

BUENA CREEK MOVES

APPENDICES

Community Based Transportation Buena Creek Neighborhood Mobility Plan

County of San Diego
Planning & Development Services
March 2026



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Existing Conditions Assessment



September 5, 2024

Buena Creek MOVES

Existing Conditions Assessment

Introduction

In order to develop a plan for improving multimodal access within the Buena Creek community that will encourage walking, biking, and transit trips, a comprehensive review of the existing travel environment is required within the Buena Creek Neighborhood Mobility Plan (BCNMP) study area, also known as Buena Creek MOVES. While this Existing Conditions Assessment includes a review of physical facilities that already serve multi-modal users, other community characteristics must also be considered such as:

- Key destinations in and around Buena Creek
- Existing land uses
- Environmental conditions (weather, air pollution, etc.)
- Demographics
- Travel patterns

The factors above are indicators as to how and why people choose their travel mode and provide perspective relative to types of transportation options and supportive infrastructure needed to support those modes. Input from the community couples with a comprehensive understanding of existing conditions sets the foundation for developing a plan that reflects the community's needs and is consistent with the community's goals.

The purpose of this existing conditions assessment is set the foundation for the baseline conditions, potential gaps and concerns, and the physical conditions of the transportation within the Buena Creek Community. It is a reflection of the community and the issues raised by the residents, employees, and business owners within the community as well as a clear representation of how people are using and the barriers associated with the existing transportation facilities.

Project Background

In July 2021, the County of San Diego (County) adopted a new General Plan Environmental Justice Element. This Element contained Implementation Action 7.6.2.B whose goal is to "Collaborate with SANDAG, local transit agencies, and other community partners to engage in community-based transportation planning initiatives that seek to expand operation hours and improve quality of service." On December 10, 2021, San Diego Association of Governments (SANDAG) adopted its 2021 Regional Plan and a Sustainable Communities Strategy (Regional Plan), which includes developing a network of Mobility Hubs that "includes our region's urban core and 30 Mobility Hubs that were identified based on land use and employment characteristics, travel patterns, and demographics." Less than 1% of unincorporated San Diego County is currently within the sphere of influence of the proposed Mobility Hubs, where transit and on-demand travel infrastructure investment will be focused. The disproportionate distribution of Mobility Hub areas has an impact on unincorporated communities and neighborhoods where transportation and investment resources are greatly needed. To achieve greater equity and expand mobility options for the



unincorporated areas, the County is initiating a collaborative program with SANDAG, the Community Based Transportation Program (CBT Program), to develop and implement transportation and investment opportunities.

Buena Creek MOVES is part of the CBT Program and is intended to bring Buena Creek residents, community organizations, and County staff together to identify multimodal transportation challenges and needs in the local community. It provides a toolbox of mobility solutions for an unincorporated community to form a Neighborhood Mobility Plan, i.e., BC MOVES for Buena Creek.

Buena Creek MOVES will focus on achieving greater equity and expanding mobility options within the community. It will explore unique opportunities to educate, analyze, and develop recommendations related to mobility that can directly contribute and complement County plans and policies to reduce greenhouse gas emissions. BC MOVES will also identify community specific opportunities to align with potential increased infill development and density close to the Buena Creek Sprinter Station that are consistent with the 2021 Regional Plan and the County's Climate Action Plan, ultimately facilitating a reduction in dependence on auto-centric mobility.

More specifically, Buena Creek MOVES will look to achieve mobility goals, including but not limited to:

- Analyze ways to better connect the Buena Creek community to the Buena Creek Sprinter Station and increased transit options (i.e., the local mobility hub)
- Accommodate multimodal travel options and grow active transportation networks (e.g., walking, biking, rolling, micro-mobility, and public transit).
- Assist the community in understanding how improved mobility and expanded community capacities and collaborative relationships may help to address community needs such as health, safety, housing, equity, restorative justice and mobility.
- Encourage and facilitate opportunities for all community members to participate in the vision development, prioritization, and decision-making.

On a parallel basis, the County is conducting a Development Feasibility Analysis (DFA) in the Buena Creek community to identify improvements needed to facilitate development, infrastructure advancements that will enhance development feasibility, and associated cost and timeline for building needed infrastructure. The CBT Program, and the resulting Buena Creek MOVES plan, will not be limited to the study area boundaries set by the DFA project. Buena Creek MOVES will be holistic approach that will incorporate recommendations from the DFA as it aligns with outreach from Buena Creek MOVES. While the DFA will study mobility concerns related to development in specific areas, the Buena Creek MOVES will more comprehensively address transportation and connectivity concerns between, and beyond, these areas.

Existing Land Use & Housing

Study Area

Generally speaking, the study area for the neighborhood mobility plan includes the unincorporated County within 1-mile of the Buena Creek SPRINTER Station. **Exhibit 1** shows the overall study area in relation to the neighboring City's of Vista and San Marcos and identifies the study Development Feasibility Analysis DFA boundary. This Plan will incorporate the recommendations identified in the DFA as it aligns with



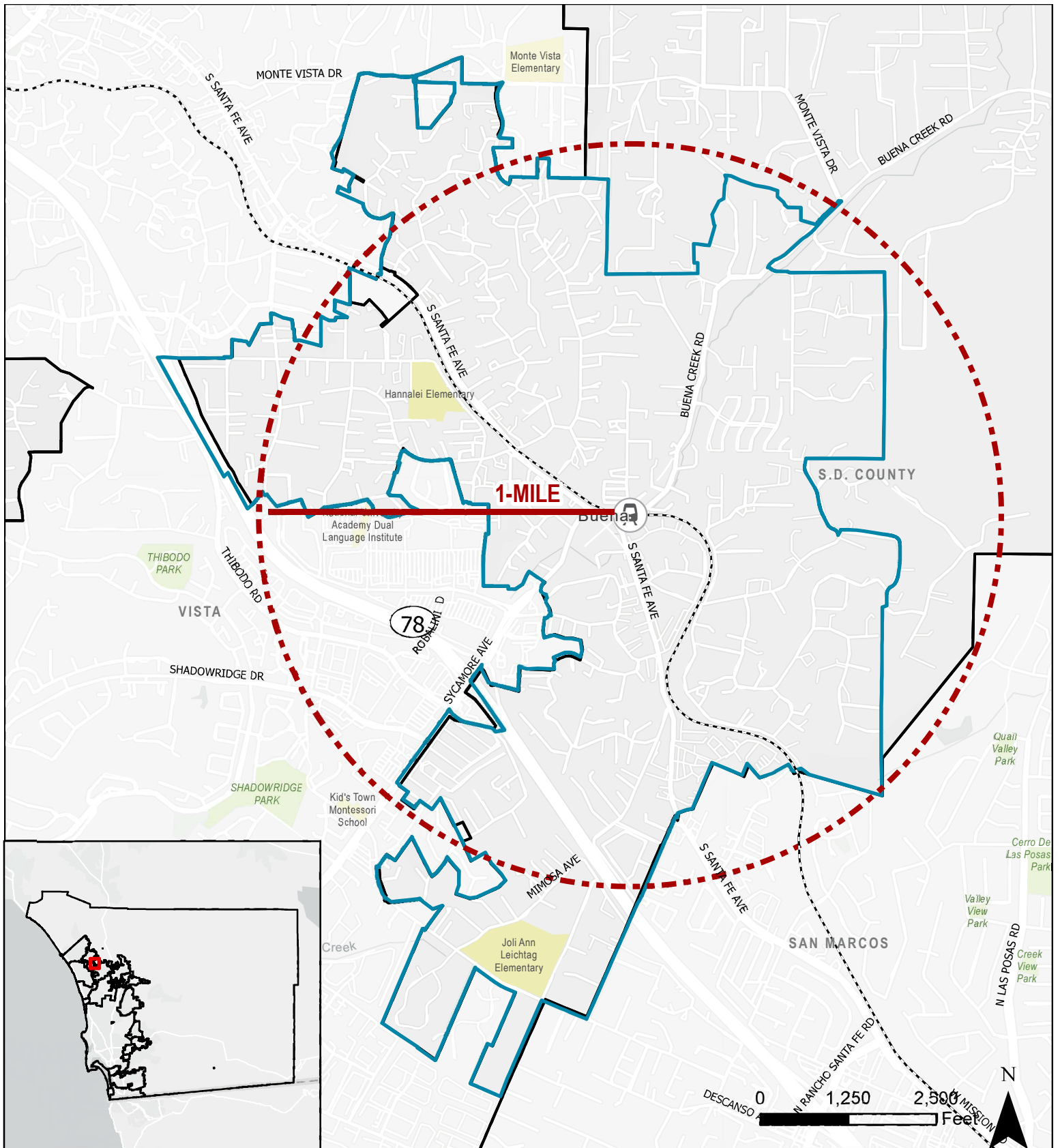
outreach from BC MOVES. While the DFA will study mobility concerns related to development in specific areas, the BC MOVES will more comprehensively address transportation and connectivity concerns between, and beyond, the DFA areas.

The study area includes three census tracts, two of which (199.02 and 199.03) the majority of the census tract falls within the general study area boundary, however one tract (200.17) extends beyond the study area and unincorporated County of San Diego boundary into the City of Vista.

Existing Land Uses

The majority of the Buena Creek study area is designated as low density residential as shown in **Exhibit 2**. There is an identifiable commercial corridor that follows Santa Fe Avenue which run northwest to south through the study area. This corridor supports the adjacent community and includes commercial office, retail, places of worship, schools, and industrial warehouses. There are a few key destinations located along the Santa Fe Avenue corridor which may drive activity from the local neighborhoods. Hannalei Elementary School and Stonebrooke Church are important destinations located at the most northern boundary of the study area. Notably, there are no public recreation spaces within the study area and most of the commercial businesses are related to automotive or repair services. Overall, the existing businesses and land use patterns in Buena Creek are reflective of a highly auto dependent area.

Extending east and west from the commercial corridor are single family neighborhoods with pockets of rural estate lots and vacant undeveloped land. Higher density, multifamily residential properties are located closest to the Buena Creek SPRINTER Station as along with pockets in the most northern and southern points along Santa Fe Avenue within the study area. There are two mobile home parks, one is located directly across from the SPRINTER Station and one is located southwest across Interstate 78 via the Mimosa Avenue underpass.



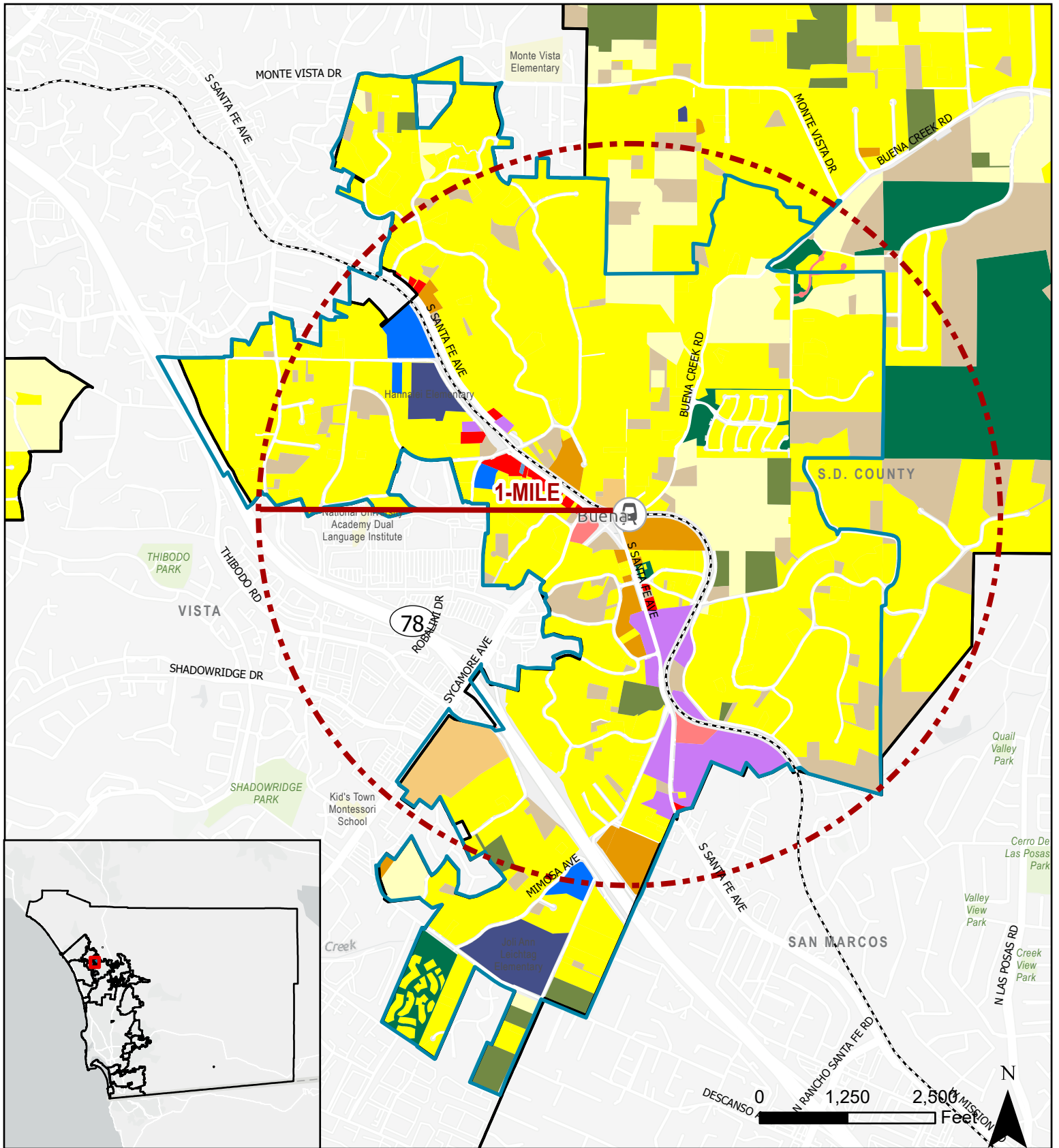
Legend

- NMP Study Area
- Development Feasibility Area
- Buena Creek SPRINTER Station
- SPRINTER Transit Route
- School
- Park
- City Boundary

Buena Creek

DRAFT Neighborhood Mobility Plan
 Mobility Plan Study Area

Exhibit 1



Legend

Spaced Rural Residential	Heavy Industrial
Single Family Residential	Light Industrial
Mobile Home Park	Institution
Multi-Family Residential	Education
Mixed Use	Transportation, Communications and Utilities
Commercial Office	Agriculture
Commercial Retail	Recreation and Open Space
	Vacant

Buena Creek

**DRAFT Neighborhood Mobility Plan
Existing Land Use**



Housing Stock

By analyzing housing trends in the housing stock, mobility needs for Buena Creek can be assessed. **Table 1** summarizes the distribution of unit size by tenure in 2022. The most common unit size for renter-occupied units was 3-bedroom units, followed by 4-bedroom units indicating that these units are occupied by family units. The most common size for owner-occupied units was 2-bedroom units, followed by 1-bedroom units, perhaps indicating younger families, younger couples or individuals. Collectively, 2- and 3-bedroom units are the most common in Buena Creek.

Table 1: Unit Size by Tenure

Unit Size	Owner-Occupied		Renter-Occupied		Total Occupied Housing Units	
	Units	%	Units	%	Units	%
No bedroom/Studio	15	0.4%	95	2.5%	110	2.9%
1 bedroom	0	0.0%	429	11.4%	429	11.4%
2 bedrooms	480	12.8%	780	20.8%	1,260	33.5%
3 bedrooms	810	21.5%	251	6.7%	1,061	28.2%
4 bedrooms	687	18.3%	46	1.2%	733	19.5%
5 or more bedrooms	166	4.4%	0	0%	166	4.4%
Total	2,158	57.4%	1,601	42.6%	3,759	100%

Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table B25042

Demographics & Equity

Community Profile

Population & Household Composition

This section describes Buena Creek’s population and household characteristics, including data on the number of households, household size, household income¹ and composition by census tract.

The population of the Buena Creek community according to 2022 US Census data, is approximately 11,882 and is made up of 3,759 households, as shown in **Table 2**.

Also highlighted in **Table 2**, the average number of persons per household in Buena Creek in 2022 was 3.1, which is higher than the County and statewide average of 2.7 and 2.8 respectively. Larger household size can be an indicator for a need for more affordable units and lower income households.

¹ The US Census Bureau defines a household as all persons living in a single housing unit, whether or not they are related. A household can be one person, a single family, multiple families, or any group of related or unrelated persons.



Table 2: Number of Households and Size by Census Tract

	199.02	% of Total	199.03	% of Total	200.17	% of Total	Total
Number of Households	1,270	34%	1,474	39%	1,015	27%	3,759
Household Size (average)	3.4	-	3.2	-	2.6	-	3.1

Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table S1101

Of the households reported as family households, Error! Reference source not found. highlights that a majority (63%) of these households are comprised of married couples. Female householder (18%) and male householder (12%) which would imply single parent households, make up 30% of the overall households in the study area

Additionally, Error! Reference source not found. shows the trend of household size by tenure in the study area. Two-person and three-person households make up the largest percentage of households at 34% and 21% respectively and have the largest percentage of owner-occupied households as well. Interestingly in such a predominately single-family community, there is only a 15% difference between owner-occupied (57%) and renter-occupied households (43%).

Figure 1: Household Type

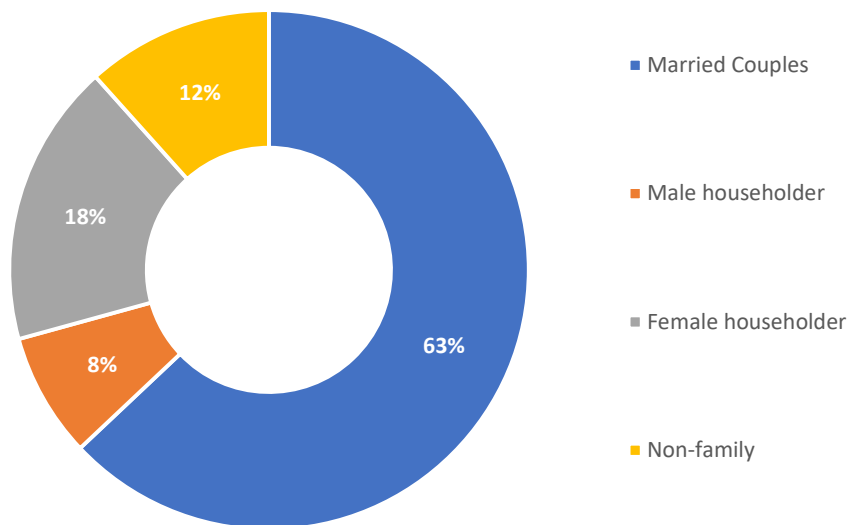
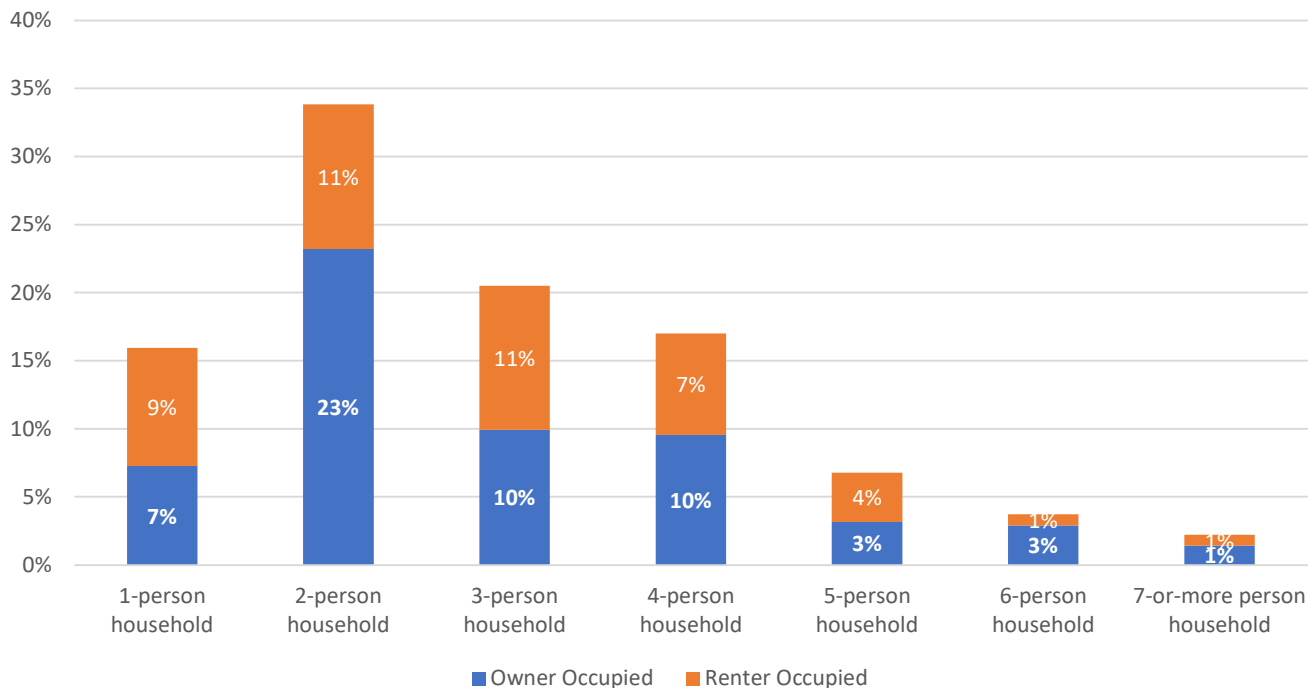




Figure 2: Household Size by Tenure



Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table B25009

Table 3 highlights that the median household income by tenure and census tract for Buena Creek residents in 2022 was \$82,972, which is below the Countywide average (\$98,928). The income disparity is significant between each of the census tracts in Buena Creek as well as between owners and renters within each tract. Median household income in tract 200.17 (\$61,366) is significantly less than the other two tracts; however, this tract includes a large mobile home park which tends to house older and lower income residents. Tract 199.03 has the highest median income (\$101,250) which is reflective in the large estate lot development that occupies most of the area in this tract.

Table 3: Median Household Income by Tenure

	Buena Creek Census Tracts				County of San Diego
	199.02	199.03	200.17	Average	
Total	\$86,300	\$101,250	\$61,366	\$82,972	\$98,928
Owner occupied	\$127,992	\$112,188	\$70,417	\$103,532	\$127,700
Renter occupied	\$66,694	\$73,884	\$56,973	\$65,850	\$72,022

Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table B25119



The State of California uses five income categories to determine eligibility for housing *funding*. **Table 4** shows the State-defined income ranges for each affordability category based on the *San Diego* County AMI of \$119,500 for a household of four. Based on these income ranges two of the tracts (199.02 and 199.03) comprised of Buena Creek fall in the low-income category and one (200.17) falls in the very low-income category.

Table 4: Income Range by Affordability Level Based on State AMI, 2024

Affordability Category	% of County Median	Income Range
Extremely Low Income	< 30%	< \$45,450
Very Low Income	31%–50%	\$45,451 - \$75,750
Low Income	51%–80%	\$75,751 - \$121,250
Moderate Income	81%–120%	\$121,251 - \$143,400
Above Moderate Income	> 121%	> \$143,400

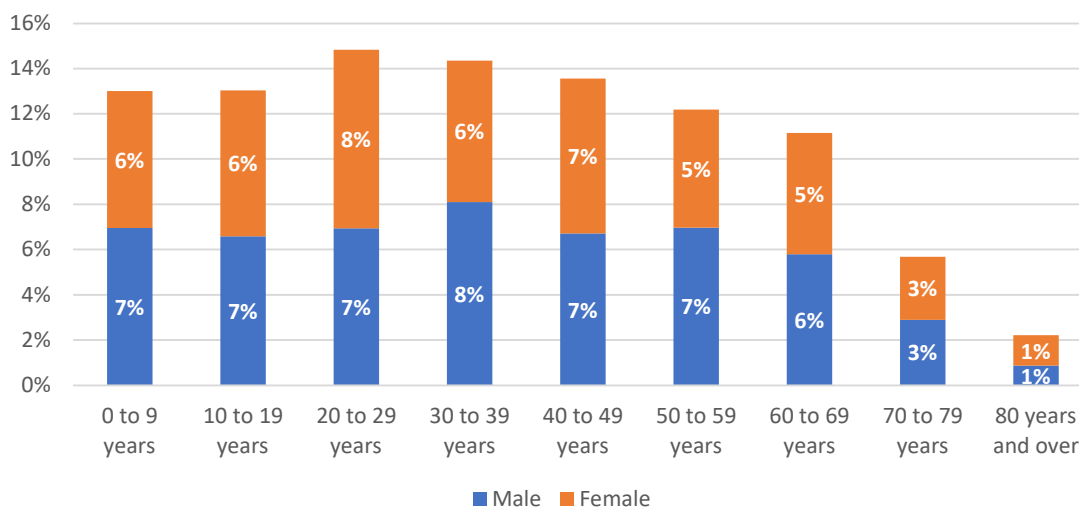
Source: California Department of Housing and Community Development, Revised State Income Limits for 2024, May 9, 2024.

Age Groups

Buena Creek’s current and future mobility needs are influenced in part by the age characteristics of its residents as each age group typically has specific needs and preferences. For instance, a higher proportion of young families generally indicates a need for safe access to schools and seniors may require convenient transit options as well as additional amenities at transit stops.

Figure 3 summarizes the population’s age distribution by gender. In 2022 the largest age group was 20 to 29 years (14.8%) followed by the 30-to-39-year age group (14.3%) with the smallest age group being 70 years and older (7.9%). These age trends show that there is a greater population of younger adults to middle aged residents with children. More than half (54.9%) of the population of Buena Creek residents are of professional working age (20 – 59 years) and 26% of the population being of school age or small children.

Figure 3: Age Distribution by Gender



Cultural Diversity

Buena Creek is racially and ethnically diverse as a whole. The two largest groups of residents in the community identify as Hispanic/Latino and White at 45% and 38%, respectively. As shown in **Figure 4**, The next largest groups are African American and Asian both of which make up 5% each.

Figure 5 summarizes the primary languages spoken at home with just over 60% of Buena Creek’s residents speak English as their primary language at home which is nearly double the next highest language spoken. At 34% the second most common language spoken in Buena Creek is Spanish. No other language accounted for more than 2%.

Exhibit shows the racial and ethnic majority by census tract in Buena Creek. As illustrated the study area is nearly split by predominant race. The eastern part of the study area has a predominant (>50%) White majority, while the western part of the study area has a sizeable (10%–50%) to predominant (> 50%) Hispanic majority. These trends extend beyond the study area boundary as well, including an Asian majority just outside the boundary to the southeast. Santa Fe Avenue and the SPRINTER Rail line provide a clear geographic divide between the two racial and ethnic majorities.

Figure 4: Race Distribution

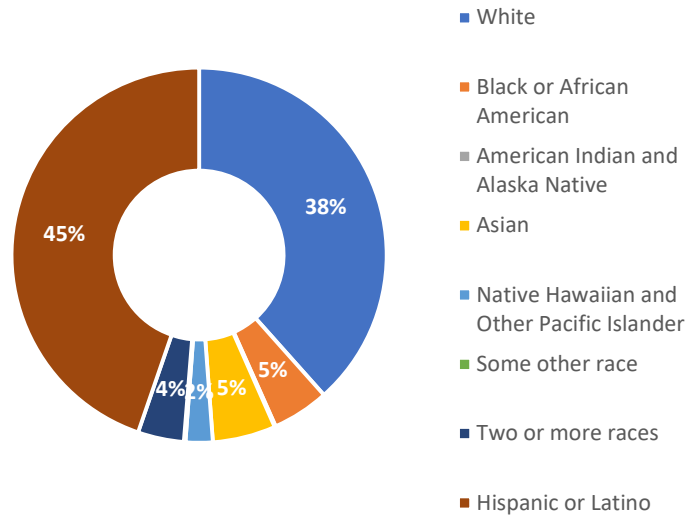
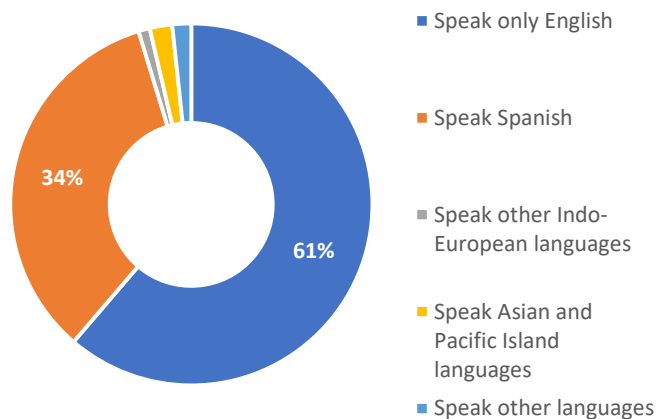
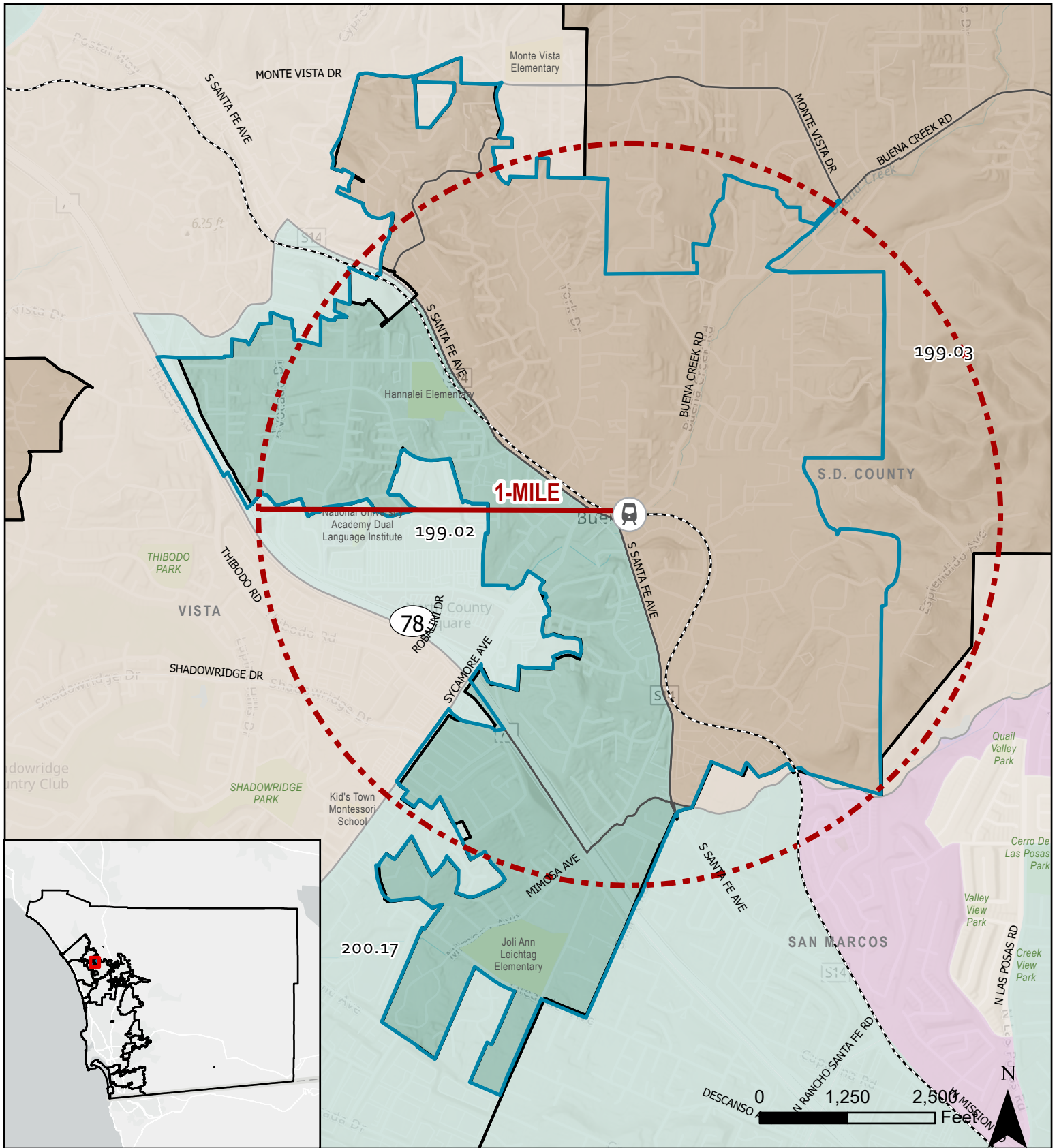


Figure 5: Primary Language Spoken at Home



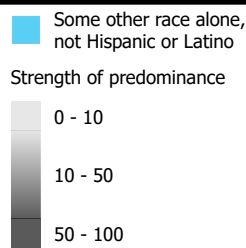


Legend

Predominant Race (ACS 2017-2021) - Tract Level

- White alone, not Hispanic or Latino
- Hispanic or Latino
- Black or African American alone, not Hispanic or Latino

- Asian alone, not Hispanic or Latino
- American Indian and Alaska Native alone, not Hispanic or Latino
- Two or more races, not Hispanic or Latino
- Native Hawaiian and other Pacific Islander alone, not Hispanic or Latino



Buena Creek

DRAFT Neighborhood Mobility Plan Racial and Ethnic Majority



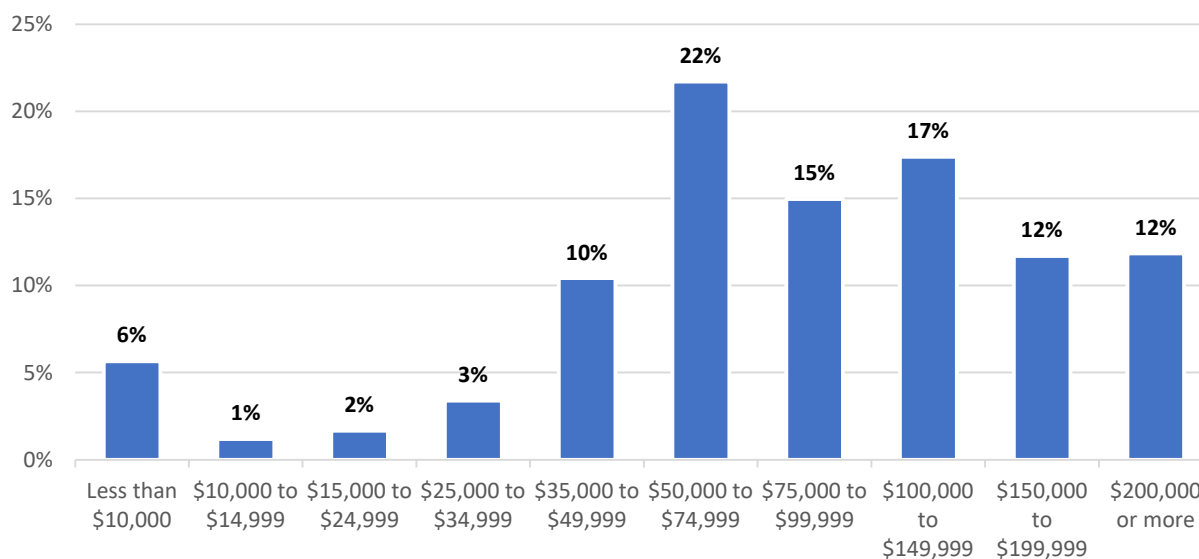
Socioeconomic Characteristics

Income Indicators

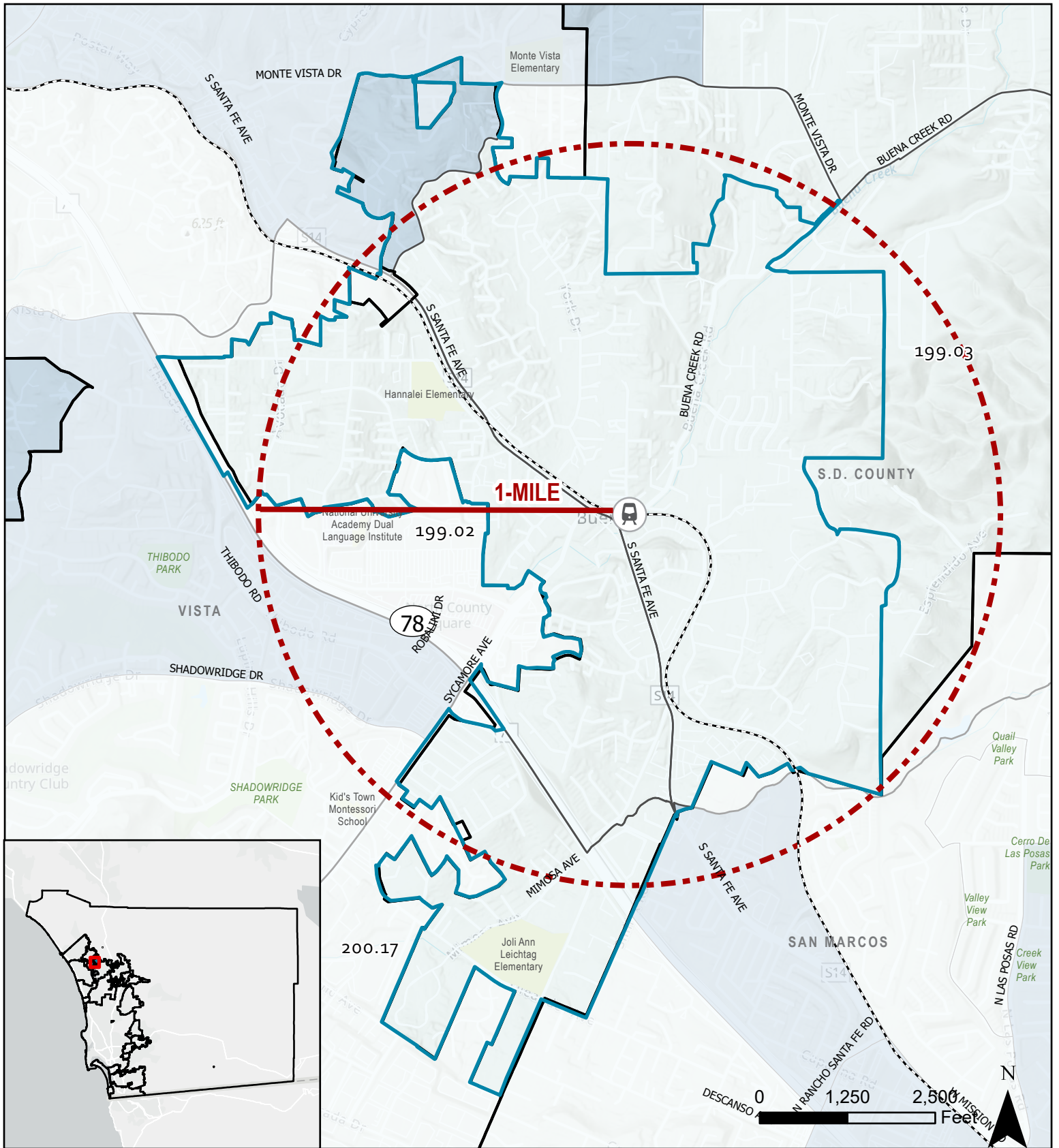
Understanding the income distribution within a community helps identify potential transportation affordability and access barriers. Some of those indicators are poverty and vehicle ownership which can be a telling statistic of mobility choices and options.

The income distribution in Buena Creek varies and aligns with the median household income data seen in **Figure 6**. The largest household income category was between \$50,000 to \$74,999 (22%) followed by \$100,000 to \$149,999 (17%). Just over 40% of all households in Buena Creek \$100,000 or more, while 22% of the households make \$49,999 or less.

Figure 6: Income Distribution



Poverty is defined by incomes falling below the annually defined thresholds for family size by the US Census. Poverty status by tract in Buena Creek is shown in **Exhibit 4**. The percent of the population whose income is below poverty level is less than 10 % throughout the entire Buena Creek study area. There are some pockets of 10 – 20% just outside of the study area to the north, west, and south but each of the tracts that comprise Buena Creek have the lowest percentage of residents experiencing poverty.



Legend

Poverty Status (Tract) - ACS (2017-2021)
 Percent of Population whose income in the past 12 months is below poverty level

- < 10%
- 10% - 20%
- 20% - 30%

- 30% - 40%
- > 40%
- NMP Study Area
- Development Feasibility Area
- Buena Creek SPRINTER Station
- SPRINTER Transit Route

Buena Creek
 DRAFT Neighborhood Mobility Plan
 Poverty Status

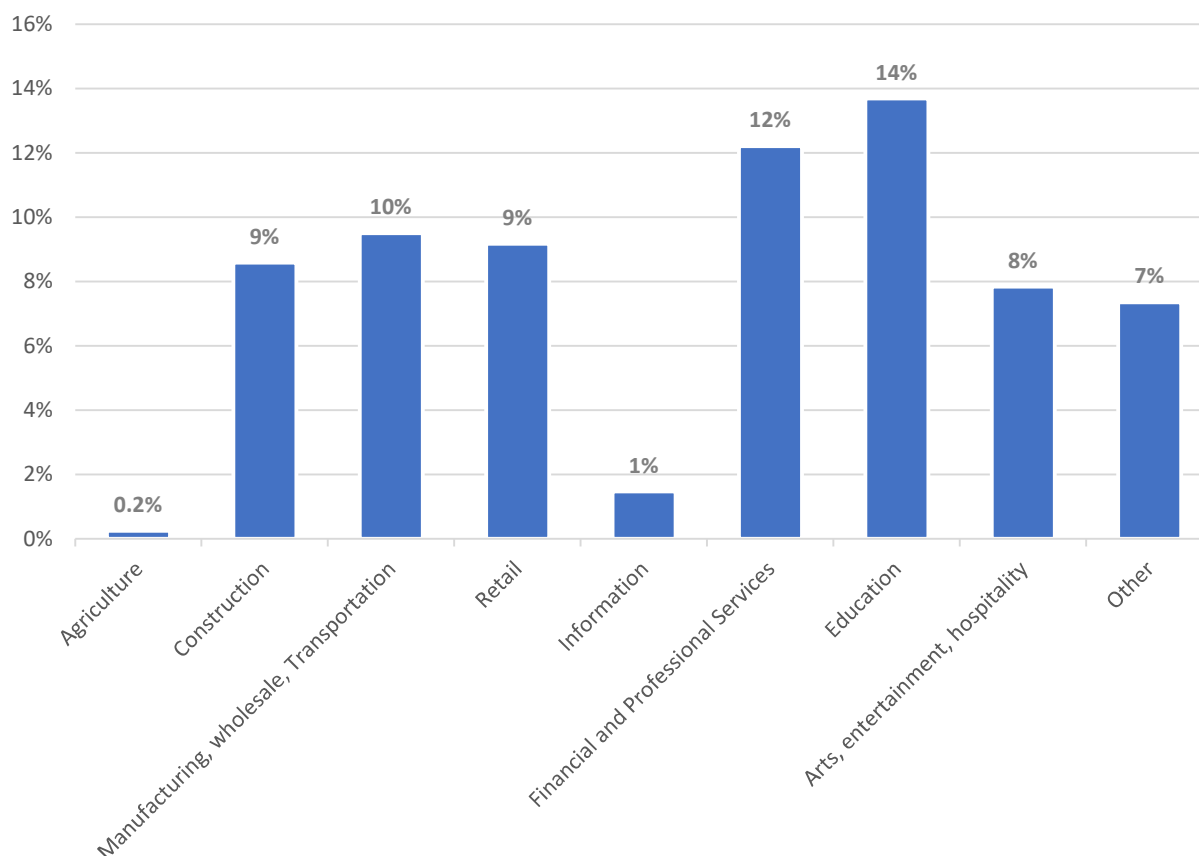


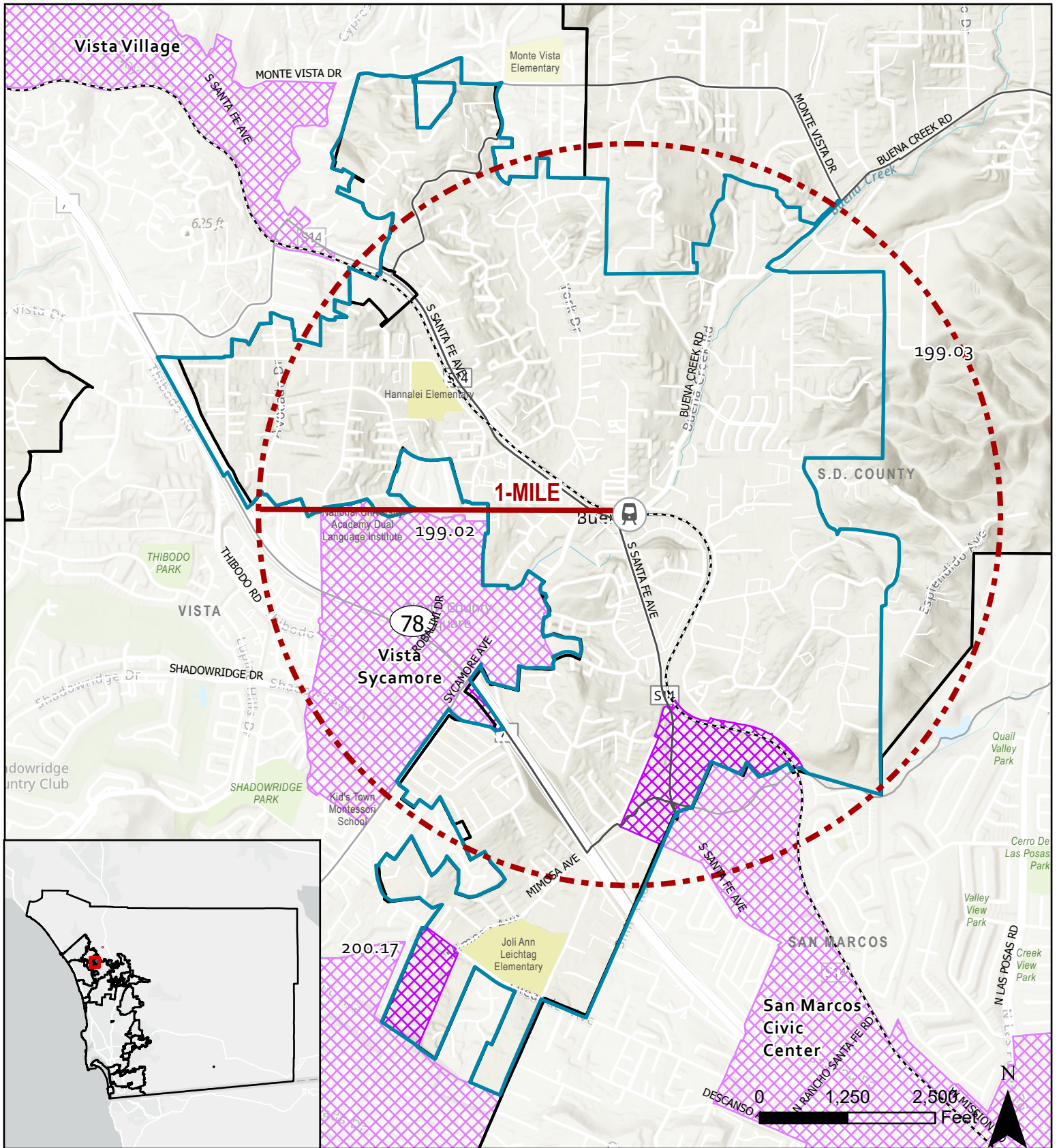
Employment Centers

There are four major employment centers classified by SANDAG with 2 miles of the Buena Creek SPRINTER Station, one of which falls within the Buena Creek study area (San Marcos Civic Center). As seen in **Exhibit 5**, the northern portion of the San Marcos Civic Center extends into the southern portion of the study area along the SPRINTER rail line. This portion of the San Marcos Civic Center is largely an industrial park with businesses including automotive repair, personal storage, and fabrication shops and provides just under 40,000 jobs. The Vista Sycamore employment center is also located within one mile of the Buena Creek SPRINTER Station along Sycamore Ave. While the Vista Sycamore employment center is located within the City of Vista and not within the BC MOVES study area, it is still a major attractor and should be considered, specifically for those utilizing the SPRINTER station. This employment center consists of several national retailers (i.e. Walmart and Target) and provides approximately 2,400 jobs.








Figure 7 displays the employment share by industry for residents that live within the Buena Creek study area boundary. Education and Financial and Professional Service sectors have the largest percentage of workers employed at 14% and 12% respectively. As shown by the largest employment sectors and nearby employment centers, a majority of the jobs are not located within the Buena Creek study area and therefore residents either commute or work remote.

Figure 7: Employment by Industry





Legend

-  Employment Centers
-  NMP Study Area
-  Development Feasibility Area
-  Buena Creek SPRINTER Station
-  SPRINTER Transit Route
-  School
-  Park

Buena Creek
DRAFT Neighborhood Mobility Plan
Employment Centers



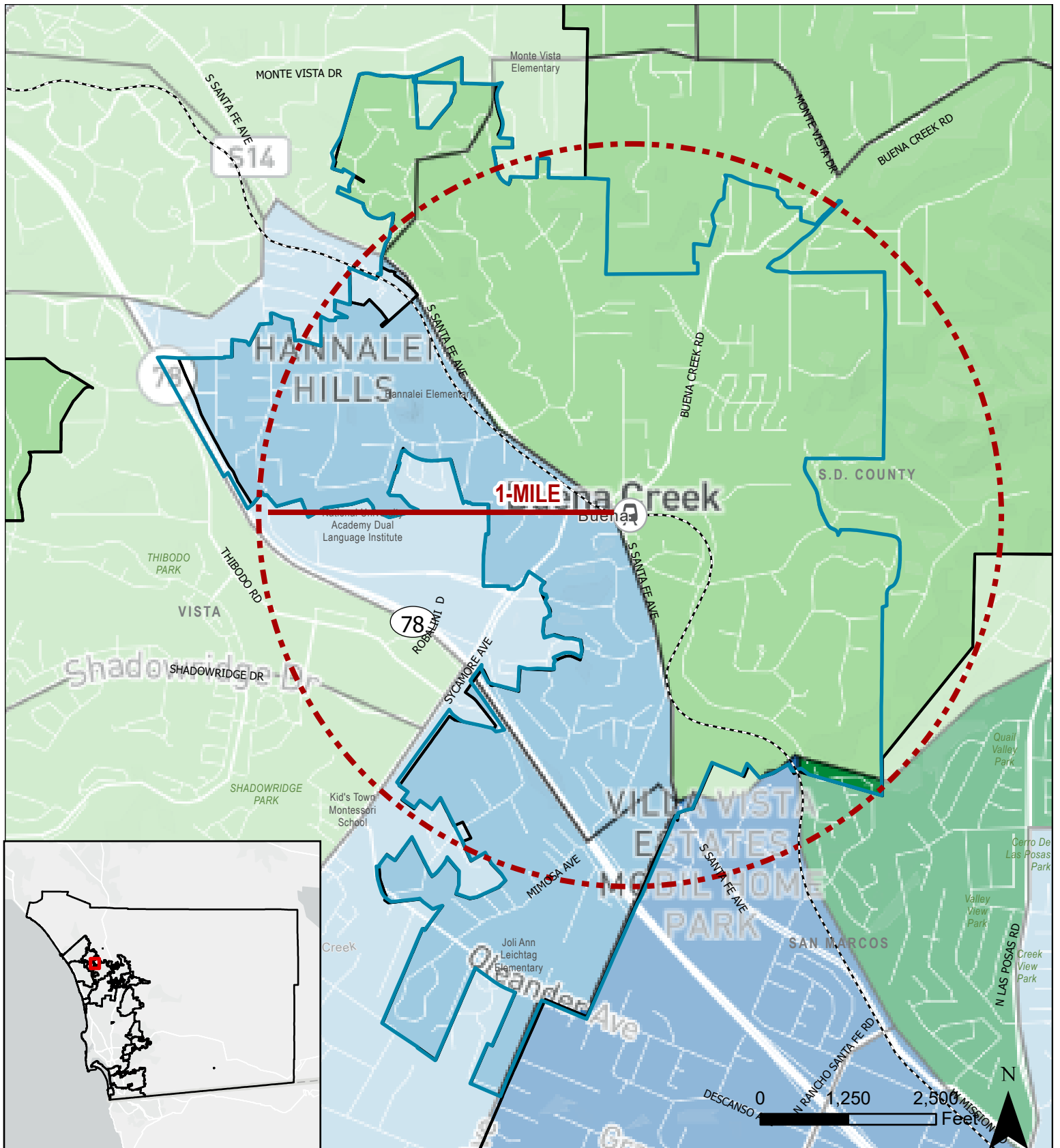
Health Profile

The California Healthy Places Index and the CalEnviroScreen (CES) 4.0 are two tools used to analyze the health of a community at the Census Tract level using a variety of indexes and factors. Overall, the Buena Creek community scores reflect a moderately healthy community, and the results are detailed below.

