

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CHAPTER 7.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

This chapter provides a comprehensive list of all mitigation measures included in the proposed project as well as the project design measures that act to mitigate or reduce potentially significant environmental impacts.

7.1 Mitigation Measures

7.1.1 Biological Resources

M-BI-1. Construction contractors shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of non-compliance. This program should be conducted by a qualified biologist.

M-BI-2a. Within 30 days prior to commencement of construction the following sensitive biological resources shall be located and flagged by the project biologist: at the El Camino del Norte intersection, sensitive habitats south of the project footprint and California adolphia northwest of the project footprint; at the Via de la Valle/La Fremontia intersection, coast live oak within disturbed habitat north of the project footprint. An Environmentally Sensitive Area (ESA) shall be established and demarcated by orange construction fencing to protect these sensitive vegetation types and plants from construction-related impacts. The orange construction fencing around the coast live oak shall be installed at the edge of the tree canopy to preclude root zone impacts to this tree. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any associated sensitive plants.

M-BI-2b. In the event that impacts to the one coast live oak individual occur, five replacement 5-gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. The trees shall be monitored for a period of 5 years. In the event that coast live oak individuals do not successfully establish within the monitoring period, replacement individuals shall be planted.

M-BI-3a. To avoid direct impacts to tree-nesting raptors from vegetation clearing and indirect impacts from construction activities that may generate excessive

noise, vegetation clearing and construction activities shall occur outside of the raptor breeding season (January 15-July 15).

M-BI-3b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting raptor surveys conducted within 1 week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 300 feet from the construction site. If nesting activity is detected on-site or within 300 feet of the site, a 300-foot buffer around the nest shall be marked and construction activity within the buffer shall be delayed until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than one week at any time during the raptor breeding season.

M-BI-4a. To avoid direct impacts to nesting migratory birds from vegetation clearing and indirect impacts from construction activities that may generate excessive noise, vegetation clearing and construction activities shall occur outside of the avian breeding season (February 15-September 15).

M-BI-4b. If such activities cannot be avoided during the breeding season, potential direct and indirect impacts shall be minimized through preconstruction nesting bird surveys conducted on-site within 1 week prior to commencement of construction activities. If nesting activity is detected on-site, a 300-foot buffer around the nest shall be delineated and avoided until the young have fledged and the nest is no longer active. Subsequent nesting bird surveys shall be conducted if construction is halted for more than 1 week at any time during the avian breeding season.

M-BI-5a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. in the drainage area south of the El Camino del Norte intersection and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of the U.S. outside of the approved project limits.

M-BI-5b. Prior to any impacts to wetlands and riparian habitat in the drainage area south of the El Camino del Norte intersection, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code.

M-BI-5c. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and

enhancement of the freshwater marsh through exotic species removal and planting of native freshwater marsh and riparian scrub species, including San Diego marsh elder.

M-BI-5d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.

M-BI-6a. An Environmentally Sensitive Area (ESA) shall be established around avoidable riparian habitats and jurisdictional wetlands and waters of the U.S. at the Via de la Valle/La Fremontia roundabout location and shall be demarcated by orange construction fencing. A qualified biological monitor shall ensure that the limits of the construction footprint would be located to avoid this ESA and any riparian habitats and ACOE/CDFG jurisdictional wetlands and waters of the U.S. outside of the approved project limits.

M-BI-6b. Prior to any impacts to wetlands and riparian habitat at the Via de la Valle/La Fremontia roundabout location, the County will obtain required permit approvals by the ACOE and RWQCB under Section 404 and 401 of the Clean Water Act and the CDFG under Section 1600 of the California Fish and Game Code.

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M-BI-6c. Permanent impacts to 0.004 acre of non-wetland waters at the Via de la Valle/La Fremontia roundabout location shall be mitigated on-site south of the retaining wall at the El Camino del Norte roundabout at a 2:1 mitigation to impact ratio through the restoration and enhancement of the existing channel involving exotic species removal and planting of native freshwater marsh and riparian scrub species along the margins of the channel.

M-BI-6d. A restoration plan shall be prepared by a qualified restoration ecologist and approved by the regulatory agencies. Final detailed mitigation ratios and configuration would be determined through negotiation with the ACOE, RWQCB, and CDFG in accordance with the conditions of the Section 404 permit, Section 401 permit, and Section 1600 Streambed Alteration Agreement for the project.

M-BI-7. Temporary construction impacts to Diegan coastal sage scrub habitat shall be mitigated by restoration on-site at a 1:1 mitigation to impact ratio through revegetation of the manufactured slope of the retaining wall at the El Camino del Norte roundabout with native Diegan coastal sage scrub vegetation.

M-BI-8. Temporary impacts to 0.02 acre of freshwater marsh habitat/ACOE jurisdictional wetlands at the El Camino del Norte roundabout shall be

mitigated at a 1:1 mitigation to impact ratio on-site south of the proposed retaining wall through restoration and revegetation of the impacted areas and enhancement of the freshwater marsh through exotic species removal and planting of native freshwater marsh and riparian scrub species.