The California Healthy Places Index (HPI), developed by the Public Health Alliance of Southern California is a tool to explore the community conditions that impact life expectancy. The HPI helps prioritize public and private investments, resources, and programs in neighborhoods where they are needed most. The HPI combines 25 community characteristics, like access to healthcare, housing, education, and more, into a single indexed HPI score. The healthier a community, the higher the HPI score. The tool further breaks down the scores into eight Policy Action Areas (Economic, Education, Social, Transportation, Neighborhood, Housing, Clean Environment, and Healthcare Access), these indicators reflect widely recognized thematic areas of the social determinants of health and are consistent with those described by the Centers for Disease Control². As seen in **Exhibit** , the HPI scores for the tracts in Buena Creek vary from the 25-50 percentile (38.9, Census Tract 200.17 and 43.6, Census Tract 199.02) to 50-75 percentile (51.1, Census Tract 199.03). Each census tract within Buena Creek has a HPI score that is less than the County average of 67.9. Across all tracts, the Neighborhood Policy Action Areas scored the lowest which includes access to parks, retail density, and tree canopy. Inversely the Clean Environment index aggregately scored the highest amongst all tracts, this index includes exposure to diesel particulate matter, drinking water contaminants, ozone, and particulate matter 2.5.

CES 4.0 is a tool that identifies communities in California that are disproportionately burdened by pollutants. Factors used to identify communities include ozone, particulate matter, drinking water contaminants, pesticide use, lead, diesel particulates, asthma rates, and linguistic isolation. A higher score indicates a higher effect of pollutants for the area. The California Office of Environmental Health Hazard Assessment (OEHHA) compiles data to help identify California communities that are disproportionately burdened by multiple sources of pollution. In addition to environmental factors (pollutant exposures, groundwater threats, toxic sites, and hazardous materials exposure) and sensitive receptors (seniors, children, persons with asthma and low birth weight infants), CalEnviroScreen also takes into consideration socioeconomic factors. These factors include education attainment, linguistic isolation, poverty, and unemployment. The CES scores for Buena Creek are illustrated in **Exhibit 7** and show lower scores for the study area as a whole, between 10 – 50 percentile, with Census Tract 200.17 having the highest score (>40-50 percentile) and Census Tract 199.03 having the lowest score (>10-20 percentile). Diesel particulate matter, pesticides, toxic releases, and traffic are amongst the highest scoring pollutants in tract 200.17. For tract 199.02 (>30-40 percentile), traffic, diesel particulate matter, and lead from housing are the highest scoring pollutants.

²Public Health Alliance of Southern California. *Healthy Place Index (3.0) Technical Report, 2022*



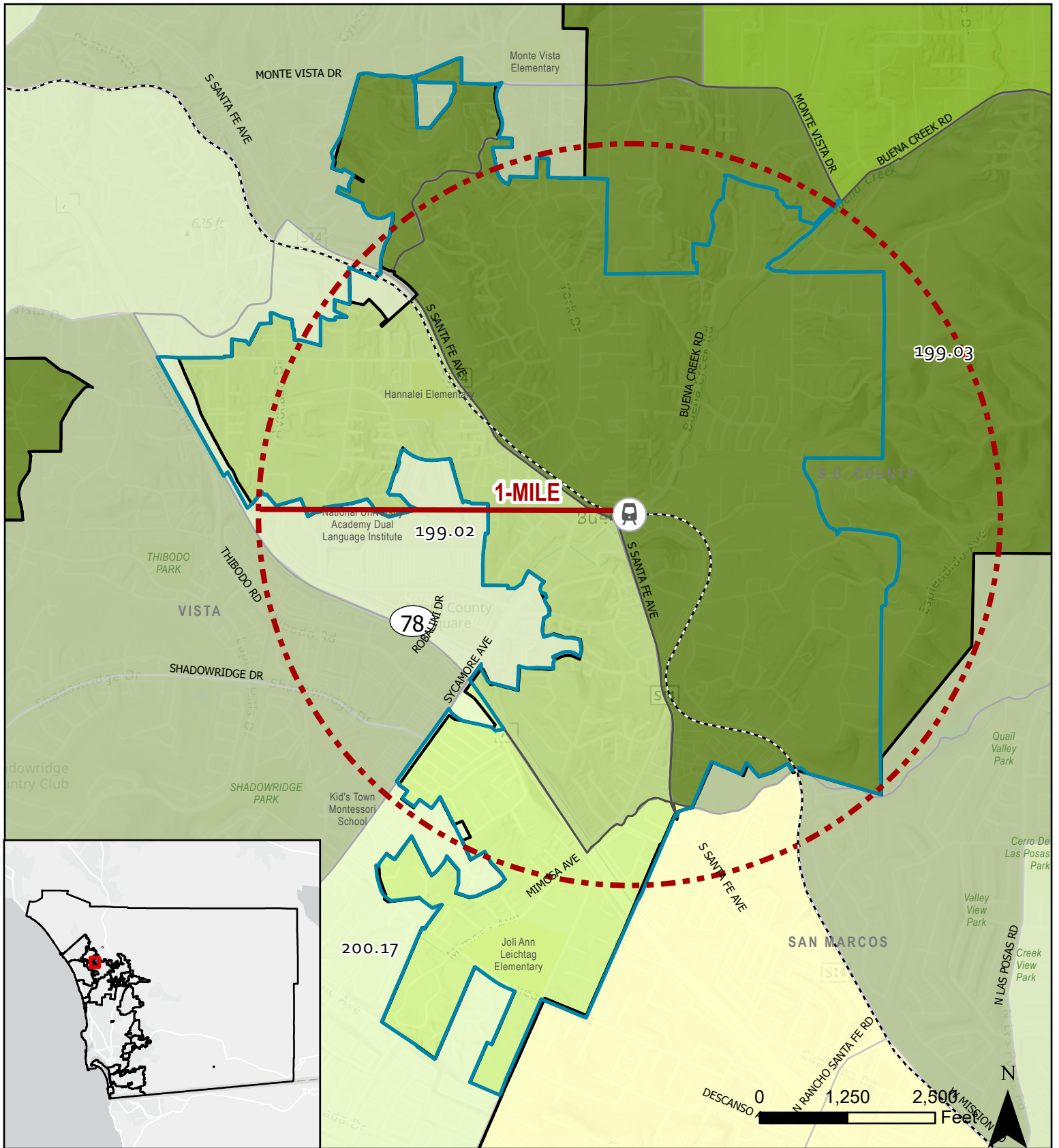
Legend

- HPI Score (v3.0)**
 Percentile Ranking
 Less to More healthy community conditions
- 0 - 25%
 - 25 - 50%
 - 50 - 75%
 - 75 - 100%

- NMP Study Area
- Development Feasibility Area
- Buena Creek SPRINTER Station
- SPRINTER Transit Route

Buena Creek

DRAFT Neighborhood Mobility Plan
 Healthy Places Index Percentile Ranking



Legend

- | | |
|--|------------------------------|
| CalEnviroScreen 4.0 - Percentile Score | >60 - 70 |
| 0 - 10 (Lowest Scores) | >70 - 80 |
| >10 - 20 | >80 - 90 |
| >20 - 30 | >90 - 100 (Highest Scores) |
| >30 - 40 | NMP Study Area |
| >40 - 50 | Development Feasibility Area |
| >50 - 60 | |

Buena Creek

**DRAFT Neighborhood Mobility Plan
CalEnviroScreen 4.0 Percentile Score by Tract**



Access to Services and Resources

In order to analyze disparities in access to opportunities, the California Tax Credit Allocation Committee’s (TCAC) and California Department of Housing and Community Development (HCD) created a task for to identify areas statewide whose economic, educational, and environmental characteristics support positive outcomes for low-income families. These maps, which are updated annually provide an overall Opportunity Area score by census tract. Opportunity maps are made for three domains: economic, environmental, and education. Each map uses categorical indicators to determine its individual score. A composite score and resource designation combining all three designations is then assigned to each block group. To determine the final resource category, the top 20% of overall scores in a county are labeled as “Highest Resource” and the next 20% of scores are labeled as “High Resource”. Any remaining uncategorized areas in the County are evenly divided between “Moderate Resource” and “Low Resource” areas. The rationale and metric for each indicator is described in more detail in current guidance documents for the California TCAC program.³

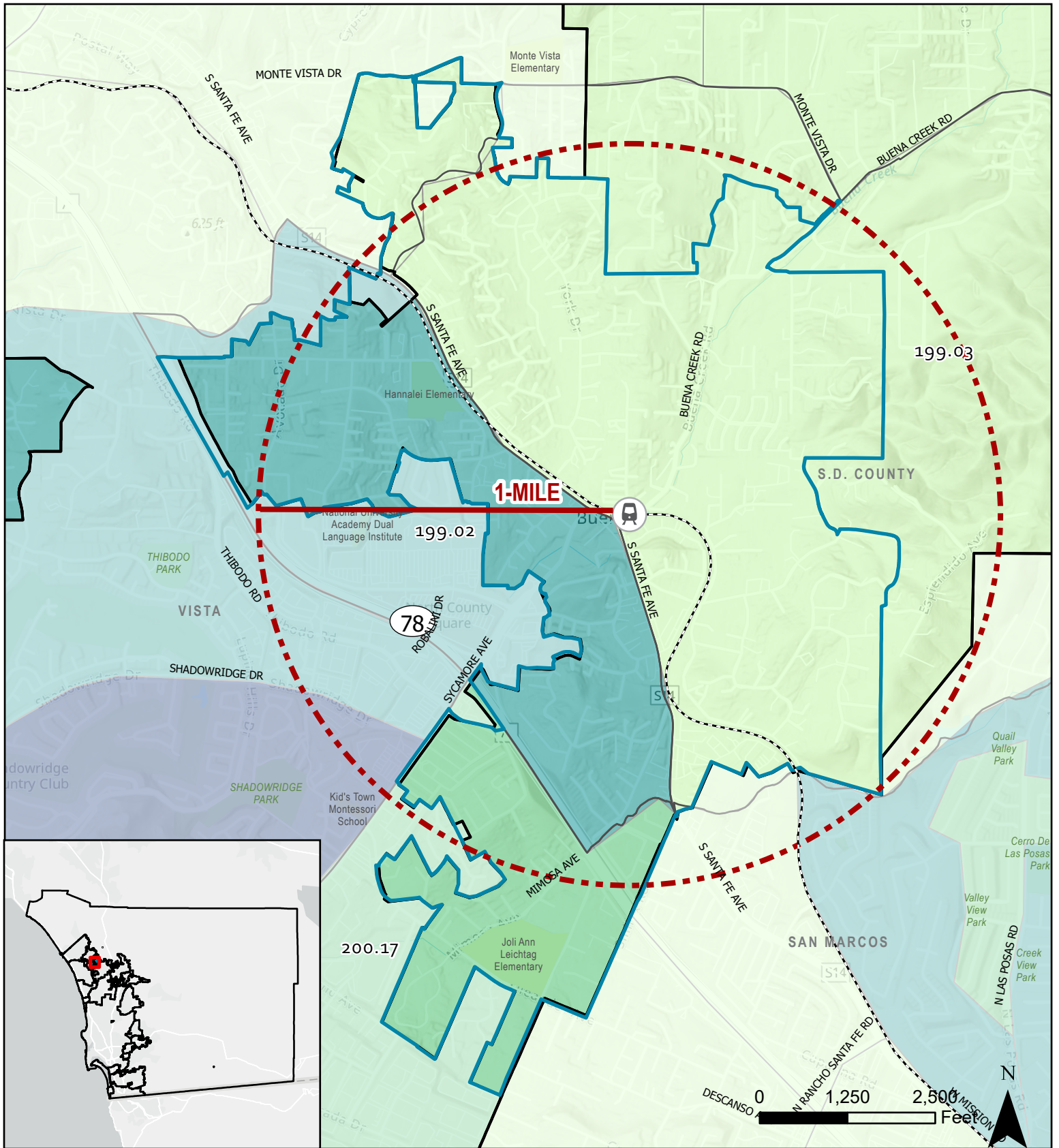
In Buena Creek, the scoring varies between each of the tracts from “High” to “Low Resource” areas with Tract 199.02 identified as a “High Resource” area, Tract 200.17 a “Moderate Resource” area, and Tract 199.03 scored as a “Low Resource” area (see [Exhibit](#)).

A review of the communities shows that are limited services and amenities within the Buena Creek study area, if a resident needs childcare, groceries, retail centers, or healthcare services they need to look outside of the study area. Similarly, there are few recreational opportunities with the study area, including trails and parks. Within the study area there are several places of worship and one elementary school, most of which fall within Tract 199.02 contributing to the High Resource score. Just beyond the study area there are two elementary schools, two parks, and one regional shopping center which includes a grocery store. The NMP must address the gaps in access to these essential services and amenities for Buena Creek residents.

Community Profile Summary

An analysis of the land use, housing and demographic data in Buena Creek reveals a number of trends. There is a clear divide between the population that lives on the west side of Santa Fe Ave and those who live on the east side of Santa Fe Ave. The population on the east side is predominately white and comprised primarily of single family residential while the west side is predominately Hispanic or Latino and has a variety of land uses. The majority of the multifamily is located on the west side of Santa Fe Ave closest to the SPRINTER station. In terms of health and environmental indicators, the population east of Santa Fe Ave is healthier and is less burdened by pollutants. Overall, the community is largely made up of married couples with one child and who own their housing unit. Additionally, a majority of the households in Buena Creek fall within the low-income category with the largest percentage (22%) of the population making between \$50,00 and \$74,999.

³ <https://www.treasurer.ca.gov/ctcac/opportunity/2024/draft-2024-opportunity-mapping-methodology.pdf>



Legend **Buena Creek**

CTCAC/HCD Opportunity Map 2024

- Highest Resource
- High Resource
- Moderate Resource
- Low Resource

- NMP Study Area
- Development Feasibility Area
- Buena Creek SPRINTER Station
- SPRINTER Transit Route

DRAFT Neighborhood Mobility Plan
TCAC/HCD Opportunity Areas



Current Travel Patterns

Current biking and walking patterns were analyzed using data from the US Census Bureau and the 2022 American Community Survey (ACS).

According to **Table 5**, most commuters in Buena Creek (by census tract) drive alone to work followed by those that work from home. Following the COVID pandemic, an increase of residents are now falling in to the work from home category. This may indicate a new trend enabled by evolving workplace culture. It is important to note that bicycle ridership and walking rates may be higher than this data indicates, as ACS estimates do not account for recreational trips or trips where commuters use more than one mode of transportation when traveling to work. Less than 1% of commuters use public transportation which includes bus and commuter rail (SPRINTER).

Table 6 shows the percentage of household who do not have regular access to a vehicle by census tract. Overall, most residents within Buena Creek have access to at least two vehicles. Residents who do not have regular access to a vehicle rely on taking public transit, walking, bicycling, or carpooling to get to their everyday destinations.

Table 5: Transportation to Work Percentages

	199.02	199.03	200.17	Average
Drove Alone	80%	73%	76%	76%
Carpooled	6%	9%	12%	9%
Public Transportation (i.e. SPRINTER)	1%	1%	1%	1%
Bicycle	1%	0%	0%	0.3%
Walked	0%	0%	2%	1%
Other Means	1%	0%	3%	1%
Worked From Home	11%	16%	6%	11%
Mean Travel Time to Work	25.1 minutes	29.7 minutes	20.8 minutes	25.20 minutes

Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table B08006

Table 6: Vehicle Access by Household

	199.02	199.03	200.17	Average
No Access to a Vehicle	2.2%	3%	5.3%	3.5%
1 Vehicle Available	19.8%	30.5%	37.1%	29.1%
2 Vehicles Available	42%	53.4%	41.8%	45.7%
3 Vehicles Available	25.9%	8.6%	9.7%	14.7%
4 or More Vehicles Available	10%	4.6%	6.1%	6.9%

Source: US Census Bureau, American Community Survey 5-Year Data 2022 Table B08201



Existing Transportation Network

As discussed previously in the *Access to Services and Resources* section of this memorandum, it is important to note that services and resources are primarily located outside of the study area boundary and residents must travel outside of Buena Creek to reach things like childcare, groceries, healthcare centers, and retail centers as well as recreational destinations such as parks and hiking trails. Identifying the existing active transportation network and analyzing the current roadway conditions can provide additional insight on the overall transportation needs of the community.

Existing Roadway Conditions

This review of the existing roadway network in Buena Creek focuses on higher classifications of Circulation Element roadways (Boulevards, Major Roads, Prime Arterials, and Expressways) including Santa Fe Avenue. While Buena Creek Road and Robelini Drive are two-lane facilities, they provide important regional connections outside of Buena Creek. **Exhibit 9** shows the existing roadway classification.

A parallel effort led by the County's Department of Public Works (DPW) evaluated roadways near various opportunity sites identified in the Development Feasibility Assessment (DFA). This assessment looked at the existing cross-section of these roadways including presence of sidewalks, bike lanes, on-street parking, and travel land widths. The existing cross sections were then compared to the ultimate built-out conditions based on the ultimate classifications of the roadways. This assessment is included as **Attachment A**.

Bicycle and Pedestrian Facilities

San Diego County is currently built on a foundation of auto-central infrastructure but is actively working on integrating active transportation infrastructure into the roadway network to encourage walking and biking.

Bicycle Facilities

As shown in **Exhibit 10**, the Inland Rail Trail runs through Buena Creek connecting southern Vista and northern Escondido. While the Inland Rail Trail is a Class I multi-use trail, there are limited bicycle facilities connecting residents to key destinations like the shopping centers along Sycamore Avenue and Hannalei Elementary School. Currently, a Class II bike lane runs along Santa Fe Avenue north of York Drive and a Class III bike route running along Buena Creek Drive.

When planning for future bicycle improvements, it is important to consider the main types of bicycle infrastructure currently in place and how they can be improved to suit residents of all ages and abilities:

- Shared-Use Path (Class I) – this type of facility is a completely separate trail from the road network. The Inland Rail Trail is considered a Class I.
- Bike Lane (Class II) – bike lanes are striped and are approximately 4 to 6 feet wide. They provide some separation from the road but can be considered stressful to ride on especially on roadways with high speeds.
- Bike Route (Class III) – a bike route is a shared roadway typically located on a low-volume and low-speed street and should not be considered on roadways with high volumes and speeds. Signs and painted sharrows are typically used along Class III routes.

CoSD CBT Program -

Buena Creek Neighborhood Mobility Plan



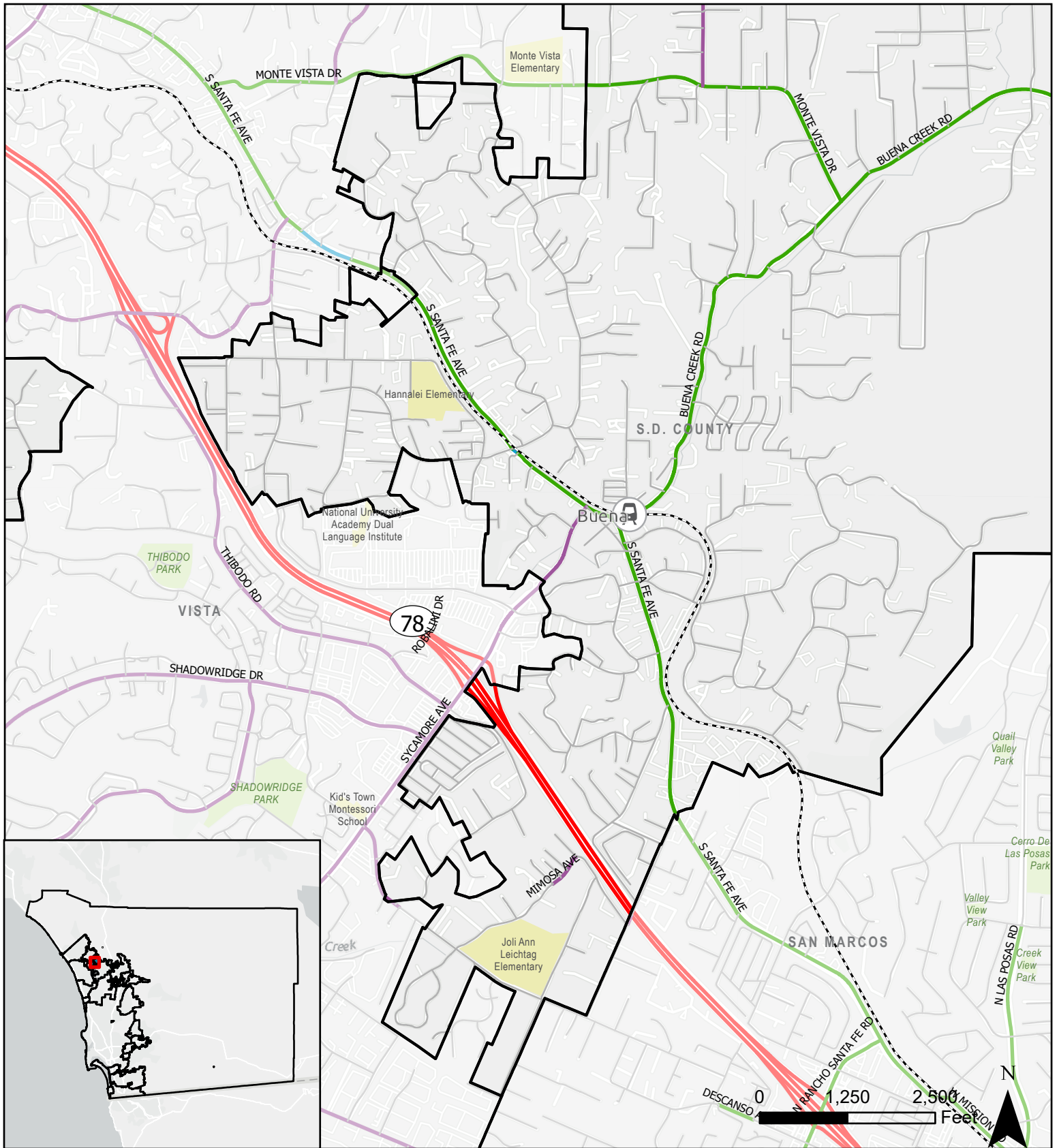
- Cycle Track (Class IV) – a cycle track is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. These facilities are usually separated using bollards, car parking, or concrete barriers.

Pedestrian Facilities

There are currently sidewalks on both sides of Santa Fe Avenue north of Woodland Drive but become intermittent with more frequent gaps as you get closer to the SPRINTER Station. There are no sidewalks provided along either side of Sycamore Drive south of Buena Creek Drive. Robelini Drive currently does not have any sidewalks, however as you enter the City of Vista and the roadway transitions to Sycamore Avenue, there are sidewalks on both sides of the street. Marked crosswalks identified in **Exhibit 10** are currently not ADA compliant (i.e. missing truncated domes and a detectable warning surface) and are also not high-visibility crosswalks.

Sidewalk availability is very limited in Buena Creek and having sidewalk access to key destinations like the SPRINTER Station, bus stop and shopping centers is an apparent in the existing transportation infrastructure the residents living in Buena Creek are currently facing.

Potential future improvements to pedestrian facilities will be evaluated later in the CBT process.

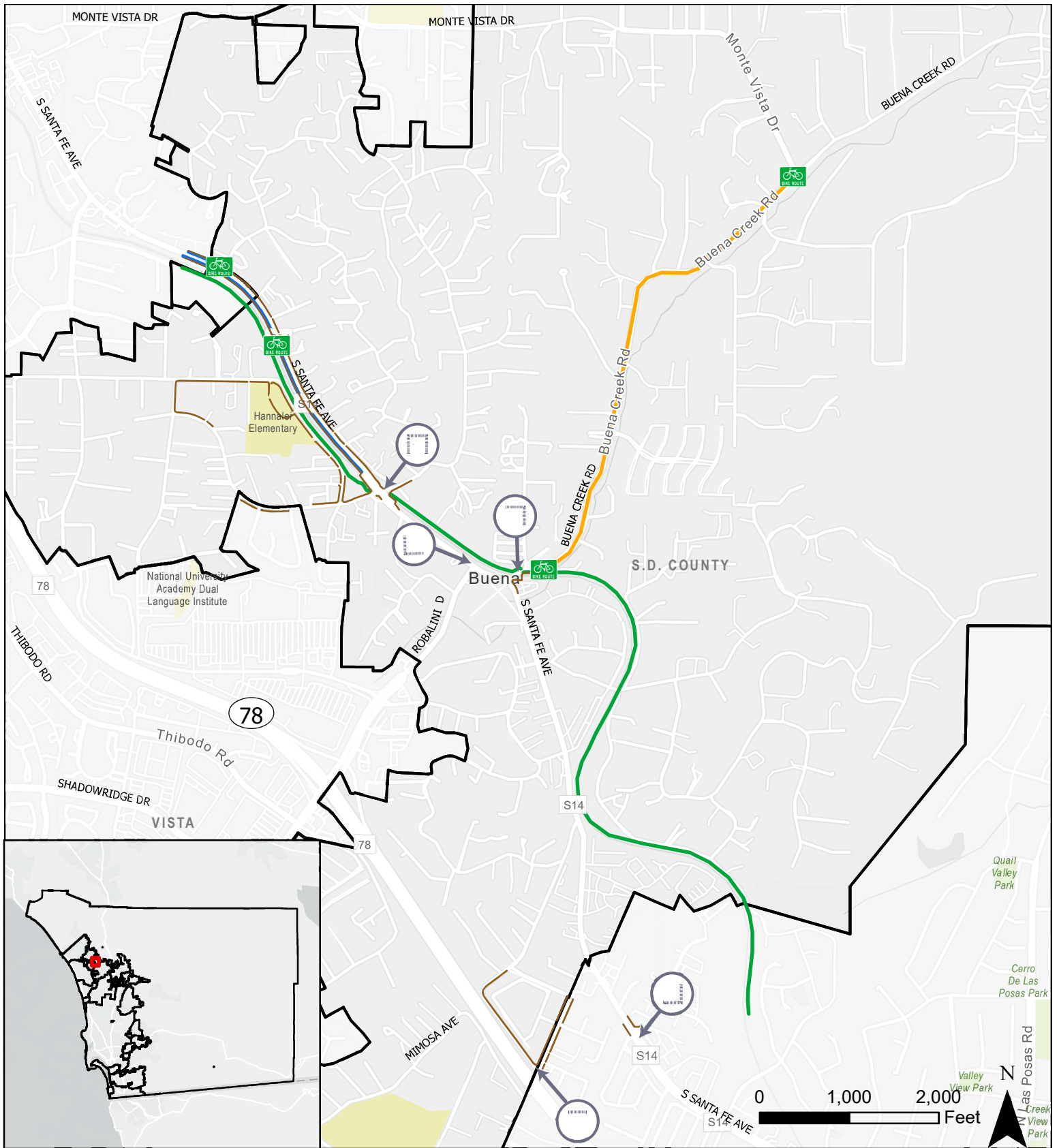


Legend

- Freeway/Expressway
- Highway/State Routes
- Minor Highway/Major Road
- Arterial or Collector
- Local Street
- Buena Creek SPRINTER Station
- SPRINTER Transit Route
- School
- Park
- City Boundary

Buena Creek

**DRAFT Neighborhood Mobility Plan
Mobility Plan Study Area**



Legend **Buena Creek**

- | | |
|-----------------------------------|--------------------|
| Existing Bike Route Sign | Existing Crosswalk |
| Multi Use Path -Inland Rail Trail | Park |
| Class II Bike Lane | School |
| Class III Bike Routes | City Boundary |
| Sidewalk | |

DRAFT Neighborhood Mobility Plan
Existing Bicycle & Pedestrian Facilities



Existing Transit Network

Buena Creek is currently served by North County Transportation District (NCTD) BREEZE Bus System, the primary transit operator in Unincorporated San Diego. Currently, Bus Route 305 runs through Buena Creek connecting to Vista in the north and San Marcos to the south and Bus Route 332 connecting to Carlsbad via Sycamore Drive.

The SPRINTER line also runs through Buena Creek, connecting the community to Oceanside to the west and Escondido to the east. The Buena Creek SPRINTER Station is currently the only light rail station in San Diego County and can be accessed by the Inland Rail Trail.

Table 7 shows the average daily boardings in 2023 at all BREEZE and SPRINTER stops. The average daily boarding for the stops within the study area have also been identified. The table below show that the BREEZE bus had more average boardings in 2023 during the weekday than the SPRINTER and as well as the weekends.

Table 7: Transit Average Daily Boardings (2023)

Day Type	BREEZE		SPRINTER	
	Average Daily Boardings (2023)	Average Daily Boardings in Study Area (2023)	Average Daily Boardings (2023)	Average Daily Boardings in Study Area (2023)
Weekday	14,418	TBD	5,257	TBD
Saturday	8,108	TBD	3,416	TBD
Sunday	6,634	TBD	2,749	TBD

Source: North County Transit District (NCTD)

Almost all bus stops in Buena Creek are provided with benches, signage, and trash cans while only select bus stops have shelters. Only 3 out of the 13 bus stops have adequate lighting (source within approximately 50-feet). **Table** shows the location of the existing transit stops as well as the existing amenities at each stop and **Exhibit 11** breaks down the available amenities at each bus stop. It is important that all transit stops are ADA compliant and have shelters and benches. Almost all bus stops within Buena Creek are not ADA compliant with missing or narrow sidewalks and may hinder users to use public transportation.

Other Transit Services

NCTD also provides its FLEX On Demand Transit Service which will deviate from its fixed route to pick up passengers at their location with a reservation within the FLEX zone or nearest transit connection point.

For individuals whose disability prevents independent access and use of NCTD’s bus and light rail services, paratransit services are also offered through NCTD’s LIFT Paratransit service. LIFT is provided through its contractors, ADARide and MV Transportation who support NCTD by providing reservations and determining customer eligibility. LIFT provides curb-to-curb service for customers and are provided to areas that are within ¼ of a mile of an NCTD BREEZE bus route and/or rail station.

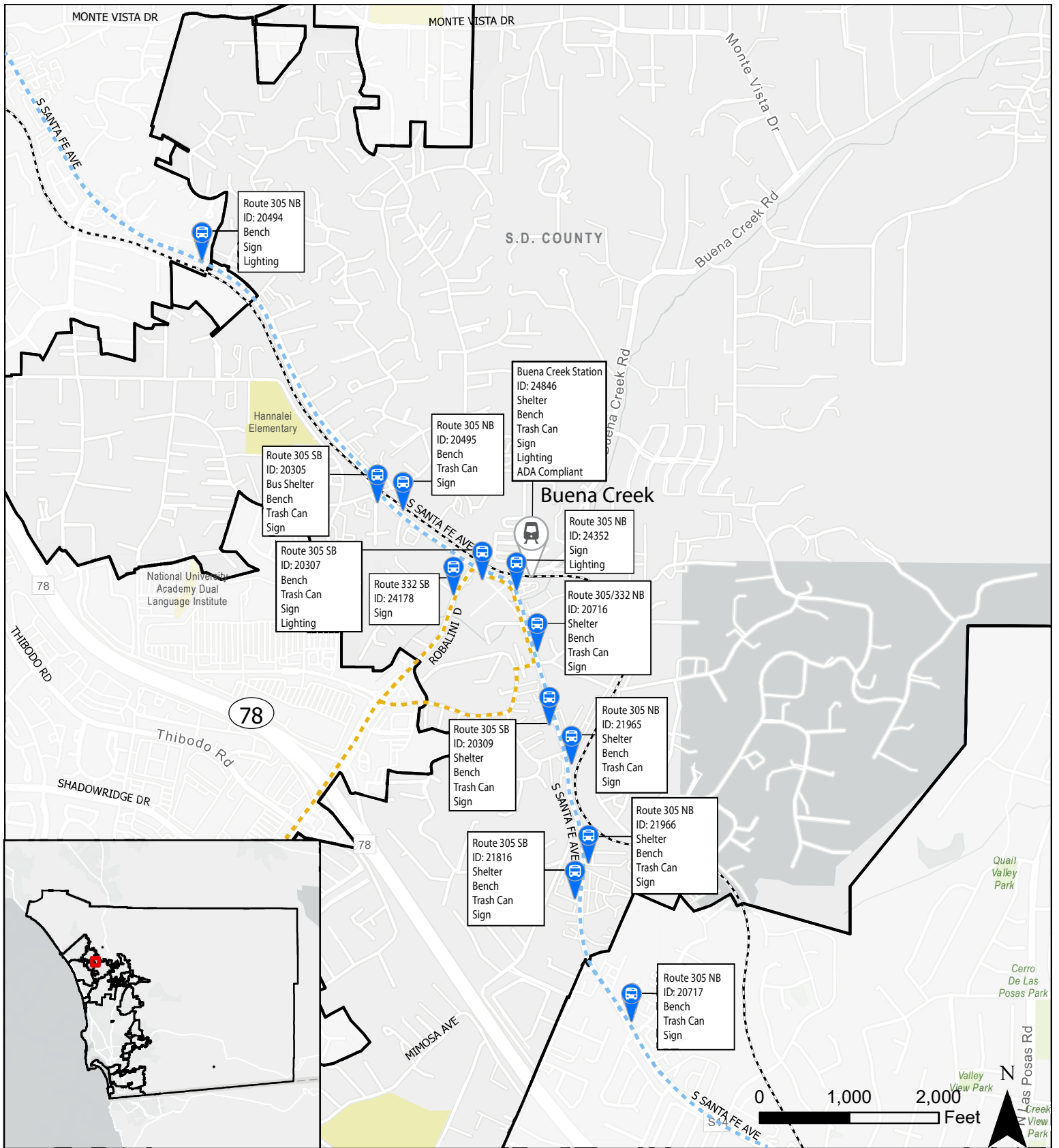


Table 8: Bus Stop Amenities

Bus Stop (direction)	Stop ID	Available Amenities						
		Shelter	Bench	Trash Receptacle	Sign	Map	Lighting	ADA Compliant
01 S Santa Fe Av & Bosstick Blvd (NB)	20717		✓	✓	✓			
02 S Santa Fe Av & 2511 (SB)	21816	✓	✓	✓	✓			
03 S Santa Fe Av & Poinsettia Av (NB)	21966	✓	✓	✓	✓			
04 S Santa Fe Av & Azalea Dr (NB)	21965	✓	✓	✓	✓			
05 S Santa Fe Av & Azalea Dr (SB)	20309	✓	✓	✓	✓			
06 S Santa Fe Av & Palmyra Dr (NB)	20716	✓	✓	✓	✓			
07 S Santa Fe Av & Buena Creek Rd (NB)	24352				✓		✓	
08 S Santa Fe Av & Robelini Dr (SB)	20307		✓	✓	✓		✓	
09 S Santa Fe Av & York Dr (NB)	20495		✓	✓	✓			
10 S Santa Fe Av & Woodland Dr (SB)	20305	✓	✓	✓	✓			
11 S Santa Fe & Montgomery Dr (NB)	20494		✓	*	✓		✓	
12 Robelini Dr & El Valle Opulento (SB)	24178				✓			
13 Buena Creek Station	24846	✓	✓	✓	✓		✓	✓

Note: Bus Stop locations are illustrated in Exhibit 9 and illustrated northbound, counterclockwise

* Facilities exist but has indications of damage/disrepair.



Legend

- Buena Creek SPRINTER Station
- Bus Stop
- SPRINTER Transit Route
- Route 305
- Route 332
- School
- Park
- City Boundary

Buena Creek

**DRAFT Neighborhood Mobility Plan
Existing Transit Routes**

Appendix B

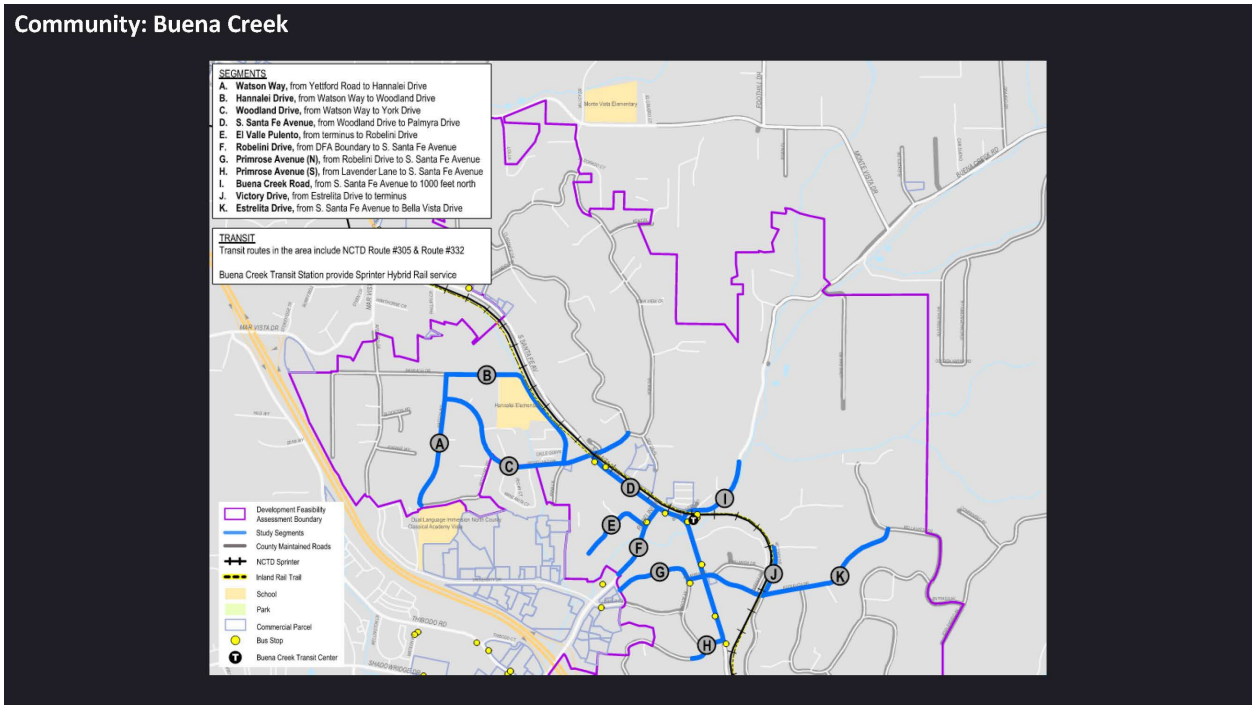


Development Feasibility Assessment: Infrastructure Analysis Report Excerpts¹

1. To view the full Development Feasibility Analysis report, please refer to the Board of Supervisors Archive at this link [COBPublicView](#), or visit the County's webpage [Development Feasibility Analysis \(DFA\)](#)

Exhibit B1¹

Community: Buena Creek



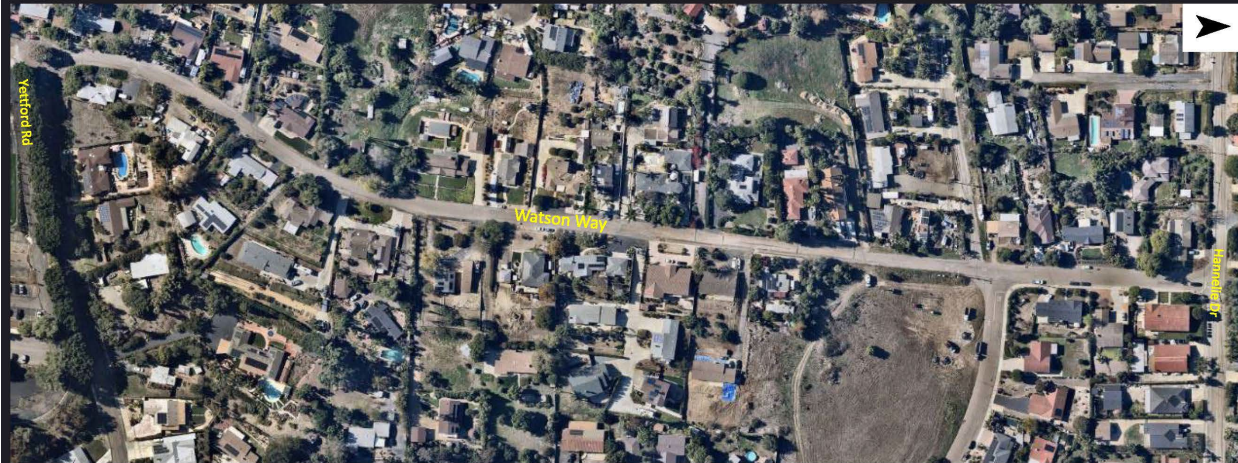
¹ This is termed Attachment A in the Dept of Public Works draft IGA Report.

Community: Buena Creek

Segment A: Watson Way, from Yettford Rd to Hannelei Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Yettford Rd – Hannelei Dr	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	30	1.1
Existing			2 -	-	24'-30'	46'-58'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

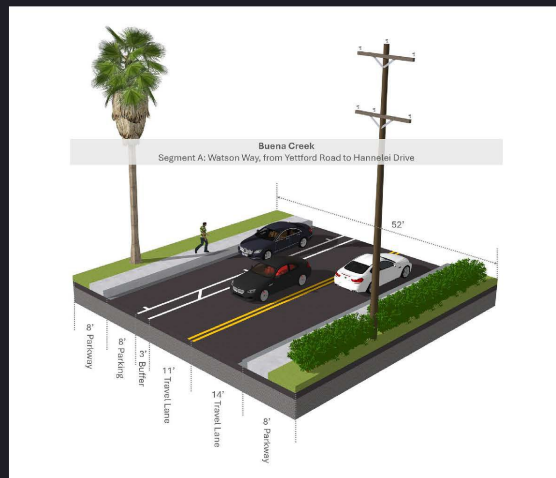


Community: Buena Creek

Segment A: Watson Way, from Yettford Rd to Hannelei Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Yettford Rd – Hannelei Dr	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	30	1.1
Existing			2 11-12'	-	24'-30'	46'-58'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Investments to Segment A: Watson Way, from Yettford Road to Hannelei Drive enhance walkability by providing sidewalks. Additional investments include a parkway, a buffer between parking and the travel lane, and increasing the right-of-way width to 52-feet.

Community: Buena Creek

Segment B: Hannalei Drive, from Watson Way to Woodland Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Watson Way - Woodland Dr	-	Residential Collector	2 12'	-	40'	60'	2 8'	10'	30	0.3-1.6
Existing			2 12'+	-	32'-38'	36'-70'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

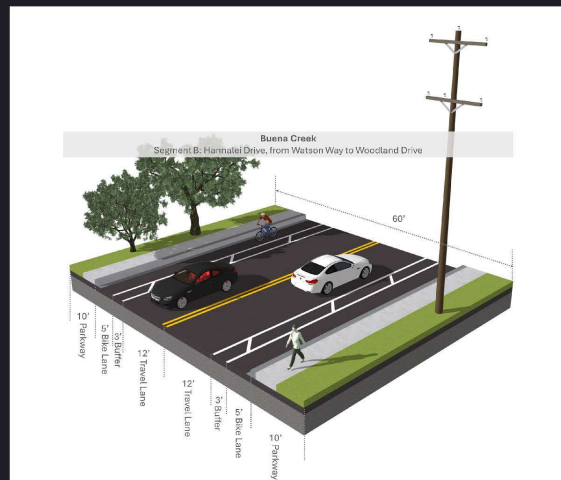


Community: Buena Creek

Segment B: Hannalei Drive, from Watson Way to Woodland Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Watson Way - Woodland Dr	-	Residential Collector	2 12'	-	40'	60'	2 8'	10'	30	0.3-1.6
Existing			2 12'+	-	32'-38'	36'-70'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

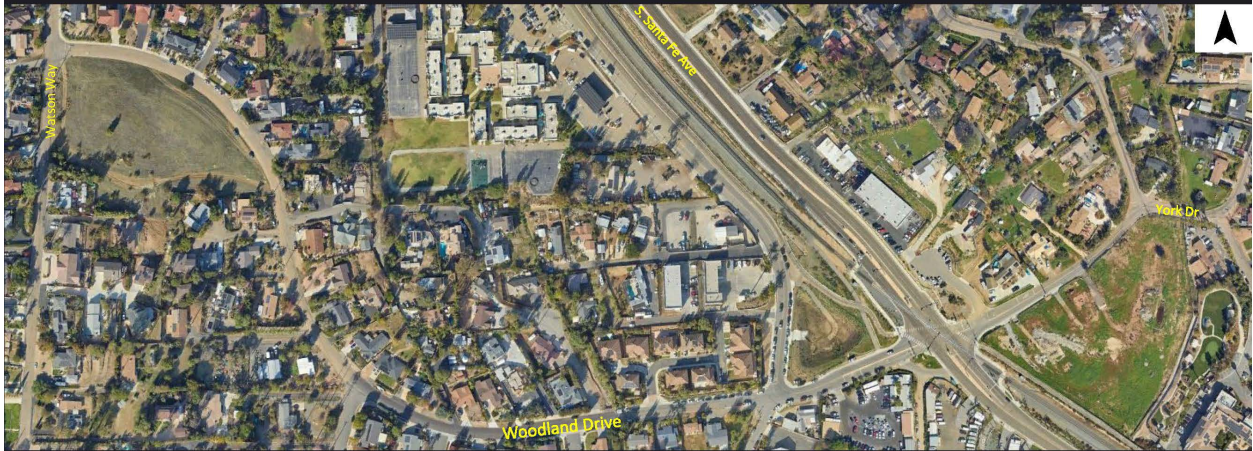


Investments to Segment B: Enhance bikeability by installing a Class II bike lane along Hannalei Drive from Watson Way, connecting to the existing Class I trail along South Santa Fe Avenue. Additional investments include a parkway, a buffer between parking and the travel lane, and increasing the right-of-way width to 60-feet.

Community: Buena Creek

Segment C: Woodland Drive, from Watson Way to York Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)	Segment is not part of the LRSP Priority List Segment has no intersections on the LRSP Priority List
Watson Way - York Dr	-	Residential Road	2 12'	-	36'	56'	2 6'	10'	30	0.1-2	
Existing			2 -	-	35'-45'	56'-60'					



Community: Buena Creek

Segment C: Woodland Drive, from Watson Way to York Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)	Segment is not part of the LRSP Priority List Segment has no intersections on the LRSP Priority List
Watson Way - York Dr	-	Residential Road	2 12'	-	36'	56'	2 6'	10'	30	0.1-2	
Existing			2 -	-	35'-45'	56'-60'					



Investments to Segment C: Woodland Drive, from Watson Way to York Drive enhance walkability by providing sidewalks. Additional investments include a parkway, and a buffer between parking and the travel lane.

Community: Buena Creek

Segment D: South Santa Fe Avenue, from Woodland Dr to Palmyra Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Woodland Dr – Palmyra Dr	Major Road (4.1A)	-	4 12'	14	78'	98'	2 8'	10'	55	16.8-20.4
Existing			2-4	11'+	-	44'-72'	62'-80'			

Segment is a part of the LRSP Priority List (#11)
Segment has no intersections on the LRSP Priority List



Community: Buena Creek

Segment D: South Santa Fe Avenue, from Woodland Dr to Palmyra Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Woodland Dr – Palmyra Dr	Major Road (4.1A)	-	4 12'	14	78'	98'	2 8'	10'	55	16.8-20.4
Existing			2-4	11'+	-	44'-72'	62'-80'			

Segment is a part of the LRSP Priority List (#11)
Segment has no intersections on the LRSP Priority List



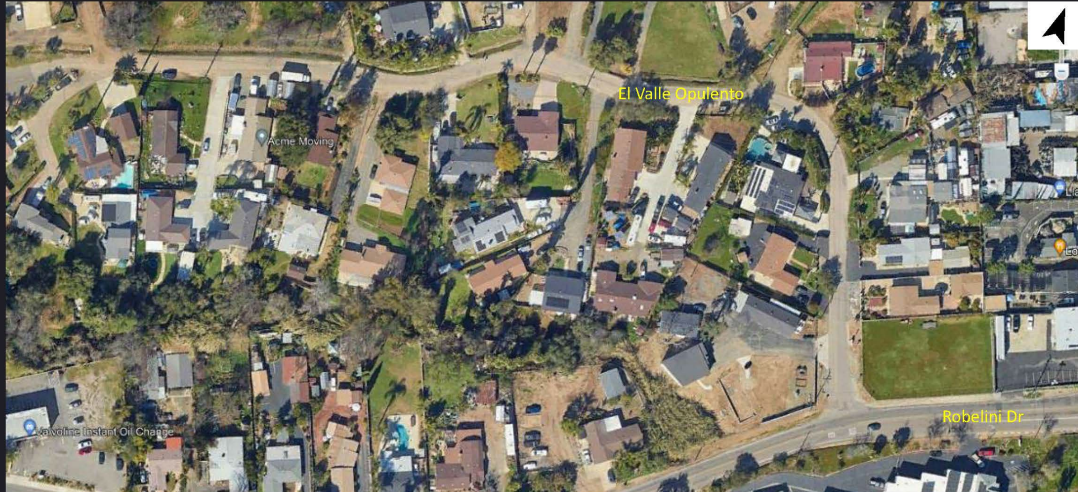
Investments to Segment D: South Santa Fe Avenue, from Woodland Drive to Palmyra Drive enhance bikeability and walkability by providing sidewalks and Class II bike lanes. Additional investments include 14-foot median and increasing the right-of-way width to 98-feet.

Community: Buena Creek

Segment E: El Valle Opulento, from Terminus to Robelini Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Terminus – Robelini Dr	-	Residential Cul-de-sac	2 12'	-	32'	52'	2 4'	10'	30	Not Available
Existing			2 -	-	24'	52'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Community: Buena Creek

Segment E: El Valle Opulento, from Terminus to Robelini Drive

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Terminus – Robelini Dr	-	Residential Cul-de-sac	2 12'	-	32'	52'	2 4'	10'	30	Not Available
Existing			2 -	-	24'	52'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Investments to Segment E: El Valle Opulento, from Terminus to Robelini Drive enhance walkability by providing sidewalks. Additional investments include adding a parkway.

Community: Buena Creek

Segment F: Robelini Dr, from DFA Boundary to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
DFA Boundary – South Santa Fe Ave	6.2 Prime Arterial	-	6 12'	14	102'	122'	2 8'	10'	65	25.9
Existing			2 12'+	-	32'-42'	52'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

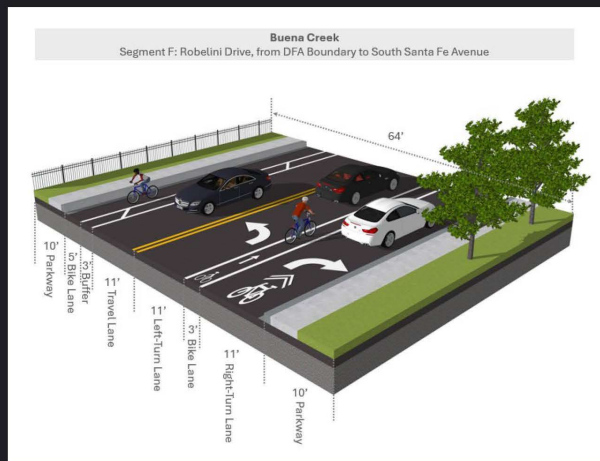


Community: Buena Creek

Segment F: Robelini Dr, from El Valle Oplento to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
DFA Boundary – South Santa Fe Ave	6.2 Prime Arterial	-	6 12'	14	102'	122'	2 8'	10'	65	25.9
Existing			2 12'+	-	32'-42'	52'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Assumes no realignment of Robelini Drive opposite to Buena Creek. Specific design of entire road would be determined in final engineering.

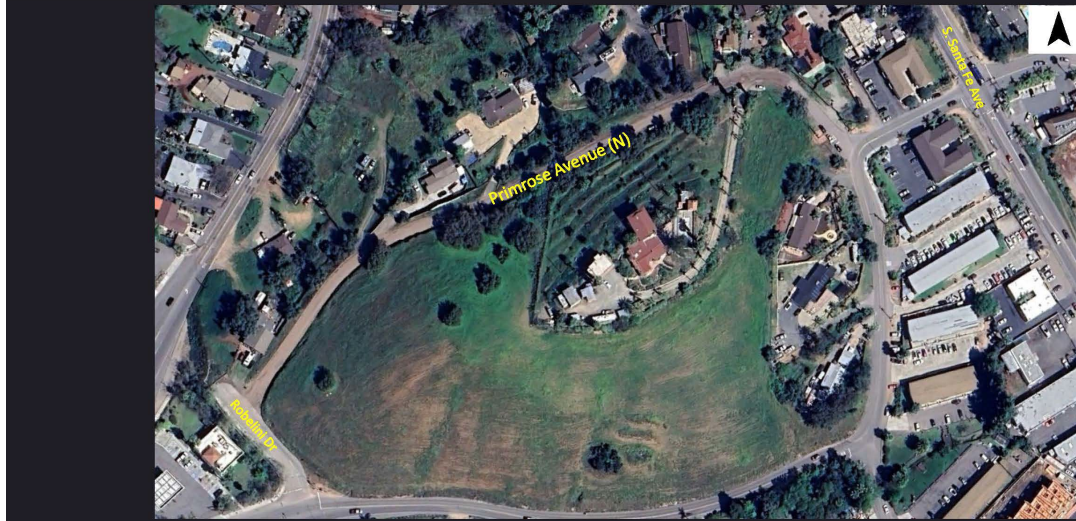
Investments to Segment F: Robelini Drive from El Valle Oplento to South Sante Fe Drive enhance bikeability and walkability by providing sidewalks and Class II and Class III bike lanes. Additional investments include increasing the right-of-way width to 122-feet.

Community: Buena Creek

Segment G: Primrose Avenue (N), from Robelini Dr to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Curve Radius	Min MPH	2035 ADTs (1000s)
Robelini Dr – South Santa Fe Ave	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	200'	30	Not Available
Existing			2	-	-	20'-24'	50'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

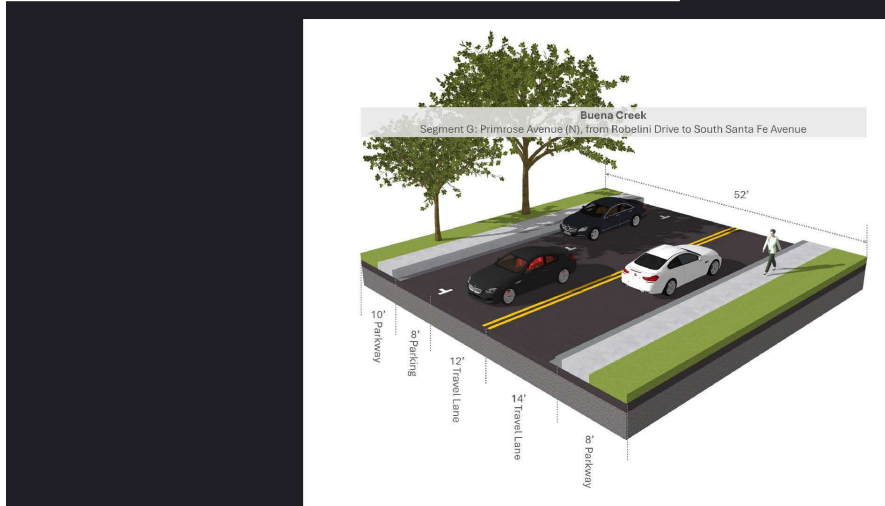


Community: Buena Creek

Segment G: Primrose Avenue (N), from Robelini Dr to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Curve Radius	Min MPH	2035 ADTs (1000s)
Robelini Dr – South Santa Fe Ave	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	200'	30	Not Available
Existing			2	-	-	20'-24'	50'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Investments to Segment G: Primrose Avenue (N), from Robelini Drive to South Sante Fe Avenue enhance walkability by providing sidewalks. Additional investments include a parkway and increasing the right-of-way width to 52-feet.

Community: Buena Creek

Segment H: Primrose Avenue (S), from Lavender Lane to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Curve Radius	Min MPH	2035 ADTs (1000s)
Lavender Lane – South Santa Fe Ave	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	200'	30	Not Available
Existing			2 12'	-	24'	50'					

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

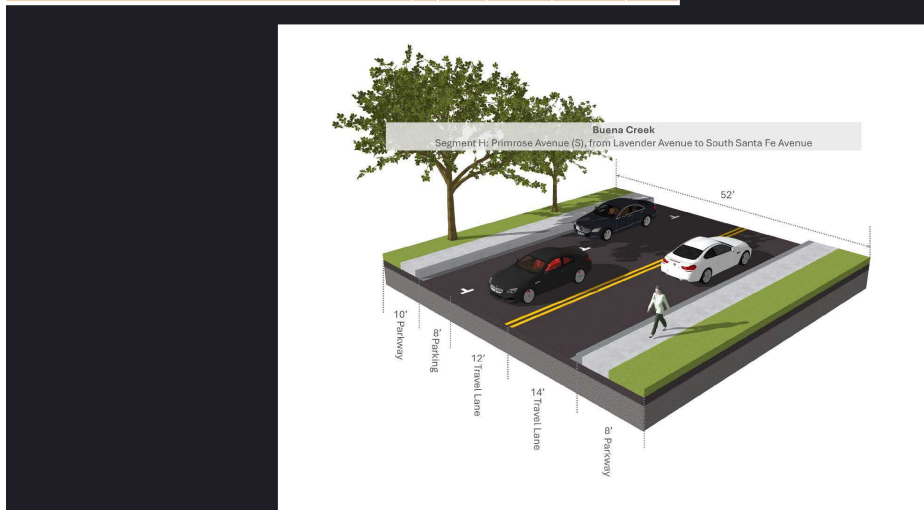


Community: Buena Creek

Segment H: Primrose Avenue (S), from Lavender Lane to South Santa Fe Ave

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Curve Radius	Min MPH	2035 ADTs (1000s)
Lavender Lane – South Santa Fe Ave	-	Residential Loop	2 12'	-	32'	52'	2 4'	10'	200'	30	Not Available
Existing			2 12'	-	24'	50'					

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



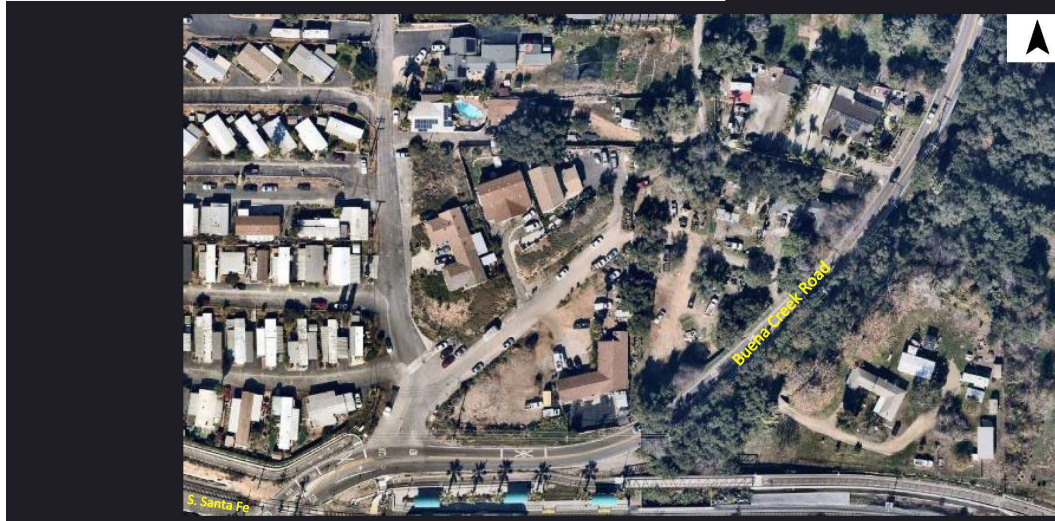
Investments to Segment H: Primrose Avenue (S), from Lavendar Lane to South Sante Fe Avenue enhance walkability by providing sidewalks. Additional investments include a parkway and increasing the right-of-way width to 52-feet.

Community: Buena Creek

Segment I: Buena Creek Road, from South Santa Fe Ave to 1000 ft North

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
South Santa Fe Ave – 1000 ft North	Major Road (4.1B)	-	4 12'	-	64'-78'	84'-98'	2 8'	10'	55	25.9
Existing			2 11'	-	22'-48'	40'-50'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List

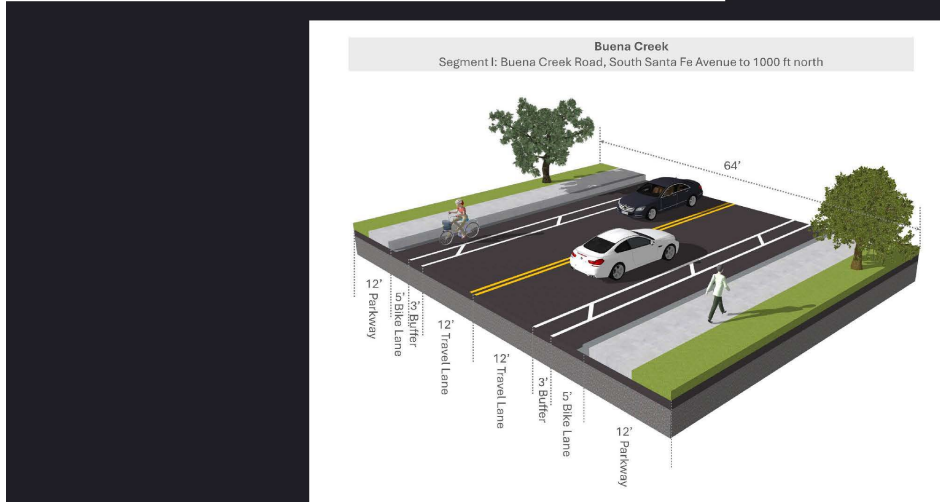


Community: Buena Creek

Segment I: Buena Creek Road, from South Santa Fe Ave to 1000 ft North

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
South Santa Fe Ave – 1000 ft North	Major Road (4.1B)	-	4 12'	-	64'-78'	84'-98'	2 8'	10'	55	25.9
Existing			2 11'	-	22'-48'	40'-50'				

Segment is not part of the LRSP Priority List
Segment has no intersections on the LRSP Priority List



Investments to Segment I: Buena Creek Road, from South Santa Fe Ave to 1000 ft North enhance bikeability and walkability by providing sidewalks and Class II bike lanes. Additional investments include increasing the right-of-way width to 64-feet.

Community: Buena Creek

Segment J: Victory Drive, from Estrelita Dr to Terminus

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Estrelita Dr - Terminus	-	Rural Residential Road	2 12'	-	28'	48'	2 2'	10'	30	Not Available
Existing			2	-	-	16'-22'	46'			

Segment is not part of the LRSP Priority List
 Segment has no intersections on the LRSP Priority List

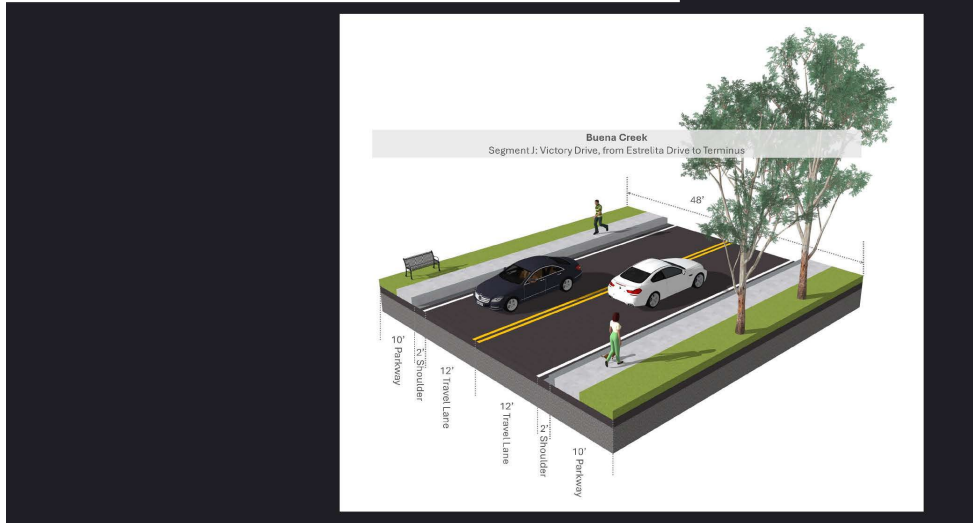


Community: Buena Creek

Segment J: Victory Drive, from Estrelita Dr to Terminus

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
Estrelita Dr - Terminus	-	Rural Residential Road	2 12'	-	28'	48'	2 2'	10'	30	Not Available
Existing			2	-	-	16'-22'	46'			

Segment is not part of the LRSP Priority List
 Segment has no intersections on the LRSP Priority List



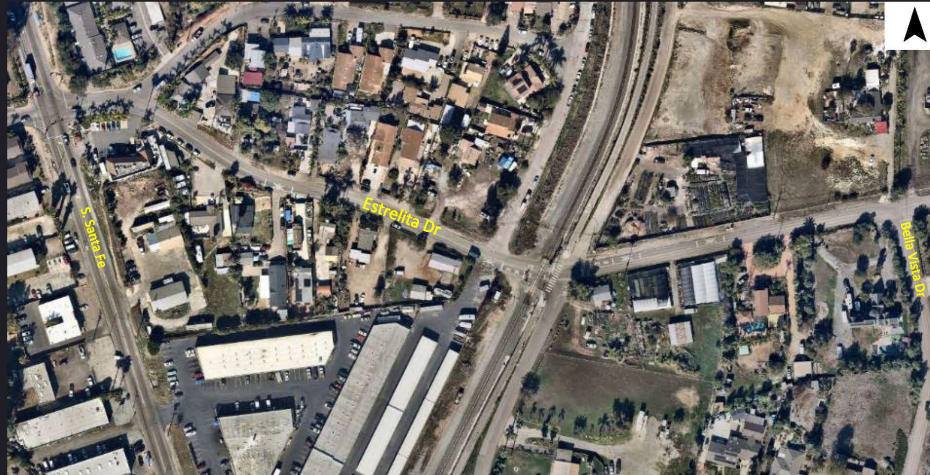
Investments to Segment J: Victory Drive, from Estrelita Dr to Terminus enhance walkability by providing sidewalks. Additional investments include increasing the right-of-way width to 48-feet.

Community: Buena Creek

Segment K: Estrelita Drive, from South Santa Fe Ave to Bella Vista Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
South Santa Fe Ave – Bella Vista Dr	-	Residential Collector	2 12'	-	40'	60'	2 8'	10'	30	1.8
Existing			2 12'	-	24'-28'	46'-50'				

Segment is not part of the LRSP Priority List
Segment has intersection on the LRSP Priority List (#23)

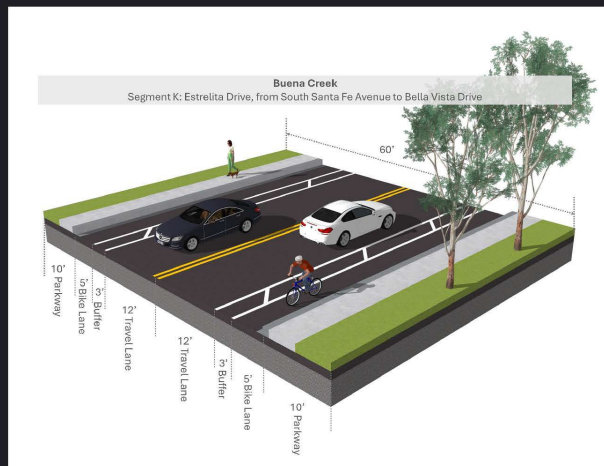


Community: Buena Creek

Segment K: Estrelita Drive, from South Santa Fe Ave to Bella Vista Dr

Extents	ME Classification	Non-ME Functional Classification	Lanes (#/Width)	Median	Road Surfacing	ROW Width	Shoulder (#/Width)	Parkway	Min MPH	2035 ADTs (1000s)
South Santa Fe Ave – Bella Vista Dr	-	Residential Collector	2 12'	-	40'	60'	2 8'	10'	30	1.8
Existing			2 12'	-	24'-28'	46'-50'				

Segment is not part of the LRSP Priority List
Segment has intersection on the LRSP Priority List (#23)



Investments to Segment K: Estrelita Drive, from South Santa Fe Ave to Bella Vista Dr Drive enhance bikeability and walkability by adding a Class II bike lane and sidewalks. Additional investments include increasing the right-of-way width to 60-feet.

Appendix C



**Engagement Summary &
Public Workshop Transcripts**



County of San Diego
Community Based Transportation Program

Buena Creek Neighborhood Mobility Plan

BC MOVES

**Phase I Stakeholder Engagement
Summary Report**

Draft #1– 01/27/25

I. Overview

Introduction

The purpose of this Phase I Stakeholder Engagement Summary Report (the Report) for the Buena Creek Neighborhood Mobility Plan, also known as Buena Creek Mobility Options Via Efficient Solutions “BC MOVES,” is to summarize the project background and engagement objectives, process, activities, and key findings from this phase of the project. This report also summarizes the outreach efforts and community feedback received to-date.

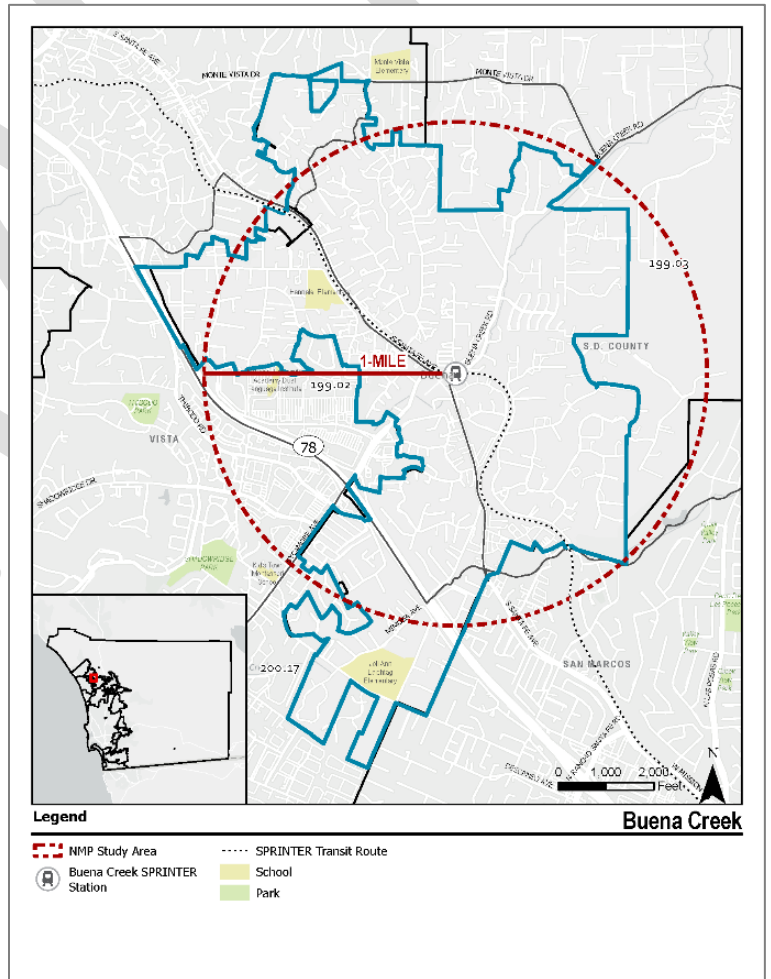
The BC MOVES designated Project Manager from the County Planning and Development Services Department (PDS) leads the technical process, including oversight of development and implementation of the Stakeholder Engagement Plan (SEP), with support from other staff and technical team members.

Summary of Community and Project Backgrounds

The SEP and Community Needs Assessment documents for the project contain detailed information about community background topics including land uses and demographics. Following is a summary of key community and project background points as outlined in the *Existing Conditions Assessment* under a separate cover.

Community Background

- Overall, the land use patterns in Buena Creek are reflective of a highly auto dependent area.
- Much of the Buena Creek study area falls in unincorporated San Diego County, with the majority of the land use designated as low density residential with a clear commercial corridor along Santa Fe Avenue with a variety of designated land uses including commercial office and retail, multifamily, community institutions, schools, and industrial warehouses.
- A majority of multifamily residential land use is seen closest to the Buena Creek Sprinter Station, in addition to two mobile home parks, whose residents tend to be older and low income, so convenient access to mobility options should be a priority.



- The current population of Buena Creek is approximately 11,882 and is made up of 3,759 households. The median household income for Buena Creek in 2022 was \$82,972, which is a 17 percent difference from the County (\$98,928). Owner-occupied households earn about \$37,000 more than renter-occupied households.
- Buena Creek is racially and ethnically diverse as a whole. The two largest groups of residents in the community identify as Hispanic/Latino and White at 45 percent and 38 percent, respectively. Just over 60 percent of Buena Creek’s residents speak English as their primary language at home and 34 percent speak Spanish.
- The percent of the population whose income is below poverty level is >10 percent throughout the entire Buena Creek study area.

Project Background

- San Diego Association of Governments (SANDAG) Regional Plan and Sustainable Communities Strategy (Regional Plan) includes developing a network of Mobility Hubs. Less than 1 percent of unincorporated San Diego County is currently within the sphere of influence of the proposed Mobility Hubs, where transit and on-demand travel infrastructure investment will be focused.
- The Community Based Transportation Program (CBT Program) is focused on achieving greater equity and expanding mobility options for the unincorporated areas as a “living framework” for guidance on how communities should advance their transportation infrastructure and identify transportation investment opportunities. BC MOVES is part of the CBT Program, bringing Buena Creek residents, community organizations, and County staff together to identify multimodal transportation challenges and needs in the local community.
- The resulting toolbox of mobility solutions forms the Buena Creek Neighborhood Mobility Plan. Known as BC MOVES, it will explore unique opportunities and recommendations for mobility that can directly contribute to reducing greenhouse gas emissions, as well as identify community specific opportunities to align with potential increased infill development and density close to the Buena Creek Sprinter Station that are consistent with regional and climate plans and reduce dependence on auto-centric mobility.
- More specifically, BC MOVES will look to achieve mobility goals, including but not limited to:
 - Analyze ways to better connect the Buena Creek community to the Buena Creek Sprinter Station and increased transit options (i.e., the local mobility hub)
 - Accommodate multimodal travel options and grow active transportation networks (e.g., walking, biking, rolling, micro-mobility, and public transit).
 - Assist the community in understanding how improved mobility and expanded community capacities and collaborative relationships may help to address community needs such as health, safety, housing, equity, restorative justice and mobility.
 - Encourage and facilitate opportunities for all community members to participate in the vision development, prioritization, and decision-making

Stakeholder Engagement Objectives and Phases

Overall, the goal of stakeholder engagement for BC MOVES is to facilitate inclusive community engagement through community-centered outreach. Following are engagement objectives that support this goal:

1. Identify and engage stakeholder groups and all community members in envisioning and designing a safe, connected, accessible, and multi-modal mobility system
2. Provide multiple and relevant communication methods to build community awareness of the project and how to get involved
3. Account for the communication and engagement needs of environmental justice communities and those community members who have limited mobility options, which may include but not be limited to those who are difficult to reach, have language barriers, and who do not normally participate in traditional community engagement activities (i.e., meet them where they are)
4. Design and conduct engagement activities that are accessible and relevant to their target audiences and that provide meaningful input and data to the project team
5. Record, summarize, and publish community input in accessible formats at key points in the process

Stakeholder engagement is organized by the two phases of the BC MOVES process:

Phase I: Community Needs Assessment and Opportunities

Phase II: Draft and Final Neighborhood Mobility Plan.

This report summarizes the process, activities, and key findings for Phase I.

II. Phase I Stakeholder Engagement Process and Activities

Objectives and Key Questions

The purpose of Phase I was to educate and collect community input on priorities for mobility options in the Buena Creek community as part of the Community Needs Assessment (CNA). The Phase I objectives and key questions (in *italics*) for collecting input were as follows:

1. Inform the community on the purpose and background for the CBT and BC MOVES
 - *What questions do you have about the project purpose and background?*
2. Involve the community in refining the draft findings from the CNA to reflect their mobility experiences
 - *Which of the findings are most related to your mobility experiences in Buena Creek? Why?*
 - *Do you have additional mobility experiences in Buena Creek to add to the assessment findings?*
3. Involve the community in identifying potential mobility improvements and programs that respond to their needs
 - *Based on your mobility experiences and needs in Buena Creek, which potential mobility improvements or programs are most important to you?*
4. Inform the community on next steps in the process and how to stay involved
 - *Are there additional ways that would help you to stay involved?*

Outreach and Communications Methods

The project team utilized the following outreach strategies and communication methods during Phase I:

- Launch of the “Engage Buena Creek Mobility: BC MOVES” web page through the County’s Engage platform with at least 298 visits (see next section for more details)
- Direct email or calls to current contact list of BC stakeholders: 45
- Direct email via County GovDelivery email platform: 7,436 delivered; 3,436 opened
- Use of stakeholder groups’ communication channels and spaces (e.g., social media, e-newsletters, bulletin boards)
 - Hannalei Elementary e-newsletter: 726 recipients
 - Flyer postings at community destinations in/near the study area: Buena Creek Sprinter Station; Hannalei Elementary; Vista Library; Marvin Egg Market; San Marcos Senior Center; Jacksons Food Store; LA Fitness; Gourmet Liquor

Engagement Activities

Phase I engagement activities included the following:

- **Launch of “Engage Buena Creek Mobility: BC MOVES” webpage** to serve as the public communications hub, with outreach efforts designed to attract stakeholders to the webpage for the latest project information and upcoming engagement activities.
- **An in-person community workshop** was hosted by the project team on October 15, 2024 at the (school) within the BC community. Project information was presented to community members about initial needs assessment findings, and input was solicited from the perspective of the community members’ priority issue areas, and potential mobility improvements and programs.
- **Tabling at the BC Sprinter Station** in collaboration with NCTD was held on one weekday evening and one weekday morning to provide brief project information and input opportunities about mobility needs from the transit riders moving through the Sprinter Station.
- **Communications with and feedback from the Twin Oaks Valley Community Sponsor Group**, a local advisory group that includes the Buena Creek community with members appointed by the County Board of Supervisors. The group provides advice on planning and land use matters. The Chair submitted project feedback on behalf of the group via email.
- **A web-based and map-based input form** included on the Engage webpage, which encouraged visitors to submit location/site-based comments on an interactive map.

The communications and feedback summarized in this report is included with the Community Needs Assessment. Additionally, the findings are considered to be specific recommendations to the project team in development of the Draft NMP.

III. Summary of Findings: Phase I Stakeholder Engagement

Overall Findings

The stakeholder engagement activities during Phase I generated the following overall findings:

- Improve pedestrian safety on major roadways and connections to the BC Sprinter Station through an expanded sidewalk network and lighting, as well as safer crossings at intersections
- Improve bicycle safety through expansion of the bike lane network, including separated facilities where possible.
- Calm traffic on major roadways to reduce collisions, improve ingress/egress safety from driveways, and improve safety for all roadway users, including people walking, biking and driving
- Improve bus service frequency, timeliness, and connections/transfers with the Sprinter
- Consider past studies that explored improvements in the study area

Following are summaries of findings from each Phase I engagement activity.

Community Workshop Findings

The Community Workshop for Phase I of BC MOVES occurred on October 15, 2024 from 6:00 p.m. to 8:00 p.m. in the Multi-Purpose Room of Hannalei Elementary School, located at 120 Hannalei Dr, in the City of Vista. Twelve (12) community members attended the workshop. The purpose of the workshop was to present project information and collect input from community members about initial needs assessment findings, community members' priority issue areas, and potential mobility improvements and programs.

Workshop Format, Agenda and Proceedings

The project team distributed public notices about the workshop through multiple means as described in the previous “Outreach and Communications Methods” section. The workshop format included brief slideshow presentations from the project team and small and large group discussions to collect input. The agenda and proceedings were as follows:



- I. **Welcome and Introductions.** Project team members introduced themselves to and their roles and responsibilities on the project
- II. **Overview: BC MOVES.** Project team members presented a slideshow explaining the project purpose, it's relation to other County efforts, the rationale for focusing on the BC community, mobility planning elements, the planning process and schedule, and community engagement objectives. Project team members also offered to answer any clarifying questions.
- III. **Draft Findings: Existing Conditions.** Project team members presented additional slides that contained findings and data about BC's land uses and housing, demographics, current travel patterns, existing transportation network (streets, bicycle, pedestrian, and transit)
- IV. **Community Input Part 1: Needs Assessment Findings.** Participants gathered around large project maps arrayed on tables in the room, where project team members facilitated small group discussions and recorded notes on the maps related to the following questions:
 - a. *What sounds familiar (or not) based on your experience moving around Buena Creek?*
 - b. *What other mobility experiences do you have?*
 - c. *What, if anything, makes it difficult to access transit in this area? Including the BC sprinter station.*
- V. **Community Input Part 2: Potential Improvements and Programs.** Project team members presented additional slides to the full group about the “transportation toolbox” of flexible design options focused on improving safety, calming vehicle speeds, and improving access to pedestrian, bicycle and transit facilities. Participants and project team members then reconvened around the maps arrayed on the tables to discuss and make notes on the following

question: *“Based on your mobility experiences and needs in Buena Creek, which potential mobility improvements or programs are most important to you?”*

- VI. Summary and Next Steps.** Project team members concluded the meeting by explaining how participants can continue to stay involved in the project, including signing-in at the front table and visiting the project webpage. Participants were also encouraged to submit any additional written comments via a form provided at the beginning of the meeting.

Summary of Workshop Input

Following are key themes of participants’ input at the workshop, including some example comments from participants.

- Improve roadway safety through speed controls and safer crossings.
 - “Lacking connections to the rail trail.” (north of station)
- Improve the design and flow of traffic at the intersection near the BC Sprinter Station: BC Road and S. Santa Fe Ave.
 - “No crossing for bikes.” (across South Santa Fe Ave.)
 - “Too long wait times for rail barriers.”
- Strengthen pedestrian connectivity between the Sprinter Station and key destinations and neighborhoods
 - “Create a direct connection from Robelini by creating a cul de sac.”
- Enhance community safety and security to encourage walking, biking and transit use, including during night/dark hours
 - “Add a sheriff’s station at the transit station.”
 - “Address drug dealing and people living in parking lots.” (south of station)
- Calm vehicle traffic along Buena Creek Road to improve safe access to/from homes and driveways
 - “Lots of walkers, not many sidewalks. Very dangerous. Traffic calming needed.” (along South Santa Fe Ave.)
- Connect current planning efforts between North County Transit District and the County

Detailed transcriptions of submitted comments and photographs of the project maps and comments are included in the appendix of this report.

Tabling Findings

On the evening of Tuesday October 22, 2024 and the morning of Thursday October 24, 2024 project team members hosted a pop-up at the BC Sprinter Station. The purpose of the tabling was to connect with transit users to provide brief project information and input opportunities about mobility needs.

Project team members set up a folding table, County-branded tablecloth, project area maps, and input forms. Team members interacted with approximately 25 interested transit users who were entering or exiting the station and took notes on their behalf about their mobility experiences and mobility needs in the study area.



Following are key themes of transit users' input:

- Install sidewalks and lighting on Buena Creek Rd. and S. Santa Fe Ave. to improve pedestrian connections, safety, and access to the transit station and local destinations
- Expand the bike lane network on additional streets with separated facilities where possible
- Slow traffic speeds to improve safety for everyone
- Improve bus service frequency, timeliness, and connections/transfers with the Sprinter

Detailed transcriptions of tabling comments are included in the appendix of this report.

Twin Oaks Valley Community Sponsor Group Input

Project team members communicated with the Vice Chair of the Twin Oaks Valley Community Sponsor Group, who then engaged group members to review project information provided on the Engage website. The Vice Chair provided this letter to the project team on behalf of the group:

“At our meeting tonight we passed the following motion in response to Buena Creeks MOVES. We may have more to add after your presentation.

Motion to support the County’s process to increase movability in the Buena Creek Area by:

- 1. finish South Santa Fe between Vista and San Marcos,*
- 2. provide sidewalks and multi-use paths for pedestrian and bicycles*
- 3. help prevent graffiti by requiring all vertical hardscape surfaces to be covered with low water use climbing vegetation such as Una de gato; Uncaria tomentosa or cat’s claw,*
- 4. provide traffic calming on Buena Creek Road to prevent speeding and accidents,*
- 5. provide center median turn lane along Buena Creek so people can get in and out of their driveways safely,*

6. add adequate parking in the apartments near the sprinter so vehicles do not block pedestrian pathways to shopping on University avenue, and public transportation

7. and for the Sprinter Station:

- a. provide a way to make a left turn into the parking lot*
- b. provide sufficient parking*
- c. safe pedestrian access and security*
- d. provide connectivity from the Sprinter Station to other public transportation,*
- e. elevate the tracks at Buena Creek so that emergency vehicles are not prevented from addressing emergencies on Buena Creek Road when the Sprinter train is in the station and the crossing guards are down.”*

Additional Community Input

Some community members submitted additional community input to the project team via email. Following is a summary of their input with full transcripts available in the appendix:

- Review design concepts for the BC Sprinter Station from the 2016 Urban Land Institute Healthy Places competition
- Review the 2004 Draft Environmental Impact Report for South Santa Fe
- Address whether the project will require a supplemental EIR related to meeting density requirements and road design standards

Date	Event	Comment	Location	Category	Notes
10/15/2024	Community Workshop	Unsafe. No bike/ped facilities. No security at transit. No lighting on major roads. Rail trail ok. Almost hit ped. in street daily. Sidewalks on York dr. cut through for 2 schools up to Monte Vista Glem. Lots of ped traffic. Improved safety (police) at transit station. Traffic calmign (bumps) on york from sante fe to monte vista. Signal timing w/ county and NCTD needs better coordination. What happened to EIR for road project s santa fe, rebelini? Roadmay maintained poorly- striping, pot holes, etc.	York, S Santa Fe, Monte Vista, Robellini,	Signal timing, sidewalk continuity, safety, traffic calming	
10/15/2024	Community Workshop	sketchy drug deals, living in parking lot	south of BC sprinter station	safety	
10/15/2024	Community Workshop	utilities need to go underground	BC road		
10/15/2024	Community Workshop	Missing sidewalks - route to elementary school	near Hannalei	safety, sidewalk continuity	
10/15/2024	Community Workshop	Lack ok connection to rail trail	N of BC sprinter station	sidewalk continuity	
10/15/2024	Community Workshop	fear factor to use train station	BC Sprinter Station	safety	
10/15/2024	Community Workshop	no cross for bikes	BC Sprinter Station	safety, bike facilities	
10/15/2024	Community Workshop	bus stops in traffic lanes, causing traffic backup	WB on sante fe	bus facilities, traffic, safety	
10/15/2024	Community Workshop	too long wait times for rail gate to rise after train has come through	BC Sprinter Station	traffic	
10/15/2024	Community Workshop	new senior housing needs bus stop	on South Sante Fe	bus facilities	
10/15/2024	Community Workshop	stop signal from BC road onto SF is no turn on red, people run it every day	BC road/S sante fe at BC Sprinter station	safety, signal timing	
10/15/2024	Community Workshop	city of vista has out and about shuttle, connect with them		microtransit	
10/15/2024	Community Workshop	through traffic from temecula / business traffic to vista		traffic	
10/15/2024	Community Workshop	Lots of walkers, not many sidewalks. Very dangerous. Traffic calming needed		safety, sidewalk continuity	
10/15/2024	Community Workshop	turn to freeway or vista biz park	sycamore to business park	traffic, safety, signals	
10/15/2024	Community Workshop	North/south bisector , any alternative options for travel		traffic	
10/15/2024	Community Workshop	millcreek apartments, s sante fe businesses and dropping kids at school, no shoulder no sidewalk	S sante fe	safety, sidewalk continuity	
10/15/2024	Community Workshop	driveways in BC- can't get out bc of commuter traffic on BC road. traffic fast and consistent getting out of driveway is dangerous	BC road	safety, traffic calming	
10/15/2024	Community Workshop	BC needs a planning/sponsor group		planning	
10/15/2024	Community Workshop	sheriff station at BC sprinter station	BC Sprinter Station	safety	
10/15/2024	Community Workshop	straighten BC road, tie into sycamore	BC/sycamore	traffic, safety	
10/15/2024	Community Workshop	nighttime road racing, lighting could mitigate		safety	
10/15/2024	Community Workshop	hold a walk audit w/ public		pedestrian safety, sidewalk continuity	
10/15/2024	Community Workshop	left on robellini is right in traffic when walking	robellini	pedestrian safety, sidewalk continuity	
10/15/2024	Community Workshop	screen lt industrial, enforce codes		enforcement	
10/15/2024	Community Workshop	FACT- subsidized trips, micromobility, issues in vista with micromobility, w/ funding can lower fares (Allie with FACT is contact)		microtransit	
10/15/2024	Community Workshop	leverage easements		planning	
10/15/2024	Community Workshop	tie into existing city of vista services/ transit routes		planning	
10/15/2024	Community Workshop	utilities underground @ BC road- visibility, fire safety, open to walkway	BC road		
10/15/2024	Community Workshop	traffic circles		traffic calming	
10/15/2024	Community Workshop	BC road - traffic calm, speed reduction	BC road	traffic calming	
10/15/2024	Community Workshop	underground utilities			

10/15/2024	Community Workshop	remove no right on red sign	BC road/S sante fe at BC Sprinter station	traffic, safety, signals	
10/15/2024	Community Workshop	crosswalk SB on east side of BC to allow right turn	BC road	safety, sidewalk continuity, pedestrian safety	
10/15/2024	Community Workshop	cross that crosses S santa fe then BC road (if crosswalk moved to other side wouldn't have to cross twice)	S sante fe/BC road	safety, sidewalk continuity, pedestrian safety	
10/15/2024	Community Workshop	walnut cove 2120 walnut lane, Betsy and Todd Landers, 22 homes	Walnut Cove		
10/15/2024	Community Workshop	Past study, ULI study, robelini/ S santa fe, EIR: planned improvements	robelini/ s santa fe	planning	
10/15/2024	Community Workshop	create opportunity zones to reinvest into infrastructure		planning	
10/15/2024	Community Workshop	pedestrian crossing is scary		pedestrian safety	
10/15/2024	Community Workshop	heading east on santa fe as a pedestrian to turn left on robelini- you have to squeeze by stopped traffic, and dodge moving traffic	robelini	pedestrian safety, sidewalk continuity	
10/15/2024	Community Workshop	chris garci follow up- status of traffic calming project santa fe/robelini	S santa fe/robelini	traffic calming	
10/15/2024	Community Workshop	after a train passes, signals prioritize santa fe w/ walk signal and then york (with no call for crossing), outside of peak traffic time could that be changed to reflect traffic flow	Santa fe	signal timing	
10/15/2024	Community Workshop	when considering distance, more consideration of topography		planning	
10/15/2024	Community Workshop	steep		planning	
10/15/2024	Community Workshop	bike, width speed shoulder road conditions		bike facilities, safety	
10/15/2024	Community Workshop	steep		planning	
10/15/2024	Community Workshop	direct connection (turn robelini into cul de sac)	robelini	traffic calming, planning	
10/15/2024	Community Workshop	sidewalks do not exist		pedestrian safety, sidewalk continuity	
10/15/2024	Community Workshop	city style "get it done" (app) to report inefficiencies in signal timings		signal timing, planning	
10/15/2024	Community Workshop	upgrade the signal timings (functions better as a 4 way stop)		signal timing	
10/15/2024	Community Workshop	green right arrow then yellow straight to red and walk signal turns on immediately	turn onto S santa Fe @bc sprinter	safety, signal timing, pedestrian safety	cars may not see the red immediately and folks are already walking in crosswalk, safety issue

Appendix D



Pop-Up Tabling Comments Transcripts

Date	Event	Comment	Location	Category	Notes
10/22/2024	NCTD Sprinter Tabling	more sprinter stations/stops		transit	
10/22/2024	NCTD Sprinter Tabling	feel safe walking during the day but no sidewalks/lighting so does not walk at night		pedestrian safety, sidewalk continuity	
10/22/2024	NCTD Sprinter Tabling	no bus stops at end of BC road		transit	
10/22/2024	NCTD Sprinter Tabling	busses are late a lot/ need repairs, hard to rely on		transit	
10/22/2024	NCTD Sprinter Tabling	walking to vista feels safe		pedestrian safety, sidewalk continuity	
10/22/2024	NCTD Sprinter Tabling	live near vista village, walks to family's house. sketchy at night bc of homeless and lack of sidewalks/no lighting		pedestrian safety, sidewalk continuity	
10/22/2024	NCTD Sprinter Tabling	bike lanes off street/seperated is preferred		bike facilities, safety	
10/22/2024	NCTD Sprinter Tabling	use sprinter and bus everyday- walk a lot but no sidewalks, BC sprinter station to walmart there are no sidewalks, bus schedule is lousy		sidewalk continuity, pedestrian safety, transit	
10/22/2024	NCTD Sprinter Tabling	more bike lanes		bike facilities, safety	
10/22/2024	NCTD Sprinter Tabling	people drive insanely, too fast		traffic calming	
10/22/2024	NCTD Sprinter Tabling	walk BC road- needs sidewalks and lighting		sidewalk continuity, pedestrian safety	
10/22/2024	NCTD Sprinter Tabling	bus on m. vista drive		transit	
10/22/2024	NCTD Sprinter Tabling	motorized wheelchair gets caught on curbs, part of sidewalk near BC sprinter station (over creek) is wooden, wheelchair can't go over that well, has to roll on the road against traffic to get up the street		sidewalk continuity, pedestrian safety	
10/22/2024	NCTD Sprinter Tabling	travels to oceanside beach and government offices (lives in shadow ridge) - train, walk and bus everyday, no car. Biking is weird bc no bike lanes in most of his route until you get to target, no sidewalks, feels unsafe		sidewalk continuity, bike facilities, safety	
10/22/2024	NCTD Sprinter Tabling	for some transit isn't affordable, walking S santa fe a wider street would help-hard to see/ bad visibility of pedestrians		pedestrian safety	
10/22/2024	NCTD Sprinter Tabling	usually bikes but gets stolen from time to time, has friends who have been struck on bikes on BC road, widen BC road biking in lane in dangerous, feels unsafe with road so narrow, wants to separate bike path from lane	BC road	bike facilities, safety	
10/22/2024	NCTD Sprinter Tabling	add vegetation along sidewalks			
10/22/2024	NCTD Sprinter Tabling	has been nearly hit on bike daily		bike facilities, safety	
10/22/2024	NCTD Sprinter Tabling	"get rid of NCTD"		transit	
10/24/2024	NCTD Sprinter Tabling	No sidewalks, has to walk on side of road everyday. Used to ride bike but it was too dangerous with no bikelanes or sidewalks. Add bike sidewalks and bike lanes on Robelini/Santa Fe.	robelini/ s santa fe	sidewalk continuity, pedestrian safety, bike facilities	
10/24/2024	NCTD Sprinter Tabling	Buses come early but don't wait until their scheduled departure time. They have inconsistent arrival times. Poor crossing at Buena Creek/Santa Fe. "Old school way of operating the bus"	Buena Creek/Santa Fe	transit, pedestrian safety	
10/24/2024	NCTD Sprinter Tabling	Better connections between bus/trolley. Bus leaves without waiting for people to get off the trolley or other buses.		transit	
10/24/2024	NCTD Sprinter Tabling	No recommendations. Buses on time.		transit	
10/24/2024	NCTD Sprinter Tabling	No concerns besides safety. There is gang activity in area. Would prefer having access to vehicle.		pedestrian safety	
10/24/2024	NCTD Sprinter Tabling	Need more sidewalks. There was a recent accident where police chase resulted in someone dying. Speeding and safety concerns on Santa Fe.		pedestrian safety	

Appendix E



Community Correspondence



Twin Oaks Valley Community Sponsor Group

December 2, 2024
Members of DPS and Consultants
Buena Creek Moves Team

Delivered via email to
Caroline.Shabo@sdcountry.ca.gov

Dear Ms. Shabo and Members of the PDS Buena Creek Moves Team and Consultants:

Thank you for hosting the Buena Creek Moves workshop last month. The Twin Oaks Valley Community Sponsor Groups supports the County's work to provide better mobility to the Buena Creek Area. For the record, most of the Buena Creek Area that is one mile from the Sprinter Stations is, outside our planning area, but we are interested because residents living along Buena Creek Road attend our public meetings. The Buena Creek Area desperately needs a planning or sponsor group to be created so the people living in the Buena Creek area have a voice in land use matters. Staff and the Board of Supervisors are making decisions that will have significant impact, and we are concerned that the people who live in the Buena Creek area are not part of the engagement process. For this comment letter, Buena Creek Area will be limited to one mile from the Sprinter Station although other presentations by the County have identified larger areas between Vista and San Marcos as the "Buena Creek Area". At some point this needs to be clarified.

That said, it was good that so many people who live adjacent to Buena Creek Road attended your workshop to provide information on all the traffic challenges they face due to the Sprinter line, speeding along Buena Creek Road, and congestion from traffic that use Buena Creek Road to bypass traffic on SR78. We believe a more wholistic approach to planning for the area is called for to align housing, businesses, and services with modes of transportation. By making the area walkable and connecting shopping and services in the area with the Sprinter station, we believe the County can help make this area a vibrant community.

One of the key issues we see is the traffic bottleneck along South Santa Fe Avenue from San Marcos to Vista. This is because although both Vista and San Marcos have improved South Santa Fe from two lanes to four lanes, the County has left the road untouched since the 1930s, with only two lanes. South Santa Fe Avenue is a portion of Historic 395 and appears to be an import roadway needed to alleviate congestions from SR78. During peak traffic hours, traffic to back up from Vista to San Marcos. This hurts business and residents in the Buena Creek Area. We urge the County to do a traffic analysis to understand the existing conditions and improve its portion of South Santa Fe Avenue. Please also review the 2004 EIR that was done for South Santa Fe Avenue.

Another issue that needs to be addressed is the Sprinter Station. Its location is bad. It is almost on top of a creek, Buena Creek, and even with the planned improvements for a small section of South Santa Fe Avenue that is in front of the Sprinter Station, the at-grade crossing of the Sprinter and Buena Creek Road currently hampers emergency vehicle access and evacuation of Twin Oaks community

during a wildland fire. Widening Buena Creek Road won't address this problem until the at grade crossing problem is resolved.

In addition to infrastructure issues, there are safety issues. Currently the area around the Sprinter Station contains homeless encampments as well as various criminal elements. This makes using the Sprinter unsafe. In addition, the County has housed many sex offenders within 200 yards of the Sprinter station as well as a low barrier homeless shelter that serves homeless populations of Vista and Encinitas. We ask you to look at CA Megan's Law website along with crime statistics for the area to understand the safety problems at this location. We recommend adding a small Sheriff's substation in a modular unit in the parking lot of the Sprinter so that riders would feel safe to use the Sprinter at this location.

There is also a lack of safe paths of travel for pedestrians to use any of the roadways in the Buena Creek Area. There are no designated trails or sidewalks to allow people safe access via foot or bicycle from nearby homes or business to the Sprinter or Bus services. Lack of adequate parking at nearby apartment buildings forces cars to park along side streets which leaves no safe place for pedestrians to walk along side streets that feed onto South Santa Fe Avenue and provide access to the bus and Sprinter lines.

Along Buena Creek Road, one of the last scenic roads between Vista and San Marcos, traffic calming measures need to be implemented so that people can safely exit from the many driveways that exit onto Buena Creek Road. We have been told by residents that Buena Creek Road is used as a raceway with frequent crashes occurring. Stop signs apparently are not slowing nighttime car racers down. Therefore, we recommend a small diameter roundabout for this purpose.

Because Buena Creek Road follows Buena Creek, we know that widening the road would likely trigger Army Corps permits and mitigation for impacts to Buena Creek, a tributary to Agua Hedionda Creek, a 303D listed water body. The cost may be prohibitive. The right of way not used that is outside the creek area could be used for multi-use trails so that pedestrian and bicyclists can get safe access to the Sprinter station. This would have less impact on the creek and help meet County Climate Action Goals by conserving resources and reducing greenhouse gas.

This concludes our comments. We are happy the County's Buena Creek Moves program will help assess and solve the mobility issues in the Buena Creek Area. You have our full support in your work and hope it will yield an actual improvement project that solves real world problems.

Sincerely,

Sandra Farrell, Vice-Chair
Twin Oaks Valley Community Sponsor Group

South Santa Fe Avenue Reconstruction

Draft

Environmental Impact Report (EIR)

Unincorporated Area of San Diego County
between Vista and San Marcos, California

SCH Number: 1999061053

March 12, 2004



SOUTH SANTA FE AVENUE RECONSTRUCTION

**UNINCORPORATED AREA OF SAN DIEGO COUNTY
BETWEEN VISTA AND SAN MARCOS, CALIFORNIA**

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)

Prepared pursuant to: Division 13, Public Resources Code, California Environmental
Quality Act

COUNTY OF SAN DIEGO, Department of Public Works

Abstract

Proposal to widen South Santa Fe Avenue from a two-lane road to a four-lane Major Road for approximately 2 miles between the cities of Vista and San Marcos. Sycamore Avenue would also be realigned and extended for a distance of approximately 0.3 mile from University Drive to South Santa Fe Avenue and would include drainage improvements for Buena Creek. Improvements to the railroad crossing near the northern project limits would also be constructed.

Comments on this document are due by April 26, 2004 and should be sent to Casey Lydon at the address below.

The following person may be contacted for additional information concerning this document:

Ms. Casey Lydon
Project Manager
Public Works Department, Environmental Services
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123-1152
858-874-4042

March 12, 2004

General Information about This Document

What's in this document?

This document is an Environmental Impact Report that examines the potential environmental impacts of the proposed South Santa Fe Reconstruction project located in San Diego County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, and potential impacts from construction of the project.

What should you do?

- Please read this Environmental Impact Report.
- We welcome your comments. If you have any concerns regarding the proposed project, please send your written comments to the County of San Diego by the deadline. Submit comments via regular mail to Ms. Casey Lydon, Project Manager; Public Works Department; Environmental Services; County of San Diego; 5469 Kearny Villa Road, Suite 305; San Diego, California 92123-1152.
- Submit comments by the deadline: April 26, 2004

What happens after this?

After comments are received from the public and the reviewing agencies, the County may (1) certify the Environmental Impact Report, (2) undertake additional environmental studies, or (3) abandon the project. If the Environmental Impact Report is certified by the County Board of Supervisors, the County may approve the proposed project after making necessary findings, and the County could design and construct all or part of the project.

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LIST OF ACRONYMS

ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	average daily (vehicle) trips
APCD	(San Diego) Air Pollution Control District
BAT/BCT	Best Available Technology/Best Control Technology
BMP	best management practice
BNSF	Burlington Northern Santa Fe
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CNEL	community noise equivalence level
CNPS	California Native Plant Society
CO	carbon monoxide
dB	decibels
dBA	A-weighted sound level
DEH	Department of Environmental Health
dua	dwelling units per acre
EIR	Environmental Impact Report
ESA	Environmental Site Assessment
LL&G	Linscott, Law & Greenspan
LOS	Level of Service
MEP	maximum extent practicable
mph	miles per hour
MS4	Municipal Separate Storm Sewer Systems

NAAQS	National Ambient Air Quality Standards
NCTD	North County Transit District
NFU	No Frequent Human Use
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O ₃	ozone
Pb	lead
PCB	polychlorinated biphenyl
PM ₁₀	particulate matter sized 10 microns or less
PM _{2.5}	fine particulate matter equal to or less than 2.5 microns in size
RAQS	Regional Air Quality Strategies
ROW	right-of-way
RS	Road Survey
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	California Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxide
SR	State Route
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TAC	Toxic Air Contaminant

UDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
v/c	volume-to-capacity
VOC	volatile organic compound

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SUMMARY

This Draft Environmental Impact Report (EIR) is designed to inform County of San Diego (County) decision-makers, responsible agencies, and the public of the potential environmental consequences of implementation of the proposed South Santa Fe Avenue Reconstruction project. This Draft EIR has been prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The County is a lead agency for CEQA.