7.2 Project Design Features for Reduction in Environmental Impacts

7.2.1 Aesthetics and Visual Quality

The following aesthetic and visual quality measures are incorporated into the project design:

- Project improvements would be limited to the intersections, which would avoid removal of existing natural vegetation adjacent to the roadway between the intersections.
- Landscape plans for the intersections would provide primarily native species, including trees consistent with the existing species found along the corridor.
- No urban-type improvements such as gutters, curbs, sidewalks, or street lights are proposed.

7.2.2 Air Quality

The following project design measures to control dust and particulates, including diesel particulate emissions, are to be incorporated into the project's construction specifications:

- Minimize land disturbance.
- Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas.
- Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
- Cover all trucks hauling dirt when traveling at speeds greater than 15 miles per hour.
- Stabilize the surface of dirt piles if not removed within 2 days.
- Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
- Minimize unnecessary vehicular and machinery activities.
- Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway.
- Revegetate disturbed land, including vehicular paths created during construction, to avoid future off-road vehicular activities.

- Remove unused material.
- Locate construction equipment and truck staging and maintenance areas as far as feasible and nominally downwind of schools, active recreation areas, and other areas of high population density.

7.2.3 Hydrology and Water Quality

7.2.3.1 Drainage and Landform Alteration

The following drainage and landform alteration measures are incorporated into the project design:

- Based on the *Plans for Construction of the Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte*, prepared for the County by David Evans and Associates, the project area drainage patterns would essentially remain the same post-construction and the project would not alter the existing drainage pattern of the area. Stormwater runoff from the roadway would continue to be conveyed by shallow swales along either side of the road and by culverts at the intersections. However, the project would increase the volume of runoff due to the increased amount of impervious area. To avoid adverse impacts from erosion or siltation on- or off-site from these increased flows, on-site detention would be provided to control the volume and velocity of runoff being discharged to La Orilla Tributary and to natural drainages leading to the San Dieguito River.

7.2.3.2 Water Quality – Regulatory Compliance

Construction

In compliance with the Statewide General Construction NPDES Permit, the County would submit an NOI to the SWRCB prior to commencement of construction activities and would prepare and implement a SWPPP. The SWPPP would include BMPs that address source reduction and provide measures and controls necessary to avoid release of potential pollutants. Recommended BMPs for the construction phase, based on the *Plans for Construction of Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte* prepared for the County by David Evans and Associates, include:

Silt Fence
Fiber Rolls
Street Sweeping and Vacuuming
Material Delivery and Storage
Stockpile Management
Solid Waste Management
Stabilized Construction Entrance/Exit
Hydroseeding and/or soil binders (BFM)
Velocity Dissipation Devices
Check Dams
Gravel Bag Berm
Sanitary/Septic Waste Management
Material Delivery and Storage
Spill Prevention and Control
Concrete Waste Management
Water Conservation Practices
Paving and Grinding Operations

Operation

To comply with County, state, and federal water quality regulations, the *Plans for Construction of Roundabouts at El Montevideo, Via de la Valle, and El Camino del Norte* prepared for the County by David Evans and Associates has identified the following structural BMPs that would be incorporated into the project:

- *Designing the project to minimize impervious areas*. Retaining walls have been included in the design to minimize grading impacts and soil disturbance to adjacent areas. Pavers are being utilized in the center of the roundabouts and will promote infiltration of stormwater.
- *Protecting slopes and channels*. Stormwater runoff conveyed safely from the tops of manufactured slopes would be designed to avoid slope erosion. Where needed to reduce the velocity of runoff, riprap would be provided at drainage channel outlets to prevent erosion downstream.
- *Efficient irrigation systems would be installed in any landscaped areas that require regular irrigation*. This may include installed rain shutoff devices on irrigation systems, flow reducers, or shutoff valves to conserve water use.

In addition to the site and source control BMPs, treatment control BMPs would be incorporated into the final design concept to effectively capture and treat potential pollutants from the project prior to discharging off-site. Treatment control BMPs that are appropriate for the relatively small drainage areas of the project site include bioswales and infiltration trenches.

7.2.4 Noise

The following project design measures to reduce noise levels during construction are to be incorporated into the project's construction specifications:

- Each internal combustion engine shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.
- Work in staging areas that generates loud noises, such as equipment maintenance, shall not occur before 7:00 a.m. or after 7:00 p.m., Monday through Saturday, and shall be prohibited on Sunday.
- If traffic control and construction signs that require power for lighting or flashing are located near residences, the source of power shall be batteries, solar cells, or another quiet source. Gas- or diesel-fueled internal combustion engines shall not be used.

7.2.5 Equestrian Access

7.2.5.1 Construction

Project plans and specifications require that the construction contractor provide for continued equestrian crossing access at the three intersections through temporary trail realignments and from traffic flagging/safety personnel on-site during all construction activities at each intersection.

7.2.5.2 Operations

New trail alignments would be constructed as part of the proposed project at the El Camino del Norte and Via de la Valle/La Fremontia roundabouts. These intersections, as well as the El Montevideo/La Valle Plateada intersection, would include equestrian crossing signage, warning lights, and push-button-activated in-pavement flashing lights to warn drivers of the need to yield to equestrians and pedestrians at each intersection.

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