This chapter presents an overview of this environmental review and the analysis of the South Santa Fe Avenue Reconstruction project, as contained in Chapter 2 of this Draft EIR. Section 15123 of the CEQA Guidelines requires that a summary identify the following: (1) each significant effect with proposed mitigation measures that would reduce or avoid that effect, (2) areas of controversy known to the lead agency, including issues raised by agencies and the public, and (3) issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

S.1 Project Synopsis

The northern project boundary begins approximately 270 feet north of the Montgomery Drive intersection at the Vista city limits and continues approximately 2 miles south along South Santa Fe Avenue to approximately 700 feet south of the existing Smilax Road intersection at the San Marcos city limits. Sycamore Avenue/Robelini Drive provides the link between South Santa Fe Avenue and State Route (SR) 78.

The proposed project would widen South Santa Fe Avenue from a two-lane roadway to a four-lane Major Road, with a center left-turn lane along most of the project length. This project would include realignment and extension of approximately 0.3 mile of Sycamore Avenue between its existing built-out terminus at the Vista city limits near University Drive, east to South Santa Fe Avenue at Buena Creek Road, and the replacement of Robelini Drive as the link between South Santa Fe Avenue and SR 78. Improvements to the railroad crossing in the vicinity of York Drive and Woodland Drive would also be constructed as a component of this project. The proposed project also includes a drainage component to improve existing flood control problems associated with Buena Creek. The County of San Diego Department of Public Works is proposing the project.

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

According to the CEQA Guidelines, a “significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines, Section 15382).

Implementation of the South Santa Fe Avenue Reconstruction project has the potential to generate environmental impacts, as summarized in Table S-1 (provided at the end of this chapter). This table lists the significant environmental impacts of the proposed project and recommended mitigation measures, and it notes the level of impact significance after implementation of the mitigation measures. Impacts are numbered in accordance with the environmental subchapters and in the order in which they appear within each EIR section. Please refer to Chapter 2 of this EIR for more information on the potentially significant impacts of the proposed project. A list of mitigation measures and environmental design considerations is in Appendix A.

S.3 Public Outreach and Areas of Controversy

A Notice of Preparation (NOP) was circulated for a 30-day public and agency comment period beginning on June 14, 1999. A second NOP was circulated for a 30-day public and agency comment period beginning on June 28, 2002. A public scoping meeting was also held in the community on June 29, 1999. Following the public meeting, a letter was received by the County, signed by six residents and/or property owners on Robelini Drive, stating that they were not opposed to the project but were concerned with noise and flooding. They also stated that a rezone of their properties from residential to commercial might be appropriate. A letter dated May 15, 2000, was also received from the Pineview Condominium Homeowners Association, signed by 11 homeowners, expressing concern with the proposed cut slope that would affect the condominium property. Information concerning the NOP and comments received is in Appendix F.

On July 17, 2002, a public meeting was held at the San Marcos City Hall to discuss design options for the project. In January 2003, the County determined that it would be desirable to include a third railroad crossing option for consideration in the EIR for the

area around Woodland Drive and York Drive (Railroad Crossing Option C). On February 12, 2003, a letter was sent to property owners within and adjacent to the area who could be affected by the newly considered design option for the Woodland Drive/York Drive railroad crossing and intersection. Several property owners who received the mailing inquired about the added design option. Issues of concern included driveway access, noise, and resulting traffic operation.

Previous federal funding had triggered environmental review under the National Environmental Policy Act (NEPA). Under NEPA, each alternative must be evaluated at an equal level of detail throughout the entire document. Accordingly, there were two roadway alternatives (A and B), three railroad crossing options (A, B, and C), and four drainage options (A, B, C, and D) analyzed in the technical appendices. In December 2003, the funding sources for the project changed and all federal funds were eliminated. The entire project is now being funded locally and the NEPA evaluation is not necessary; only a CEQA evaluation is now necessary. This EIR is the appropriate document under CEQA. Under CEQA, the proposed project is evaluated and the alternatives are addressed in a different format. In this draft EIR, the proposed project (evaluated in Chapter 2) corresponds to the modified Major Road standard (roadway alternative A), railroad crossing with the four-leg intersection (railroad crossing option C), and the Buena Creek drainage improvements for redirection of excess flows (drainage option C) in the technical appendices. Other alternatives are evaluated in Chapter 4 of this EIR. Though the technical appendices were generated to correspond to the NEPA document, the analysis in the technical appendices sufficiently evaluates the project impacts under CEQA and those appendices were not reformatted for this EIR.

On January 5, 2004, the County released an updated NOP for the project. The updated NOP addresses changes in project funding.

With implementation of the proposed project, there would be approximately 93 partial property acquisitions and approximately 25 full property acquisitions. Approximately 22 dwelling units and 21 businesses would be relocated for the proposed project. Property owners will be contacted by the County if their property would be directly impacted by implementation of the proposed project.

Implementation of the proposed project would require noise walls in various locations to mitigate noise impacts to below a level of significance (See Subchapter 2.3 and the Noise

Impact Analysis, Appendix C). There would be a significant, unmitigable noise impact to some residences near the Sycamore Avenue extension. The Noise Impact Analysis found that an 8-foot-high, 700-foot-long noise wall would reduce these noise impacts to a less-than-significant level. However, this noise wall would result in a visual/aesthetic impact because it would be visually intrusive and would block important views of the Buena Creek area. After construction of the proposed project, the Buena Creek area will be landscaped with native vegetation and will remain one of the few natural-looking, open space areas within the project area. The County will offer to construct a private property sound wall for all affected property owners in this area if the property owner agrees to maintain the wall in the future.

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

The County will continue to work with the California Department of Fish and Game, U.S. Army Corps of Engineers, and Regional Water Quality Control Board on finalizing the mitigation ratios and gaining approval of the mitigation location(s) for biological impacts from the proposed project.

Ultimately, it will be the decision of the County Board of Supervisors to determine if the proposed project or one of the project alternatives will be approved as the adopted project.

S.5 Project Alternatives

The No Sycamore Avenue Extension Alternative

South Santa Fe Avenue would be improved to a paved width of 78 feet within a 98-foot right-of-way (ROW) width. The typical section would include two 12-foot inside traffic lanes; two 14-foot outside lanes; two 6-foot bicycle lanes; sidewalks; a 14-foot striped, two-way, left-turn median with formal left-turn pockets at public road intersections; and minor improvements to the Agua Hedionda Creek crossing. This Alternative would differ from the proposed project road design in that the outside travel lanes would meet the County's Major Road standards, resulting in an ROW 2 feet wider than the proposed project.

The railroad crossing component would be the same as the proposed project. The railroad crossing component would reconstruct the York Drive/Woodland Drive intersection to form a signalized four-leg intersection with South Santa Fe Avenue, with the railroad passing through the center of the intersection. Figure 1-5, Sheet 1 includes an insert that shows the configuration of the railroad crossing component.

The drainage component of the project would be eliminated because this Alternative would eliminate the Sycamore Avenue extension. However, there would still be impacts to Buena Creek due to the upgrades of the existing culverts beneath South Santa Fe Avenue. This Alternative would be environmentally superior to the proposed project.

As described in Section 4.3.2, this Alternative would have potentially significant impacts to traffic, air quality, noise, water quality, hazardous materials, biology, and aesthetics. Table S-2 compares these impacts to those of the proposed project.

Though the No Sycamore Avenue Extension Alternative would decrease the significant, unmitigable traffic noise impacts and the biological impacts, this Alternative would not meet the project's objective of improving the transportation network by realigning South Santa Fe Avenue's intersection with Sycamore Avenue/Buena Creek Road to form a four-leg intersection in conformance with the County Circulation Element. Nor would it meet the objective of improving drainage conditions to accommodate 100-year flows and reduce flooding risks in the area adjacent to Buena Creek. These objectives would not be met because the Sycamore Avenue Extension and associated drainage component would not be constructed under this Alternative.

Alternate Railroad Crossing Component Alternative

The roadway design would be the same as for the proposed project, except for the railroad crossing component. South Santa Fe Avenue would be improved to a paved width of 76 feet within a 96-foot ROW width. The typical section would include two 12-foot inside traffic lanes; two 13-foot outside lanes; two 6-foot bicycle lanes; sidewalks; a 14-foot striped, two-way, left-turn median with formal left-turn pockets at public road intersections; and minor drainage improvements to the Agua Hedionda Creek crossing (Figure 1-4). The proposed project would not meet the County's Major Road standards due to a 1-foot reduction in the width of outside travel lanes. Variations of this typical section would be required on certain portions of the road due to North County

Transit District ROW encroachment constraints. No on-street parking would be provided.

The railroad crossing component would decrease the crossing by an angle of approximately 5 degrees less than the existing roadway crossing. This Alternative would add railroad crossing arms and lights. York Drive currently intersects South Santa Fe Avenue at a severe acute angle of 20 degrees. As part of this component, York Drive would be realigned to intersect South Santa Fe Avenue at approximately 70 degrees to satisfy intersection design standards. See Figure 1-5, Sheet 3. The realigned section would be approximately 500 feet long and 40 feet wide (curb to curb).

The drainage component of this Alternative would be the same as the proposed project's drainage component. As part of the drainage component, a reconstructed channel would be built upstream of the proposed Sycamore Avenue extension. Once the flow reaches Sycamore Avenue, it would enter into quintuple 6-foot by 10-foot reinforced concrete box culverts that would be constructed underneath Sycamore Avenue. A small conveyance culvert or pipe would be installed at the entrance to this quintuple box culvert to allow low flows to continue along the existing open, natural Buena Creek channel (Figure 1-10). The small conveyance pipe would be sized to allow only 50 cubic feet per second (cfs) (the existing channel capacity) to enter the channel. The existing Buena Creek channel downstream of Sycamore Avenue would not be physically altered.

Instead of reconstructing the existing Buena Creek channel, low flows would still occur in the existing natural channel. This would allow for a smaller low-flow channel; thereby minimizing ROW impacts and displacement of adjacent residential and commercial properties. In addition, the concrete culverts underneath Sycamore Avenue would require lower maintenance, because there would be no vegetation to clog the open channel. This Alternative would be environmentally superior to the proposed project.

As described in Section 4.4.2, this Alternative would have potentially significant impacts to traffic, air quality, noise, water quality, hazardous materials, biology, and aesthetics. Table S-2 compares these impacts to those of the proposed project.

Though this Alternative would result in less significant impacts to nonnative grassland than the proposed project, the railroad crossing component in this Alternative would not combine the railroad crossing with the four-leg intersection at South Santa Fe

Avenue/York Drive/Woodland Drive. The operational efficiency at the intersection would be improved with the proposed project because the railroad crossing would be controlled with a traffic signal and the intersection would create additional signalized control for York Avenue traffic to turn onto South Santa Fe Avenue.

No Project Alternative

Under the No Project Alternative, South Santa Fe Avenue would not be widened and the extension of Sycamore Avenue would not be built. The existing transportation system would remain in place. Additionally, the measures included in the project to control flooding of Buena Creek would not be implemented.

Under the No Project Alternative, all impacts to Buena Creek would be avoided and no residences or businesses would have to be relocated. Without the project, traffic operations would worsen and South Santa Fe Avenue, Buena Creek Road, Robelini Drive, the intersection of South Santa Fe Avenue/Robelini Drive, and the intersection of South Santa Fe Avenue/Buena Creek Road would be at LOS F (gridlock condition) by the year 2025. The No Project Alternative would not contribute to relief of congestion on SR 78 as no improvements to the South Santa Fe Avenue arterial would occur, nor would it alleviate traffic and community impacts on Robelini Drive. In addition, flooding risk for private property on Robelini Drive and Sycamore Avenue along Buena Creek would continue.

Though the No Project Alternative would eliminate all biological resources impacts associated with new project construction and operation, it would not meet the project's objectives of improving the transportation network by widening South Santa Fe Avenue and realigning its intersection with Sycamore Avenue/Buena Creek Road to a four-leg intersection in conformance with the County Circulation Element; improving motorist safety by reducing traffic congestion with the improvement of South Santa Fe Avenue, Sycamore Avenue, and Buena Creek Road in accordance with County standards; accommodating forecasted traffic volumes by increasing roadway capacity, or improving drainage conditions to accommodate 100-year flows and reduce flooding risks in the area adjacent to Buena Creek. These objectives would not be met because the No Project Alternative would result in no roadway, railroad crossing, or drainage improvements.

Table S-1. Summary of Significant Effects of the Proposed Project

Impact No.	Impact	Mitigation	Significance After Mitigation
Traffic and Circulation (see Subchapter 2.1)			
2.1.a	Construction traffic generated by the proposed project could result in traffic disruption and possible circulation hazards, resulting from truck and construction crew maneuvering. These traffic impacts could be potentially significant if not properly controlled. These impacts could be either direct or indirect and would be short term.	<p>The following measures shall be implemented to reduce the temporary impacts to traffic circulation and pedestrian and bicycle facilities, during the construction phase of the proposed project.</p> <ul style="list-style-type: none"> • A Transportation Management Plan (TMP) shall be developed that focuses on informing the motoring public and affected parties of construction dates and activities. The TMP for the proposed project shall include project signing posted in advance of construction work zone areas. The advance signage shall identify dates and times of the construction and possible travel delays. Signage shall also be provided for directions to businesses in construction areas. The project construction schedules shall be posted in local and regional newspapers. Any recommended detour routes shall also be included in these notices. Construction and detour information shall be posted on the County web pages. • The TMP developed for this project and traffic control plans shall be coordinated with the public information campaign and the transportation demand management elements. • Coordination with the San Diego County Sheriff’s Department, California Highway Patrol, and other highway agencies, as well as emergency units, utilities, California State University (CSU) San Marcos, and railroads, shall be conducted to receive input and support for advising motorists of traffic delay situations. Construction operations shall be conducted as determined necessary through interagency coordination efforts. 	Impact 2.1.a would be mitigated below a level of significance through implementation of the listed mitigation measures.
Air Quality (see Subchapter 2.2)			
2.2.a	The proposed project would result in a potentially significant impact to air quality, resulting from an increase in fugitive dust and diesel engine exhaust particulates during the construction stages. This impact would be direct and short term.	<p>The following measures shall be implemented to minimize the emission of fugitive dust, including PM₁₀ and PM_{2.5} and diesel particulate exhaust emissions. These measures shall be applied to all active construction areas, including staging areas.</p> <p><i>Site Preparation and Demolition</i></p> <ol style="list-style-type: none"> 1. Locate construction equipment and truck staging and maintenance areas as far as feasible from and downwind of schools, active recreation areas, and other areas of high population density 	Impact 2.2.a would be mitigated below a level of significance through implementation of the listed mitigation measures.

Impact No.	Impact	Mitigation	Significance After Mitigation
		<ol style="list-style-type: none"> 2. Minimize land disturbance 3. Use watering trucks to minimize dust; water with frequency adequate to prevent dust plumes off the project site 4. Cover trucks when hauling dirt 5. Stabilize the surface of dirt piles if not removed immediately 6. Limit vehicular paths in unpaved areas 7. Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway <p><i>Construction</i></p> <ol style="list-style-type: none"> 1. Cover trucks when transferring materials 2. Use dust suppressants on traveled paths that are not paved 3. Minimize unnecessary vehicular and machinery activities 4. Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway <p><i>Post-construction</i></p> <ol style="list-style-type: none"> 1. Revegetate any undeveloped land disturbed by construction 2. Remove unused material 3. Remove dirt piles 	
Noise (see Subchapter 2.3)			
<p>Impact 2.3.a Mitigable</p>	<p>The proposed project would create significant increases in noise at the following sensitive receptors: 26, 27, 28, on the east side of South Santa Fe Avenue, north of Palmyra; and 32, 33, 34A on the west side of South Santa Fe Avenue, on either side of Palmyra.</p> <p>More detail on the location of these impacts is provided in Subchapter 2.3. These long-term noise effects of the proposed project are direct and are considered significant impacts.</p>	<p>The County shall construct the following noise walls to mitigate noise impacts.</p> <ul style="list-style-type: none"> • A noise wall will be constructed along the ROW on South Santa Fe Avenue in front of Receptors 26, 27, and 28. This wall will vary from 6 to 7 feet in height and will be approximately 225 feet long. The southern portion of this wall will be an extension of a proposed retaining wall. • A noise wall will be constructed along the ROW on South Santa Fe Avenue in front of Receptor 32. This wall will be approximately 97 feet long and will be placed on top of a proposed retaining wall. The height of the noise wall, excluding the retaining wall, will be 6 feet. • A 6-foot-high noise wall will be constructed along the ROW on South Santa Fe Avenue in front of Receptors 33 and 34A. The wall will be approximately 97 feet long. 	<p>The walls described would reduce impacts at the identified receptors to a less-than-significant level.</p>

Impact No.	Impact	Mitigation	Significance After Mitigation
		The locations of these noise walls are illustrated in Figure 1, Sheet 7 of the Supplemental Noise Impact Analysis (EDAW 2004).	
Impact 2.3.a Unmitigable	<p>The proposed project would create significant increases in noise at the following sensitive receptors: 2A, 16, 17, 18, on the east side of South Santa Fe Avenue; 19A on Robelini Drive; and 20, 21, 22A, 23, 57A, 58, and 59 in the Abelia Lane neighborhood.</p> <p>More detail on the location of these impacts is provided in Subchapter 2.3. These long-term noise effects of the proposed project are direct and are considered significant impacts.</p>	No mitigation measures are feasible for significant long-term noise impacts at receptors 2A, 16, 17, 18, on the east side of South Santa Fe Avenue; 19A on Robelini Drive; and 20, 21, 22A, 23, 57A, 58, and 59 in the Abelia Lane neighborhood.	Noise impacts to the following receptors would remain significant and are considered unavoidable: 2A, 16, 17, 18, 19A, 20, 21, 22A, 23, 57A, 58, and 59.
Impact 2.3.b	Construction-period noise impacts related to nighttime work, staging and stockpiling, and traffic control devices could result in potentially significant impacts. These impacts would be short term and direct.	<p>The following measures shall be implemented to reduce potential construction-related noise impacts:</p> <ul style="list-style-type: none"> • Noise walls will be constructed as the first order of work where topography allows and there are no engineering constraints. • Residents and business owners will be notified in advance of planned work near their properties. • Contractors will be required to have and maintain mufflers of original equipment grade or better on all engines. This will also apply to subcontractors with haul trucks. • Traffic control devices (such as lighted signs) located within 500 feet of residences will be solar or battery powered; no internal combustion engines should be used for these devices. • The location and layout of staging areas, and the conduct of operations within the staging areas will be controlled to prevent construction noise occurring Monday through Saturday, 7 a.m. to 7 p.m., measured at or within any developed and used residential property, in excess of 75 dB(A) for a period of 8 hours. <p>If nighttime and Sunday construction is required, in addition to the above measures, the contractor shall be required to take extra measures to minimize the noise impact on nearby residences. These measures should include the following elements. Many or all of these elements would be</p>	<p>Implementation of the measures related to traffic control devices and staging areas would reduce these potential impacts to a less than significant level.</p> <p>Depending on the location of nighttime construction, it may not be possible to mitigate noise impacts to a less-than-significant level.</p> <p>If nighttime construction is necessary, potential noise impacts would be considered significant and unavoidable.</p>

Impact No.	Impact	Mitigation	Significance After Mitigation
		<p>likely to become part of the conditions of the variance approved for the work.</p> <ul style="list-style-type: none"> • Where excessive noise levels are likely to occur, temporary abatement measures shall be planned to reduce noise to acceptable levels. The contractor shall execute work tasks to avoid noise impacts. • Machinery shall be selected with noise control in mind. Noise levels often vary widely between manufacturers and models for similar types of equipment. Some machines are specifically designed for low noise emissions. All equipment shall be inspected to ensure good working order. “Hospital grade” mufflers shall be considered. • Where work will be near residences at night or on Sundays, equipment shall be equipped with either ambient-sensitive or manually adjustable backup alarms that will be less noisy than standard alarms but still produce a noise greater than ambient as required for safety reasons. • Placement of equipment shall be carefully considered. Orienting a truck such that its exhaust points away from a receptor can result in as much as 10 dB of noise reduction. Other equipment shall be shielded behind natural or human-made barriers as possible, or placed as far as possible from sensitive receptors. • During construction, temporary noise barriers shall be constructed where topography allows and there are no engineering constraints. Commercial scaffold-mounted curtains are available that are specifically designed for construction noise mitigation. Stacked bales of hay have also been successfully used as inexpensive barriers. • If nighttime work is required, the contractor shall notify affected residents at least 1 week in advance of commencing such work. • If nighttime work is required, it shall be limited to no more than 3 consecutive nights in any 1 week. <p>No other feasible mitigation measures are available for construction during the nighttime hours.</p>	
Impact 2.3.c Mitigable	The project would contribute to significant cumulative noise impacts at Receptors 26, 27, 28, 32, 33, and 34A. More detail on the location of these impacts is provided in Subchapter 2.3.	The County will construct the noise walls listed in Mitigation Measure 2.3.a. to mitigate noise impacts at Receptors 26, 27, 28, 32, 33, and 34A. The locations of these noise walls are illustrated in Figure 1, Sheet 7 of the Supplemental Noise Impact Analysis (EDAW 2004).	Cumulative noise impacts to the following receptors would be mitigated below a level of significance through implementation of

Impact No.	Impact	Mitigation	Significance After Mitigation
			the listed mitigation measure: Receptors 26, 27, 28, 32, 33, and 34A
Impact 2.3.c Unmitigable	The project would contribute to significant cumulative noise impacts at Receptors 19A, 20, 21, 22A, 23, 57A, 58, and 59. More detail on the location of these impacts is provided in Subchapter 2.3.	No mitigation measures are feasible for significant long-term noise impacts at Receptors 19A, 20, 21, 22A, 23, 57A, 58, and 59.	Cumulative noise impacts to the following receptors would remain significant and are considered unavoidable: 19A, 20, 21, 22A, 23, 57A, 58, and 59.
Impact 2.3.d	The project could contribute to cumulative construction-related noise impacts. Other construction projects may occur concurrently with the proposed South Santa Fe Avenue project. Simultaneous construction activities could result in cumulative construction-related impacts that would be considered significant.	Prior to the start of the project, the County will ascertain the schedules of other major construction projects in the area including, but not limited to the Buena Creek Rail Station and the NCTD Commuter Rail Service (the “Sprinter”). Work will be scheduled to avoid more than one project using diesel engine construction equipment, pavement breakers, or similar noisy equipment, simultaneously within 500 feet of a residence.	Impact 2.3.d would be mitigated below a level of significance through implementation of the listed mitigation measure.
Hydrology and Water Quality (see Subchapter 2.4)			
Impact 2.4.a	Construction of the proposed project would result in the potential runoff of sediment and other pollutants that could affect Agua Hedionda Creek and Buena Creek. This is considered a potentially significant water quality impact.	<p>The following measures shall be implemented to reduce potential construction-related water quality impacts:</p> <ol style="list-style-type: none"> 1. The County shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that describes best management practices (BMPs) that would be employed before, during, and after construction to minimize erosion and runoff from construction activities. The SWPPP shall be submitted by the County to the Regional Water Quality Control Board as part of a package to obtain a National Pollutant Discharge Elimination System General Construction Storm Water Permit for storm water discharges during general construction activity. Specific BMPs that shall be required for the SWPPP include: <ul style="list-style-type: none"> • Site Design BMPs: Technology-based pollution prevention controls to meet the maximum extent practicable (MEP) requirements for designing and maintaining facilities • Maintenance BMPs: BMPs applicable to all maintenance operations (i.e., litter pickup, street sweeping, etc.) • Design Pollution Prevention BMPs: BMPs applicable to the design of new facilities or major renovations of existing 	Impact 2.4.a would be mitigated below a level of significance through implementation of the listed mitigation measures.

Impact No.	Impact	Mitigation	Significance After Mitigation
		<p>facilities (e.g., permanent soil stabilization, ditch channel lining systems, etc.)</p> <ul style="list-style-type: none"> • Construction BMPs: Controls to meet best available technology/best control technology requirements for construction projects • Structural BMPs: Treatment BMPs to meet MEP requirements <p>2. Construction BMPs shall be specified by the County on project plans and specifications and implemented at all construction areas and staging areas. BMPs shall be implemented to avoid potential contamination of the surface water quality in Buena Creek and Agua Hedionda Creek from spills or leaks of vehicle fuels and lubricants or other noxious chemicals. BMPs shall be implemented for the handling of hazardous materials to prevent spills. Construction staging and storage areas shall be provided away from Buena Creek and Agua Hedionda Creek and shall be shown on project plans. Measures to avoid runoff from each staging and storage area shall be specified on project plans. Petroleum products, concrete, asphalt or other coating materials, and other materials shall be prevented from entering surface waters.</p>	
Impact 2.4.b	The project would have an effect on downstream channel stability through changes in the rate and volume of runoff; the sediment load due to changes in the land surface; and other hydraulic changes from stream encroachments, crossings, or realignment. Thus, the project has the potential to create significant water quality impacts after the construction of the drainage options.	Elements of the above-mentioned SWPPP would address long-term water quality impacts that could occur after construction of the proposed project. The following mitigation measure would also be incorporated. Permanent BMPs shall be incorporated into project plans and specifications to reduce street drainage and storm water runoff velocities before entering, and within, Buena Creek, Agua Hedionda Creek, and other tributary drainages adjacent to the reconstructed roadways. This shall include BMPs or other comparable storm water controls and filtering systems.	Impact 2.4.b would be mitigated below a level of significance through implementation of the listed mitigation measures.
Hazardous Materials (see Subchapter 2.5)			
Impact 2.5.a	The public and construction workers could be exposed to increased health risks resulting from the release of hazardous materials from the disruption of existing contamination. This is considered a potentially significant impact.	<p>The County of San Diego will be responsible for the remediation of hazardous substances or wastes encountered during ROW acquisition and construction.</p> <ol style="list-style-type: none"> 1. A Business Closure Plan will be developed for the businesses that have the potential for contamination from hazardous materials and/or petroleum products. The Business Closure Plan provides a method by which businesses that involve potentially hazardous materials may 	Impact 2.5.a would be mitigated below a level of significance through implementation of the listed mitigation measures.

Impact No.	Impact	Mitigation	Significance After Mitigation
		<p>be moved or closed in compliance with County Department of Environmental Health (DEH) regulations.</p> <p>2. Additional work during the ROW acquisition process will be conducted by the County under the supervision of the DEH, Site Assessment and Mitigation Division to assess the need for additional evaluation of specific sites within the project vicinity. The additional investigation would clarify the extent of potential contamination and the level of any remediation required. Mitigation work plans, if required, will be developed in accordance with applicable regulatory requirements.</p> <p>3. A worker health and safety plan and a public health and safety plan will be prepared to address construction-related health and safety impacts in areas of known or suspected contamination. These plans will be prepared in accordance with all applicable regulatory requirements. Appropriate controls as provided in San Diego Air Pollution Control District (APCD) Rule 361.145 will be instituted during demolition and removal of the asbestos-containing materials.</p> <p>4. During construction and excavation, should any stained soil, unknown materials, or pungent odors be encountered, construction activities will cease and the County of San Diego Department of Health Services will be notified immediately.</p>	
Biological Resources (see Subchapter 2.6)			
Impact 2.6.a	Permanent impacts to nonnative grasslands would be considered significant direct impacts of the proposed project. Permanent impacts to nonnative grasslands resulting from implementation of the proposed project would be 8.30 acres.	<p>Mitigation for upland habitats will be provided according to the following ratios:</p> <p>Nonnative grassland 0.5:1 Southern Sycamore Willow Woodland 3:1 Mulefat Scrub 3:1 Arundo Scrub 3:1 Southern Willow Scrub 3:1 Disturbed Southern Willow Scrub 3:1 Disturbed Wetlands 3:1</p>	Impact 2.6.a would be mitigated below a level of significance through implementation of the listed mitigation measure.
Impact 2.6.b	Direct effects to wetland and riparian habitats, including those areas under the jurisdictions of the Army Corps of Engineers and the California Department of Fish and Game, would be significant	Mitigation for impacts to southern willow scrub, southern sycamore willow woodland, mulefat scrub, arundo scrub, and disturbed wetlands shall be provided to achieve, at a minimum, no net loss of wetlands through habitat creation or restoration, for Buena Creek and Agua Hedionda Creek. County policy requires that all wetland impacts be	Impact 2.6.b would be mitigated below a level of significance through implementation of the listed mitigation measures.

Impact No.	Impact	Mitigation	Significance After Mitigation
	impacts of the proposed project.	<p>mitigated at a 3:1 ratio. This requirement includes a component of 1:1 creation and 2:1 restoration/enhancement. The mitigation ratios and requirements that will be required using this guidance are presented in Table 2.6-5.</p> <p>In addition, the provided mitigation shall address the regulatory requirements of the U.S. Army Corps of Engineers and California Department of Fish and Game, pursuant to the Wetland Delineation and Impact Analysis Report (EDAW 2002). Compensatory mitigation ratios must be reviewed and approved by the resource agencies before being considered final. Compensatory mitigation for permanent and temporary impacts to wetlands may be accomplished by a combination of mitigation strategies that includes restoration, creation, enhancement, and/or preservation. The impacts, likely mitigation ratios, and acres of mitigation needed for the proposed project are summarized in Tables 2.6-6 and 2.6-7.</p>	
Impact 2.6.c	Potential sources for indirect impacts to the vegetation communities and plant species known to occur adjacent to the project area include trampling of vegetation outside of the limits of grading by workers and vehicles during construction, erosion into off-site areas, and impacts related to storage and access areas. These impacts would be short term but are considered potentially significant indirect impacts.	<p>The following resource protection measures shall be implemented by the County to ensure that impacts to sensitive resources do not occur beyond those anticipated in this environmental analysis.</p> <ol style="list-style-type: none"> 1. Prior to commencement of construction, the limits of each phase of project construction shall be clearly delineated by a survey crew. The limits shall be checked by the biological monitor before initiation of clearing or construction. The project biologist shall submit a letter to the County indicating that the limits of construction have been checked and work can commence. 2. Activities, including staging areas, equipment access, and disposal or temporary placement of excess fill, shall be prohibited within drainages outside of the identified project area. 3. Erosion and siltation into off-site areas during construction will be minimized. The contractor shall prepare an erosion control plan for approval by the County. The contract supervisor shall be responsible for ensuring that the erosion control plan is developed and implemented. 4. Construction access shall utilize existing developed areas or be within the ROW of proposed road and drainage improvements. If new or temporary access routes not within the project identified in this EIR are determined to be necessary, these areas shall be surveyed for biological resources prior to their use. Contractors shall clearly mark 	Impact 2.6.c would be mitigated below a level of significance through implementation of the listed mitigation measures.

Impact No.	Impact	Mitigation	Significance After Mitigation
		<p>all access routes (i.e., flagged and/or staked) prior to the onset of construction.</p> <p>5. Storage of soil or fill material from the project site shall be in developed areas. Contractors shall delineate stockpile areas on the grading plans for review by the County.</p> <p>6. To avoid sensitive habitats, construction staging areas, equipment refueling areas, and other areas for equipment and materials storage shall be located on existing developed properties. To avoid inadvertent impacts to sensitive biological resources that may be present, storage and access areas shall be displayed on the approved project plans and specifications.</p>	
Impact 2.6.d	<p>Potential direct impacts to sensitive bird species (federal species of concern and/or California Special Concern species) could occur from the proposed project through loss of foraging and potential nesting habitat.</p>	<p>Sensitive species (federal species of concern and/or California Special Concern species) found within the project area during the focused surveys include Costa's hummingbird, olive-sided flycatcher, Pacific-slope flycatcher, yellow warbler, hermit warbler, and yellow-breasted chat. These species could be impacted by the proposed project through loss of foraging and potential nesting habitat. Impacts to these species will be mitigated through provision of habitat-based mitigation, as required under Mitigation Measures 2.6.a and 2.6.b. In addition, brush removal shall not occur during the breeding season (March 15 to September 15).</p> <p>No raptor nests were observed within the project area during biological surveys; however, they could become present. The County will conduct raptor nest surveys prior to tree cutting or grading near mature trees to ensure that active nests are not present. A qualified biologist shall conduct the surveys and prepare a survey report. If no raptor nests are discovered in the trees to be removed, no further mitigation is required. If any active raptor nests are discovered, the biologist shall mark all occupied trees and delineate a 300-foot buffer area around each occupied tree. No construction activity shall occur within the 300-foot buffer until the young have fledged, as determined by a qualified biologist.</p>	<p>Impact 2.6.d would be mitigated below a level of significance through implementation of the listed mitigation measures.</p>
Aesthetic Resources (see Subchapter 2.7)			
2.7.a	<p>Light and glare from headlights could be intrusive to two residences on Poinsettia Avenue (225 and 231 Poinsettia Avenue), which would be considered a significant impact.</p>	<p>The County shall provide shrubs to the two residences on Poinsettia Avenue (225 and 231 Poinsettia Avenue) of sufficient height and density (at least 5-gallon containers) to minimize light impacts from oncoming headlights of the new Poinsettia Avenue/South Santa Fe Avenue connection.</p>	<p>Impact 2.7.a would be mitigated below a level of significance through implementation of the listed mitigation measure.</p>

Table S-2. Comparison of Project Alternative Impacts

Environmental Issues	No Sycamore Avenue Extension Alternative	Alternative Railroad Crossing Alternative	No Project Alternative
Traffic and Circulation	Less benefit	Similar	Less benefit
Air Quality	Similar	Similar	Less benefit
Noise	Less impact	More impact	Less impact
Water Quality and Hydrology	Similar	Similar	Less benefit
Hazardous Materials	Less impact	Less impact	Similar
Biological Resources - general	Less impact	Less impact	Less impact
Biological Resources - impacts by habitat type (in acres)			
Nonnative grassland	-0.916	-1.11	Less impact
Nonnative woodland	-0.023	0	
Disturbed Habitat	-0.09	0	
Ornamental	-0.118	0	
Southern sycamore willow woodland	-0.008	0	
Mulefat scrub	-0.01	0	
Arundo scrub	-0.33	0	
Southern Willow Scrub	-0.379	0	
Disturbed Wetlands	0	0	
Aesthetic Resources	Similar	Similar	Less benefit ¹ Less impact ¹

¹ The comparison of the visual effects between the project alternatives and the No Project Alternative is subjective. The No Project Alternative would result in less unity in the project area infrastructure improvements and less new landscaping. However, the No Project Alternative would also not affect existing resources of some visual quality, such as Buena Creek. In addition, the No Project Alternative would not result in the light and glare impacts to the two residences along Poinsettia Avenue.

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CHAPTER 1.0 - PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the proposed South Santa Fe Avenue Reconstruction project. The proposed project would widen South Santa Fe Avenue from a two-lane road to a four-lane Major Road, with a center left-turn lane along most of the project length. This project would include realignment and extension of approximately 0.3 mile of Sycamore Avenue between its existing built-out terminus at the Vista city limits near University Drive, east to South Santa Fe Avenue at Buena Creek Road, and the replacement of Robelini Drive as the link between South Santa Fe Avenue and State Route (SR) 78. Improvements to the railroad crossing in the vicinity of York Drive and Woodland Drive would also be constructed as part of this project. The County of San Diego Department of Public Works is proposing the project.

This assessment is designed to inform County of San Diego (County) decision-makers, responsible agencies, and the public of the potential environmental consequences of implementation of the project. This Draft EIR has been prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The County is a lead agency for CEQA compliance.

1.1 Project Location

South Santa Fe Avenue has an overall northwest to southeast orientation. To allow easier reference to design materials, this report adopts the terminology of the design and engineering studies and discusses South Santa Fe Avenue as running north to south.

The northern project boundary begins approximately 270 feet north of the Montgomery Drive intersection at the Vista city limits and continues approximately 2 miles south along South Santa Fe Avenue to approximately 700 feet south of the existing Smilax Road intersection at the San Marcos city limits. Sycamore Avenue and Robelini Drive provide the link between South Santa Fe Avenue and SR 78 (Figures 1-1, 1-2, and 1-3).

1.2 Project Background

Realignment of Sycamore Avenue to the Buena Creek Road/South Santa Fe Avenue intersection has been in the planning stage for almost 30 years. The proposed Sycamore

Avenue extension was part of Road Survey (RS) 1821 5, which realigned Sycamore Avenue and Buena Creek Road between SR 78 and Monte Vista Drive. RS 1821 5, which was approved by the County in 1972, established Sycamore Avenue/Buena Creek Road/South Santa Fe Avenue as a future four-way intersection. Right-of-way (ROW) along this proposed alignment has been secured since 1972. This was achieved through acquisition and the private project development exaction process. However, in 1972 work on the project was suspended due to a shortage of funds from gasoline revenues. Available revenue was directed to maintenance rather than new construction. It was not until the late 1980s that preliminary engineering design began on this intersection.

In 1987, the County conducted an alignment study for the improvement of South Santa Fe Avenue. The objective of the study was to provide a fiscally acceptable road design within controlling parameters. These parameters included public safety, circulation benefits, community impact, environmental impacts, and implementation concerns. In addition to construction cost for the road improvements, overall project cost is affected by the type of railroad crossing to be provided and the number of properties to be acquired or relocated. The County determined that each design alternative would result in the same level of improved traffic operations on South Santa Fe Avenue, Sycamore Avenue, and side streets.

In May of 1989, the San Diego Association of Governments (SANDAG) approved a list of projects and an allocation policy to use \$80 million in TransNet funds for freeway, interchange, and arterial improvements along the SR 78 transportation corridor. The total cost of the approved projects exceeded the \$80 million available in the TransNet SR 78 Corridor Reserve Fund. To bridge this funding gap, each local government involved agreed to secure a 50 percent match of funds for its projects. Projects that included a continuous upgrade to east-west traffic flow and provided parallel arterials to SR 78 received priority. Among the approved projects was the improvement of South Santa Fe Avenue proposed by the County.

In 1991, the County contracted with two design consultants to prepare design plans, specifications, and construction cost estimates for a road alignment that conformed to Major Road standards. Design plans were approximately 90 percent complete in 1994, when the County Board of Supervisors deleted the South Santa Fe Avenue project from the TransNet Program. In 1996, the County reinstated the project and SANDAG reapproved and reallocated TransNet funds, but in an amount only sufficient for minimal

improvements to South Santa Fe Avenue. In 1997, the County contracted with two design consultants to prepare design plans, specifications, and cost estimates for the revised project.

Using the extensive design work that had been completed as of 1994, the County and the design consultants revised the design plans in 1997 to more closely conform to the reduced improvements set forth by SANDAG. Only work related to increasing roadway capacity was approved by SANDAG. The revised project included construction of the road to a modified Major Road standard that included improved medians, traffic signals, graded shoulders, turn lanes (at intersections only), ROW acquisition, and grading for minimal lane improvements and standard shoulders. The revised project also eliminated 16 feet of parking lanes and reduced the median width by 4 feet, for a total width reduction of 20 feet.

SANDAG, designated as the Regional Transportation Planning Agency, prepares and updates the regional transportation planning documents for the San Diego County area. The 2030 Regional Transportation Plan (RTP) (2030 RTP), published by SANDAG in March 2003, identifies South Santa Fe Avenue in unincorporated areas as a Regional Arterial System project that has been slated by SANDAG's Cities-County Transportation Advisory Committee to receive federal Surface Transportation Program (STP) funds (SANDAG 2003a). The SANDAG 2002 Regional Transportation Improvement Program (RTIP) (SANDAG 2002) is a 5-year program of regional transportation improvements for major state highway, local street and road, transit, and nonmotorized projects. The 2002 RTIP covers the fiscal years 2003-2007.

Previous federal funding had triggered environmental review under the National Environmental Policy Act (NEPA). Under NEPA, each alternative must be evaluated at an equal level of detail throughout the entire document. Accordingly, there were two roadway alternatives (A and B), three railroad crossing options (A, B, and C), and four drainage options (A, B, C, and D) analyzed in the technical appendices. In December 2003, the funding sources for the project changed and all federal funds were eliminated. The entire project is now being funded through local Transnet funds and the NEPA evaluation is not necessary; only a CEQA evaluation is now necessary. This EIR is the appropriate document under CEQA. Under CEQA, the proposed project is evaluated and the alternatives are addressed in a different format. In this draft EIR, the proposed project (evaluated in Chapter 2) corresponds to the modified Major Road standard

(roadway alternative A), railroad crossing with the four-leg intersection (railroad crossing option C), and the Buena Creek drainage improvements for redirection of excess flows (drainage option C) in the technical appendices. Other alternatives are evaluated in Chapter 4 of this EIR. Though the technical appendices were generated to correspond to the NEPA document, the analysis in the technical appendices sufficiently evaluates the project impacts under CEQA and those appendices were not reformatted for this EIR.

1.3 Description of the Proposed Project

The proposed project has four major components:

1. Reconstruct and widen South Santa Fe Avenue on a new centerline, from a two-lane road to a four-lane Major Road for approximately 2 miles between the Vista and San Marcos city limits.
2. Construct approximately 0.3 mile of Sycamore Avenue from its existing built-out terminus at the Vista city limits near University Drive, to South Santa Fe Avenue at Buena Creek Road. Robelini Drive would terminate at El Valle Opuento and vehicular access to residences along Robelini Drive would be via a private drive. Drainage improvements to accommodate a 100-year flood would be made as a part of the Sycamore Avenue extension.
3. Construct improvements to the railroad crossing in the vicinity of York Drive and Woodland Drive.
4. Construct drainage improvements along Buena Creek to address flood risks on Robelini Drive and Sycamore Avenue.

The improvement project would relieve congestion on SR 78 as part of the State Highway Corridor Program, which is contributing a portion of the project funding. The proposed project would extend Sycamore Avenue to South Santa Fe Avenue. This extension would replace Robelini Drive as the link between South Santa Fe Avenue and SR 78. These improvements would improve access between SR 78 and South Santa Fe Avenue, relieve congestion on Robelini Drive, and eliminate traffic impacts through this residential area. Sycamore Avenue would follow a new alignment northeasterly from the Vista city limits near University Drive and would intersect with South Santa Fe Avenue

to create a four-leg intersection at Buena Creek Road. Robelini Drive would then terminate at El Valle Opulento, and south of El Valle Opulento the road would become a private drive ending at Sycamore Avenue with no through vehicular access.

The proposed improvements to South Santa Fe Avenue would have a design speed of 50 miles per hour (mph) and would include striped and raised medians, bike lanes, and Americans with Disabilities Act (ADA)-compliant sidewalks. Raised medians on Buena Creek Road would be required at all approaches to the new South Santa Fe Avenue/Buena Creek Road/Sycamore Avenue intersection and at the railroad crossing near York Drive and on Buena Creek Road.

Two new traffic signals and lighting systems would be part of the proposed project. New traffic signals would be provided at Buena Creek Road/Hart Wright Road and the South Santa Fe Avenue/Smilax Road intersections. The existing signals at South Santa Fe Avenue/Palmyra Drive, South Santa Fe Avenue/Buena Creek Road, and South Santa Fe Avenue/Woodland Drive would be replaced and modified, and the existing signal at Robelini Drive would be removed. Railroad crossing gates would be provided at the North County Transit District (NCTD) rail line near York Drive.

1.3.1 The Project's Design Description and Components

South Santa Fe Avenue and Sycamore Avenue Design Description

South Santa Fe Avenue would be improved to include four travel lanes, a center left-turn lane, bike lanes, and ADA-compliant sidewalks (see Figures 1-4 and 1-5, Sheets 1 through 7). Raised medians would be provided at all approaches to the new South Santa Fe Avenue/Buena Creek Road/Sycamore Avenue intersection, as well as at the railroad crossing near York Drive and at Buena Creek.

South Santa Fe Avenue would be improved to a paved width of 76 feet within a 96-foot ROW width. The typical section would include two 12-foot inside traffic lanes; two 13-foot outside lanes; two 6-foot bicycle lanes; sidewalks; and a 14-foot, striped, two-way, left-turn median with formal left-turn pockets at public road intersections (Figure 1-4). The proposed project would not meet the County's Major Road standards due to a 1-foot reduction in the width of outside travel lanes. Variations of this typical section would be

required on certain portions of the road due to NCTD ROW encroachment constraints. No on-street parking would be provided.

Two new traffic signals and lighting systems would be included in the project. New traffic signals would be provided at Buena Creek Road/Hart Wright Road and South Santa Fe Avenue/Smilax Road. The existing signals at South Santa Fe Avenue/Palmyra Drive and South Santa Fe Avenue/Buena Creek Road would be replaced and modified, and the existing signal at Robelini Drive would be removed. A new traffic signal was installed at South Santa Fe Avenue/Woodland Drive in 2003. This signal was once part of the proposed project but was since installed as a result of the construction of the new Hannalei Elementary School in 2003, prior to approval and construction of the South Santa Fe Avenue Reconstruction project. This signal would be replaced with the new configuration of South Santa Fe Avenue/Woodland Drive. Railroad crossing gates would be provided at the NCTD rail line near York Drive.

The roadway reconstruction features are illustrated in Figure 1-5, Sheets 1 through 7. Ten private driveways on the north side of South Santa Fe Avenue between Montgomery Drive and York Drive would be reconstructed and the grades would be adjusted to meet the new grade at South Santa Fe Avenue.

York Drive intersects South Santa Fe Avenue at a severe acute angle of 20 degrees. York Drive would be realigned to intersect South Santa Fe Avenue at approximately 70 degrees to satisfy intersection design standards. The realigned section would be approximately 500 feet long and 40 feet wide (curb to curb).

Approximately 450 feet of Hannalei Drive where it intersects Woodland Drive immediately west of South Santa Fe Avenue would be displaced by the South Santa Fe Avenue construction project. This section of Hannalei Drive would be reconstructed to 40 feet wide (curb to curb) with a new alignment, intersecting Woodland Drive approximately 250 feet west of South Santa Fe Avenue. The existing signal at Woodland Drive/South Santa Fe Avenue would be replaced with the new configuration.

Approximately 300 feet of Woodland Drive would be reconstructed to meet the new grade of South Santa Fe Avenue. It would be constructed to a road width of 35 feet (curb to curb).

The existing grade on approximately 180 feet of Montgomery Drive would be adjusted to meet the new grade at South Santa Fe Avenue. Montgomery Drive would be constructed to a road width of 33 feet (curb to curb).

Sycamore Avenue would be extended from the Vista city limits easterly to South Santa Fe Avenue, Robelini Drive would be closed to through traffic, and other side streets along South Santa Fe Avenue would be improved/widened in association with the intersection modifications described above. Sycamore Avenue would replace Robelini Drive as the route between SR 78 and South Santa Fe Avenue and would connect to South Santa Fe Avenue opposite Buena Creek Road, forming a four-leg intersection. Sycamore Avenue would be constructed to a four-lane roadway with a raised median. The roadway width would vary from 84 feet of pavement on a 104-foot ROW to 106 feet of roadway on a 126-foot ROW. The road width would be 12 to 14 feet wide and the raised median would vary from 20 to 28 feet in width.

The traffic lanes and median would vary in width because a portion of Sycamore Avenue may be annexed by the City of Vista in the future, and the City requires the 84-foot pavement width.

Robelini Drive would be reconstructed to terminate at El Valle Opulento allowing vehicular access to South Santa Fe Avenue to the residents along El Valle Opulento. The eastern portion of Robelini Drive adjacent to Buena Creek would become a maintenance road allowing vehicular access to Buena Creek and existing properties. The western portion of Robelini Drive adjacent to Buena Creek would become a private drive, connecting to Sycamore Avenue, but with no through access.

Buena Creek Road would be widened to 90 feet at the intersection with South Santa Fe Avenue and at the railroad crossing. Due to the new alignment of South Santa Fe Avenue, the Buena Creek Road/South Santa Fe Avenue intersection would be shifted approximately 130 feet west.

Approximately 300 feet of Abelia Lane would be reconstructed to a 28-foot width (edge of pavement to edge of pavement) to meet the new grade of South Santa Fe Avenue.

Approximately 400 feet of Palmyra Drive would be reconstructed to a 40-foot width (curb to curb) to match the new grade of South Santa Fe Avenue. Approximately 150

feet of Estrelita Drive would be reconstructed to a 40-foot width (curb to curb) to meet the revised grade of Palmyra and would be realigned to form a 90-degree intersection with Palmyra.

Approximately 110 feet of Azalea Drive would be reconstructed to meet the new grade of South Santa Fe Avenue. The road width would vary from 23 feet to 40 feet (curb to curb).

Approximately 450 feet of existing Poinsettia Avenue, west of its intersection with existing South Santa Fe Avenue, would be abandoned and a new 91-foot-long segment, 40 feet wide (curb to curb) would be constructed to replace it, approximately 900 feet south of the present location. The abandonment would be necessary due to the difficulty of matching the new grade of South Santa Fe Avenue and of realigning the roadway to intersect South Santa Fe Avenue at approximately 90 degrees. Currently, Poinsettia Avenue intersects South Santa Fe Avenue at a 55-degree angle.

Smilax Road intersects South Santa Fe Avenue at an acute 53-degree angle. Approximately 320 feet of existing Smilax Road would be realigned to form a standard 90-degree intersection with South Santa Fe Avenue and would be constructed to a 64-foot width (curb to curb) to match existing ultimate improvements to the west.

The South Santa Fe Avenue improvements would terminate approximately 700 feet south of Smilax Road at the San Marcos city limits. A transition would be provided between the new four-lane width of the proposed project and the existing two-lane width of South Santa Fe Avenue within San Marcos.

Railroad Crossing and Drainage Components

In addition to the roadway improvement component of the proposed project, there is a railroad crossing component and a drainage component.

The railroad crossing component would reconstruct the York Drive/Woodland Drive intersection to form a signalized four-leg intersection with South Santa Fe Avenue, with the railroad passing through the center of the intersection. Figure 1-5, Sheet 1 includes an insert that shows the configuration of the railroad crossing component.

Flood control improvements would be constructed at the Agua Hedionda Creek crossing as shown in Figures 1-6 and 1-7. As part of the drainage component, a reconstructed channel would be built upstream of the proposed Sycamore Avenue extension. Once the flow reaches Sycamore Avenue, it would enter into quintuple 6-foot by 10-foot reinforced concrete box culverts that would be constructed underneath Sycamore Avenue. A small conveyance culvert or pipe would be installed at the entrance to this quintuple box culvert to allow low flows to continue along the existing open, natural Buena Creek channel (Figures 1-6 and 1-8). The small conveyance pipe would be sized to allow only 50 cubic feet per second (cfs) (the existing channel capacity) to enter the channel. The existing Buena Creek channel downstream of Sycamore Avenue would not be physically altered.

Instead of reconstructing the existing Buena Creek channel, low flows would still occur in the existing natural channel. This would allow for a smaller low-flow channel, thereby minimizing ROW impacts and displacement of adjacent residential and commercial properties. In addition, the concrete culverts underneath Sycamore Avenue would require lower maintenance because there would be no vegetation to clog the open channel.

1.3.2 Other Technical, Economic, and Environmental Characteristics

Property Displacement and Relocation

Implementation of the proposed project would require approximately 93 partial property acquisitions and approximately 25 full property acquisitions. Approximately 22 dwelling units and 21 businesses would be relocated for the proposed project.

Landscape and Aesthetic Treatments

As shown in Figure 1-5, several sound and retaining walls would be constructed with the proposed project. The sound walls are recommended mitigation measures, as further described in Subchapter 2.3. Most walls would be split-faced masonry block walls in earth-tone colors. To soften and camouflage the split-faced masonry walls, and to visually reduce their scale, vines would be planted in the landscape strip adjacent to those walls that extend up from the road elevation.

The proposed retaining wall between the railroad tracks and the western edge of the proposed South Santa Fe Avenue alignment in the northern portion of the project area would be constructed of battered keystones, which would be planted with *Ficus pumila* (creeping fig), or a similar vine. The wall planting would be irrigated.

In addition to vines along the walls, several planting strips adjacent to project sidewalks would be provided. Planting strips would be provided adjacent to retaining walls, where feasible. Areas that include planting strips along South Santa Fe Avenue include an area south of Montgomery Drive; the eastern side of South Santa Fe Avenue, north of Poinsettia Avenue; and the area north and south of the Palmyra Drive intersection. Typical planting strip width would be 3½ feet. Table 1-1 provides a summary of the shrubs that are planned for the planting areas.

Table 1-1. Shrubs Planned for Planting Strips

Botanical Name	Common Name	Spacing (from center)
Foreground shrubs (in 1-gallon containers)		
<i>Carissa macrocarpa</i>	Natal palm	6 feet
<i>Dietes bicolor</i>	Fortnight lily	3 feet
<i>Euryops pectinatus viridis</i>	Euryops	3 feet
<i>Hemerocallis hybrids</i>	Daylily	2 feet
<i>Hibiscus rosa-sinensis</i>	Chinese hibiscus	6 feet
<i>Lavandula angustifolia</i>	English lavender	2 feet
<i>Pittosporum tobira</i>	Wheeler's dwarf	4 feet
<i>Rhaphiolepis indica</i> "ballerina"	Indian hawthorn	10 feet
Background shrubs (5-gallon containers)		
<i>Ceanothus</i> "dark star"	Wild lilac	5 feet
<i>Leptospermum scoparium</i>	New Zealand tea tree	4 feet
<i>Photinia fraseri</i>	Frazer's photinia	5 feet
<i>Rhaphiolepis indica</i>	Majestic beauty	5 feet
<i>Xylosma congestum</i>	Shiny xylosma	5 feet
<i>Virurnum tinus</i> "spring bouquet"	(no common name)	5 feet

Trees removed as a result of roadway construction would be replaced within the proposed project alignment, where feasible. In addition, several key locations would have additional landscaping, including trees. These include the area around York Drive and

Woodland Drive, the Buena Creek area, and the vacated land on the north and south sides of Smilax Road.

The York Drive/Woodland Drive area would contain both evergreen and deciduous trees (e.g., gold medallion tree, magnolia, Brisbane box, evergreen elm, western redbud, crape myrtle, and Chinese flame tree). The Buena Creek area would include native trees and shrubs (e.g., California sycamore, Fremont cottonwood, coast live oak, coyote brush, broom baccharis, mulefat, and red and arroyo willow).

The County would also offer property owners a 1:1 replacement of trees removed from their property as a result of project construction. Trees would be in 15-gallon containers. Because there would not be room to replant trees removed in areas where the road has been widened, the property owners may plant these trees at any location within their property.

All planting areas along the project would be irrigated. Irrigation would conform to the standards of the County of San Diego Landscape Technical Manual and all other landscape-related regional standards. The County would install and maintain the irrigation system. Decorative median paving (stamped concrete or decorative pavers) would also be included in the project.

1.4 Project Objectives

The objectives of the project are to:

1. Improve the transportation network by widening South Santa Fe Avenue and realigning its intersection with Sycamore Avenue/Buena Creek Road to a four-leg intersection in conformance with the County Circulation Element.
2. Improve motorist safety by reducing traffic congestion with the improvement of South Santa Fe Avenue, Sycamore Avenue, and Buena Creek Road in accordance with County standards.
3. Accommodate forecasted traffic volumes by increasing roadway capacity.
4. Improve drainage conditions to accommodate 100-year flows and reduce flooding risks in the area adjacent to Buena Creek.

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 impacts, and describe reasonable alternatives to the project. This EIR is a project EIR, which contains the technical analysis necessary to address all the potential environmental effects of the project in compliance with CEQA and the CEQA Guidelines.

1.5.1 Required Project Approvals and Permits

Table 1-2 provides a summary of the approvals and permits required for the project.

Table 1-2. Required Project Approvals and Permits

Agency	Permit or Approval
U.S. Army Corps of Engineers	Section 404 (Clean Water Act) Permit
Regional Water Quality Control Board	Section 401 (Clean Water Act) Water Quality Certification and Dewatering Permit
California Department of Fish and Game	Section 1602 (Fish and Game Code) Streambed Alteration Agreement
Public Utilities Commission	Approval of railroad crossing design

Preapplication coordination meetings were also held to discuss the proposed project on September 15, 1999, and December 15, 1999, with the U.S. Army Corps of Engineers (ACOE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and Regional Water Quality Control Board (RWQCB). Follow-up meetings were held on March 12, 2002, with the ACOE and on April 16, 2002, with the CDFG to discuss wetland permitting requirements.

1.5.2 Related Environmental Review and Consultation Requirements

The County is the lead agency for CEQA because the project is located within County boundaries, the project falls under the jurisdiction of the County, and the County is the project proponent. As local lead agency, the County would have principal responsibility for approving and implementing the proposed project.

The County will be required to approve construction funding and project improvement plans, grading plans, and utility relocation plans. The County will also be required to implement best management practices (BMPs) and control practices, as required under the State of California National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity. The County is currently regulated by Order No. 2001-01, NPDES No. CAS0108758 (Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems [MS4s] Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County and the Unified Port District), adopted on February 21, 2001, by the State Water Resources Control Board (SWRCB) and administered by the San Diego RWQCB.

The proposed project is subject to review under other state and federal environmental protection regulations such as the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) and Migratory Bird Treaty Act (16 U.S.C. 703-711) and California Endangered Species Act (Fish and Game Code 2050 et seq.), and Native Plant Protection Act (Fish and Game Code 1900-1913).

The proposed project includes the demolition of businesses and residences. Emission of asbestos could result from demolition of these businesses and residences, which may contain regulated asbestos-containing material. The proposed project will be required to implement proper controls, as provided in San Diego Air Pollution Control District (APCD) Rule 361.145 and in coordination with the San Diego County Department of Environmental Health (DEH) to ensure that hazards related to the demolition of asbestos-containing materials do not occur.

In addition, the proposed project will require authorization from the Public Utilities Commission (PUC) of the State of California to modify the public railroad-highway grade crossings consistent with PUC General Order No. 88-A.

1.6 Environmental Setting

1.6.1 Existing Conditions in the Project Area

The project area along and adjacent to South Santa Fe Avenue, including along Robelini Drive, is urban, having transitioned from a lower-density suburban area over the past

30 years. It has remained an unincorporated County “island” between the cities of Vista and San Marcos, and commercial and residential development has occurred at a slower pace and without the same level of comprehensive land use and facility planning that is more typical of incorporated cities.

Residential neighborhoods in the project area tend to be separated by major roads and commercial/industrial uses and are frequently interspersed with vacant lots and commercial buildings. Single-family residences are the principal land uses along the cross streets of South Santa Fe Avenue, as well as the areas north of Woodland Drive. Lot sizes in these areas are typically larger than the 6,000-square-foot minimum that the County General Plan designates.

Private and public streets without concrete curbs, gutters, and sidewalks are typical in the residential areas adjacent to the project. This reflects the lack of large-scale subdivision development with common development styles and comprehensive street design that might otherwise have created larger, distinctive neighborhoods. Instead, residential areas tend to exist as small, separate residential clusters.

Along the South Santa Fe Avenue corridor south of York Drive, commercial service and light industrial uses predominate. The majority of these commercial services are nonfranchise and automobile related. Because the adjacent cities are more economically attractive for planned commercial centers and office complexes, South Santa Fe Avenue has developed as a commercial and light industrial area of individual commercial lots and numerous private driveways serving single-use properties.

Residential developments within the project area are predominantly single-family homes, although there is a cluster of multiple-family homes on South Santa Fe Avenue between Buena Creek Road and Palmyra Drive. Single-family detached homes comprise the predominate land use along Robelini Drive and the adjacent areas served by El Valle Opuento.

South Santa Fe Avenue is classified as a four-lane Major Road. It currently has one lane in each direction in the vicinity of the proposed project. A two-way left-turn lane in the center of the road is provided between York Drive and Palmyra Drive. Curbside parking is not allowed, and the posted speed limit is 40 mph. Existing traffic volumes range from

14,800 to 18,300 average daily vehicles (ADT). More information on the existing traffic and circulation conditions in and around the project area is provided in Subchapter 2.1.

Noise levels in the project area were measured in October, November, and December 1999 and April and May 2000 near South Santa Fe Avenue, Sycamore Avenue, Abelia Lane, and Robelini Drive. The dominant source of noise in the area was traffic on adjacent roadways. More information on the existing noise setting of the project area is provided in Subchapter 2.3.

The project area is located within the Agua Hedionda Creek drainage, which is part of the San Luis Rey-Escondido watershed. The site is also within the Carlsbad hydrologic unit. The average annual rainfall for the watershed area is 13.2 inches and the projected runoff percentage is less than 1 percent. More information on the existing hydraulic setting is provided in Subchapter 2.4.

Vegetation communities and habitat types within the project area were mapped and a formal wetlands determination was completed on February 27, 2002. The sensitive wetland, water, and riparian communities within the project area include southern coast live oak riparian woodland, southern sycamore willow woodland, southern willow scrub, mulefat scrub, disturbed wetland, unvegetated streambed, and arundo scrub. Upland vegetation communities and land cover types include nonnative grassland, nonnative woodland, urban developed/ornamental, and disturbed habitat. More information on the biological resources in the project area is provided in Subchapter 2.6.

In addition to the above information regarding some of the existing environmental conditions in the project area, more detailed information is provided in the *Existing Conditions* section of each of the subject analyses in Chapter 2.

1.6.2 Consistency of Project with Applicable Regional and General Plans

Land use planning for the area is currently under the jurisdiction of the County. The area may ultimately be annexed by the adjacent cities of Vista and San Marcos. A generalized illustration of planned land uses for the area is provided in Figure 1-9. The Regional Land Use Element of the San Diego County General Plan (County of San Diego 1995) designates the project area as a Current Urban Development Area, which “includes those County lands to which near-term urban development should be directed.” The North

County Metropolitan Subregional Plan (County of San Diego 1990) implements the Regional Land Use Element by specifying urban uses for the project area, including medium- to high-density residential uses ranging from 2 dwelling units per acre (dua) to 43 dua, as well as General Commercial, Service Commercial, Office Professional, and Limited Industrial uses. No designations for agricultural use or for protection of sensitive resources, such as the Impact Sensitive or Environmentally Constrained Area designations, exist in the immediate or surrounding areas.

The cities of Vista and San Marcos have similar commercial and light industrial land use designations along most portions of South Santa Fe Avenue, with medium- and low-density residential designations to the west and east. In the city of Vista north of the project, the designations along South Santa Fe Avenue are Neighborhood Commercial and General Commercial. In the city of San Marcos south of the project, the designations are Light Industrial along the east side, and residential densities varying from 4 to 12 dua along the west side. The Residential-Mobile Home Park designation also exists along the west side of South Santa Fe Avenue in the city of San Marcos.

The County Circulation Element includes guidelines for development of the regional transportation network necessary to serve designated land uses, both existing and planned, in the unincorporated area of San Diego County. The Circulation Element designates South Santa Fe Avenue, Buena Creek Road, and Sycamore Avenue as four-lane Major Roads. The County's Major Road designation of South Santa Fe Avenue is consistent with the Major Arterial designation of South Santa Fe Avenue in the City of San Marcos Circulation Element and with the present constructed width of South Santa Fe Avenue in Vista.

The South Santa Fe Avenue Reconstruction project is consistent with the County Circulation Element, which describes and illustrates the recommended major road network for the region. The adopted network includes the alignment of Sycamore Avenue to be a four-way intersection with Buena Creek Road at South Santa Fe Avenue, as well as the buildout of these roads to Major Road standards.

In addition to the review of local planning documents that apply to the South Santa Fe Avenue project area, other applicable plans and regulations were reviewed to ensure the project was consistent with regional plans and regulation. The documents reviewed included the San Diego APCD Rule 51 for dust control and the Regional Air Quality

Strategies; the RTP and RTIP prepared by SANDAG; and regional water quality control plans, including the Water Quality Control Plan for the San Diego Basin (9), San Diego Municipal Storm Water Permits, and the 303(d) list of impaired water bodies. The project is consistent with these regional plans and regulations.

1.6.3 Past, Present, and Reasonably Anticipated Future Projects in the Project Area

A list of past, present, and reasonably foreseeable projects is provided based on research with the NCTD, the City of Vista, and the City of San Marcos. These agencies identified seven projects within the vicinity of the County’s proposed South Santa Fe Avenue project. These projects consist of different land uses such as commercial, transit, and educational facilities. Table 1-3 lists the projects and provides a brief summary of each. The general location of each project is shown in Figure 1-10. This listing of projects provides the basis for the cumulative impact discussion provided in each of the subject analyses in Chapter 2. As noted in the following paragraphs, some of these projects have been completed since the initiation of the environmental analysis of the South Santa Fe Avenue Reconstruction project. They are still important to note, however, as their construction may have occurred after the topical analyses were completed for the proposed project (e.g., biology and water quality).

Table 1-3. Cumulative Projects List

Project Name	Summary Description
1. Hannalei Elementary School	School (grades K-5) on a 11.2-acre site serving 750 students.
2. 7-11 Convenience Store and Gas Station	A 2,940-square-foot convenience store and a four-pump gas station on a 1.05-acre site, located at the northeast corner of Sycamore Avenue and Lobelia Drive.
3. East Sycamore Commercial	An approximately 61,200-square-foot commercial development. To be located at the southeast corner of Sycamore Avenue and Lobelia Drive.
4. Buena Creek Rail Station	Rail station for the Oceanside-Escondido rail line at Buena Creek Road. Corner of South Santa Fe and Buena Creek Road.
5. North County Square Specific Plan	City of Vista Specific Plan for the North County Square planning area, which addresses buildout and flood control within this specific planning area.
6. City of San Marcos Road Improvements	Improve South Santa Fe Avenue from Smilax Road to Rancho Santa Fe Road, approximately 0.8 mile, within San Marcos from a two-lane collector to a four-lane Major Arterial road.
7. NCTD Commuter Rail Service - the “Sprinter”	Construction of a new light rail commuter line between Oceanside and Escondido that will run along the existing freight rail line.
8. Thibodo Road Multi-family Apartments	Construction of a 314-unit multi-family residential development on 22.6 acres in Vista.

In addition to the projects listed in this section, there are many vacant pieces of land located within the project area that could be developed concurrent with the proposed project. The cumulative analyses contained in Chapter 2 assume that such development could occur consistent with applicable land use plans and zoning in the county and the cities of Vista and San Marcos.

Hannalei Elementary School

Hannalei Elementary School is a Vista Unified School District project that will serve 750 students between kindergarten through fifth grade. The project is located in the unincorporated area of San Diego County at the northwestern corner of Hannalei Drive and Woodland Drive. Construction of this project is complete and the elementary school opened on September 29, 2003.

7-11 Convenience Store and Gas Station

The 7-11 Convenience Store and Gas Station is a 2,940-square-foot convenience store and gas station with four fuel islands, parking, and related site improvements on a 1.05-acre site. This site is located within Vista at the northeastern corner of Sycamore Avenue and Lobelia Drive. Construction of this project was completed in 2003, and the project is open for business.

East Sycamore Commercial

This project is a proposed commercial development being reviewed by the City of Vista for the southeast corner of Sycamore Avenue and Lobelia Drive. Construction of this 61,200-square-foot proposed development on 8.1 acres has not begun, but is planned to be developed in 2004 and completed in 2005.

Buena Creek Rail Station

The NCTD has a planned rail station for the Oceanside-Escondido rail line at the corner of South Santa Fe Avenue and Buena Creek Road. The project has been approved and construction is anticipated to commence in 2004.

North County Square Specific Plan

The North County Square Specific Plan area is located within Vista along Sycamore Avenue and University Drive, north of SR 78. The project is primarily commercial, most of which has been constructed, and also includes National University. The 7-11 store and East Sycamore Commercial projects described above are within the Specific Plan area. Buildout of the project is complete with the exception of the East Sycamore Commercial development described above.

City of San Marcos Road Improvements

The City of San Marcos proposes to improve 0.8 mile of roadway along South Santa Fe Avenue at the south end of the County project. The improvements would consist of converting South Santa Fe Avenue from a two-lane collector to a four-lane Major Arterial road. Improvements would take place from the intersection of Smilax Road to the intersection of Rancho Santa Fe Road within San Marcos.

NCTD Commuter Rail Service – the “Sprinter”

The NCTD has approved plans to add commuter service between Oceanside and Escondido along the existing freight rail line (known as the “Sprinter”). Construction on the line is expected to start in 2003 and passenger service is expected to begin in 2005. The Sprinter is expected to carry 12,000 passengers a day when it begins service with trains each way every 30 minutes between 5 a.m. and 11 p.m. A total of 15 passenger stations are to be established along the route, including the station at the southeast corner of South Santa Fe Avenue and Buena Creek Road (#4 in Figure 1-10). The NCTD also proposes to construct the Inland Rail Trail along the Oceanside to Escondido rail line. It would be located on the east side of the railroad ROW, through the South Santa Fe Avenue project area.

Thibodo Road Multi-family Apartments

The City of Vista has approved plans for the construction of a multi-family residential complex. The residential development would have 314 units and encompass approximately 22.6 acres. The project was approved in 2003 and is currently under construction. The project is expected to be complete in 2004.

1.7 Growth-inducing Effects

A discussion of the proposed project's growth-inducing impacts is required under CEQA Guidelines Section 15126(d). A project may be growth inducing if it directly or indirectly fosters economic or population growth or the construction of additional housing, removes obstacles to population growth, taxes community service facilities to the extent that the construction of new facilities would be necessary, or encourages or facilitates other activities that cause significant environmental effects. CEQA Guidelines further state that it "must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (CEQA Guidelines Section 15126.2(d)).

Because the proposed project would not include the construction of new housing or other facilities that would house or accommodate new populations, it would not directly result in population growth. The improvements to South Santa Fe Avenue are consistent with the County Circulation Element and the County General Plan, which include guidelines for development of the regional transportation network necessary to serve designated land uses, both existing and planned, in the unincorporated area of San Diego County. Thus, the proposed project would not foster growth, remove an impediment to growth, or create growth-related environmental effects that have not been previously considered in long-range planning documents and associated CEQA environmental review. Furthermore, the project would not directly tax community services or utilities because the project would not result in an immediate or unanticipated influx of population or development.

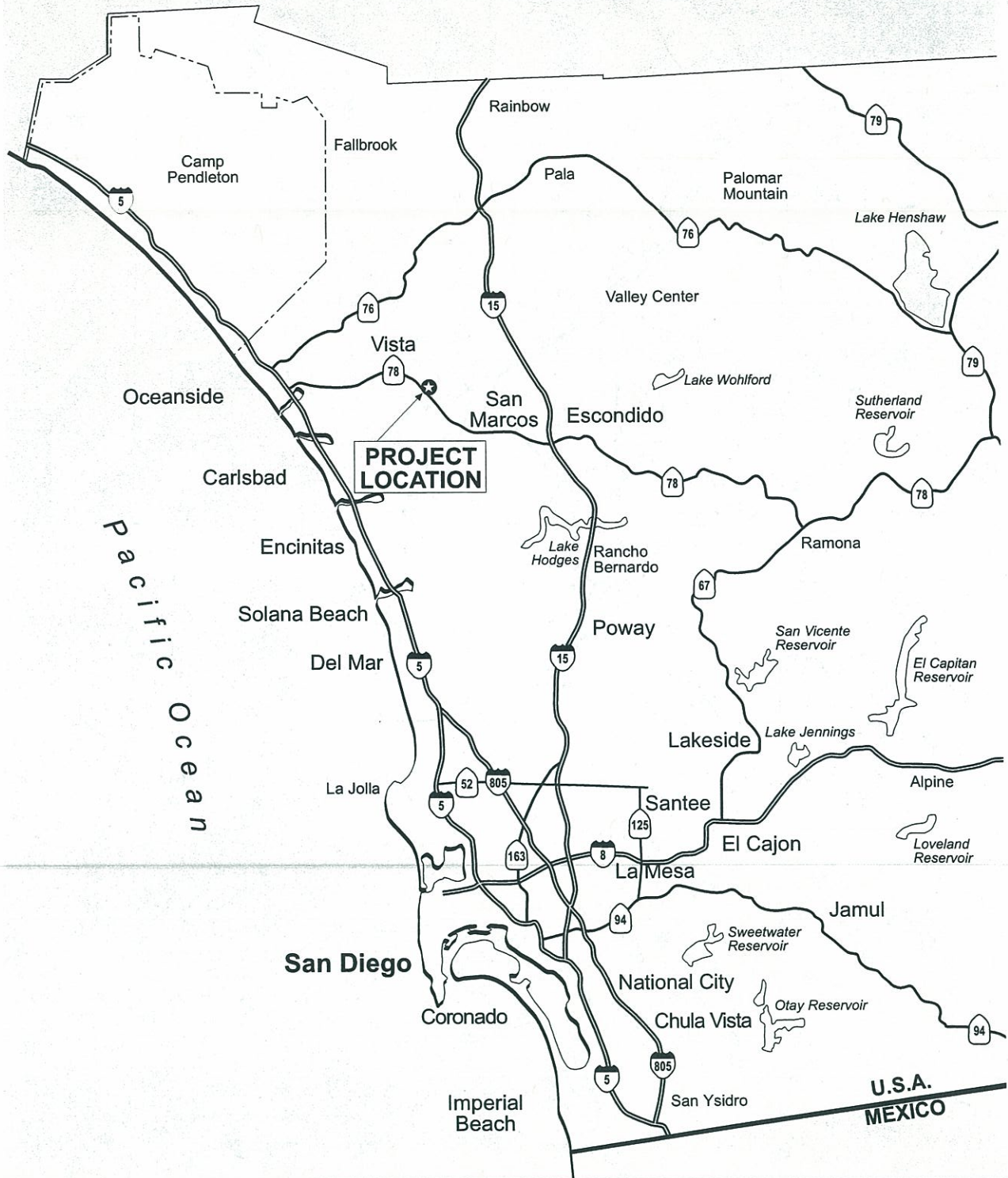
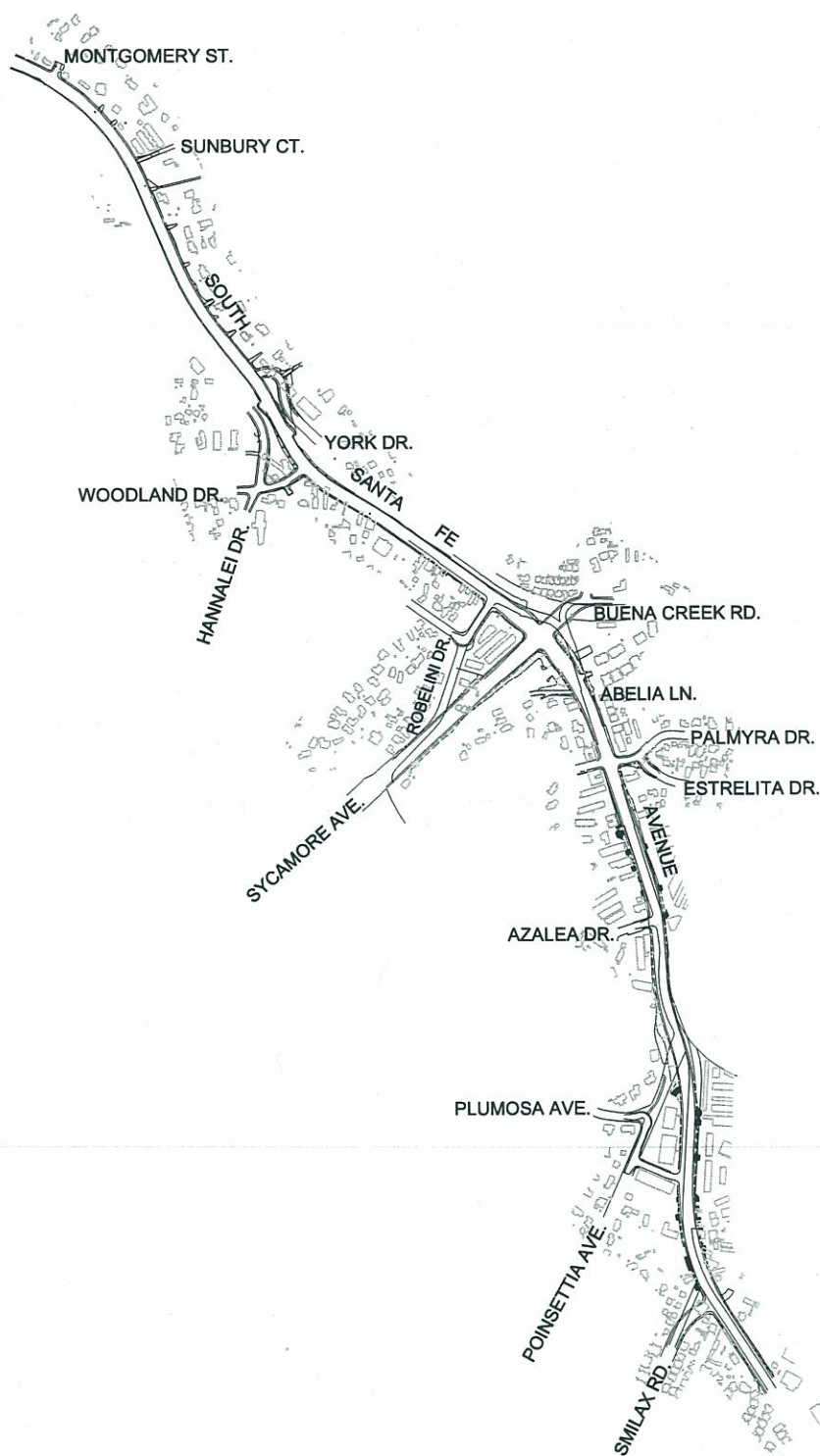


Figure 1-1
Regional Location Map



No Scale





Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001.

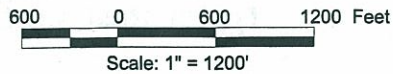
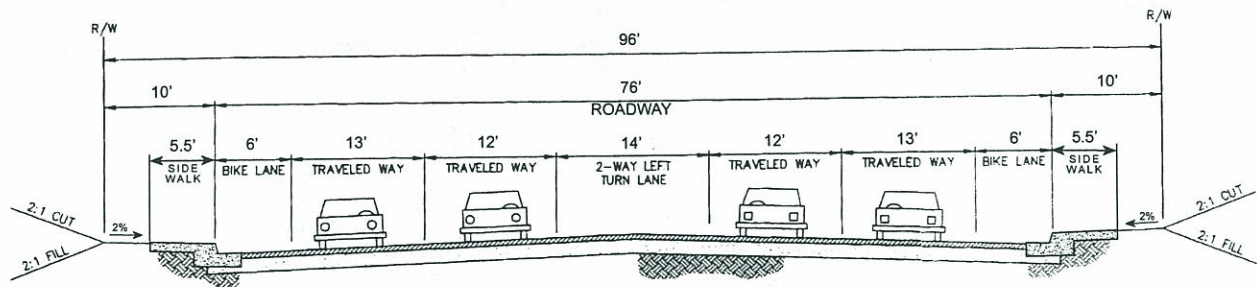
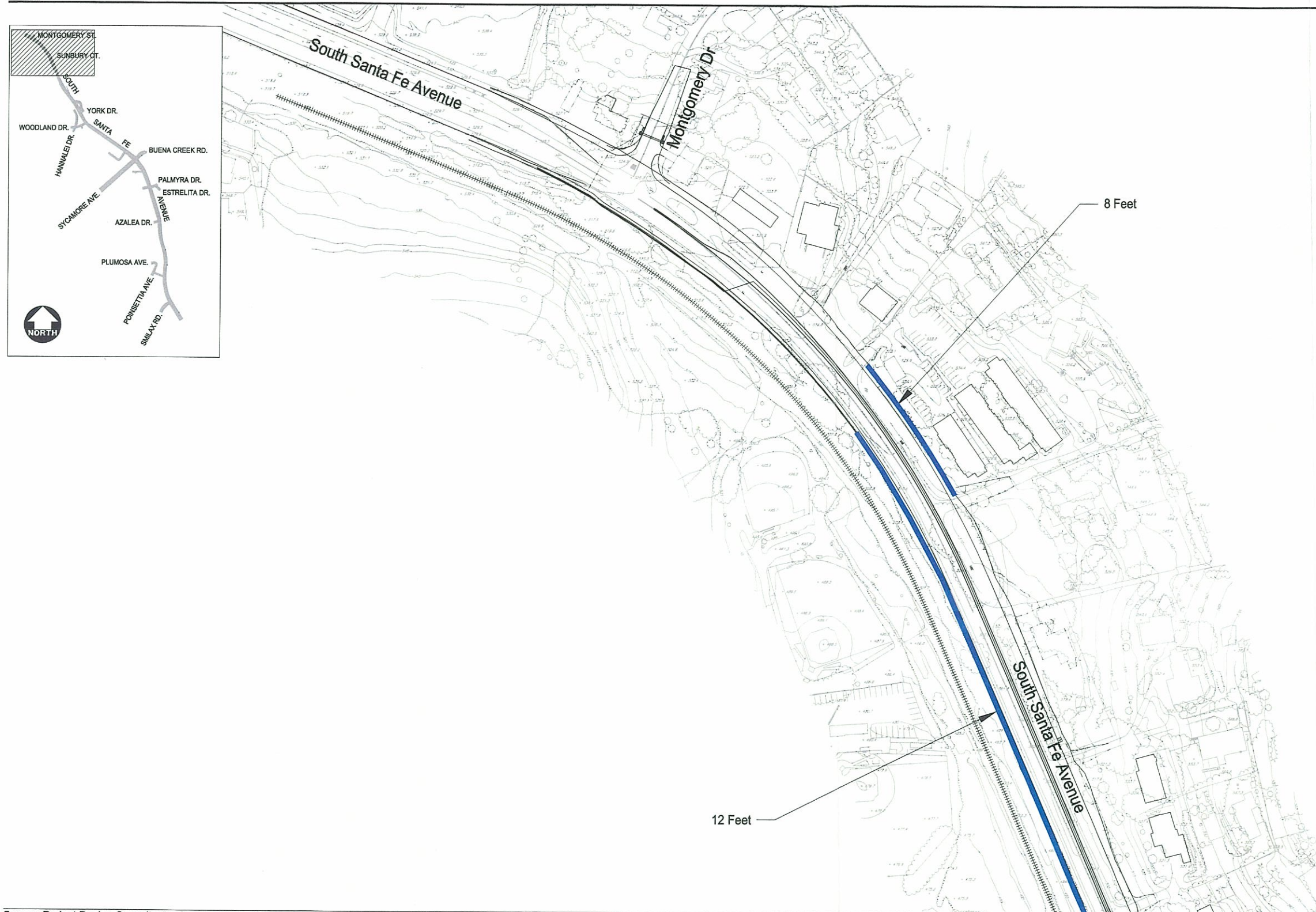


Figure 1-3
Project Road Improvements



Source: URS, 2001; Modified by EDAW Inc., November, 2002

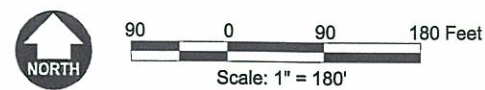
Figure 1-4
Typical Roadway Sections



Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.

SEE FIGURE 1-5 SHEET 2

Figure 1-5 Sheet 1
Roadway Reconstruction Features



Retaining Walls

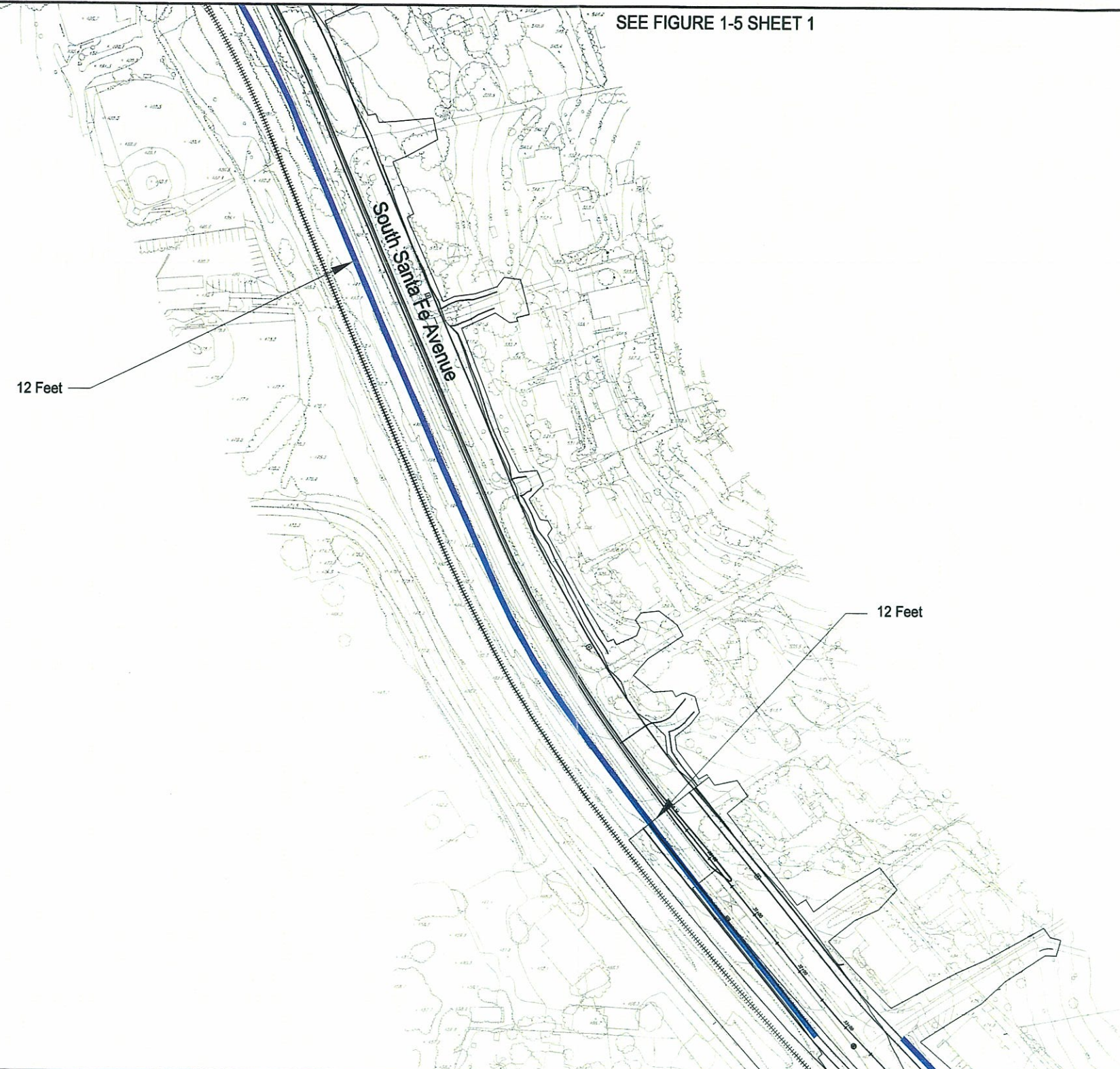
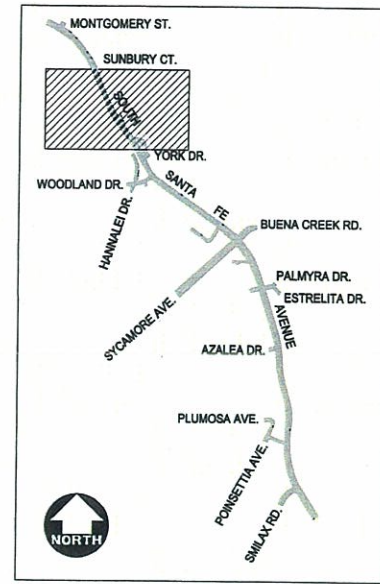
NOTES:

1. NEW SIDEWALKS WILL BE PROVIDED ALONG ALL NEW ROADWAYS.
2. ALL ELECTRICAL AND UTILITY LINES THAT WOULD BE AFFECTED BY THE PROJECT WILL BE INSTALLED UNDERGROUND.
3. ALL BARE SLOPES WILL BE HYDROSEEDING WITH A NATIVE SEED MIX.
4. ALL WALL HEIGHTS SHOWN ARE MAXIMUM HEIGHTS; WALL HEIGHTS WOULD BE THE SAME FOR ALTERNATIVES A AND B.

5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

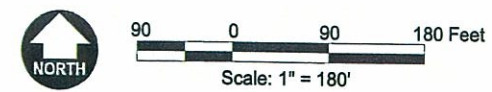
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SEE FIGURE 1-5 SHEET 1



SEE FIGURE 1-5 SHEET 3

Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.



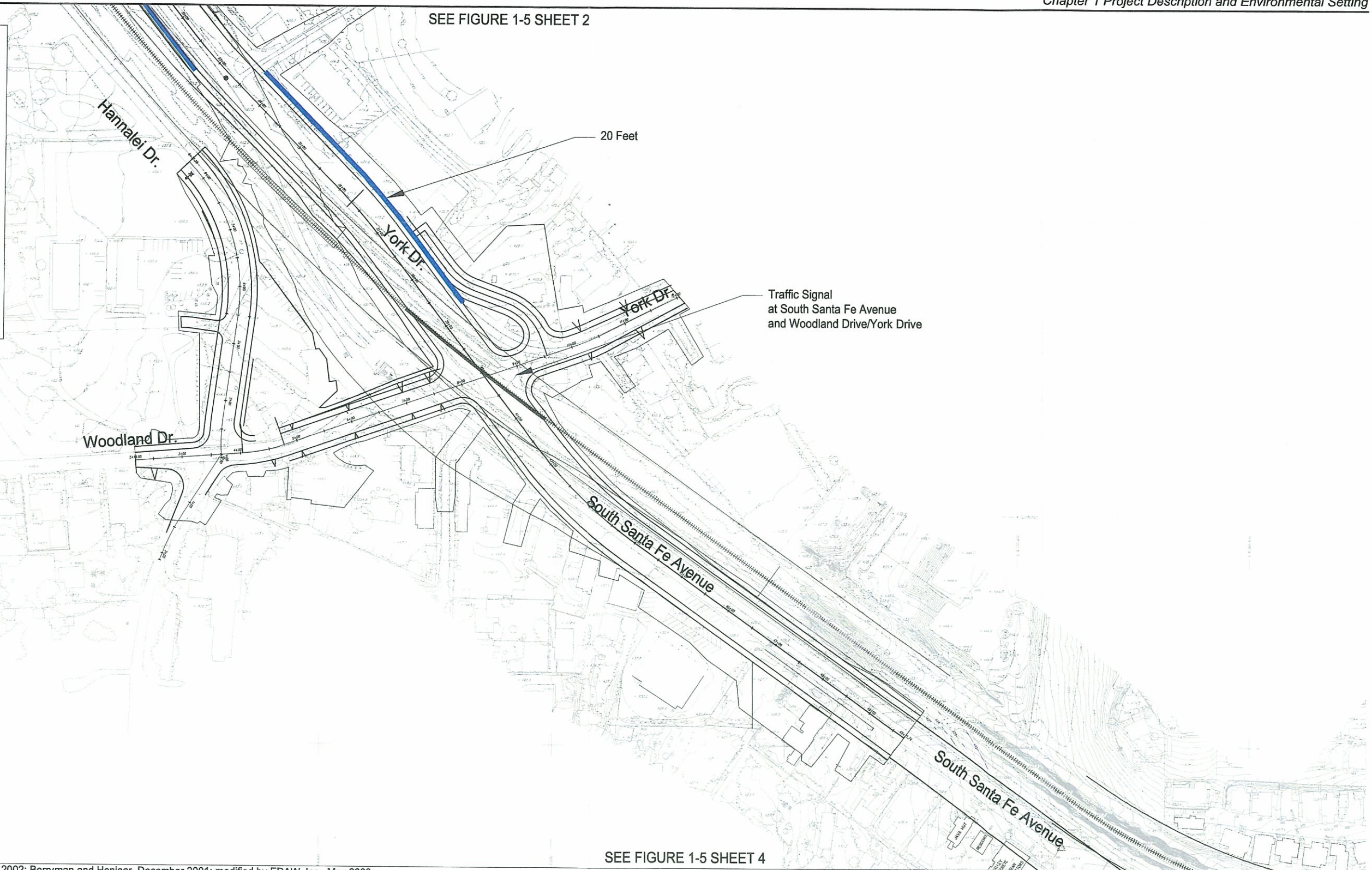
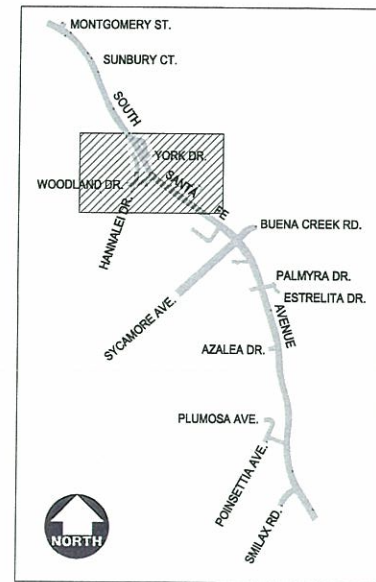
Retaining Walls

- NOTES:
1. NEW SIDEWALKS WILL BE PROVIDED ALONG ALL NEW ROADWAYS.
 2. ALL ELECTRICAL AND UTILITY LINES THAT WOULD BE AFFECTED BY THE PROJECT WILL BE INSTALLED UNDERGROUND.
 3. ALL BARE SLOPES WILL BE HYDROSEEDING WITH A NATIVE SEED MIX.
 4. ALL WALL HEIGHTS SHOWN ARE MAXIMUM HEIGHTS.
 5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 2
Roadway Reconstruction Features

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SEE FIGURE 1-5 SHEET 2



SEE FIGURE 1-5 SHEET 4

Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.

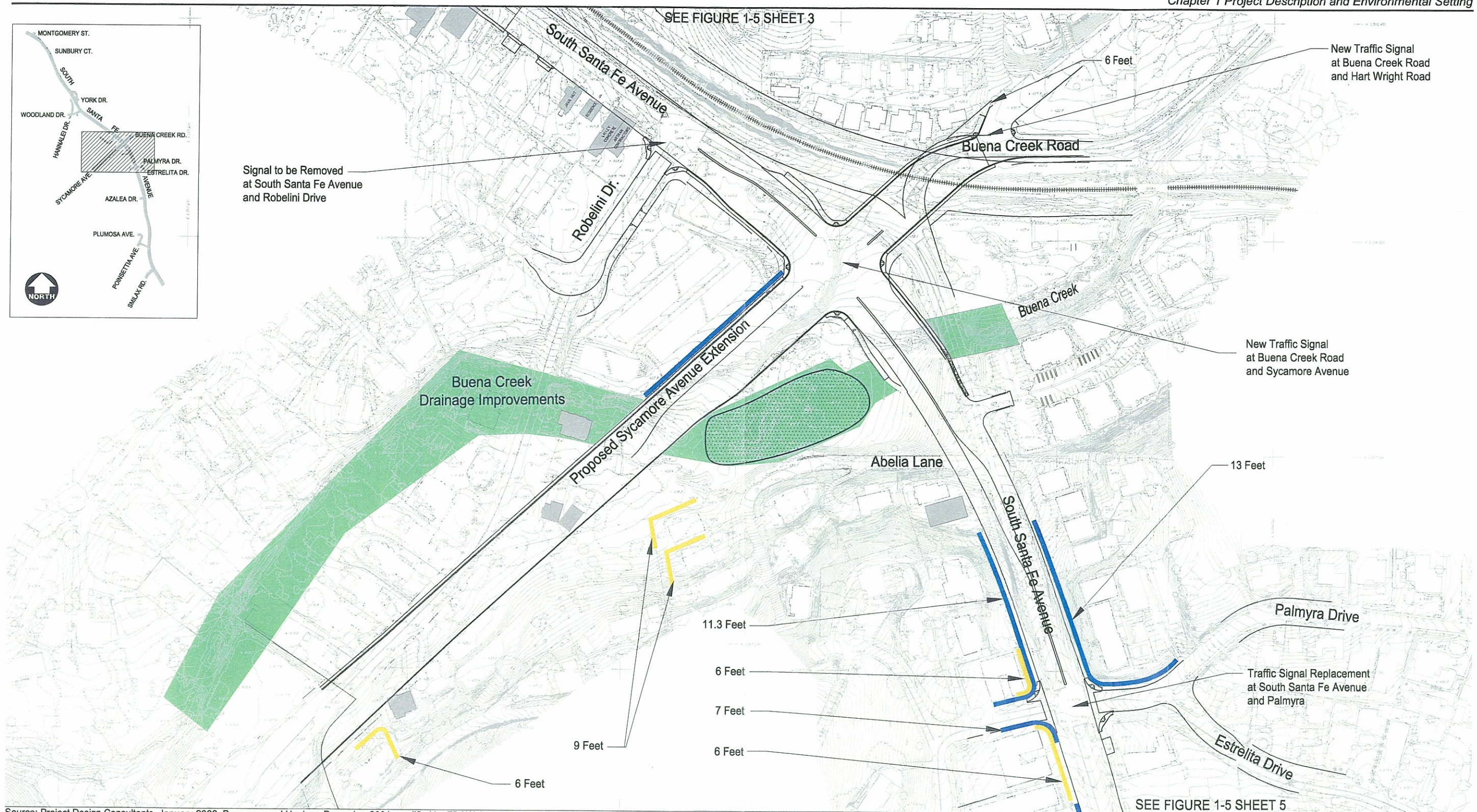


Retaining Walls

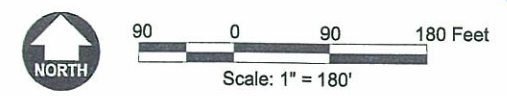
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 3. ALL BARE SLOPES WILL BE HYDROSEDED WITH A NATIVE SEED MIX.
 4. ALL WALL HEIGHTS SHOWN ARE MAXIMUM HEIGHTS.
 5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 3
Roadway Reconstruction Features

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Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.

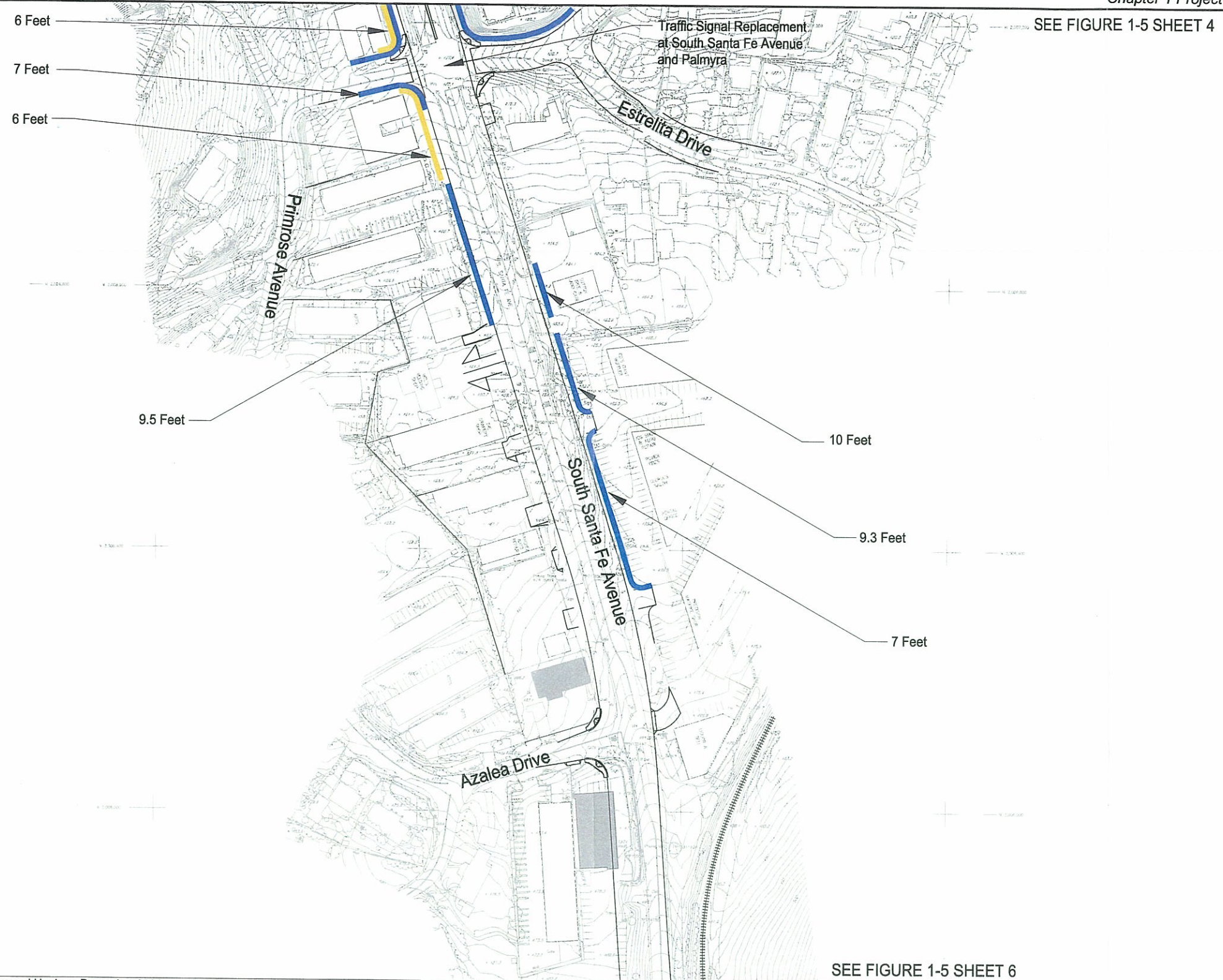
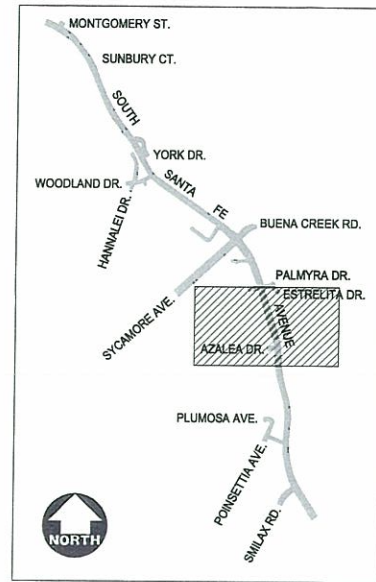


- Sound Walls
- Retaining Walls
- Structures To Be Removed
- Drainage Basin
- General Location of Drainage Improvements (refer to Figures 1-6 through 1-8 for drainage features)

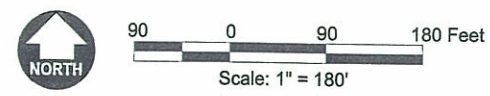
- NOTES:
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 2. ALL ELECTRICAL AND UTILITY LINES THAT WOULD BE AFFECTED BY THE PROJECT WILL BE INSTALLED UNDERGROUND.
 3. ALL BARE SLOPES WILL BE HYDROSEEDING WITH A NATIVE SEED MIX.
 4. ALL WALL HEIGHTS SHOWN ARE MAXIMUM HEIGHTS.
 5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 4
Roadway Reconstruction Features

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Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.



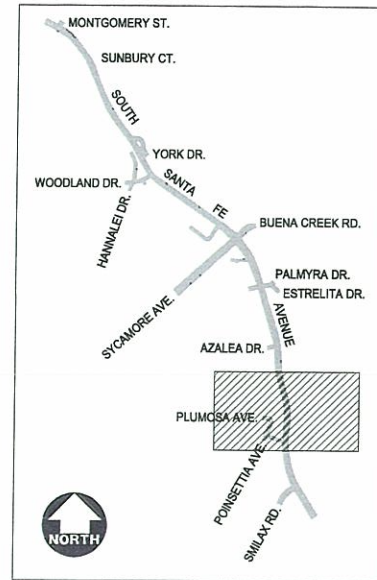
- Sound Walls
- Retaining Walls
- Structures To Be Removed

- NOTES:
1. NEW SIDEWALKS WILL BE PROVIDED ALONG ALL NEW ROADWAYS.
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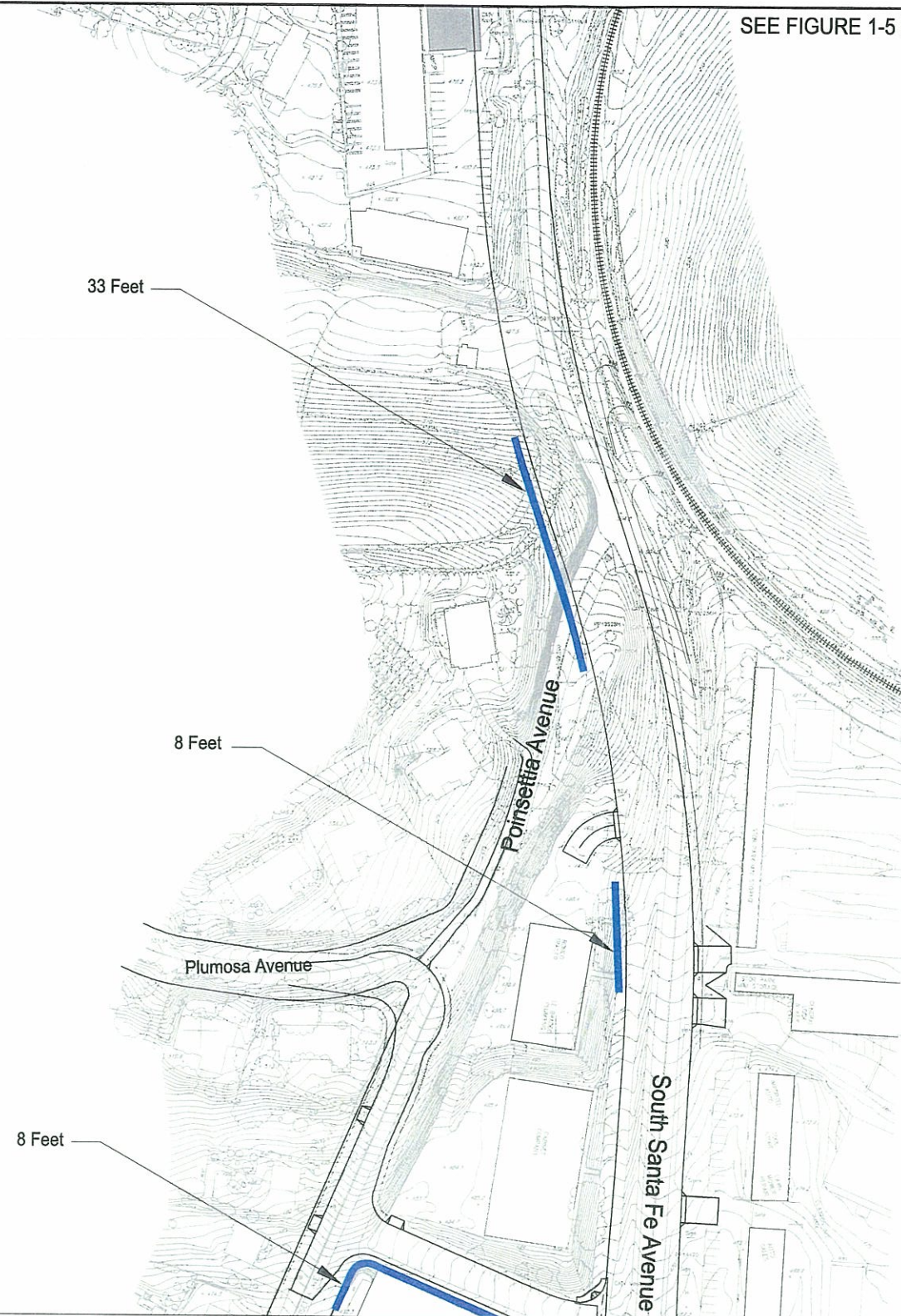
5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 5
Roadway Reconstruction Features

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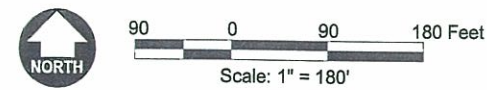


SEE FIGURE 1-5 SHEET 5



SEE FIGURE 1-5 SHEET 7

Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.



- Retaining Walls
- Structures To Be Removed

NOTES:

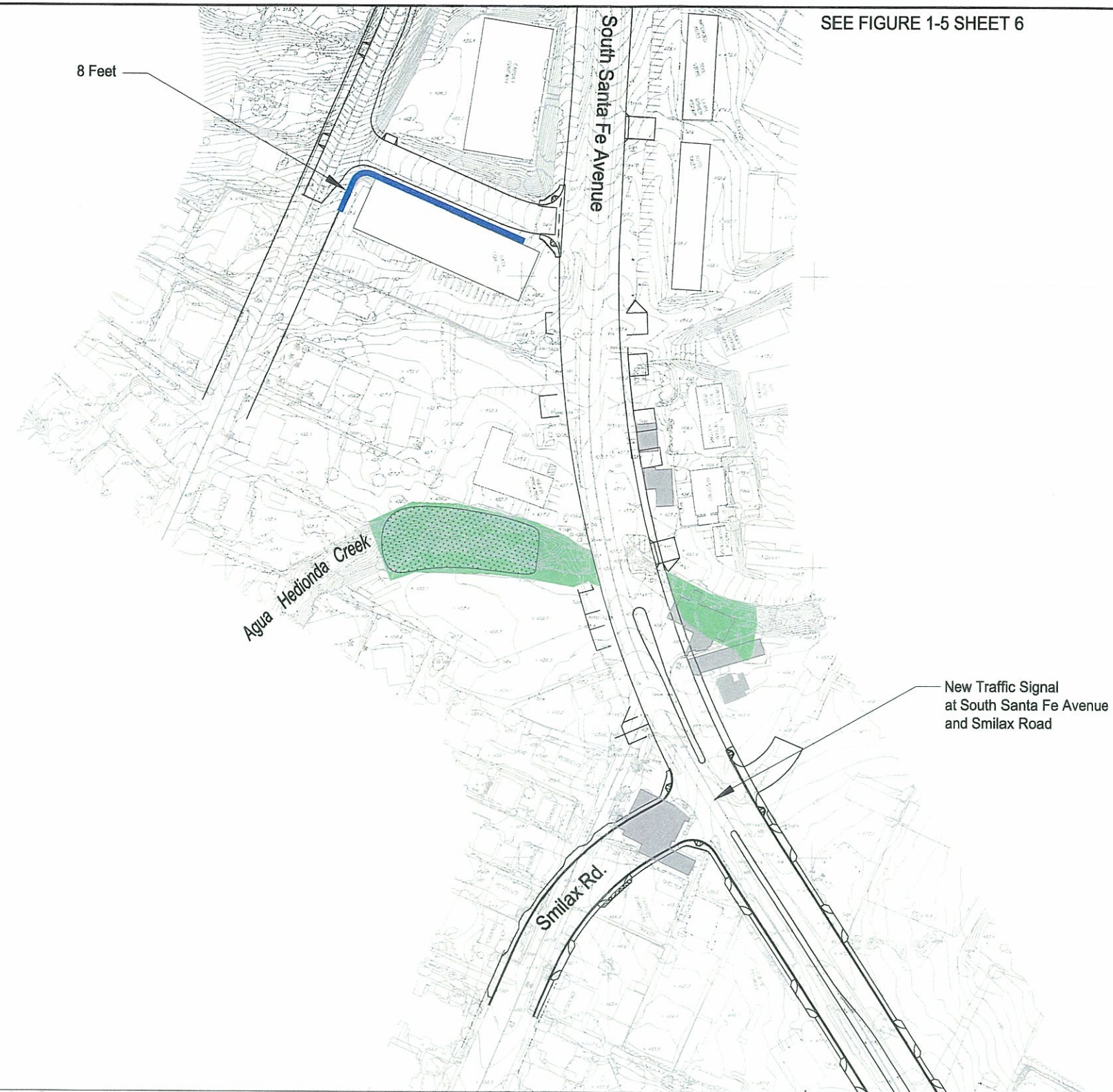
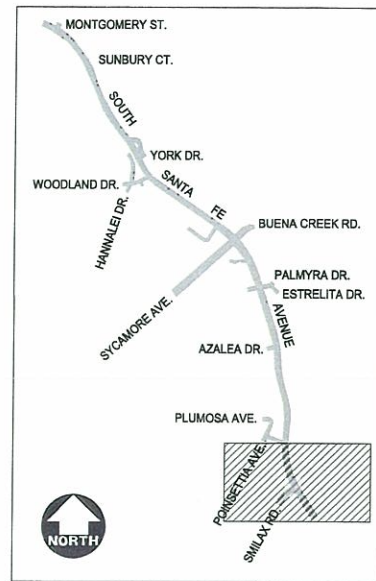
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5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 6
Roadway Reconstruction Features





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SEE FIGURE 1-5 SHEET 6



Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001; modified by EDAW, Inc., May 2003.



-  Retaining Walls
-  Structures To Be Removed
-  Drainage Basin
-  General Location of Drainage Improvements (refer to Figures 1-6 through 1-8 for drainage features)

NOTES:

1. NEW SIDEWALKS WILL BE PROVIDED ALONG ALL NEW ROADWAYS.
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5. TYPICAL CROSS SECTIONS ARE SHOWN IN FIGURE 1-4.

Figure 1-5 Sheet 7
Roadway Reconstruction Features

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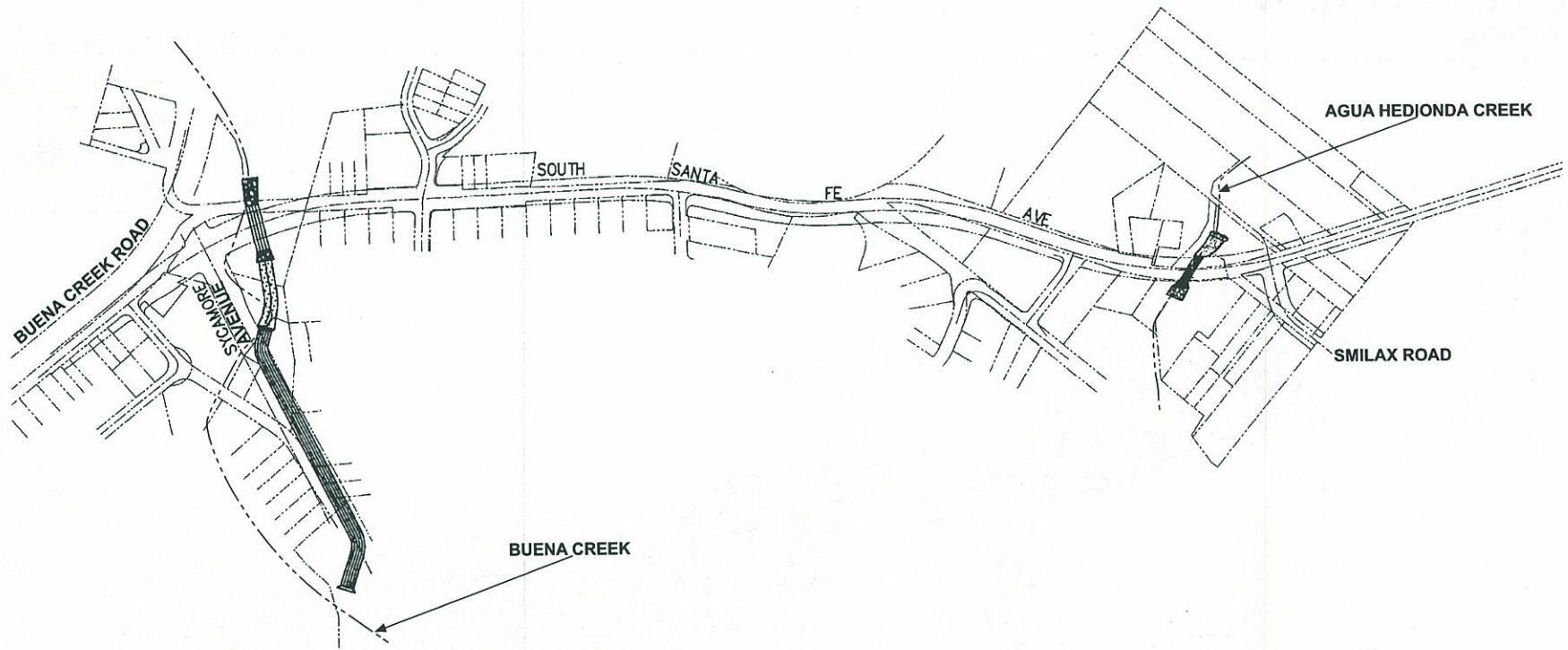


Figure 1-6
Location of Drainage Improvements

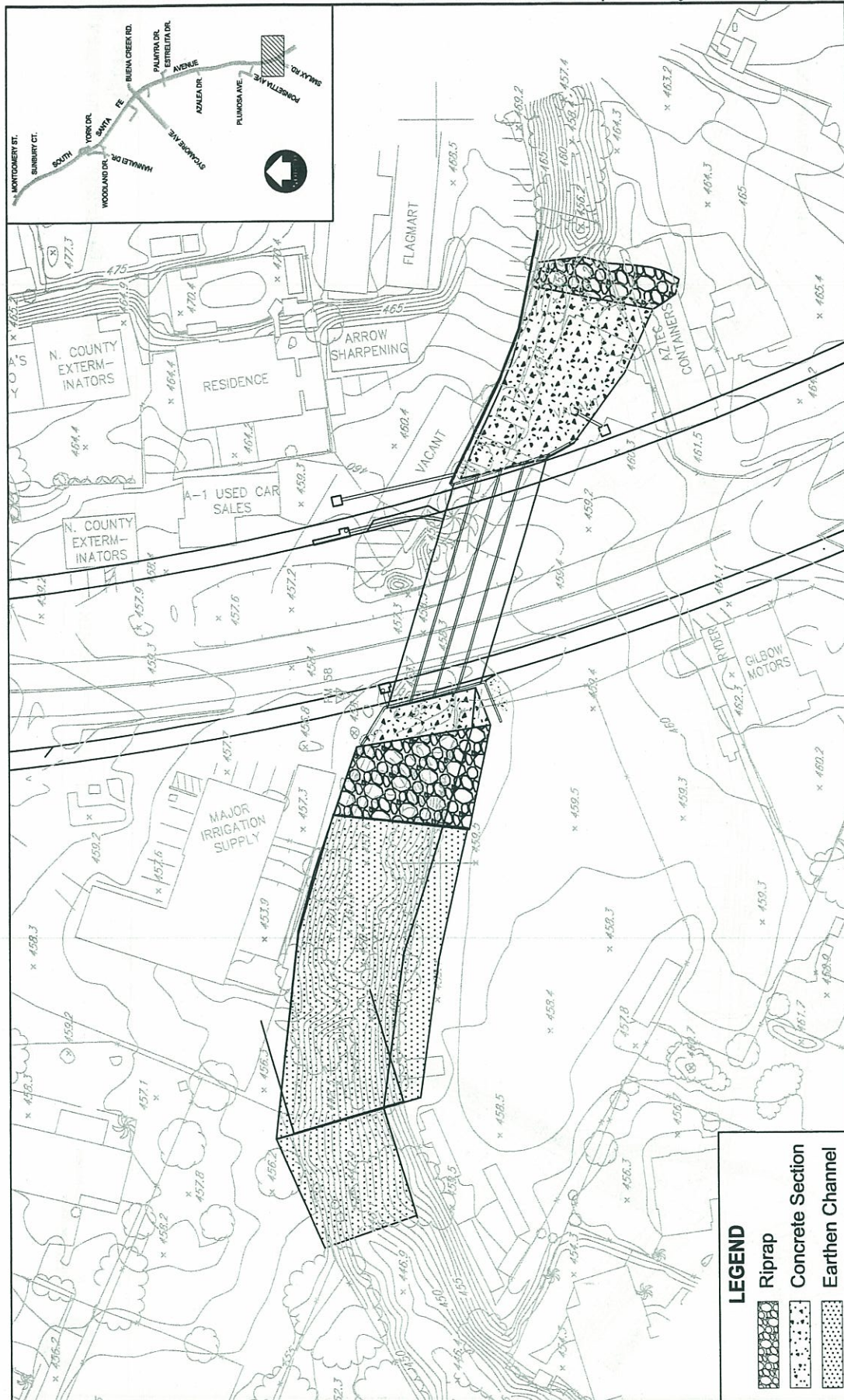




Figure 1-7
Flood Control Improvements
at Agua Hedionda Creek

Source: Berryman and Henigar, January 2002

LEGEND


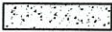


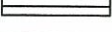
-  Riprap
-  Concrete Section
-  Earthen Channel

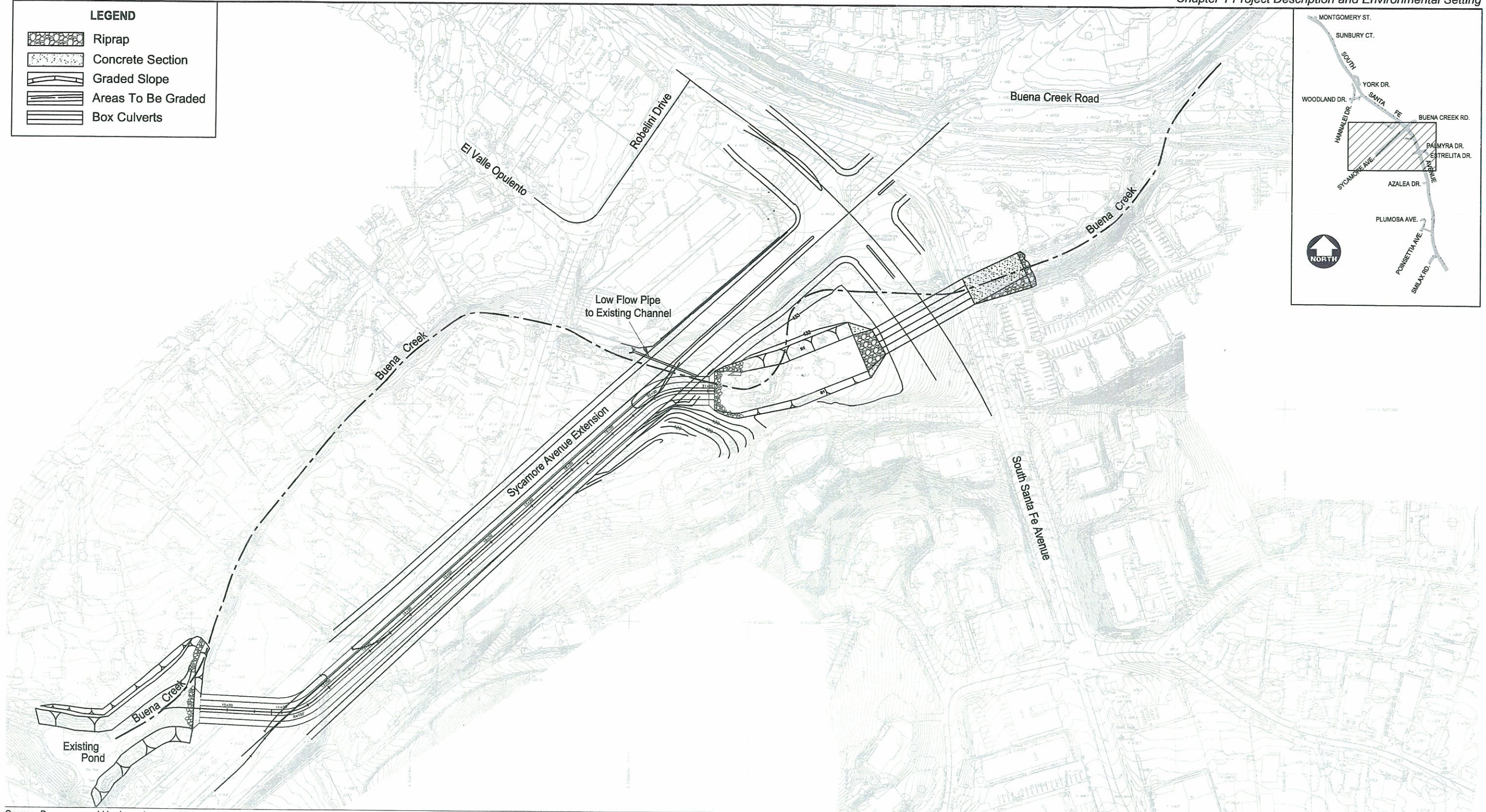
 NORTH

 40 0 40 80 Feet

Scale: 1" = 80'

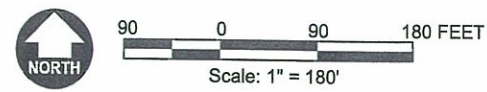
LEGEND

-  Riprap
-  Concrete Section
-  Graded Slope
-  Areas To Be Graded
-  Box Culverts



Source: Berryman and Henigar, January 2002

Figure 1-8
Proposed Buena Creek Drainage Component



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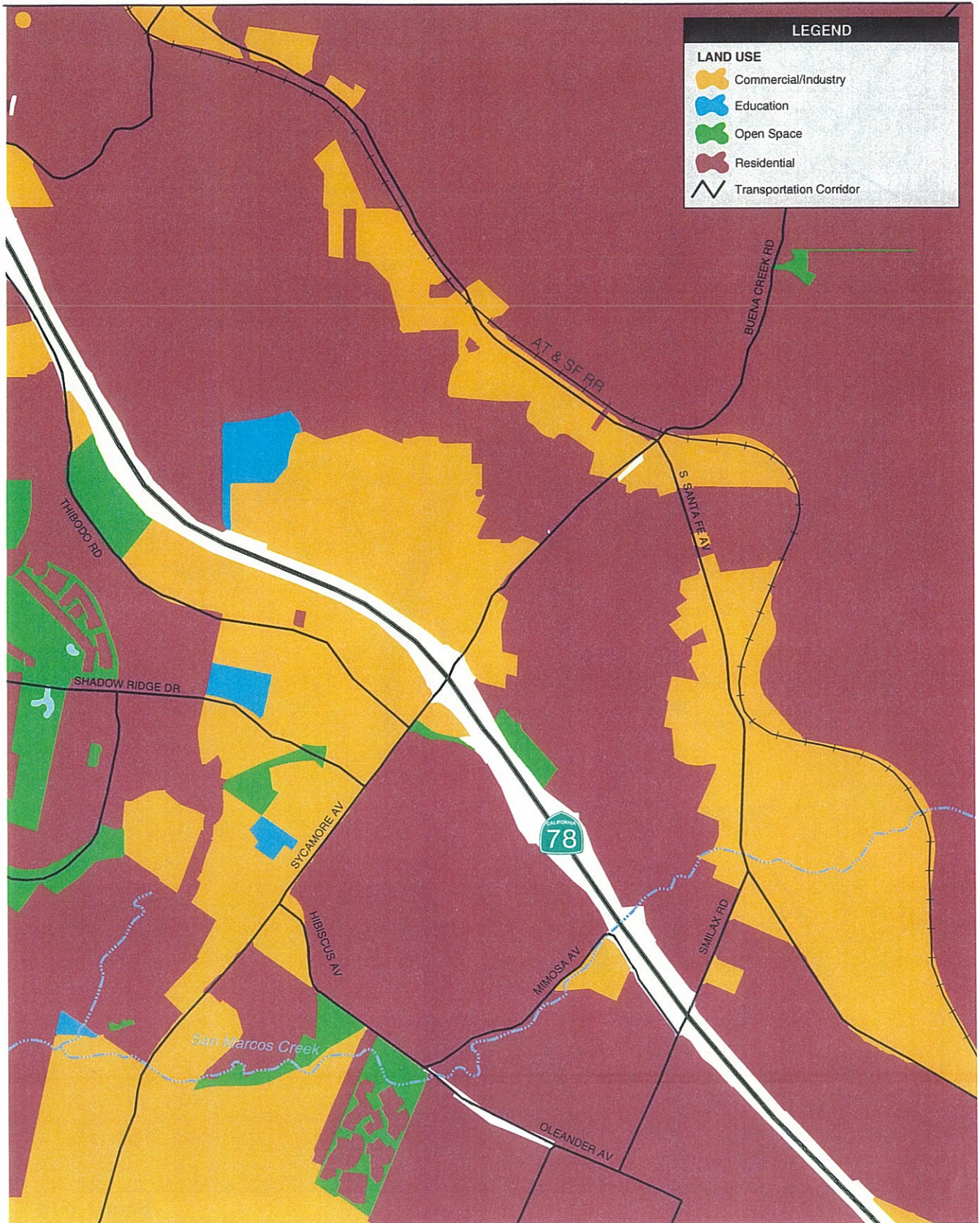
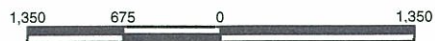
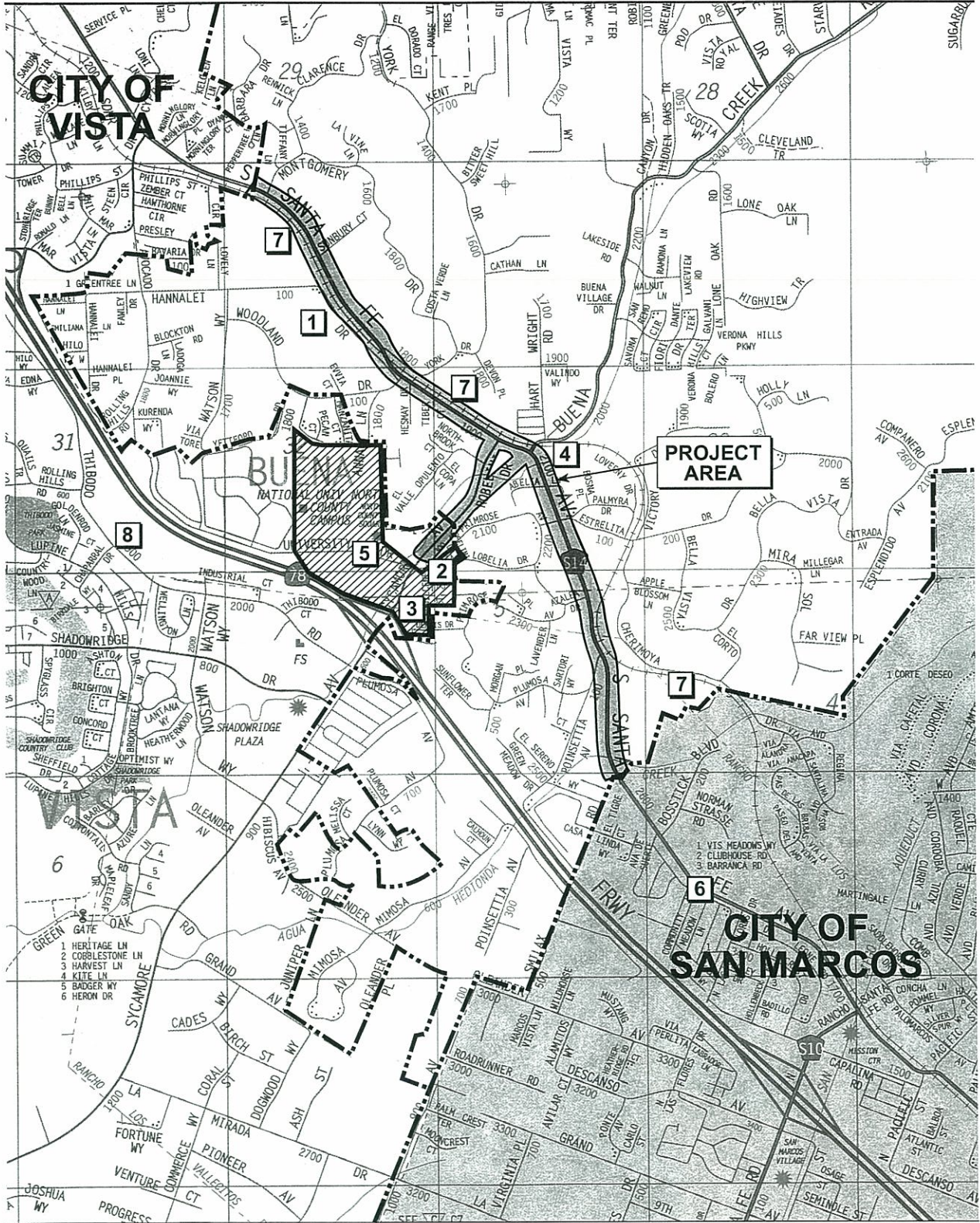


Figure 1-9
Planned Land Use



Scale: 1:16,200



Source: Thomas Bros.

Figure 1-10
Cumulative Projects



No Scale

South Santa Fe Avenue EIR

1K155 South Santa Fe/Figures/Cumulative Projects EIR.Fh11 12/17/03 (collinse)

CHAPTER 2.0 - SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

This chapter contains seven subchapters, which provide an analysis of the environmental effects that were determined to have some potential of being significant. The following subchapters are included:

- 2.1 - Traffic and Circulation
- 2.2 - Air Quality
- 2.3 - Noise
- 2.4 - Hydrology and Water Quality
- 2.5 - Hazardous Materials
- 2.6 - Biological Resources
- 2.7 - Aesthetics

Impacts that were determined to be not significant are addressed in Chapter 3.

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SUBCHAPTER 2.1 - TRAFFIC AND CIRCULATION

This section summarizes the Traffic Impact Analysis dated April 4, 2003, included in Appendix B of this EIR.

2.1.1 Existing Conditions

Existing Roadway Characteristics and Operations

Principal access to the project area is provided by SR 78, which connects Interstate 15 to the east, with Interstate 5 to the west. Major roadways in the project area are shown in Figure 1-2. The following general description of roadways affected by the project is based on road classifications of the County Circulation Element (County of San Diego 1994).

South Santa Fe Avenue is classified as a four-lane Major Road. It currently has one lane in each direction in the vicinity of the proposed project. A two-way left-turn lane in the center of the road is provided between York Drive and Palmyra Drive. Curbside parking is not allowed, and the posted speed limit is 40 mph. Existing traffic volumes range from 14,800 to 18,300 ADT.

Sycamore Avenue/Robelini Drive is classified as a four-lane Major Road. It currently is a winding two-lane residential collector street from just north of University Drive at the Vista city limits, to South Santa Fe Avenue. The posted speed limit is 25 mph. Sycamore Avenue is a six-lane divided road within the Vista city limits between SR 78 and University Drive/Lobelia Drive. Existing ADT volumes on Robelini Drive and Sycamore Avenue range from 15,100 near South Santa Fe Avenue to 24,900 between University Drive and SR 78.

Buena Creek Road is a two-lane road from South Santa Fe Avenue to its connection with North Twin Oaks Valley Road to the east in the city of San Marcos. The posted speed limit is 45 mph, and curbside parking is not allowed along most of the roadway. The existing ADT volume near South Santa Fe Avenue is 10,500.

Level of Service (LOS) is a professional industry standard that measures the operation conditions of a given roadway segment or intersection. Level of service is defined on a

scale of A to F, where LOS A represents free-flowing traffic conditions with no restrictions on maneuvering or operation speeds and LOS F represents forced flow, many stoppages, and low operating speeds.

LOS characteristics and average stopped (delay) periods for signalized intersections are shown in Table 2.1-1, and are summarized below.

Table 2.1-1. Signalized Intersection Operations

Intersection	Peak Hour	Existing	
		Delay	LOS
South Santa Fe Avenue/York Drive ¹	AM	31.2	D
	PM	35.6	D
South Santa Fe Avenue/Woodland Drive ²	AM	19.8	B
	PM	13.0	B
South Santa Fe Avenue/Robelini Drive ³	AM	27.8	C
	PM	41.7	D
South Santa Fe Avenue/Buena Creek Road ^{3,4}	AM	32.1	C
	PM	64.0	E
South Santa Fe Avenue/Smilax Road ¹	AM	24.7	C
	PM	>80.0	F
Buena Creek Road/Hart Wright Road ¹	AM	13.4	B
	PM	12.1	B

Note: This analysis occurred prior to the completion of the Hannalei Elementary School, and prior to the installation of a traffic signal at South Santa Fe Avenue/Woodland Drive.

¹ Current unsignalized intersection.

² With the addition of Hannalei Elementary School traffic, when the LL&G traffic report was completed this intersection operated at LOS F in both the AM and PM peak hours. Subsequent to the publication of the traffic report, the intersection was signalized, resulting in the LOS B conditions summarized in the above table.

³ Current signalized intersection.

⁴ With additional delay due to rail crossing.

LOS = Level of Service

Delay measured in seconds	<u>Delay</u>	<u>LOS</u>
	0.0 ≤ 10.0	A
	10.1 to 20.0	B
	20.1 to 35.0	C
	35.1 to 55.0	D
	55.1 to 80.0	E
	>80.0	F

Source: LL&G 2003.

- **South Santa Fe Avenue/York Drive.** The existing South Santa Fe Avenue/York Drive intersection operates at LOS D in both the AM and PM peak hours.

- **South Santa Fe Avenue/Woodland Drive.** The existing South Santa Fe Avenue/Woodland Drive intersection operates at LOS B in both the AM and PM peak hours.
- **South Santa Fe Avenue/Robelini Drive.** Existing conditions at the South Santa Fe Avenue/Robelini Drive intersection are LOS C in the AM peak hour and LOS D in the PM peak hour.
- **South Santa Fe Avenue/Buena Creek Road.** Existing conditions at the South Santa Fe Avenue/Buena Creek Road intersection are LOS C in the AM peak hour and LOS E in the PM peak hour.
- **South Santa Fe Avenue/Smilax Road.** Existing conditions at the South Santa Fe Avenue/Smilax Road intersection are LOS C in the AM peak hour and LOS F in the PM peak hour.
- **Buena Creek Road/Hart Wright Road.** Existing conditions at the Buena Creek Road/Hart Wright Road intersection are LOS B in both the AM and PM peak hours.

Table 2.1-2 describes the different LOS descriptors for roadway segments. Table 2.1-3 shows that the Buena Creek Road street segment currently operates at LOS D and the South Santa Fe Avenue street segments currently operate at LOS F.

Table 2.1-2. Level of Service Descriptions for Roadway Segments

LOS DESCRIPTOR	ROADWAY CONDITION
A	Completely free flow.
B	Free flow, presence of other vehicles noticeable.
C	Ability to maneuver and select operating speed affected.
D	Unstable flow, speeds and ability to maneuver restricted.
E	At or near capacity, flow quite unstable.
F	Forced flow, breakdown.

Source: Highway Capacity Manual 2000.

Table 2.1-3. Daily Street Segment Operations

Street Segment	Existing Capacity ¹	Existing		Year 2025 (No Project)	
		ADT	LOS	ADT	LOS
South Santa Fe Avenue					
Mar Vista Drive to Sycamore Avenue/Buena Creek Drive	13,800	18,300	F	19,200	F
Sycamore Avenue/Buena Creek Road to Smilax Road	13,800	14,800	F	27,800	F
Buena Creek Road					
South Santa Fe Avenue to Monte Vista Drive	16,200	10,500	D	32,000	F

¹ LOS E capacities for San Diego County capacities on South Santa Fe Avenue reduced by 15 percent to account for the impact due to railroad crossing at the South Santa Fe Avenue/York Drive intersection. The 15 percent reduction in capacity for segments was arrived at by first calculating the increased delay due to the railroad crossing at the South Santa Fe Avenue/Buena Creek Road intersection to be 7 seconds. This 7 seconds was added to the calculated delay at the South Santa Fe Avenue/Buena Creek Road intersection to determine the actual delay at that intersection. The 7-second additional delay is approximately 15 percent of the calculated delay.

ADT = Average Daily Trips

LOS = Level of Service

Source: LL&G 2002, 2003.

Existing Bus, Pedestrian, and Bicycle Access

Public transit access to the project area is provided by NCTD Route 302, which runs between the Oceanside Transit Center and the Escondido Transit Center via West Vista Way, South Santa Fe Avenue, and Mission Road. Service is every 15 minutes from approximately 4:25 a.m. to 10:22 p.m. on weekdays and every 30 minutes from 6:00 a.m. to 9:00 p.m. on Saturdays, Sundays, and holidays. No bus routes exist on other streets affected by the project. Pedestrian access in the project area is presently substandard with no concrete sidewalks or curbs on most sections of South Santa Fe Avenue and Robelini Drive.

Bicycle access is generally available on the paved shoulders of South Santa Fe Avenue and Robelini Drive. A bicycle route is designated for South Santa Fe Avenue by the County Circulation Element and, in some sections of the road, bicycle travel is facilitated by a paved shoulder that is striped and signed to prohibit parking.

2.1.2 Guidelines for Determination of Significance

The County General Plan Public Facilities Element (County of San Diego 1993) states that a discretionary project will only be approved if the existing LOS on off-site and on-site abutting Circulation Element roads is not reduced below LOS D. In addition, the CEQA Guidelines provide guidance regarding the significance of traffic impacts in Appendix G, which contains a recommended environmental checklist form.

A traffic and circulation impact would be considered significant if the project would:

- Cause an increase in existing transportation facility deficiencies (County General Plan Public Facilities Element).
- Cause an increase in traffic that would result in the operation of an area roadway or intersection below LOS D (County General Plan Public Facilities Element).
- Be inconsistent with the road designation in the County General Plan Circulation Element.
- Cause a substantial increase in hazards due to a design feature or incompatible use, resulting in unsafe traffic conditions (CEQA Guidelines, Appendix G). Hazards are considered for pedestrian and bicycle facilities, and construction operations.

2.1.3 Analysis of Project Effects and Determination of Significant Impact

Operational Traffic and Circulation Impacts

The proposed project would reconstruct and widen South Santa Fe Avenue for the approximately 2 miles between the Vista city limits and the San Marcos city limits, on a new centerline, from a two-lane road to a four-lane Major Road. The new roadway would have a 96-foot ROW and accommodate a design speed of 50 mph.

In addition, Sycamore Avenue would be realigned and extended east to South Santa Fe Avenue, to replace Robelini Drive as the link between South Santa Fe Avenue and SR 78. Robelini Drive would terminate at El Valle Oplento. Robelini Drive south of El Valle Oplento would become a private drive allowing vehicular access to existing properties. The private drive would dead-end at Sycamore Avenue with no through

vehicular access. Sycamore Avenue would be aligned so that it intersects South Santa Fe Avenue opposite Buena Creek Road, creating a four-leg signalized intersection.

Table 2.1-4 shows the findings of the intersection analysis comparing existing conditions to conditions with project implementation. The following is a summary of the analysis.

Table 2.1-4. Intersection Analysis

Intersection	Peak Hour	Existing		Existing with Project	
		Delay	LOS	Delay	LOS
South Santa Fe Ave./York Dr. ¹	AM	31.2	D	DNE	DNE
	PM	35.6	D	DNE	DNE
South Santa Fe Ave./Woodland Dr. ²	AM	19.8	B	36.5	D
	PM	13.0	B	41.4	D
South Santa Fe Ave./Robelini Dr. ³	AM	27.8	C	DNE	DNE
	PM	41.7	D	DNE	DNE
South Santa Fe Ave./Buena Creek Rd. ^{3,5}	AM	32.1	C	44.3	D
	PM	64.0	E	50.9	D
South Santa Fe Ave./Smilax Rd. ¹	AM	24.7	C	15.9 ³	B ³
	PM	>80.0	F	20.4 ³	C ³
Buena Creek Rd./Hart Wright Rd. ¹	AM	13.4	B	6.2 ³	A ³
	PM	12.1	B	5.1 ³	A ³

¹ Current unsignalized intersection.

² With the addition of Hannalei Elementary School traffic, when the LL&G traffic report was completed this intersection operated at LOS F in both the AM and PM peak hours. Subsequent to the publication of the traffic report, the intersection was signalized, resulting in the LOS B conditions summarized in the above table. Existing with project conditions assume a four-way signalized intersection at York Drive, Woodland Drive, and South Santa Fe Avenue. In the LL&G traffic report (Appendix B), these conditions are analyzed as "Alternative C" and are summarized in Table 7.

³ Current signalized intersection.

⁴ Analyzed as signalized intersection since project includes signalization at this intersection.

⁵ With additional delay due to railroad crossing.

Delay decreases with project at some locations since project adds a lane to South Santa Fe Avenue and signalizes some intersections.

LOS = Level of Service

DNE = Does Not Exist

Delay measured in seconds	Delay	LOS
	0.0 ≤ 10.0	A
	10.1 to 20.0	B
	20.1 to 35.0	C
	35.1 to 55.0	D
	55.1 to 80.0	E
	> 80.0	F

Source: LL&G 2003. Note that the existing conditions reflected in this table are labeled as "Baseline (Existing + Hannalei School)" in the LL&G traffic analysis contained in Appendix B.

- **South Santa Fe Avenue/York Drive/Woodland Drive.** The existing South Santa Fe Avenue/York Drive intersection operates at LOS D in both the AM and PM peak hours and the existing South Santa Fe Avenue/Woodland Drive intersection operates at LOS B in both the AM and PM peak hours. With the proposed project, a new four-leg intersection will be created combining York Drive, Woodland Drive, and South Santa Fe Avenue. The LOS at this new intersection would be LOS D in both the AM and PM peak hour.
- **South Santa Fe Avenue/Buena Creek Road.** Existing conditions at the South Santa Fe Avenue/Buena Creek Road intersection are LOS C in the AM peak hour and LOS E in the PM peak hour. With the proposed project, the future signalized South Santa Fe Avenue/Buena Creek Road intersection (in the area of realigned Sycamore Avenue) would operate at LOS D during the AM and PM peak hours.
- **South Santa Fe Avenue/Smilax Road.** Existing conditions at the South Santa Fe Avenue/Smilax Road intersection are LOS C in the AM peak hour and LOS F in the PM peak hour. With the proposed project, conditions would improve to LOS B in the AM peak hour and LOS C in the PM peak hour.
- **Buena Creek Road/Hart Wright Road.** Existing conditions at the Buena Creek Road/Hart Wright Road intersection are LOS B in both the AM and PM peak hours. With the proposed project, conditions would improve to LOS A in both the AM and PM peak hours.

Table 2.1-5 shows the findings of the street segment analysis conducted for the project. As shown in the table, most of the street segments analyzed in the project area currently operate at worse than LOS D. The following is a summary of the street segment analysis comparing project area conditions with and without the project.

- **South Santa Fe Avenue.** For all segments in the project area, South Santa Fe is calculated to currently operate at LOS F. With implementation of the project, the street segment operation would improve to LOS B.
- **Buena Creek Road.** In the project area, Buena Creek Road currently operates at LOS D both in existing conditions and with project implementation.
- **Robelini Drive.** Robelini Drive currently operates at LOS E. With implementation of the project, this street segment would improve to LOS A.

- **Smilax Road.** Smilax Road currently operates at LOS C. With implementation of the project, this street segment would continue to operate at LOS C.

In summary, the proposed project would result in an improvement in traffic operations, and traffic impacts for near-term conditions would *not be significant*.

**Table 2.1-5. Street Segment Analysis
(with Existing Traffic)**

Street Segment	Existing Conditions			With Implementation of Proposed Project		
	Existing Capacity ³	ADT	LOS	Capacity ³	ADT	LOS
South Santa Fe Avenue						
Mar Vista Dr. to Robelini Dr.	13,800	19,000	F	31,500	19,000 ⁵	B
Robelini Dr. to Buena Creek Rd.	13,800	15,300	F	31,500	19,000 ⁵	B
Buena Creek Rd. to Smilax Rd.	13,800	15,000	F	31,500	15,000	B
Buena Creek Road						
South Santa Fe Ave. to Monte Vista Dr.	16,200	10,700	D	16,200	10,700	D
Robelini Drive						
University Dr. to South Santa Fe Ave.	16,200	15,400	E	10,000	2,000 ¹	A
Sycamore Avenue²						
University Drive to South Santa Fe Ave.	DNE	DNE	DNE	37,000	16,000	B
Smilax Road⁴						
South Santa Fe Ave. to Mimosa Ave.	10,000	6,900	C	10,000	6,900	C

¹ With the project, Robelini Drive would be terminated before its junction with South Santa Fe Avenue, while Sycamore Avenue would provide direct connection to South Santa Fe Avenue. Therefore, the volume on Robelini Drive is less than without the project.

² This segment is created with the realignment of Sycamore Avenue due to the project.

³ LOS E capacities for San Diego County and city of San Marcos. Capacities on South Santa Fe Avenue reduced by 15 percent to account for the impact due to railroad crossing at the South Santa Fe Avenue/York Drive intersection.

⁴ City of San Marcos Facility. All other roadway segments are within San Diego County.

⁵ With the project, Robelini Drive would be terminated before its junction with South Santa Fe Avenue. Thus, the ADT would not change between the two northern South Santa Fe Avenue street segments.

ADT = Average Daily Trips

DNE = Does Not Exist

LOS = Level of Service

Source: LL&G 2003. Note that the existing conditions reflected in this table are labeled as “Baseline (Existing + Hannalei School)” in the LL&G traffic analysis contained in Appendix B.

The proposed project is consistent with the County's Public Facilities Element and the Circulation Element. No plan or policy inconsistencies would result from project implementation. For these reasons, the project is considered to have *no significant impacts* with regard to circulation plan and policy consistency.

Pedestrian and Bicycle Facilities

Implementation of the proposed project would provide two 6-foot bicycle lanes on South Santa Fe Avenue that would be striped and signed, thus improving bicycle access and use, as compared to the existing road. The bicycle lane improvements would be in conformance with the bicycle route designation for South Santa Fe Avenue on the County Circulation Element. ADA-compliant sidewalks would also be provided along South Santa Fe Avenue. Installation of concrete curbs and sidewalks would provide benefit to pedestrians by providing a safer condition than exists today. The proposed project would improve circulation for pedestrians and bicyclists, and *no significant impacts* to pedestrians and bicyclists would result from the proposed project.

Short-term Construction Phase Traffic and Circulation Effects

Construction associated with implementation of the proposed project would temporarily disrupt traffic and circulation on South Santa Fe Avenue and a number of side streets in the project area. Expansion of the ROW would involve excavation and paving along both sides of South Santa Fe Avenue. In addition, 10 private driveways would be reconstructed and the grades adjusted to meet the new grade at South Santa Fe Avenue. A number of intersections with South Santa Fe Avenue would be shifted, displaced, and realigned to meet County intersection design standards.

The construction process would include standard traffic management to maintain two-way traffic flow except when utility installation might require one-way traffic control to complete installation across each traffic lane. Signage, barrier placements, warning devices, and other details would be included in a traffic control plan to be approved by the County prior to commencement of construction. This would avoid a substantial adverse impact to the traffic and circulation in the project area. Existing traffic lanes on South Santa Fe Avenue would remain in service during construction with one lane in each direction. Extension of Sycamore Avenue to South Santa Fe Avenue at Buena

Creek Road, on a new alignment, would not result in disruption to traffic and circulation on Sycamore Avenue and Robelini Drive.

In summary, the construction traffic generated by the proposed project could cause traffic disruption and possible circulation hazards, resulting from truck and construction crew maneuvering. These traffic impacts could be *potentially significant*, if not properly controlled. These impacts could be either direct or indirect and would be short term. **(Impact 2.1.a)**

2.1.4 Cumulative Impact Analysis

Cumulative impacts would occur as a result of traffic generated by past, present, and expected future projects in the South Santa Fe Avenue area. As discussed in more detail in Section 1.6.3, and summarized in Table 1-3, the following are the projects known to be planned or approved, or in construction during the preparation of this EIR:

- Hannalei Elementary School
- 7-11 Convenience Store and Gas Station
- East Sycamore Commercial Center (City of Vista)
- Buena Creek Rail Station
- North County Square Specific Plan (City of Vista)
- City of San Marcos Road Improvements
- NCTD Commuter Rail Service (the “Sprinter”)
- Thibodo Road Multi-family Apartments

In addition to the projects listed above, there are several vacant pieces of land that are located in or adjacent to the project area, which could be developed concurrent with the proposed project. These include two large, undeveloped subdivided lots to the southeast of the southern end of the project area (within the city of San Marcos), and approximately 26 empty lots within 1,000 feet of the project area.

Traffic volumes were forecast for the year 2025. These future volumes include traffic volumes from the projects listed above, traffic volumes from possible development that could occur on the vacant lots, as well as anticipated growth in traffic volumes which would occur with the anticipated buildout of the project area and the surrounding region. Buildout conditions for the proposed project are based on year 2020 SANDAG traffic

forecasts since 2025 volumes are not available from the existing model. Year 2025 volumes were calculated based on the average growth from year 2000 to year 2020 on each segment, and then projecting forward 5 years based on the observed averages.

Future buildout conditions (year 2025) and associated LOS conditions for project area street segments are shown in Table 2.1-6. With the proposed project, street segments on South Santa Fe Avenue in the project area would improve from LOS F to LOS B or D under buildout conditions. This is an acceptable LOS and indicates good operations. Buena Creek Road east of South Santa Fe Avenue would improve from LOS F to LOS D with projected year 2025 traffic volumes.

Table 2.1-6. Year 2025 Segment Operations

Street Segment	2025 without Project			2025 with Project		
	Capacity (LOS E)	ADT	LOS	Capacity (LOS E)	ADT	LOS
South Santa Fe Avenue						
Mar Vista Drive to Buena Creek Road	13,800	19,200	F	31,500	19,200	B
Buena Creek Road to Smilax Road	13,000	27,800	F	31,500	27,800	D
Buena Creek Road						
South Santa Fe Avenue to Monte Vista Drive	16,200	32,000	F	37,000	32,000	D
Sycamore Avenue						
University Drive to South Santa Fe	DNE	DNE	--	37,000	35,700	E
Smilax Road						
South Santa Fe Avenue to Mimosa Avenue	10,000	8,400	D	10,000	8,400	D

Source: LL&G 2003.
 ADT = Average Daily Trips
 DNE = Does Not Exist
 LOS = Level of Service

The realignment and extension of Sycamore Avenue would have the benefit of improved access between SR 78 and South Santa Fe Avenue and would also relieve congestion on Robelini Drive and eliminate traffic impacts through this residential area.

The proposed project would improve traffic flow along all segments of the roads under buildout traffic volumes; thus, it would not contribute to a cumulative traffic impact.

Cumulative construction-period traffic impacts could also occur if projects within the same construction area, or in proximity are constructed concurrently with the proposed project. The specific projects that could be constructed during the same time at the South Santa Fe Avenue project include the Buena Creek Rail Station. Cumulative construction-period traffic impacts, however, would be localized and would be mitigated with implementation of a traffic control plan during construction. If two or more construction projects occur in the project area at the same time, the County will coordinate the traffic control plans for the projects to ensure that traffic conflicts and hazards do not occur. Thus, with the implementation of Mitigation Measure 2.1.a, and the County's existing procedures, potential cumulative impacts would be less than significant.

2.1.5 Mitigation Measures and Environmental Design Considerations

Mitigation Measure 2.1.a. Short-term Construction Phase Traffic and Circulation Effects

The following measures shall be implemented to reduce the temporary impacts to traffic circulation and pedestrian and bicycle facilities, during the construction phase of the proposed project.

- A Transportation Management Plan (TMP) shall be developed that focuses on informing the motoring public and affected parties of construction dates and activities. The TMP for the proposed project shall include project signing posted in advance of construction work zone areas. The advance signage shall identify dates and times of the construction and possible travel delays. Signage shall also be provided for directions to businesses in construction areas. The project construction schedules shall be posted in local and regional newspapers. Any recommended detour routes shall also be included in these notices. Construction and detour information shall be posted on the County web pages.
- The TMP developed for this project and traffic control plans shall be coordinated with the public information campaign and the transportation demand management elements.
- Coordination with the San Diego County Sheriff's Department, California Highway Patrol, and other highway agencies, as well as emergency units, utilities, CSU San Marcos, and railroads, shall be conducted to receive input and support

for advising motorists of traffic delay situations. Construction operations shall be conducted as determined necessary through interagency coordination efforts.

2.1.6 Conclusions

The proposed project would reduce existing transportation facility deficiencies. The proposed project would not create operational or long-term traffic and circulation impacts. The proposed project is consistent with the Major Road designation in the County General Plan Circulation Element. The proposed project would not cause a substantial increase in hazards resulting in unsafe traffic conditions. With implementation of the mitigation measures listed in Section 2.1.5, traffic and circulation impacts during construction would be reduced to a less-than-significant level for the proposed project.

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SUBCHAPTER 2.2 - AIR QUALITY

2.2.1 Existing Conditions

Climate and Meteorology

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The project site is within the San Diego Air Basin (SDAB), which includes all of San Diego County. The distinctive climate of the air basin is determined by its terrain and geographic location. San Diego County experiences a Mediterranean-type climate. During the summer, a marine layer provides cooling effects to the western portion of the County. Physically, San Diego County gradually rises from west to east with mountain ranges in the eastern portion marking the eastern boundary of the air basin. A thermal inversion layer, extending from the coast to the mountains at a typical elevation of 2,000 feet, is a prevalent feature in the summer months, usually May through October, when elevated concentrations of ozone (O₃), generally known as smog, are most common. When a temperature inversion layer occurs, it traps air pollutants against the slopes and prevents them from rising. An inversion is formed when warm, dry air overlies the cool, moist marine air.

In San Diego County, smog standards are exceeded most frequently in the foothills east of the metropolitan area. The polluted air rises to the base of the inversion layer, where it is blown eastward by the sea breeze and trapped against the foothills.

Unhealthful smog concentrations in San Diego County are not caused solely by pollution sources in the region. Smog is transported into the San Diego area from the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside Counties) during “Santa Ana” wind conditions, as winds blowing toward the southwest transport the smog out over the ocean. Subsequently, the sea breeze brings the smog onshore into San Diego County. When the transported smog cloud is at ground level, the highest smog concentrations are measured at coastal and near-coastal monitoring sites.

When the smog cloud is elevated, coastal sites may be passed over, and the transported smog is measured further inland.

Regional and Local Air Quality

Ambient air pollutant concentrations in the SDAB are measured at air quality monitoring stations operated by the San Diego APCD. The nearest air quality monitoring stations to the South Santa Fe Avenue area are the Oceanside/Camp Pendleton stations, located approximately 9 miles to the west, and the Escondido station, located the same distance to the southeast. Tables 2.2-1 and 2.2-2 present summaries of the highest pollutant values recorded at these stations in the 5-year period of 1998 to 2002. Monitoring at the Oceanside station ceased at the end of 2001; the 2002 data in Table 2.2-1 are from Camp Pendleton.

The pollutants of concern in San Diego County are O₃ and “respirable” particulate matter consisting of particulate matter that is 10 microns or less in diameter (PM₁₀). Areas are classified under the federal Clean Air Act as either “attainment” or “nonattainment” areas for each criteria pollutant based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Attainment relative to the state standards is determined by the California Air Resources Board (CARB).

The SDAB is currently in attainment for all federal criteria pollutant standards. Until recently, the SDAB had been classified as a federal nonattainment area for O₃. There were no exceedances of the federal O₃ standard in 1999 or 2000 (APCD 2002). Although there were two exceedances in 2001, San Diego County completed 3 years within the federal 1-hour O₃ standard on November 15, 2001, becoming eligible for redesignation as an attainment area. Redesignation was approved by the U.S. Environmental Protection Agency (USEPA) and was effective as of July 28, 2003 (USEPA 2003). Therefore, the federal classification for O₃ is attainment/maintenance. Maintenance is the classification applied to an area that has been redesignated as attainment, after a period as a nonattainment area. The SDAB is designated as a state nonattainment area for O₃ and PM₁₀. The SDAB is a federal maintenance area for carbon monoxide (CO), and an attainment area for nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb).

Table 2.2-1. Oceanside/Camp Pendleton Monitoring Station⁽¹⁾ - Ambient Air Quality

Pollutant	Averaging Time	California Air Quality Standards	Federal Primary Standards	Maximum Concentrations ⁽²⁾					Number of Days Exceeding Federal Standard ⁽³⁾					Number of Days Exceeding State Standard ⁽³⁾				
				1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Oxidants (Ozone)	1 hr	>0.09 ppm	>0.12 ppm	0.105	0.091	0.095	0.104	0.087	0	0	0	0	0	3	0	1	1	0
	8 hrs	none	0.08 ppm	0.088	0.081	0.083	0.089	0.073	1	0	0	1	0	-	-	-	-	-
Carbon Monoxide	1 hr	20 ppm	35 ppm	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8 hrs	9 ppm	9 ppm	2.31	2.01	-	-	-	0	0	-	-	-	0	0	-	-	-
Nitrogen Dioxide	1 hr	0.25 ppm	none	0.087	0.133	0.114	0.096	0.126	-	-	-	-	-	0	0	0	0	0
	Annual	none	0.053 ppm	0.016	0.019	0.017	0.016	0.021	0	0	0	0	0	-	-	-	-	-
PM ₁₀	24 hrs	50 µg/m ³	150 µg/m ³	37	-	-	-	-	0	-	-	-	-	0	-	-	-	-
	Annual/AAM ⁽⁴⁾	none	50 µg/m ³	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Annual/AGM ⁽⁴⁾	30 µg/m ³	none	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-

⁽¹⁾ Data for 1998-2001 from Oceanside; monitoring of PM₁₀ at Oceanside was discontinued in 1999; monitoring of gaseous pollutants at Oceanside was discontinued in 2002. Data for 2002 from Camp Pendleton.

⁽²⁾ Concentration units for ozone, carbon monoxide, and nitrogen dioxide are in parts per million (ppm). Concentration units for PM₁₀ are in micrograms per cubic meter (µg/m³).

⁽³⁾ For annual standards, a value of 1 indicates that the standard has been exceeded. For PM₁₀, calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

⁽⁴⁾ AAM = annual arithmetic mean; AGM = annual geometric mean.

dash = data not available or applicable.

Source: CARB 2003.

Table 2.2-2. Escondido Monitoring Station - Ambient Air Quality

Pollutant	Averaging Time	California Air Quality Standards	Federal Primary Standard	Maximum Concentrations ⁽¹⁾					Number of Days Exceeding Federal Standards ⁽²⁾					Number of Days Exceeding State Standard ⁽²⁾				
				1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Oxidants (Ozone)	1 hour	>0.09 ppm	>0.12 ppm	12	10	12	14	10	0	0	0	1	0	9	1	6	4	4
	8 hours	none	0.08 ppm	-	8	11	10	8	-	0	3	1	0	-	-	-	-	-
Carbon Monoxide	1 hour	20 ppm	35 ppm	10.2	9.9	9.3	-	-	0	0	0	-	-	0	0	0	-	-
	8 hours	9 ppm	9 ppm	4.5	5.3	4.9	5.1	3.9	0	0	0	0	0	0	0	0	0	0
Nitrogen Dioxide	1 hour	0.25 ppm	none	0.092	0.100	0.083	0.088	0.084	-	-	-	-	-	0	0	0	0	0
	Annual	none	0.053 ppm	0.018	0.023	0.021	0.020	0.021	0	0	0	0	0	-	-	-	-	-
PM ₁₀	24 hours	50 µg/m ³	150 µg/m ³	51	52	65	74	51	0	0	0	0	0	3	6	12	12	12
	Annual/AAM ⁽³⁾	none	50 µg/m ³	24	30	29	31	27	-	-	-	-	-	-	-	-	-	-
	Annual/AGM ⁽³⁾	30 µg/m ³	none	21	28	28	29	25	-	-	-	-	-	-	-	-	-	-
PM _{2.5}	24 hours	none	65 µg/m ³	-	64.3	65.9	60.0	53.6	-	0	1	0	0	-	-	-	-	-
	Annual	12 µg/m ³	15 µg/m ³	-	18.0	15.8	17.5	16.0	-	1	1	1	1	-	1	1	1	1

⁽¹⁾ Concentration units for ozone are in parts per hundred million (pphm). Concentration units for carbon monoxide, nitrogen dioxide, and sulfur dioxide are in parts per million (ppm). Concentration units for PM₁₀ are in micrograms per cubic meter (µg/m³).

⁽²⁾ For annual standards, a value of 1 indicates that the standard has been exceeded.

⁽³⁾ AAM = annual arithmetic mean; AGM = annual geometric mean; N/A = data not available

dash = data not available or applicable.

Source: CARB 2003.

Pollutant Characteristics

The SDAB is primarily affected by O₃ and particulate matter. Not only is exposure to elevated levels of these pollutants a health hazard, but particulate matter may also cause nuisance-type impacts. Nuisance-type impacts include reduced visibility and dust settlement on nearby areas. In addition, near heavily traveled corridors and congested intersections, CO from vehicular traffic is also a pollutant of concern.

O₃ is a reactive pollutant, which is not emitted directly into the atmosphere but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving volatile organic compounds (VOCs) and nitrogen oxides (NO_x). VOCs and NO_x are known as precursor compounds for O₃. Substantial O₃ production generally requires O₃ precursors to be present in a stable atmosphere with strong sunlight for approximately 3 hours. O₃ is a regional air pollutant because it is not emitted directly by sources but is formed downwind of sources of VOCs and NO_x under the influence of wind and sunlight. O₃ concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, such as O₃. Short-term exposure to O₃ can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, O₃ can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Motor vehicles are a principal source of VOC and NO_x emissions in most areas that have elevated O₃ concentrations.

PM₁₀ and “fine” particulate matter (PM_{2.5}) consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter.) PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled into the air passages and lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility.

CO is a nonreactive pollutant emitted primarily by motor vehicles. Ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic and are also influenced by meteorological factors such as wind speed and atmospheric mixing. When strong surface inversions formed on winter nights are coupled with near-calm winds, CO from automobile exhaust becomes concentrated. The highest CO levels within the air basin are almost always measured during the winter. CO interferes with the transfer of oxygen to the blood. It may cause dizziness and fatigue and can impair central nervous system functions.

There are two oxides of nitrogen that are important in air pollution: NO₂ and nitric oxide (NO). NO, along with some NO₂, is emitted from motor vehicle engines, power plants, refineries, industrial boilers, ships, aircraft, and railroads. NO₂ is primarily formed when NO reacts with atmospheric oxygen in the presence of reactive organic compounds (ROCs) and sunlight; the other product of this reaction is O₃. NO₂ is the “whiskey brown” colored gas, more commonly known as smog, readily observed during periods of heavy air pollution. Concentrations of NO₂ are highest during the late fall and winter. NO₂ increases damage to lungs from respiratory disease and irritation and may reduce resistance to certain infections.

In 1999, the CARB identified particulate emissions from diesel-fueled engines as a Toxic Air Contaminant (TAC) (CARB 2000). Once a substance is identified as a TAC, the CARB is required by law to determine if there is a need for further control. This is referred to as risk management (CARB 2001). The process of further studies is ongoing at the CARB, with committees meeting to analyze both stationary and mobile diesel engine sources, as well as many other aspects of the problem. On September 28, 2000, the CARB approved the Proposed Diesel Risk Reduction Plan and the Proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. There are other programs for risk reduction for off-road diesel engines.

In February 2001, the USEPA issued new rules requiring cleaner diesel fuels in 2006 and beyond. However, since 1993, California’s regulations have required cleaner diesel fuel than the federal requirements. The 1993 federal regulations reduced particulate emissions by 5 percent, while the California regulations reduced particulate emissions by 25 percent.

The control of emissions from mobile sources is a statewide responsibility of the CARB that has not been delegated to the local air districts. However, the APCD is participating in the administration of programs to reduce diesel emissions, principally by procurement and use of replacement vehicles powered by natural gas.

No standard exists for quantitative impact analysis in the SDAB for diesel particulates. Some air districts have issued preliminary project guidance for projects with large or concentrated numbers of trucks, such as warehouses and distribution facilities.

Sources of Pollution

Air quality in the project area is affected by emissions from a variety of sources; however, the predominant existing source of air pollutant emissions in the project area is motor vehicle traffic. Other, less intense sources of air pollution include rail exhaust emissions.

The principal pollutants emitted during construction would be PM₁₀ and PM_{2.5}. The source of the pollutants would be fugitive dust created during clearing, grubbing, excavation, and grading; demolition of structures and pavement; vehicle travel on paved and unpaved roads; and material blown from unprotected graded areas, stockpiles, and haul trucks.

Generally, the distance that particles drift from their source depends on their size, emission height, and wind speed. About 50 percent of fugitive dust is made up of relatively large particles, greater than 100 microns in diameter. These particles are responsible for the reduced visibility often associated with construction, as well as the nuisance caused by the deposition of dust on vehicles, and in exterior areas used by people for recreation and business. Given their relatively large size, these particles tend to settle within 20 to 30 feet of their source. Small particles, less than 100 microns in diameter, can travel several hundred feet before settling to the ground, depending on wind speed. These smaller particles also contribute to visibility and nuisance impacts and include PM₁₀ and PM_{2.5}, which are potential health hazards.

A secondary source of pollutants during construction is the engine exhaust from construction equipment; the principal pollutants of concern are NO_x and VOCs. NO_x and

VOC emissions from construction equipment would contribute to the formation of O₃, which is a regional nonattainment pollutant.

Applicable Regulations, Plans, and Policies

Federal and State Standards

State and federal agencies have set ambient air quality standards for certain air pollutants. NAAQS have been established for the following pollutants, which are called the “criteria” pollutants: CO, O₃, SO₂, NO₂, PM₁₀, PM_{2.5}, and Pb. The California Ambient Air Quality Standards (CAAQS) are more stringent for some criteria pollutants than the corresponding federal standards, as shown in Table 2.2-3, which also shows the standards for additional pollutants not included in the NAAQS.

Regional Authority

In San Diego County, the APCD is the agency responsible for the administration of federal and state air quality laws, regulations, and policies. Included in the San Diego APCD’s tasks are monitoring of air pollution, preparation of the state implementation plan (SIP) for SDAB, and the promulgation of Rules and Regulations. The SIP includes strategies and tactics to be used to attain the federal O₃ standard in San Diego County. The SIP elements are taken from the Regional Air Quality Strategies (RAQS), the APCD plan for attaining the state O₃ standard. The RAQS are revised triennially; the current RAQS were published in August 2001. The Rules and Regulations include procedures and requirements to control the emission of pollutants and to prevent adverse impacts. The APCD does not have quantitative emissions limits for construction activities, nor for long-term emissions that may result from increased vehicle use.

The APCD has not adopted quantitative thresholds for purposes of determining whether a project’s air pollutant emissions are adverse. For this analysis, emissions are considered adverse if the project’s total emissions exceed the “de minimis” thresholds established for nonattainment and maintenance criteria air pollutants under Section 176 of the Federal Clean Air Act (see 40 CFR § 51.858). In the absence of significance thresholds for pollutants for which the region is in attainment with air quality standards, these same thresholds apply to attainment pollutants as well.

Table 2.2-3. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS ¹		CAAQS ²
		Primary ³	Secondary ⁴	Concentration ⁵
Ozone (O ₃) ⁶	1-Hour	0.12 ppm (235 µg/m ³)	Same as Primary Standard	0.09 ppm (180 µg/m ³)
	8-Hour	0.08 ppm		-
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 µg/m ³)	None	9.0 ppm (10 µg/m ³)
	1-Hour	35 ppm (40 µg/m ³)		20 ppm (23 µg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Average	0.053 ppm (100 µg/m ³)	Same as Primary Standard	-
	1-Hour	-		0.25 ppm (470 µg/m ³)
Sulfur Dioxide (SO ₂)	Annual Average	80 µg/m ³ (0.03 ppm)	-	-
	24-Hour	365 µg/m ³ (0.14 ppm)	-	0.04 ppm (105 µg/m ³)
	3-Hour	-	1300 µg/m ³ (0.5 ppm)	-
	1-Hour	-	-	0.25 ppm (655 µg/m ³)
Suspended Particulate Matter (PM ₁₀)	24-Hour	150 µg/m ³	Same as Primary Standard	50 µg/m ³
	Annual Arithmetic Mean	50 µg/m ³		20 µg/m ³ note 7
Fine Particulate Matter (PM _{2.5}) ⁶	24-Hour	65 µg/m ³	Same as Primary Standard	-
	Annual Arithmetic Mean	15 µg/m ³		12 µg/m ³ note 7
Lead (Pb)	30-Day Average	-	-	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	Same as Primary Standard	-
Hydrogen Sulfide (HS)	1-Hour			0.03 ppm (42 µg/m ³)
Sulfates (SO ₄)	24-Hour			25 µg/m ³
Visibility Reducing Particles	8-Hour (10 am-6 pm, Pacific Standard Time)	No Federal Standards		In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.

µg/m³ - micrograms per cubic meter; ppm - parts per million

Source: CARB 2003.

¹ National Ambient Air Quality Standards (other than O₃, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact USEPA for further clarification and current federal policies.

² California Ambient Air Quality Standards for O₃, CO (except Lake Tahoe), SO₂ (1 and 24 hours), NO₂, PM₁₀, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.

³ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

⁴ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

⁵ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 millimeters (mm) of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar). Ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

⁶ New federal 8-hour ozone and fine particulate matter standards were promulgated by USEPA on July 18, 1997. The federal 1-hour O₃ standard continues to apply in areas that violated the standard. Contact USEPA for further clarification and current federal policies.

⁷ On June 5, 2003, the Office of Administrative Law approved the amendments to the regulations for the state ambient air quality standards for particulate matter and sulfates. Those amendments established a new annual average standard for PM_{2.5} of 12 µg/m³ and reduced the level of the annual average standard for PM₁₀ to 20 µg/m³. The approved amendments were filed with the Secretary of State on June 5, 2003 and became effective on July 5, 2003.

The metropolitan planning organization responsible for the preparation of the RTP and the associated air quality analyses is SANDAG. The regional plans are the RTP and RTIP. The most current versions of the plans are the 2030 RTP (SANDAG 2003a) and 2002 RTIP (SANDAG 2002). The proposed project is included in the RTP as part of the Regional Arterial System, as documented in the 2030 RTP (SANDAG 2003a) and the 2002 RTIP (SANDAG 2002). The air quality analysis and conformity finding for the 2030 RTP were prepared by SANDAG (SANDAG 2003b) and were approved by the Federal Highway Administration and Federal Transit Administration on April 9, 2003 (USDOT 2003). The design of the project conforms to that anticipated in the RTP.

2.2.2 Guidelines for Determination of Significance

The CEQA Guidelines provide guidance regarding the significance of air quality impacts in Appendix G, which contains a recommended environmental checklist form. Based on State CEQA Guidelines, an air quality impact would be considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standards or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for O₃ precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Additionally, based on San Diego APCD Rule 51, an air quality impact is considered significant if the project would:

- Cause a nuisance or endanger the comfort, health, or safety of the public.

As previously discussed, the applicable air quality plan is the RAQS. The APCD has not promulgated standards or guidelines for CEQA air quality significance. In lieu of local standards, the appropriate quantitative thresholds for assessment of impacts are those defined as de minimis in the USEPA General Conformity Rule, which was promulgated

in 40 CFR Sections 51.850-860 and 40 CFR Sections 93.150-160. These thresholds are shown in Table 2.2-4. Where there is no applicable air quality plan, because the area is not a federal nonattainment area for that pollutant, the de minimis threshold provides a conservative standard.

Table 2.2-4. General Conformity Rule de minimis Thresholds and San Diego APCD Major Stationary Source Definition

Air Contaminant	Emission Rate (ton/yr)
Particulate Matter (PM ₁₀) ¹	100
Oxides of Nitrogen (NO _x) ²	100
Volatile Organic Compounds (VOCs) ²	100
Oxides of Sulfur (SO _x) ³	100
Carbon Monoxide (CO) ⁴	100

¹ The SDAB is a federal attainment and state nonattainment area for PM₁₀. The threshold is for a federal moderate nonattainment area.

² The SDAB is a federal attainment and state nonattainment area for O₃. The NO_x and VOC thresholds are for a federal maintenance area.

³ The SDAB is a federal and state attainment area for SO_x. The threshold is for a federal nonattainment area.

⁴ Threshold for a CO maintenance area. Source: USEPA 1993

2.2.3 Analysis of Project Effects and Determination of Significant Impact

Long-term Air Quality Impacts

Regional Impacts

SANDAG and the APCD conducted an air quality analysis of the 2030 RTP, which includes the proposed South Santa Fe Avenue project. The analysis demonstrated conformity of the RTP to the NO_x and VOC budgets in the 1994 O₃ SIP, and the CO budget established in the CO maintenance plan. In San Diego County, PM₁₀ and PM_{2.5} are not federal nonattainment pollutants and conformity for these pollutants is not assessed. However, motor vehicle emissions of PM₁₀ and sulfur oxides (SO_x) are small when compared to emissions thresholds. As the regional NO_x, VOC, and CO emissions of the proposed project would conform to the SIP, and the PM₁₀ and SO_x regional emissions would be small, the project would not conflict with implementation of the RAQS, violate any air quality standards, or contribute substantially to an existing or

projected air quality violation. Therefore, the long-term regional air quality impact would *not be significant*.

Local Impacts

Procedures and guidelines for use in evaluating the potential local level CO impacts of a project are contained in Transportation Project-Level Carbon Monoxide Protocol (the Protocol) (UCD ITS 1997). The Protocol provides a methodology for determining the level of analysis, if any, required on a project. The guidelines comply with the Clean Air Act, federal and state conformity rules, and CEQA.

The SDAB was redesignated as a CO attainment area subsequent to the passage of the 1990 Clean Air Act amendments. Continued attainment has been verified with the San Diego APCD. In areas meeting those conditions, in accordance with the Protocol, only projects that are likely to worsen air quality necessitate further analysis. Projects that worsen air quality are defined as those that substantially increase the percentage of vehicles in cold start mode, defined as an increase in the number of vehicles operating in cold start mode of 2 percent or more; those that substantially increase traffic volumes, defined as an increase in volume in excess of 5 percent; and those that worsen traffic flow, defined for intersections as an increase in average delay at signalized intersections operating at LOS E or F.

The proposed project would not result in increased traffic. That is, traffic volumes on the affected roadway segments would be the same as the No Project Alternative (LL&G 2002). Therefore, it may be presumed that the project would not substantially increase traffic volumes or the percentage of vehicles in cold start mode. There would be no signalized intersections operating at LOS E or F with the proposed project (see Table 2.1-4). Therefore, the proposed project would not cause or contribute to any new or projected CO violations and the long-term local air quality impact would *not be significant*. The proposed project, as compared to future traffic conditions, would improve traffic flow and intersection operation, which would improve localized air quality.

Short-term Construction Phase Air Quality Effects

The principal pollutants emitted during construction would be PM₁₀ and PM_{2.5}. The source of the pollutants would be fugitive dust created during clearing, grubbing, excavation, and grading; demolition of structures and pavement; vehicle travel on paved and unpaved roads; and material blown from unprotected graded areas, stockpiles, and haul trucks.

A secondary source of pollutants during construction is the diesel engine exhaust from construction equipment. The principal pollutant of concern is particulate matter, which could be a potential health hazard if construction equipment and truck staging areas were to be located near schools, active recreation areas, or areas of higher population density.

In summary, the proposed project would result in a *potentially significant impact* to air quality, resulting from an increase in fugitive dust and diesel engine exhaust particulates during the construction stages. **(Impact 2.2.a)** This impact would be direct and short term.

Potential for Objectionable Odors

Implementation of the proposed project would not result in the installation of any equipment, such as wastewater pumping or treatment equipment, or the conduct of any permanent activities that would generate objectionable odors. During construction of the widened roadway, there would be odors typically occurring during asphalt paving operations. These odors would be of short duration and would affect residents near the work area, but not a substantial number of people. Thus, odor impacts would *not be significant*.

2.2.4 Cumulative Impact Analysis

As discussed in more detail in Section 1.6.3, and summarized in Table 1-3, the following are the projects known to be planned or approved, or in construction during the preparation of this EIR:

- Hannalei Elementary School
- 7-11 Convenience Store and Gas Station

- East Sycamore Commercial Center (City of Vista)
- Buena Creek Rail Station
- North County Square Specific Plan (City of Vista)
- City of San Marcos Road Improvements
- NCTD Commuter Rail Service (the “Sprinter”)
- Thibodo Road Multi-family Apartments

The analysis of project impacts to regional air quality, as performed by SANDAG and the APCD in conjunction with the 2030 RTP and 2002 RTIP, is a cumulative analysis. SANDAG population projections and the 2030 RTP take into account all of the projects listed above, in addition to other development that is expected to occur on vacant or underdeveloped land through 2030. The proposed project would conform to the RTP and RTIP; therefore, permanent impacts would not be cumulatively significant.

If projects adjacent to the project area were constructed concurrently with the proposed project, then there would be concurrent emissions and potentially more severe temporary impacts from fugitive dust. However, the proposed projects’ contribution to potential significant construction-related impacts would be less than significant, as long as the emission control measures outlined in Section 2.2.5 are implemented. The proposed dust control measures are consistent with County and APCD policies. The dust control measures have been developed to reduce impacts to a less-than-significant level in consideration of the possibility that other projects may be concurrently constructed. In summary, with implementation of the measures outlined in Section 2.2.5, the proposed project would not cause a significant cumulative contribution to air quality impacts.

2.2.5 Mitigation Measures and Environmental Design Considerations

Mitigation Measure 2.2.a. Short-term Construction Phase Air Quality Effects

The following measures shall be implemented to minimize the emission of fugitive dust, including PM₁₀ and PM_{2.5} and diesel particulate exhaust emissions. These measures shall be applied to all active construction areas, including staging areas.

Site Preparation and Demolition

1. Locate construction equipment and truck staging and maintenance areas as far as feasible from and downwind of schools, active recreation areas, and other areas of high population density
2. Minimize land disturbance
3. Use watering trucks to minimize dust; water with frequency adequate to prevent dust plumes off the project site
4. Cover trucks when hauling dirt
5. Stabilize the surface of dirt piles if not removed immediately
6. Limit vehicular paths in unpaved areas
7. Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway

Construction

1. Cover trucks when transferring materials
2. Use dust suppressants on traveled paths that are not paved
3. Minimize unnecessary vehicular and machinery activities
4. Sweep paved streets at least once per day where there is evidence of dirt that has been carried onto the roadway

Postconstruction

1. Revegetate any undeveloped land disturbed by construction
2. Remove unused material
3. Remove dirt piles

2.2.6 Conclusions

With implementation of the mitigation measures listed in Section 2.2.5, air quality impacts would be reduced to a less-than-significant level for the proposed project.

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SUBCHAPTER 2.3 - NOISE

County policy for noise impacts is different for projects with and without federal funding. Therefore, the potential noise impacts were originally addressed in the Noise Impact Analysis (EDAW 2003d), assuming federal funding, and then were reanalyzed in conformance with County policies and guidelines. The additional information is contained in a Supplemental Noise Impact Analysis (EDAW 2004). The Supplemental Noise Impact Analysis only provides the additional information necessary for a comprehensive analysis in accordance with County policy and guidance. The two reports, in combination, provide the information that supports the noise assessment contained in this subchapter. More information on the changes in methodology that occurred as a result of the removal of federal funding is provided in the Supplemental Noise Impact Analysis. Both noise impact analyses are provided in Appendix C.

2.3.1 Existing Conditions

Fundamentals of Noise

Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment (Caltrans 1998).

Noise levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the “A-weighted” noise scale is used for measurements and standards involving the human

perception of noise. Noise levels using A-weighted measurements are written dB(A) or dBA.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA nor in terms of acoustical energy. Two noise sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease; that a change of 5 dBA is readily perceptible; and that an increase (decrease) of 10 dBA sounds twice (half) as loud¹ (Caltrans 1998). Table 2.3-1 provides some typical noise levels associated with some common activities.

Table 2.3-1. Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities	Human Response
	--110--	Rock Band	
Jet Fly-over at 1,000 ft	--100--		Very loud
Gas Lawn Mower at 3 ft	--90--		
Diesel Truck at 50 ft, at 50 mph	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)	
Noisy Urban Area, Daytime Gas Lawn Mower, 100 ft	--70--	Vacuum Cleaner at 3 m (10 ft)	Moderately loud
Commercial Area Heavy Traffic at 300 ft	--60--	Normal Speech at 1 m (3 ft)	
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room	
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)	Quiet
Quiet Suburban Nighttime	--30--	Library	
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)	
	--10--	Broadcast/Recording Studio	
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing	

ft = feet
m = meter(s)
Source: Caltrans 1998.

¹ The “trained” as opposed to “average” ear can detect changes of 2 dBA in normal environmental noise.

Noise Descriptors

L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the “energy” average noise level. Average noise levels over a period of minutes or hours are usually expressed as dBA L_{eq} , or the equivalent noise level for that period of time. The period of time average may be specified; $L_{eq(3)}$ would be a 3-hour average. When no period is specified, a 1-hour average is assumed.

The County uses community noise equivalent level (CNEL) to establish noise standards for compatible land use. CNEL is a 24-hour weighted average measure. The computation of CNEL adds 5 dBA to the average hourly noise levels between 7 p.m. and 10 p.m. (evening hours), and 10 dBA to the average hourly noise levels between 10 p.m. and 7 a.m. (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours.

If hourly noise levels are not available to compute CNEL, then the relationship of CNEL to the peak hour average noise level (L_{eq}) is approximated. A first approximation, which is reasonable for most urban and suburban arterial roads, is that CNEL value is equal to the L_{eq} . A more refined approximation uses the ratio of peak hour traffic volume to total daily volume, and the division of traffic volume between day and night hours.

Sensitive Noise Receptors

Noise sensitive receptors are generally considered to be human activities or land uses that may be subject to interference from noise. Land uses often associated with sensitive receptors include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, education facilities, and libraries.

The sensitive receptors in the South Santa Fe project area are limited to residential uses and the Hannalei Elementary School. Most of the residential properties are located on the east side of the road between the northern limits of the project and York Drive, on both sides of the road between Abelia Lane and Azalea Drive, and along both sides of Robelini Drive and the proposed Sycamore Avenue extension. Properties that would be removed as part of the project are not considered sensitive receptors. Sensitive noise

receptors are identified in Figure 2 of the Supplemental Noise Impact Analysis (Appendix C).

Existing Noise Levels

Noise levels were measured in October, November, and December 1999 and April and May 2000 near South Santa Fe Avenue, Sycamore Avenue, Abelia Lane, and Robelini Drive (Table 2.3-2). The dominant source of noise in the area was traffic on adjacent roadways.

2.3.2 Guidelines for Determination of Significance

Policy 4b of the Noise Element of the County of San Diego General Plan (County of San Diego 1980) includes the following provision:

- 2) For County road improvement projects, the exterior noise level due to vehicular traffic impacting a noise sensitive area should not exceed the following values:
 - A. Federally funded projects shall comply with applicable FHWA Standards.
 - B. Other projects - CNEL = 60 dBA, except if the existing or projected noise level without the project is 58 dBA or greater, a 3 dBA increase will be allowed, up to the maximum permitted by FHWA standards (noisiest hour equal to or greater than 66 dBA L_{eq}).

Therefore, a significant impact would occur if:

- The project results in a CNEL of 60 dBA or greater exterior noise level at a residential receptor outdoor use area,
- If the existing or projected noise level without the project is 58 dBA or greater, the project results in more than a 3 dBA increase at a residential receptor outdoor use area, up to the maximum permitted by FHWA standards (noisiest hour equal to or greater than 66 dBA L_{eq}), or
- If the future noisiest hour is equal to or greater than 66 dBA L_{eq} at a residential receptor outdoor use area.

Table 2.3-2. Existing and Future Noise Levels and Impact Assessment

Receptor No.	Receptor Location ⁽¹⁾	Type of Development	Number of Units Represented ⁽²⁾	Exterior Exposed Area	Existing Estimated 1999 Worst Hour Noise Levels dBA L _{eq} ⁽³⁾ and CNEL ⁽³⁾	Future No Project		Future With Project					Increase in Noise Level With Project from No Project dBA	Is Increase With Project from No Project >3dBA?
						Increase in Noise Level from Existing dBA	CNEL	Estimated Worst Hour Noise Levels dBA L _{eq}	CNEL ⁽⁴⁾	Are Existing and No Project < 58, and With Project > 60?	CNEL ≥ 58?	Is Noisiest Hour ≥ 66?		
2A	SE corner of South Santa Fe Avenue and Montgomery Drive, Station 9+80.	2 nd story apartment	1	Backyard	60	0	60	64	64	No	Yes	No, Chk increase	4	Yes, Significant
4A	1550 South Santa Fe Avenue, Station 16+15.	Multiple-family Residential	4 (8)	Back and front yard	47	0	47	50	50	No	No impact	No, Chk increase	3	No, LTS Impact
5A	1622 South Santa Fe Avenue, Station 19+80.	Single-family Residential	1	Back and front yard	59	0	59	61	61	No	Yes	No, Chk increase	2	No, LTS Impact
6A	1662 South Santa Fe Avenue, Station 22+95.	Single-family Residential	1	Front yard	63	0	63	65	65	No	Yes	No, Chk increase	2	No, LTS Impact
6B	1662 South Santa Fe Avenue, Station 23+00.	Single-family Residential	1	Backyard	52	0	52	55	55	No	No impact	No, Chk increase	3	No, LTS Impact
7	1722 South Santa Fe Avenue, Station 24+65.	Single-family Residential	1	Back and front yard	62	0	62	65	65	No	Yes	No, Chk increase	3	No, LTS Impact
8A	1724 South Santa Fe Avenue, Station 26+00.	Single-family Residential	1	Backyard	51	0	51	51	51	No	No impact	No, Chk increase	0	No, LTS Impact
9A	1740 South Santa Fe Avenue, Station 27+80.	Single-family Residential	1	Back and side yard	61	0	61	64	64	No	Yes	No, Chk increase	3	No, LTS Impact
11	1746 South Santa Fe Avenue, Station 28+90.	Single-family Residential- 2 nd tier	1	Front yard	58	0	58	60	60	No	Yes	No, Chk increase	2	No, LTS Impact
12A	1768 South Santa Fe Avenue, Station 30+50.	Single-family Residential	1	Front and side yard	60	0	60	63	63	No	Yes	No, Chk increase	3	No, LTS Impact
13A	1808 South Santa Fe Avenue, Station 32+84.	Single-family Residential	1	Backyard	57	0	57	59	59	No	Yes	No, Chk increase	2	No, LTS Impact
16	South Santa Fe Avenue just north of Buena Creek Road, Station 55+00.	Trailer Residential	1	Backyard facing street	68	0	68	70	70	No	Yes	Yes, Significant	NA	NA
17	South Santa Fe Avenue just north of Buena Creek Road, Station 56+00.	Trailer Residential	3	Backyard facing street	67	0	67	70	70	No	Yes	Yes, Significant	NA	NA
18	South Santa Fe Avenue just north of Buena Creek Road, Station 22+35.	Trailer Residential	3	Backyard facing street	67	0	67	71	71	No	Yes	Yes, Significant	NA	NA
19A	246 Robelini Drive, Sycamore Avenue Station 7+00.	Single-family Residential	1	Side yard	62	3	65	67	67	No	Yes	Yes, Significant	NA	NA
20	2028 Abelia Lane, Station 15+50.	Single-family Residential	1	Backyard facing street	50	3	53	62	62	Yes, Significant	NA	NA	NA	NA
21	2025 Abelia Lane, Station 16+50.	Single-family Residential	1	Backyard and side yard	50	3	53	60	60	No	Yes	No, Chk increase	7	Yes, Significant
22A	2020 Abelia Lane, Station 14+80.	Single-family Residential	1	Backyard facing street	50	3	53	62	62	Yes, Significant	NA	NA	NA	NA
23	2012 Abelia Lane, Station 14+30.	Single-family Residential	1	Backyard facing street	50	2	52	61	61	Yes, Significant	NA	NA	NA	NA
24A	2130 South Santa Fe Avenue, Station 60+95.	Multiple-family Residential	1	Patio	59	2	61	59	58	No	Yes	No, Chk increase	-3	No, LTS Impact
24B	2130 South Santa Fe Avenue, Station 60+30.	Multiple-family Residential	1	Patio	59	2	61	62	61	No	Yes	No, Chk increase	0	No, LTS Impact
24C	2130 South Santa Fe Avenue, Station 61+75.	Multiple-family Residential	2	Patio facing street	58	2	60	61	60	No	Yes	No, Chk increase	0	No, LTS Impact
24D	2130 South Santa Fe Avenue, 2 nd floor, Station 62+15.	Multiple-family Residential	1	2 nd Floor Balcony	61	2	63	63	62	No	Yes	No, Chk increase	-1	No, LTS Impact
25A	2151-59 South Santa Fe Avenue, Station 62+30.	Multiple-family Residential	1 (4)	Backyard	59	2	61	65	64	No	Yes	No, Chk increase	3	No, LTS Impact

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Receptor No.	Receptor Location ⁽¹⁾	Type of Development	Number of Units Represented ⁽²⁾	Exterior Exposed Area	Existing Estimated 1999 Worst Hour Noise Levels dBA L _{eq} and CNEL ⁽³⁾	Future No Project		Future With Project						
						Increase in Noise Level from Existing dBA	CNEL	Estimated Worst Hour Noise Levels dBA L _{eq}	CNEL ⁽⁴⁾	Are Existing and No Project < 58, and With Project > 60?	CNEL ≥ 58?	Is Noisiest Hour ≥ 66?	Increase in Noise Level With Project from No Project dBA	Is Increase With Project from No Project >3dBA?
26	2152 South Santa Fe Avenue, Station 62+58.	Multiple-family Residential	1 (0)	None	69	2	71	72	71	No	Yes	Yes, Significant	NA	NA
27	2158 South Santa Fe Avenue, Station 63+50.	Multiple-family Residential	2 (8)	None	61	2	63	69	68	No	Yes	Yes, Significant	NA	NA
28	2170 South Santa Fe Avenue, Station 64+25.	Multiple-family Residential	1 (4)	None	62	2	64	69	68	No	Yes	Yes, Significant	NA	NA
29A	SW of South Santa Fe Avenue at 117 Palmyra, Station 64+30.	Single-family Residential	2	Backyard facing street	62	2	64	64	63	No	Yes	No, Chk increase	-1	No, LTS Impact
30	SW of South Santa Fe Avenue at 115 Palmyra, Station 65+10.	Single-family Residential	1	Backyard facing street	63	2	65	64	63	No	Yes	No, Chk increase	-2	No, LTS Impact
31A	SE of South Santa Fe Avenue, Station 65+80.	Multiple-family Residential	1(2)	Backyard	57	2	59	60	59	No	Yes	No, Chk increase	0	No, LTS Impact
31B	SW of South Santa Fe Avenue, Station 65+00.	Multiple-family Residential	1 (6)	Side yard	57	2	59	62	61	No	Yes	No, Chk increase	2	No, LTS Impact
32	SW of South Santa Fe Avenue at 111 Palmyra, Station 66+00.	Multiple-family Residential	1 (4)	Front yard	70	2	72	74	73	No	Yes	Yes, Significant	NA	NA
33	SW of South Santa Fe Avenue at 125 Palmyra, Station 67+50.	Multiple-family Residential	1 (4)	None	70	2	72	74	73	No	Yes	Yes, Significant	NA	NA
34A	SW of South Santa Fe Avenue at 2212-24 Primrose, Station 68+30.	Multiple-family Residential	1 (4)	Side yard	65	2	67	69	68	No	Yes	Yes, Significant	NA	NA
35A	SW of South Santa Fe Avenue at 2212-24 Primrose, Station 69+30.	Multiple-family Residential	1 (4)	Side yard	59	2	61	60	59	No	Yes	No, Chk increase	-2	No, LTS Impact
36A	2233 South Santa Fe Avenue, Station 70+50.	Multiple-family Residential	1 (4)	Court yard	57	2	59	60	59	No	Yes	No, Chk increase	0	No, LTS Impact
43	SW of South Santa Fe Avenue at 125 Poinsettia, Station 86+00.	Single-family Residential	1	Front yard	59	2	61	60	59	No	Yes	No, Chk increase	-2	No, LTS Impact
50A	Robelini Drive, Sycamore Avenue Station 8+20.	Single-family Residential	1	Backyard	65	3	68	65	65	No	Yes	No, Chk increase	-3	No, LTS Impact
51A	Robelini Drive, Sycamore Avenue Station 8+70.	Single-family Residential	1	Backyard	61	3	64	61	61	No	Yes	No, Chk increase	-3	No, LTS Impact
52A	Robelini Drive, Sycamore Avenue Station 9+50.	Single-family Residential	1	Backyard	66	3	69	65	65	No	Yes	No, Chk increase	-4	No, LTS Impact
53A	Robelini Drive, Sycamore Avenue Station 10+30.	Single-family Residential	1	Side yard	61	3	64	61	61	No	Yes	No, Chk increase	-3	No, LTS Impact
54	Robelini Drive, Sycamore Avenue Station 11+00.	Single-family Residential	1	Backyard	63	3	66	62	62	No	Yes	No, Chk increase	-4	No, LTS Impact
55A	Robelini Drive, Sycamore Avenue Station 11+80.	Single-family Residential	1	Front and side yard	64	3	67	62	62	No	Yes	No, Chk increase	-5	No, LTS Impact
56A	Robelini Drive, Sycamore Avenue Station 13+75.	Single-family Residential	1	Side yard	63	3	66	60	60	No	Yes	No, Chk increase	-6	No, LTS Impact
57A	2002 Abelia Lane, Station 13+50.	Single-family Residential	1	Backyard	50	3	53	61	61	Yes, Significant	NA	NA	NA	NA
58	2011 Abelia Lane, Station 14+06.	Single-family Residential	1	Front and side yard	50	3	53	59	59	No	Yes	No, Chk increase	6	Yes, Significant
59	2003 Abelia Lane, Station 13+50.	Single-family Residential	1	Front and side yard	50	3	53	59	59	No	Yes	No, Chk increase	6	Yes, Significant

LTS = Less Than Significant

NA = Not Applicable

⁽¹⁾ Receptors generally run from north to south. Receptor identification includes closest station number, as shown on the project drawings (Berryman & Henigar 2003, PDC 2001).

⁽²⁾ Number in parentheses is the number of exposed apartment units.

⁽³⁾ Existing CNEL is assumed to be numerically equal to worst hour L_{eq}.

⁽⁴⁾ Future CNEL is assumed to be numerically equal to worst hour L_{eq} for South Santa Fe north of Sycamore and for Sycamore. Future CNEL is assumed to be 1 dBA less than worst hour L_{eq} for South Santa Fe south of Sycamore

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Construction noise is governed by Section 36.410 of the County Noise Ordinance (County of San Diego 1988), which limits the hours of construction to Monday through Saturday, 7 a.m. to 7 p.m., and prohibits construction on Sundays and holidays. Section 36.410 also limits construction noise, measured at or within any developed and used residential property, to a maximum of 75 dB(A) for a period of 8 hours. Therefore, a significant impact would occur if:

- The average construction noise level at a residential property, averaged over 8 hours, would exceed 75 dBA.

The County has no decibel limits for night and Sunday construction work. Section 36.414 of the Noise Ordinance, General Prohibitions, states that it is unlawful to make noise that is disturbing, excessive, or offensive. Therefore, a significant impact would occur if:

- Construction noise occurred at night or on Sunday that would be disturbing, excessive, or offensive. Noise that interferes with normal sleep would be considered disturbing.

2.3.3 Analysis of Project Effects and Determination of Significant Impact

Long-term Noise Effects

Future noisiest hour noise levels at sensitive receptors with the proposed project roadway alignments were determined by use of forecast traffic volumes for 2025. Future CNEL values were determined based on the changes in peak hour traffic to ADT volume ratios, as forecast in the project traffic reports (LL&G 2002, 2003). Forecast future noise levels are shown in Table 2.3-2.

With or without implementation of the proposed project, traffic noise levels at most receptors would be greater in the future than in the existing condition. The principal reasons for traffic noise level increases would be increases in traffic volumes and changes in the road configuration between the traffic and the receptor. Changes in road configuration could move traffic closer to the receptor, elevate or lower the roadway, or add or remove barriers, such as slopes or retaining walls.

Table 2.3-2 summarizes the evaluation for significant noise impacts using the County Noise Element standards listed in Section 2.3.2. For this evaluation, the calculated future noise levels without implementation of the proposed project are compared to the calculated future noise levels with the implementation of the proposed project. The application of these standards shows that there would be less-than-significant noise impacts at 18 single-family homes and 10 multi-family buildings. There would be significant noise impacts at the following sensitive receptors:

- Receptor 2A, a second-story residence over a commercial building at the southeast corner of South Santa Fe Avenue and Montgomery Drive. The future noise level would be 64 dBA CNEL. The future noise level without implementation of the project would be 60 dBA CNEL. The future noise level with implementation of the project would be 64 dBA CNEL. The impact would be significant because the noise level would be greater than 58 dBA CNEL and the project would cause a noise increase of 4 dBA, which is greater than the 3 dBA threshold of the significance criteria.
- Receptors 16, 17, and 18, representing seven mobile homes near the northeast intersection of South Santa Fe Avenue and Buena Creek Road. The future noise level without implementation of the project would be 67 to 68 dBA CNEL. The future noise level with implementation of the project would be 70 to 71 dBA CNEL. The impact would be significant because the noise levels would exceed the FHWA standard of 66 dBA L_{eq} .
- Receptor 19A, a single-family home on Robelini Drive with yard exposed to Sycamore Avenue. The future noise level without implementation of the project would be 65 dBA CNEL. The future noise level with implementation of the project would be 67 dBA CNEL. The impact would be significant because the noise level would exceed the FHWA standard.
- Receptors 20, 21, 22A, 23, 57A, 58, and 59, representing seven single-family homes in the Abelia Lane neighborhood. The future noise level without implementation of the project would be 52 to 53 dBA CNEL. The future noise level with implementation of the project would be 59 to 62 dBA CNEL. The impacts would be significant because the noise levels would be greater than 58 dBA CNEL and the project would cause a noise increase of 6 to 9 dBA.
- Receptors 26, 27, and 28, representing four multi-family buildings on the east side of South Santa Fe Avenue, north of Palmyra. The future noise level without implementation of the project would be 63 to 71 dBA CNEL. The future noise

level with implementation of the project would be 68 to 71 dBA CNEL. The impact would be significant because the noise levels would exceed the FHWA standard of 66 dBA L_{eq} .

- Receptor 32, representing one multi-family building on the west side of South Santa Fe Avenue, north of Palmyra. The future noise level without implementation of the project would be 72 dBA CNEL. The future noise level with implementation of the project would be 73 dBA CNEL. The impact would be significant because the noise level would exceed the FHWA standard of 66 dBA L_{eq} .
- Receptors 33 and 34A, representing two multi-family buildings on the west side of South Santa Fe Avenue, south of Palmyra. The future noise level without implementation of the project would be 72 and 67 dBA CNEL, respectively. The future noise level with implementation of the project would be 73 and 68 dBA CNEL, respectively. The impact would be significant because the noise levels would exceed the FHWA standard of 66 dBA L_{eq} .

These long-term noise impacts of the proposed project are direct and are considered *significant impacts*. (Impact 2.3.a)

Construction-period Noise Effects

Construction noise would be generated by diesel engine-driven construction equipment used for removing the existing roadway, grading, loading and unloading materials, and paving. Diesel engine-driven trucks would bring materials to the site and remove excavation and demolition spoils. Additional noise would be made by pavement breakers and the demolition of structures. Under load conditions, diesel engine noise levels may be 85 to 90 dBA at a distance of 50 feet from the equipment. Construction equipment noise is considered to be 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 construction operations, equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators and for nonequipment tasks, such as measurement. Although peak noise levels may be 85 to 90 dBA, hourly average noise levels near the edge of the roadway, at locations where construction was occurring, would be anticipated to be 65 to 75 dBA L_{eq} at a distance of 50 feet.

Construction noise at many receptors adjacent to project roadways would exceed ambient traffic noise levels and would likely be perceived as nuisance noise. Noise from pavement breaking and diesel engines under load may cause interior noise levels to exceed 65 dBA, which would likely result in occasional occurrences of speech interference. However, when the work is performed between the hours of 7 a.m. and 7 p.m. on weekdays and Saturdays, in accordance with the County Noise Ordinance, average noise levels at sensitive receptors are not anticipated to exceed the Noise Ordinance limit of 75 dBA L_{eq} averaged over 8 hours, and the disturbances would be periodic and not continuous.

Some nighttime or Sunday work may occur in some project areas to avoid or minimize traffic conflicts or expedite the construction process. This effort would require equipment such as backhoes, concrete trucks, cranes, and pavers. Depending on the location of work, construction noise may be heard at residences in the area. Without noise abatement, short-term noise levels of 90 dBA at a distance of 50 feet from equipment would be reduced to 60 dBA over a distance of 1,000 to 1,600 feet. These noise levels could result in sleep interference.

The County has no decibel limits for nighttime and Sunday construction. The County or its contractor would be required to obtain a variance from the Noise Ordinance, and noise level limits would be imposed through the variance process. The variance process is described in Sections 36.424 through 36.443 of the Noise Ordinance. The variance application should include information sufficient for the County Noise Control Officer to make a determination considering the following items: the magnitude of the nuisance that would be caused by the offensive noise; the uses of the property within the area of impingement of the noise; the time factors related to study, design, financing and construction; and the general public interest and welfare. Conditions of approval that could be included in the variance would likely be similar to those described in Section 2.3.5, Mitigation Measure 2.3-b, below.

Construction noise would be generated in staging areas as well as along the project corridor. Activities within the staging area would include construction equipment maintenance, loading and unloading of materials, and storage of materials. Construction equipment maintenance and materials handling would include periods of diesel engine noise. Noise impacts from staging areas would depend on their location with respect to sensitive receptors and their layout. Although the exact location of staging areas has not

been identified, they would occur within the boundaries of the project area. It is expected that staging areas would be located in vacant lots or areas where the existing roadway is being abandoned. The following sites have been identified as likely staging areas: (1) on the existing alignment of Smilax Road, where it intersects with South Santa Fe Avenue, (2) the portion of Robelini Drive that would be abandoned, and/or (3) the property north of Woodland Avenue, at the Woodland Avenue/South Santa Fe Avenue intersection. The final site selection for the staging areas would be the responsibility of the construction contractor. Stockpiled materials may function as noise barriers when located between noise sources and sensitive receptors.

Lighted or flashing signs may be used for traffic control and information. The signs may be powered by small gasoline or diesel engines, which would be noise sources. Signs powered by other sources are also available. Traffic control devices with internal combustion engines that are placed within 330 feet of residences are likely to cause an adverse impact of nuisance noise during daytime hours because the noise would be continuous. Traffic control devices with internal combustion engines that are placed within 500 feet of residences are likely to cause an adverse impact of nuisance noise during nighttime hours.

In summary, construction-period noise impacts related to nighttime work, staging and stockpiling, and traffic control devices could result in *potentially significant impacts*. **(Impact 2.3.b)** These impacts would be short term and direct.

2.3.4 Cumulative Impact Analysis

Long-term traffic noise impacts are described in Section 2.3.3. Noise levels were projected out to the year 2025 using forecast traffic volumes for the year 2025. These projected noise levels would include known cumulative projects, as listed in Section 1.6.3, as well as any additional regional growth forecast for the area. As shown in Table 2.3-2, cumulative noise level increases without the project would be negligible at Receptors 2A through 18. Therefore, the significant noise impacts at Receptors 2A, 16, 17, and 18 would be direct and would not be considered cumulative impacts.

As shown in Table 2.3-2 there would be noise level increases without implementation of the proposed project. At several receptors, cumulative noise impacts occur because the project would create some increase in noise in addition to the noise level increases that would occur without the project. The project would contribute to significant cumulative

noise impacts at Receptors 19A, 20, 21, 22A, 23, 26, 27, 28, 32, 33, 34A, 57A, 58, and 59. The project's contribution to these cumulative impacts would be considered **significant**. (Impact 2.3.c)

In the short term, other construction projects may occur concurrently with the proposed South Santa Fe Avenue project. For example, construction of the Buena Creek Rail Station may overlap with the construction of the proposed project. Simultaneous construction activities could result in cumulative construction-related impacts that would be considered **significant**. (Impact 2.3.d)

2.3.5 Mitigation Measures and Environmental Design Considerations

Mitigation measures for road improvement projects have different constraints than land development projects. In development projects, potential noise impacts may be avoided by increasing setback distances or constructing noise barriers on private property. Construction of the barrier on private property location would be feasible mitigation for land development projects because the requirement for mitigation would be a condition of development. Barriers could include walls or earth berms. For the proposed project, noise barriers on private property can not be required because the County does not have the right to construct or maintain these barriers without consent of the property owners. The use of earth berms is often not feasible in roadway projects because the area within the ROW is not adequate and to increase the ROW could have additional environmental impacts. Therefore, the noise abatement considered for the proposed project is the use of solid walls built at the edge of the ROW. Table 2.3-3 shows an evaluation of feasible noise mitigation for the proposed project.. The results are summarized below.

Mitigation Measure 2.3.a. Long-term Noise Effects

The County will construct the following noise walls to mitigate noise impacts.

- Receptors 26, 27, and 28 - Mitigation of the noise impact would be feasible. A noise wall along the ROW on South Santa Fe Avenue was modeled. The wall would achieve 3 dBA noise reduction at all three receptors. The wall would be approximately 225 feet long and would be built on top of a proposed retaining wall; the height of the noise wall, excluding the retaining wall, would be 7 feet on a 45-foot-long northern section and 6 feet on the 180-foot-long southern section.

Table 2.3-3. Evaluation of Mitigation for Noise Impacts

Receptor No.	Receptor Location ⁽¹⁾	Type of Development	# of Units ⁽²⁾	Would a noise wall built in ROW provide feasible mitigation?	Conclusions
2A	SE corner of South Santa Fe Avenue and Montgomery Drive, Station 9+80.	2 nd story apartment	1	No, The second story height of the receptor and the commercial nature of the first floor property would prevent the construction of feasible noise mitigation.	Noise impacts would be significant and unavoidable.
16	South Santa Fe Avenue just north of Buena Creek Road, Station 55+00.	Trailer Residential	1	No, although a wall built in the ROW would reduce traffic noise levels by more than 5 dBA, it would result in potential safety hazards with in obstructing visibility for train operators and pedestrians. A wall built on the ROW would not reduce train noise, and may increase train noise to the residences because of reflection. Use of an earth berm for noise abatement would not be feasible because of a lack of available land.	Noise impacts would be significant and unavoidable.
17	South Santa Fe Avenue just north of Buena Creek Road, Station 56+00.	Trailer Residential	3		
18	South Santa Fe Avenue just north of Buena Creek Road, Station 22+35.	Trailer Residential	3		
19A	246 Robelini Drive, Sycamore Avenue Station 7+00.	Single-family Residential	1	No, a ROW wall, even at 14 feet high, would only reduce noise by 1 dBA. Use of an earth berm for noise abatement would not be feasible because of a lack of available land.	Noise impacts would be significant and unavoidable.
20	2028 Abelia Lane, Station 15+50.	Single-family Residential	1	No, an 8-10 feet high wall on the south ROW of Sycamore from station 11+00 to 18+00, which would be required to provide moderate traffic noise reduction would not be feasible because of cost and visual impact factors. The wall would be visually intrusive. Quality views of Buena Creek would be blocked for motorists, and views of residential units to the south of the wall could be blocked. Use of an earth berm for noise abatement would not be feasible because of topography and interference with the Buena Creek drainage.	Noise impacts would be significant and unavoidable. The proposed project would result in traffic noise level increases of 6 to 9 dBA, which are relatively large compared to noise increases at other project locations. The cause of these increases would be the construction of the Sycamore Avenue extension. The orientation of the homes in this Abelia Lane neighborhood would allow the construction of walls at individual yards facing Sycamore Avenue, and these walls would provide reasonable noise abatement.
21	2025 Abelia Lane, Station 16+50.	Single-family Residential	1		
22A	2020 Abelia Lane, Station 14+80.	Single-family Residential	1		
23	2012 Abelia Lane, Station 14+30.	Single-family Residential	1		
57A	2002 Abelia Lane, Station 13+50.	Single-family Residential	1		
58	2011 Abelia Lane, Station 14+06.	Single-family Residential	1		
59	2003 Abelia Lane, Station 13+50.	Single-family Residential	1		
26	2152 South Santa Fe Avenue, Station 62+85.	Multiple-family Residential	1 (0)		
27	2158 South Santa Fe Avenue, Station 63+50.	Multiple-family Residential	2 (8)	Yes, SW 26, on ROW atop retaining wall from station 62+85 to 64+06, 7 and 6 feet high would reduce noise levels by 3 dBA. The sound wall would be constructed of split-faced masonry blocks in earth-tone colors. To soften and camouflage the split-faced masonry walls, and to visually reduce their scale, vines would be planted in the landscape strip adjacent the walls. See further discussion in Section 2.7.	SW 26 would mitigate noise impacts at receptors 26, 27, and 28 to a less than significant level.
28	2170 South Santa Fe Avenue, Station 64+25.	Multiple-family Residential	1 (4)		
32	SW of South Santa Fe Avenue at 111 Palmyra, Station 66+00.	Multiple-family Residential	1 (4)		
33	SW of South Santa Fe Avenue at 125 Palmyra, Station 67+50.	Multiple-family Residential	1 (4)	Yes, SW 33, on the ROW on the west side of South Santa Fe, 6 feet high, would reduce noise levels by 9-10 dBA. The sound wall would be constructed of split-faced masonry blocks in earth-tone colors. To soften and camouflage the split-faced masonry walls, and to visually reduce their scale, vines would be planted in the landscape strip adjacent the walls. See further discussion in Section 2.7.	SW 33 would mitigate noise impacts at receptors 33 and 34A to a less than significant level.
34A	SW of South Santa Fe Avenue at 2212-24 Primrose, Station 68+30.	Multiple-family Residential	1 (4)		

⁽¹⁾ Receptors generally run from north to south. Receptor identification includes closest station number, as shown on the project drawings (Berryman & Henigar 2003; PDC 2001). Receptors are grouped where noise impacts and noise abatement parameters are similar.

⁽²⁾ Number in parentheses is the number of exposed apartment units.

- Receptor 32 - Mitigation of the noise impact would be feasible. A noise wall along the ROW on South Santa Fe Avenue was modeled. The wall would achieve 6 dBA noise reduction at Receptor 32. The wall would be approximately 97 feet long and would be placed on top of a proposed retaining wall; the height of the noise wall, excluding the retaining wall, would be 6 feet.
- Receptors 33 and 34A - Mitigation of the noise impact would be feasible. A 6-foot-high noise wall along the ROW on South Santa Fe Avenue was modeled. The wall would be approximately 97 feet long and would achieve 9 dBA noise reduction at Receptor 33 and 10 dBA noise reduction at Receptor 34A.

The locations of these noise walls described above are illustrated in Figure 1, Sheet 7 of the Supplemental Noise Impact Analysis (EDAW 2004).

- Receptor 2A - The construction of a sound wall to mitigate for noise impacts to the second story residence of this building would be detrimental to the commercial business on the first floor because it would block views of the business from South Santa Fe Avenue. Thus, this wall is considered infeasible.
- Receptors 16, 17, and 18 - A wall built on the ROW would reduce traffic noise, but could potentially increase existing and future noise from trains. Furthermore, the sound wall would restrict visibility for train operators and pedestrians resulting in potential safety hazards. In addition, the possibility of a private property sound wall was considered in this location. A wall along the property line would affect the useable area of the rear yards of approximately 7 mobile homes. The construction zone for this wall would require removal of all improvements located within the rear 6 feet of the lots and, because of rear yard setback requirements, private improvement such as patio covers would need to be removed or altered. Based on aerial photographs, some mobile home units or room additions may also exist within the construction zone. For these reasons, a private property sound wall is not considered feasible and is not being offered by the County in this location.
- Receptor 19A - A noise wall along the ROW on Sycamore Avenue was modeled. The wall would not significantly reduce noise (i.e., a 3 dBA reduction). Therefore, a wall in this location is not considered a feasible means of mitigation.

- Receptors 20, 21, 22A, 23, 57A, 58, and 59 - A noise wall 8 feet high and 700 feet long along the ROW on Sycamore Avenue was modeled. The wall would achieve a 3 dBA noise reduction at all seven receptors. However, this noise wall would be visually intrusive. Quality views of Buena Creek would be blocked for motorists, and views of residential units to the south of the wall could be blocked.

Mitigation Measure 2.3.b. Construction-period Noise Effects

The following measures will be implemented to reduce potential construction-related noise impacts:

- Noise walls will be constructed as the first order of work where topography allows and there are not engineering constraints.
- Residents and business owners will be notified in advance of planned work near their properties.
- Contractors will be required to have and maintain mufflers of original equipment grade or better on all engines. This will also apply to subcontractors with haul trucks.
- Traffic control devices (such as lighted signs) located within 500 feet of residences will be solar or battery powered; no internal combustion engines should be used for these devices.
- The location and layout of staging areas, and the conduct of operations within the staging areas will be controlled to prevent construction noise occurring Monday through Saturday, 7 a.m. to 7 p.m., measured at or within any developed and used residential property, in excess of 75 dB(A) for a period of 8 hours.

If nighttime and Sunday construction is required, in addition to the above measures, the contractor shall be required to take extra measures to minimize the noise impact on nearby residences. These measures should include the following elements. Many or all of these elements would be likely to become part of the conditions of the variance approved for the work.

- Where excessive noise levels are likely to occur, temporary abatement measures shall be planned to reduce noise to acceptable levels. The contractor shall execute work tasks to avoid noise impacts.

- Machinery shall be selected with noise control in mind. Noise levels often vary widely between manufacturers and models for similar types of equipment. Some machines are specifically designed for low noise emissions. All equipment shall be inspected to ensure good working order. “Hospital grade” mufflers shall be considered.
- Where work will be near residences at night or on Sundays, equipment shall be equipped with either ambient-sensitive or manually adjustable backup alarms that will be less noisy than standard alarms but still produce a noise greater than ambient as required for safety reasons.
- Placement of equipment shall be carefully considered. Orienting a truck such that its exhaust points away from a receptor can result in as much as 10 dB of noise reduction. Other equipment shall be shielded behind natural or human-made barriers as possible, or placed as far as possible from sensitive receptors.
- During construction temporary noise barriers shall be constructed where topography allows and there are no engineering constraints. Commercial scaffold-mounted curtains are available that are specifically designed for construction noise mitigation. Stacked bales of hay have also been successfully used as inexpensive barriers.
- If nighttime work is required, the contractor shall notify affected residents at least 1 week in advance of commencing such work.
- If nighttime work is required, it shall be limited to no more than 3 consecutive nights in any 1 week.

No other feasible mitigation measures are available for construction during the nighttime hours.

Mitigation Measure 2.3.c. Long-term Cumulative Noise Effects

The County will construct the noise walls listed in Mitigation Measure 2.3.a. to mitigate noise impacts at Receptors 26, 27, 28, 32, 33, and 34A.

Mitigation Measure 2.3.d. Construction-period Cumulative Noise Effects

Prior to the start of the project, the County will ascertain the schedules of other major construction projects in the area including, but not limited to the Buena Creek Rail Station and the NCTD Commuter Rail Service (the “Sprinter”). Work will be scheduled to avoid more than one project using diesel engine construction equipment, pavement breakers, or similar noisy equipment simultaneously, within 500 feet of a residence.

2.3.6 Conclusions

Impacts Mitigated to Less-than-Significant Levels

The following impacts would be reduced to less-than-significant levels with the implementation of the mitigation measures listed above:

- With implementation of the noise walls listed in Section 2.3.5 as Mitigation Measure 2.3.a., noise impacts at Receptors 26, 27, 28, 32, 33, and 34A would be reduced to a less-than-significant level. The mitigation listed for Impact 2.3.a would also mitigate for cumulative noise impacts at these receptors. The noise walls described in Mitigation Measure 2.3.a. were designed to mitigate impacts from the proposed project as well as the list of cumulative projects listed in Section 1.6.3 and regional growth forecast for the area.
- With implementation of the Mitigation Measure 2.3.b. items related to traffic control devices and staging areas, described in Section 2.3.5, the potential for significant noise impacts from traffic control devices and staging areas would be reduced below a level of significance.

Significant and Unavoidable Impacts

The following impacts would remain *significant and are considered unavoidable*:

- Noise impacts to Receptor 2A would be significant and unavoidable because noise the residence is located on the second floor, construction of a noise reduction barrier would not be feasible.
- Noise impacts to Receptors 16, 17, 18 would be significant and unavoidable because a noise wall located on the ROW would result in a safety hazard for train operators and pedestrians, and therefore would not be feasible.

- Noise impacts to Receptor 19A would be significant and unavoidable because construction of a high noise wall would result in an imperceptible noise reduction and therefore would not be feasible.
- Noise impacts to Receptors 20, 21, 22A, 23, 57A, 58, and 59 would be significant and unavoidable because construction of a ROW noise wall along Sycamore Avenue would be visually intrusive and would block views of the Buena Creek area south of the Sycamore Avenue extension. This area is located between the Sycamore Self Storage buildings and Abelia Lane and is the largest undeveloped, natural-looking area within the South Santa Fe Avenue project area. Although the proposed project would construct a drainage basin in this location, native landscaping will be provided with the project. This element of the project will retain some of the only open area in the largely urbanized South Santa Fe corridor and will continue to be an important visual focal point.

The County will contact the property owners at Receptors 20, 21, 22A, 23, 57A, 58, and 59 and offer to construct individual private property sound walls. The County will only agree to construct private property sound walls if the property owners agree to assume all future responsibility for maintenance. Because this measure does not require that property owners accept the offered mitigation, impacts at these receptors could continue to be significant.

- With implementation of Mitigation Measure 2.3.b, described in Section 2.3.5, the potential for significant noise impacts during nighttime construction, if necessary, would be greatly reduced. However, the exact location, type, and duration of nighttime construction are not known at this time. Night construction close to residential uses (e.g., in the vicinity of the intersection of South Santa Fe Avenue and Palmyra Drive) could interfere with normal sleep and would be considered disturbing. Thus, depending on the location of nighttime construction, it may not be possible to mitigate noise impacts to a less-than-significant level.
- At Receptors 19A, 20, 21, 22A, 23, 57A, 58, and 59, cumulative noise impacts occur because the project would create some increase in noise in addition to the noise level increases that would occur without the project. Feasible mitigation for these long-term noise impacts is not available.

These unavoidable adverse impacts would require a Statement of Overriding Considerations for the County to approve the project.

SUBCHAPTER 2.4 - HYDROLOGY AND WATER QUALITY

A Water Quality Report (County of San Diego 2003c) and a Hydraulic Analysis (Rick Engineering 2003b) were prepared for the project, and they serve as the basis for the hydraulic and water quality information contained in this subchapter. In addition, a Floodplain Evaluation Report (Rick Engineering 2003a) was prepared for the project and provides additional information to support the conclusions in this subchapter. The Floodplain Evaluation Report was developed to address Executive Order 11988–Floodplain Management and 23 CFR 650, which was required when federal funding was envisioned for the project.

2.4.1 Existing Conditions

Applicable Regulations and Plans

The federal Clean Water Act is the primary federal law that protects our nation’s waters. The two fundamental goals of the Act are to eliminate the discharge of pollutants into the nation’s waters and to achieve water quality levels that are fishable and swimmable.

In recent years, federal and state environmental regulations have been extended to include the control of pollutants under the NPDES permit process, which is administered in California by the SWRCB and the nine RWQCBs. The SWRCB has issued statewide general NPDES storm water permits for designated types of construction and industrial activities. The SWRCB also issued the Municipal NPDES Storm Water Permit, adopted February 21, 2001, that applies to the County of San Diego. The San Diego RWQCB also administers Section 401 of the Clean Water Act, which requires a permit for discharge of any pollutant to federally regulated waters.

Section 402 of the Clean Water Act established the NPDES to regulate the discharge of pollutants to point sources. The County is currently regulated by Order No. 2001-01, NPDES No. CAS0108758 (Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems [MS4s] Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County and the Unified Port District), adopted on February 21, 2001, by the SWRCB and administered by the San Diego RWQCB. The NPDES permit requires the County to implement an Urban Runoff Management Plan to ensure that pollutants discharged from

construction sites into storm drain systems owned and operated by the County are reduced to the maximum extent practicable by employing Best Available Technology/Best Control Technology (BAT/BCT) performance standards.

California provides complementary regulations to the federal Clean Water Act under the Porter-Cologne Water Quality Control Act of 1969, which requires the RWQCB to establish water quality objectives and adopt water quality control plans. In addition, California maintains a list of impaired waterbodies pursuant to Section 303 of the Clean Water Act (“303(d) list”). Currently, none of the surface waters located in or adjacent to the project area have been identified for inclusion in the 303(d) list. However, this proposed project is located upstream of various impaired water bodies. Table 2.4-1 shows the water bodies in proximity to the project and their constituent(s) of concern.

Table 2.4-1. Potential Constituents of Concern to 303(d) List Waterbodies

Hydrologic Unit	303(d) List Waterbody	Constituent(s) of Concern
904.2	Pacific Ocean, Buena Vista Hydrologic Area	High Coliform Count
904.21	Buena Vista Lagoon	High Coliform Count Sedimentation/Siltation
		Nutrients
904.31	Agua Hedionda Lagoon	High Coliform Count Sedimentation/Siltation

Note: Table 2.4-1 locations are downstream of proposed project location. The project would not directly discharge to any 303(d) list waterbody.

Source: County of San Diego 2003c.

General Hydraulic Setting

The project area is located within the Agua Hedionda Creek drainage, which is part of the San Luis Rey-Escondido watershed. The site is also within the Carlsbad hydrologic unit. The average annual rainfall for the watershed area is 13.2 inches and the projected runoff percentage is less than 1 percent. The project area constitutes less than 0.02 percent of the area within the watershed (14.29 acres out of 7,440 acres) (County of San Diego 2003c).

Table 2.4-2 identifies the hydrologic units within the project area. The existing and potential beneficial uses for these hydrologic areas are included in Table 2.4-3. These

tables have been extracted from the Water Quality Control Plan for the San Diego Basin. These uses must be protected as required by the San Diego Basin Plan and the NPDES permit issued pursuant to Section 402 of the Clean Water Act.

Table 2.4-2. Hydrologic Units in the Project Area

Hydrologic Unit	Hydrologic Area/ Hydrologic Subarea	Hydrologic Unit Basin Number
Carlsbad (904)	Buena Creek	904.20
Carlsbad (904)	Vista	904.22
Carlsbad (904)	Agua Hedionda	904.30
Carlsbad (904)	Buena	904.32

Source: County of San Diego DPW 2002.

Table 2.4-3. Beneficial Uses for Inland Surface Waters and Groundwater

Hydrologic Unit Basin Number	Municipal and Domestic Supply	Agricultural Supply	Industrial Services Supply	Industrial Process	Groundwater	Freshwater	Hydropower Generation	Contact Recreation	Noncontact Recreation	Biology	Warm, Freshwater Habitat	Cold, Freshwater Habitat	Wildlife Habitat	Rare, Threatened, and Endangered Species	Special Water
Inland Surface Waters															
904.22	+	*	*					*	*		*		*		
904.32	*	*	*					*	*		*		*		
Ground Waters															
904.22	*	*	*												
904.32	*	*	*												

* Existing Beneficial Use

+ Excepted from Municipal and Domestic Supply

Source: County of San Diego DPW 2002.

The proposed improvements on South Santa Fe Avenue would affect two major drainage courses, Buena Creek and Agua Hedionda Creek. Agua Hedionda Creek would be affected to a much lesser degree than Buena Creek. Agua Hedionda Creek flows in a westerly direction through the project area and crosses under South Santa Fe Avenue in a box culvert.

Buena Creek is a perennial stream with dry season flows created or augmented by irrigation and runoff flows from the surrounding developments. Upstream of the project area, the creek runs along the east side of Buena Creek Road, in a semirural setting of homes and small ranches. It is in a largely natural condition, although there are areas of bank protection, ponding, and some minor channel modifications. Within the study area, Buena Creek flows generally in a southwesterly direction and much of the channel is heavily overgrown with a mix of both native and nonnative species.

Project Area Floodplains

This section describes the floodplain in terms of the 100-year flood. The area within the 100-year floodplain is the flood elevation that has a 1 percent chance of being equaled or exceeded each year. The 100-year flood is the standard used by the National Flood Insurance Program, administered by the Federal Emergency Management Agency, as the standard for floodplain management and to determine the need for flood insurance. The 100-year floodplain for Buena Creek within the project study area is depicted in Figure 2.4-1. The small Buena Creek channel has a capacity of approximately 50 cfs, which is a small portion of the 3,500 cfs generated by the watershed in a 100-year flood. Both South Santa Fe Avenue and Robelini Drive presently cross Buena Creek and are within its 100-year floodplain. Existing drainage facilities at Buena Creek are inadequate for the existing 100-year flow. Structures located within the current Buena Creek 100-year floodplain are subject to flooding during less than 100-year storm events. Approximately 13 residences and one commercial use (an auto lubrication business) are located within the existing 100-year floodplain.

South Santa Fe Avenue crosses the 100-year floodplain of Agua Hedionda Creek just north of Smilax Road. Agua Hedionda Creek flows westerly under South Santa Fe Avenue in a 4-foot by 6-foot box culvert. The existing box has an incorrect alignment, is too short to accommodate the road widening, and is too small to accommodate the

existing 100-year flow. Structures are located within the Agua Hedionda Creek 100-year floodplain and are subject to flooding during less than 100-year storm events.

Existing Water Quality Conditions

Storm water runoff in the Buena Creek study area begins by entering a box culvert beneath South Santa Fe Avenue just east of Buena Creek Road. Once downstream of South Santa Fe Avenue, the storm water is contained within a small floodplain area that passes under Robelini Drive through two culverts and continues as a natural channel along the back property lines of residences along Robelini Drive and Sycamore Avenue. Immediately downstream of the residences, the creek channel runs past an auto lubrication business.

Downstream of the business, and outside of the project area, the creek channel widens out and continues through a landscaped park. Buena Creek exits the park in large culverts to pass under University Drive and emerges to a channelized stretch with concrete sides. It runs southwesterly for approximately 1.5 miles downstream of the project area before flowing into Agua Hedionda Creek.

South Santa Fe Avenue crosses Agua Hedionda Creek just north of Smilax Road. Agua Hedionda Creek flows westerly under South Santa Fe Avenue in a box culvert. Beyond the project area, Agua Hedionda Creek runs westerly to Agua Hedionda Lagoon, approximately 8 miles from the project area, and then to the ocean.

There are no water quality sampling data available for the existing site condition. However, the California Department of Transportation conducted sampling on a segment of SR 78 within proximity of this project. Although SR 78 has a higher traffic volume, there are similarities between the highway and this project such that the constituents would be similar. Some of the constituents that could originate from a roadway would include petroleum hydrocarbons, heavy metals, and rubber. With regard to Buena Creek, there are no monitoring data that can differentiate sediment from County roads versus runoff from developed and undeveloped private property within the watershed.

2.4.2 Guidelines for Determination of Significance

The CEQA Guidelines provide guidance regarding the significance of hydrology and water quality impacts in Appendix G, which contains a recommended environmental checklist form. Using this guidance, hydrology and water quality impacts would be considered significant if the project would:

- Create a condition that would result in increased flooding on- or off-site.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding.
- Violate any water quality standards or waste discharge requirements or substantially degrade water quality.

2.4.3 Analysis of Project Effects and Determination of Significant Impact

Project Area Flooding

The proposed project would improve the ability of Buena Creek and Agua Hedionda Creek to handle runoff from a 100-year flood. Existing conditions in these creeks cause recurring flooding that impacts existing properties. Therefore, the proposed project would have the beneficial effect of alleviating existing flooding conditions. This would include improvement to the existing culvert and flood channel for Agua Hedionda Creek at South Santa Fe Avenue, as well as improvements to Buena Creek. Construction of the proposed project may potentially cause temporary impacts to the ability of the floodplain to contain storm flows. However, the structures and uses within the floodplain would be acquired and removed in the area of the proposed drainage improvements. In summary, because the project would improve current flooding conditions, and would not increase hazards related to flooding, the project would ***not result in adverse significant impacts*** related to flooding either in the short term or the long term.

Short-term Construction-Related Water Quality Effects

The construction process would begin with demolition of structures within the ROW. Construction staging areas would be located on acquired properties adjacent to South Santa Fe Avenue. Construction activities would include demolition of the existing roadbed and removal of the pavement to an approved disposal site. Bulldozers and other

conventional earthmoving equipment would be used to establish the new road grade and to move excavated material to areas where fill is needed. Excavation for cut slopes is expected to be accomplished using conventional mechanical equipment, such as scrapers, without the need for blasting. In addition to standard road paving techniques, retaining walls would be constructed using wood or metal forms, steel reinforcement, and pumped concrete.

It is estimated that project construction would require 46 acres and 145,000 cubic yards of soil disturbance. Preservation of existing vegetation to the maximum extent feasible would be done during project construction to provide maximum erosion and sediment control benefits. The potential for erosion would exist.

In summary, construction of the proposed project would result in the potential runoff of sediment and other pollutants that could affect Agua Hedionda Creek and Buena Creek. This is considered a *potentially significant water quality impact*. **(Impact 2.4.a)**

Long-term Water Quality Effects

Ongoing use of the proposed four-lane road would continue to introduce petroleum hydrocarbons, heavy metals, rubber, and other vehicular pollution by-products to Agua Hedionda Creek and Buena Creek via runoff from the widened roadway. This increase in roadway runoff could result in degraded downstream water quality, thereby affecting riparian plants and resident and migrating animals, and making surface waters less suitable for human contact. In addition, contaminated runoff could degrade surface and subsurface water quality for downstream domestic, agriculture, and industrial uses.

The widening of South Santa Fe Avenue would increase the area of impermeable surfaces; however, the paved surface of South Santa Fe Avenue would contribute only a minor portion of the runoff occurring during 100-year floods (3,500 cfs). The project would have an effect on downstream channel stability through changes in the rate and volume of runoff; the sediment load due to changes in the land surface; and other hydraulic changes from stream encroachments, crossings, or realignment. Thus, the project has the potential to create *significant water quality impacts* after the construction of the drainage component of the project. **(Impact 2.4.b)**

2.4.4 Cumulative Impact Analysis

As discussed in more detail in Section 1.6.3, and summarized in Table 1-3, the following are the projects known to be planned, approved, or which were in construction during the preparation of this EIR:

- Hannalei Elementary School
- 7-11 Convenience Store and Gas Station
- East Sycamore Commercial Center (City of Vista)
- Buena Creek Rail Station
- North County Square Specific Plan (City of Vista)
- City of San Marcos Road Improvements
- NCTD Commuter Rail Service (the “Sprinter”)
- Thibodo Road Multi-family Apartments

As a result of the drainage improvements proposed by the South Santa Fe Avenue project, the floodplain limits would be contained within the channel and/or culverts and inundation of the properties between Buena Creek and Sycamore Avenue/Robelini Drive, portions of Sycamore Avenue/Robelini Drive, and portions of South Santa Fe Avenue would be alleviated. The drainage improvements were designed to accommodate a 100-year flow rate of 3,500 cfs for Buena Creek, which takes into account the anticipated future flow rates from existing and planned development in the watershed (Rick Engineering 2003b). In addition, the projects listed above would not change the 100-year flood flow rates. Furthermore, none of the projects listed above propose encroachments into the floodplain nor would they result in or enable floodplain development incompatible with natural and beneficial floodplain values. Thus, the proposed project and other projects in the area would not cause a significant cumulative impact to flooding. For these reasons, the proposed project would not contribute to an adverse cumulative flooding effect. Furthermore, the proposed project would provide the beneficial effects of improving flooding conditions for individual properties within the project area.

With implementation of the measures described in Section 2.4.5, the proposed project would have a positive impact on water quality in the area by providing permanent storm water collection improvements that include filtering systems and other types of water quality management BMPs. Thus, the project would help to minimize any effects from

existing and proposed development in the area, as well as from future growth in accordance with local land use planning documents. The proposed project and the surrounding projects and facilities are required to comply with the NPDES program, both during construction and with permanent water quality management BMPs. As a result of these runoff requirements applicable to all projects, no cumulative water quality impacts would occur.

2.4.5 Mitigation Measures and Environmental Design Considerations

In November 2002, the County adopted a Standard Urban Stormwater Mitigation Plan (SUSMP) pursuant to the Municipal NPDES Storm Water Permit issued by the SWRCB. The County SUSMP requires storm water BMPs for all projects, including the proposed South Santa Fe Avenue Reconstruction project. BMPs that will be considered for implementation during the construction phase of the proposed project include sediment control measures (e.g., organic polymer tackifier) and erosion control measures (e.g., gravel bags, fiber rolls, and silt fences) to prevent movement of bare soil from graded or stockpiled areas into the storm drain system; diversion of runoff away from bare soil areas; sediment tracking controls to minimize movement of soil from construction areas onto paved streets; scheduling of construction to avoid periods of rainfall; and preservation of existing vegetation to the maximum extent practicable. Waste management and materials handling BMPs are also implemented at construction sites, staging areas, and equipment maintenance and fueling areas to avoid movement of pollutants into the storm drain or surface water system. Each of these BMPs is considered technically and fiscally feasible, as well as constructable, maintainable, and effective at removing water quality pollutants to the maximum extent practicable.

Mitigation Measures 2.4.a and 2.4.b. Water Quality Effects

The following measures shall be implemented to ensure that potential water quality effects are reduced to a less-than-significant level.

1. The County shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that describes BMPs that would be employed before, during, and after construction to minimize erosion and runoff from construction activities. The SWPPP shall be submitted by the County to the RWQCB as part of a package to obtain an NPDES General Construction Storm Water Permit for storm

water discharges during general construction activity. Specific BMPs that shall be required for the SWPPP include:

- Site Design BMPs: Technology-based pollution prevention controls to meet the maximum extent practicable (MEP) requirements for designing and maintaining facilities
 - Maintenance BMPs: BMPs applicable to all maintenance operations (i.e., litter pickup, street sweeping, etc.)
 - Design Pollution Prevention BMPs: BMPs applicable to the design of new facilities or major renovations of existing facilities (e.g., permanent soil stabilization, ditch channel lining systems, etc.)
 - Construction BMPs: Controls to meet BCT/BAT requirements for construction projects
 - Structural BMPs: Treatment BMPs to meet MEP requirements
2. Construction BMPs shall be specified by the County on project plans and specifications and implemented at all construction areas and staging areas. BMPs shall be implemented to avoid potential contamination of the surface water quality in Buena Creek and Agua Hedionda Creek from spills or leaks of vehicle fuels and lubricants or other noxious chemicals. BMPs shall be implemented for the handling of hazardous materials to prevent spills. Construction staging and storage areas shall be provided away from Buena Creek and Agua Hedionda Creek and shall be shown on project plans. Measures to avoid runoff from each staging and storage area shall be specified on project plans. Petroleum products, concrete, asphalt or other coating materials, and other materials shall be prevented from entering surface waters.
3. Permanent BMPs shall be incorporated into project plans and specifications to reduce street drainage and storm water runoff velocities before entering, and within, Buena Creek, Agua Hedionda Creek, and other tributary drainages adjacent to the reconstructed roadways. This shall include BMPs or other comparable storm water controls and filtering systems.

2.4.6 Conclusions

With implementation of the mitigation measures listed in Section 2.4.5, hydrology and water quality impacts would be reduced to a less-than-significant level for the proposed project.

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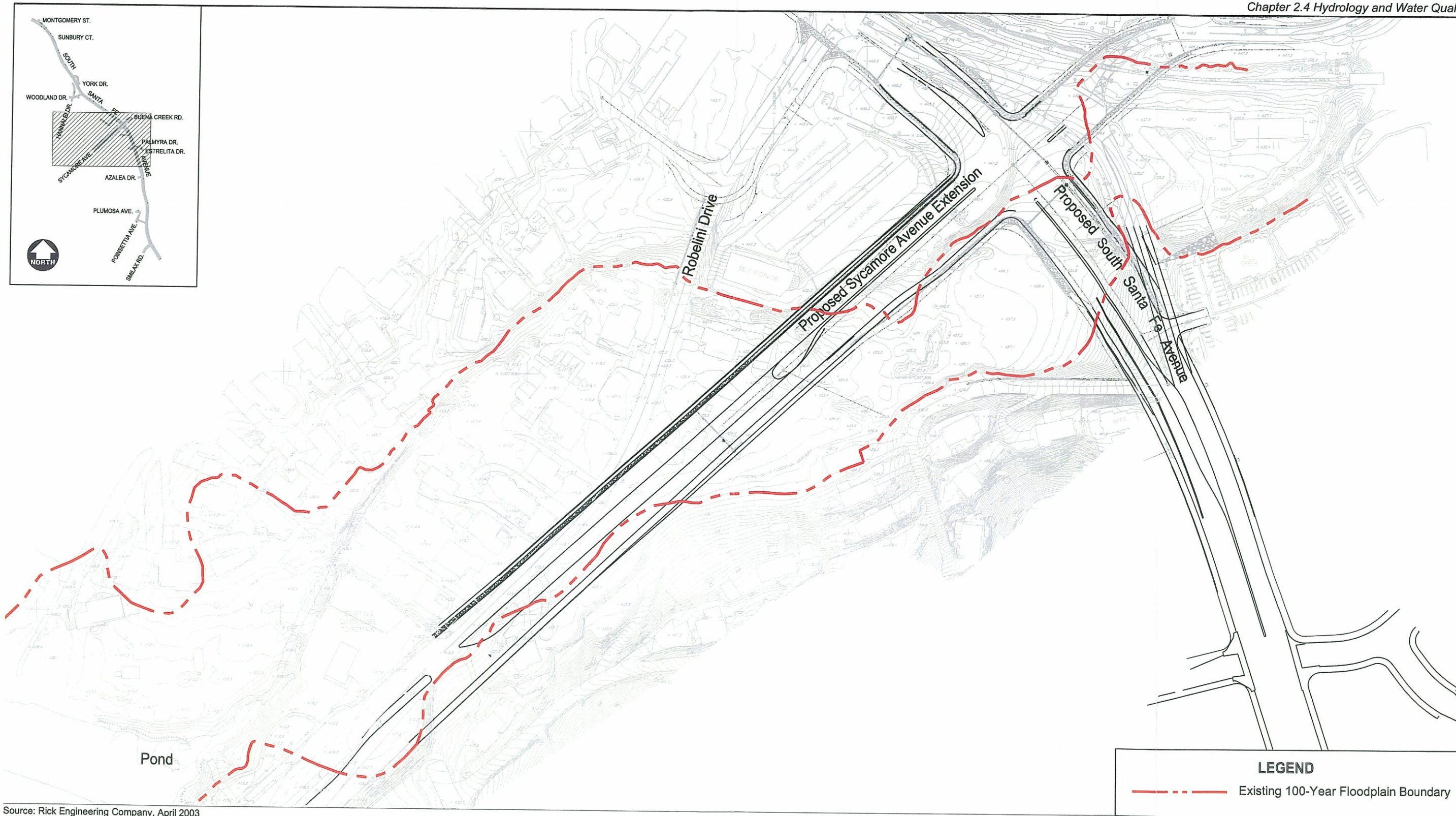


Figure 2.4-1
Buena Creek Existing 100-Year Floodplain

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SUBCHAPTER 2.5 - HAZARDOUS MATERIALS

In December 1999, the County prepared a Hazardous Materials Review for the South Santa Fe Avenue, North and South Segments (UJ1634) (County of San Diego DPW 1999). A Phase I Environmental Site Assessment (ESA) dated April 16, 2002, was also prepared. The ESA focused on hazardous materials and petroleum products. In May 2002, URS prepared an Additional Phase I ESA Services and Supplemental Summary (URS 2002a) to the April 2002 Phase I ESA (URS 2002b). On February 14, 2003, the County prepared an addendum to the 2002 Phase I ESA analyses to address the railroad crossing component of the proposed project (County of San Diego 2003b). This section summarizes the findings of these studies.

2.5.1 Existing Conditions

Sites from which road easements are to be acquired that are identified on the Historic Underground Storage Tank (UST) Registered Database along the proposed alignment are listed in Table 2.5-1. None of the sites listed in Table 2.5-1 have current open case files with the County DEH.

Table 2.5-1. Historic USTs within the Project Vicinity

No.	Address	Tank Size/Type	Storage	Comment
1	2458 South Santa Fe Avenue	Three 22,712-liter (6,000-gallon) USTs	Gasoline and diesel fuel	Installed in 1979. There were no reported releases from the USTs.
2	2625 South Santa Fe Avenue	Two 2,082-liter (550-gallon) USTs	Regular gasoline	There were no reported releases from the USTs. Date of installation is not known.
3	1516 South Santa Fe Avenue	Two 45,425-liter (12,000-gallon) USTs and one 22,712-liter (6,000-gallon) UST	Regular and unleaded gasoline	Installed in 1971 and a release occurred in 1991 that affected soil and groundwater. The case for this site is closed.
4	120 Hannalei Drive	3,785-liter (1,000-gallon) UST	Unleaded gasoline	There is no reported release from the UST.
5	2866 South Santa Fe Avenue	UST removed	Unleaded gasoline	Gourmet Liquor appeared on the list, but no information was provided in the database.

Source: URS 2002a,b.

In addition, two sites where roadway easements would be acquired, 2253 South Santa Fe Avenue and 2709 South Santa Fe Avenue, historically were used as gas stations. Both sites ceased operation in the 1950s before regulatory tracking of such facilities began.

Asbestos, a known human carcinogen, is found in older homes and buildings in insulation, furnace and pipe coverings, floor coverings, and ceiling coatings. Businesses and residences located on properties identified for “full or partial acquisition” for proposed ROW acquisition could include regulated asbestos-containing materials. In addition, lead-based paint is often on interior and exterior walls and fences of older buildings and polychlorinated biphenyls (PCBs) can be found in light ballasts.

2.5.2 Guidelines for Determination of Significance

The CEQA Guidelines provide guidance regarding the significance of hazardous materials impacts in Appendix G, which contains a recommended environmental checklist form.

Hazardous materials impacts would be considered significant if the project would:

- Result in the exposure of people and environmental resources to adverse levels of contamination (CEQA Guidelines, Appendix G).
- Create a significant hazard to the environment through the use or disposal of hazardous materials (CEQA Guidelines, Appendix G).

2.5.3 Analysis of Project Effects and Determination of Significant Impact

The public and construction workers could be exposed to increased health risks resulting from the release of hazardous materials from the disruption of existing contamination. This potential exists at the five sites that contain USTs. Two additional properties (2253 and 2709 South Santa Fe Avenue) were reported to have been gasoline service stations that ceased operation in the 1950s, prior to regulatory oversight and tracking of such facilities. UST systems may still remain at these two properties, and potential impacts are unlikely to have been addressed. The proposed ROW acquisition for all of the above sites is easement acquisition. The potential for release of hazardous materials from the identified hazardous materials sites is considered a *potentially significant impact*. **(Impact 2.5.a)**

Construction of the proposed project may result in the runoff of roadway pollutants containing hazardous materials, such as oil and petroleum products, and waste from construction vehicles that would affect Agua Hedionda Creek and Buena Creek. Preservation of existing vegetation to the maximum extent feasible would be done during project construction to provide runoff control benefits to the maximum extent feasible. The potential for roadway runoff would be avoided by an effective combination of runoff control BMPs. BMPs would be implemented to address both storm water and non-storm water discharges during construction. The temporary control practices would be consistent with the BMPs and control practices required under the State of California NPDES General Permit for Storm Water Discharges Associated with Construction Activity and would be intended to achieve compliance with the requirements of the Permit. The selected BMPs would be directed at reducing pollutants in storm water discharges and eliminating non-storm water discharges. With implementation of these requirements, the potential for the release of hazardous materials during project construction is considered *less than significant*.

The proposed project includes the demolition of businesses and residences. Emission of asbestos could result from demolition of these businesses and residences, which may contain regulated asbestos-containing material. To avoid an adverse impact, demolition and removal of the materials would be done with the appropriate controls as provided in San Diego APCD Rule 361.145 and in coordination with the County DEH. With implementation of these requirements, the potential for the release of asbestos emissions at harmful levels is considered *less than significant*.

Lead-based paint is often on interior and exterior walls and fences of older buildings and PCBs can be found in light ballasts. County acquisition procedures include surveys for lead-based paint and PCB-containing light ballasts by the County DEH. If these materials are found, they are handled and, if necessary, remediated according the County DEH and all other applicable regulatory requirements. With implementation of these requirements, the potential for the release of PCBs and lead-based paint at harmful levels is considered *less than significant*.

Any discovery of release of pollutants would be treated in accordance with all federal, state, and local laws, which are designed to protect public health. These laws are commonly applied to projects similar to the South Santa Fe Avenue improvement project, with no adverse impacts to public health and safety. With implementation of these

requirements, the potential for unknown releases of pollutants is considered *less than significant*.

2.5.4 Cumulative Impact Analysis

As discussed in more detail in Section 1.6.3, and summarized in Table 1-3, the following are the projects known to be planned, approved, or which were in construction during the preparation of this EIR:

- Hannalei Elementary School
- 7-11 Convenience Store and Gas Station
- East Sycamore Commercial Center (City of Vista)
- Buena Creek Rail Station
- North County Square Specific Plan (City of Vista)
- City of San Marcos Road Improvements
- NCTD Commuter Rail Service (the “Sprinter”)
- Thibodo Road Multi-family Apartments

In addition to the projects listed above, there are many vacant pieces of land that are located in or adjacent to the project area, which could be developed concurrent with the proposed project. None of these projects or properties are known to have significant hazardous materials concerns that have not or cannot be addressed. In addition, there are no known hazardous materials sites on the above properties that are not addressed in the hazardous materials assessments that have been completed for the South Santa Fe Avenue project (URS 2002a, 2002b; County 2003b).

A records search of governmental databases related to hazardous materials has been conducted that revealed no National Priorities List Sites or the State of California Equivalents within 1 mile of the project alignment. Because almost all of the properties that have USTs, generate hazardous wastes, or handle hazardous materials are commercial or industrial businesses located along South Santa Fe Avenue, there is a low potential for cumulative impacts from hazardous waste outside of this data search area. Most of the surrounding areas are zoned and used for residences. The North County Square Specific Plan is a fairly recent development of primarily retail and office uses and would not be expected to pose substantial risk of hazardous materials impacts. Furthermore, as development projects are proposed, hazardous materials concerns are

required to be remediated according to County requirements under the supervision of DEH. Therefore, the potential for cumulative impacts with regard to hazardous waste is considered extremely low.

2.5.5 Mitigation Measures and Environmental Design Considerations

Mitigation Measure 2.5.a. Known Hazardous Substance Sites

The County of San Diego will be responsible for the remediation of hazardous substances or wastes encountered during ROW acquisition and construction.

1. A Business Closure Plan will be developed for the businesses that have the potential for contamination from hazardous materials and/or petroleum products. The Business Closure Plan provides a method by which businesses that involve potentially hazardous materials may be moved or closed in compliance with County DEH regulations.
2. Additional work during the ROW acquisition process will be conducted by the County under the supervision of the DEH, Site Assessment and Mitigation Division to assess the need for additional evaluation of specific sites within the project vicinity. The additional investigation would clarify the extent of potential contamination and the level of any remediation required. Mitigation work plans, if required, will be developed in accordance with applicable regulatory requirements.
3. A worker health and safety plan and a public health and safety plan will be prepared to address construction-related health and safety impacts in areas of known or suspected contamination. These plans will be prepared in accordance with all applicable regulatory requirements. Appropriate controls as provided in San Diego APCD Rule 361.145 will be instituted during demolition and removal of the asbestos-containing materials.
4. During construction and excavation, should any stained soil, unknown materials, or pungent odors be encountered, construction activities will cease and the County of San Diego Department of Health Services will be notified immediately.

2.5.6 Conclusions

With implementation of the mitigation measures listed in Section 2.5.5, hazardous materials impacts would be reduced to a less-than-significant level for the proposed project.

SUBCHAPTER 2.6 - BIOLOGICAL RESOURCES

The following discussion is based on the Biological Technical Report for the South Santa Fe Avenue Widening Project (EDAW 2003b), which provides an analysis of the effects of the proposed project on biological resources (Appendix D). The Wetland Delineation and Impact Analysis Report (EDAW 2002) also provides the basis for the jurisdictional wetland information contained in this subchapter (Appendix E).

In addition to CEQA, the project is subject to review under other state and federal environmental protection regulations such as the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) and Migratory Bird Treaty Act (16 U.S.C. 703-711); and California Endangered Species Act (Fish and Game Code 2050 et seq.), and Native Plant Protection Act (Fish and Game Code 1900-1913). In compliance with these regulations, the project consultant conducted general biological surveys; USFWS protocol surveys for arroyo toad (*Bufo californicus*), least Bell's vireo (*Vireo belli pusillus*), and southern willow flycatcher (*Empidonax traillii*); and focused surveys for rare plants during spring and summer 2002.

2.6.1 Existing Conditions

Vegetation Communities and Habitats

Vegetation communities in the project area are shown on Figures 2.6-1 and 2.6-2. Nonnative grassland, nonnative woodland, urban developed/ornamental areas, and disturbed habitat are located along the northern and southern segments of South Santa Fe Avenue. The following vegetation types are located within Buena Creek: southern sycamore willow woodland, southern coast live oak riparian forest, southern willow scrub, mulefat scrub, disturbed wetlands, arundo scrub, nonnative woodland, nonnative grassland, and disturbed habitat. Of these vegetation communities, only mulefat scrub, nonnative grassland, and disturbed habitat are located within Agua Hedionda Creek.

Wildlife

Wildlife surveys were conducted in spring and summer 2002. The majority of the wildlife species that have been observed within the project area are urban-adapted species. Mammals that have been observed or detected include California ground

squirrel (*Spermophilus beecheyi*), cottontail (*Sylvilagus* sp.), and skunk (*Mephitis mephitis*). Bird species associated with the riparian habitat of Buena Creek include house finch (*Carpodacus mexicanus*), mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), lesser goldfinch (*Carduelis psaltria*), common yellowthroat (*Geothlypis trichas*), and song sparrow (*Melospiza melodia*). Two other bird species, the green heron (*Butorides striatus*) and American goldfinch (*Carduelis tristis*), have been observed flying over the project area.

Several western fence lizards (*Sceloporus occidentalis*) were observed on the rocks and litter along the edge of Buena Creek. A crayfish population (*Astacus fluviatilis*) was observed in Buena Creek within the project area. Four individual fish appearing to be either bass or panfish were observed in Buena Creek along with at least three species of unidentified macroinvertebrates.

Due to the primarily disturbed nature of Agua Hedionda Creek, few wildlife species were observed or are expected to occur in this portion of the project area (EDAW 2003b).

Sensitive Biological Resources

Upland Habitats

Sensitive upland habitats are those that are considered rare within the region and are considered sensitive by the County (1997) or CDFG or that support sensitive plants or animals.

Nonnative grasslands are considered sensitive by the County (1997) because they provide important foraging habitat for raptors and may support other sensitive wildlife and plant species. Nonnative grassland is found on-site directly north of Buena Creek where it crosses South Santa Fe Avenue at two locations along Agua Hedionda Creek and along the south side of South Santa Fe Avenue in the southern portion of the project area.

Wetland and Riparian Habitats

Wetland and riparian communities generally are considered sensitive due to their rarity, decline due to urban development, and the number of sensitive species dependent upon

them. Sensitive wetland and riparian habitats are those that are considered rare within the region and are considered sensitive by the County (1997) or CDFG or support sensitive plants or animals. Activities within wetlands, most open water bodies, and ephemeral or perennial streams are regulated by the CDFG and ACOE. Wetlands and nonwetland “waters of the U.S.” are covered under the jurisdiction of the ACOE’s Section 404 permit process if those areas connect to navigable waters as defined by the ACOE. The Clean Water Act permit provisions regulating dredge and fill operations are enforced by the ACOE and USEPA, often with technical input from the USFWS. Wetlands are also specifically addressed by CDFG Code Sections 1600-1606 (Streambed Alteration Agreement).

The proposed improvements on South Santa Fe Avenue would affect two drainage courses, Buena Creek and Agua Hedionda Creek. Both drainages are within the Agua Hedionda Creek drainage area, which is part of the San Luis Rey-Escondido watershed (USGS Cataloging Unit: 18070303). There are no isolated waters within the project area.

Wetland and riparian habitats in the project area that are considered sensitive by the County include the following: southern willow scrub, southern sycamore willow woodland, mulefat scrub, arundo scrub, and disturbed wetland. All of these habitat types are found in the Buena Creek drainage. Of these wetland and riparian communities, only mulefat scrub is located within Agua Hedionda Creek.

Wetlands were assessed according to the annotated version of the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987). The amount of ACOE and CDFG jurisdiction within the project study area is summarized in Table 2.6-1. The area within the jurisdiction of the RWQCB is considered to be the same as the area within the jurisdiction of ACOE. The mapped results of the delineations and jurisdictional determinations are displayed in Figures 2.6-3 and 2.6-4.

Table 2.6-1. Extent of ACOE and CDFG Jurisdiction within the Project Study Area

Jurisdiction	Buena Creek	Agua Hedionda Creek	Total
ACOE	0.88	0.05	0.93
CDFG	3.05	0.27	3.32

Note: All measurements in acres. The jurisdictions of the ACOE and CDFG overlap.

Sensitive Plants

Sensitive plant species are those that are federally listed by USFWS (1999), are state listed by CDFG (2004a), or occur on the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (2001). Sensitive plants have not been detected in previous surveys (KEA Environmental, Inc. 1997; Affinis 2000), or during spring 2002 field visits conducted within the project area.

Sensitive Animals

Sensitive animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS (1999) and CDFG (2004b); and/or considered sensitive by the CDFG (2004c), Tate and Tate (1986), Everett (1979), and the San Diego Herpetological Society (SDHS 1980).

The sensitive species detected in previous surveys or during focused spring/summer 2002 protocol surveys conducted within the project area include Costa's hummingbird (*Calypte costae*), olive-sided flycatcher (*Contopus cooperi*), Pacific slope flycatcher (*Empidonax difficilis*), hermit warbler (*Dendroica occidentalis*), yellow warbler (*Dendroica petechia brewsteri*) and yellow-breasted chat (*Icteria virens*) (KEA Environmental, Inc. 1997; Affinis 2000; EDAW 2002). No threatened and endangered species were identified in the biological surveys.

2.6.2 Guidelines for Determination of Significance

The CEQA Guidelines provide guidance regarding the significance of biological resource impacts in Appendix G, which contains a recommended environmental checklist form.

Biological resource impacts would be considered significant if the project would:

- Result in a substantial adverse effect, either directly or through habitat modification, 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 (CEQA Guidelines, Appendix G).

- Result in 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 (CEQA Guidelines, Appendix G).
- Result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means (CEQA Guidelines, Appendix G).
- 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 (CEQA Guidelines, Appendix G).

2.6.3 Analysis of Project Effects and Determination of Significant Impact

Permanent biological impacts are defined as all impacts that result in the irreversible removal of biological resources. These permanent impacts are the result of the construction of the proposed project and the drainage improvements associated with Buena and Agua Hedionda creeks.

Temporary impacts are those impacts that have reversible effects on biological resources. For the purpose of this project, if preconstruction contours are maintained and the area can be revegetated in place, then the impact is considered temporary.

Total permanent and temporary impacts to vegetation and habitat types as a result of the proposed project are presented in Table 2.6-2. Of these impacts, impacts to nonnative grasslands and wetland and riparian habitats would be considered potentially significant, as described in more detail in the following sections.

Direct Effects to Upland Habitats

Nonnative grasslands are considered sensitive by the County because they provide important foraging habitat for raptors and may support other sensitive wildlife and plant species (County of San Diego 1997). As summarized in Table 2.6-2, permanent impacts to nonnative grasslands resulting from implementation of the proposed project would be 8.30 acres. These effects to nonnative grasslands would be considered *significant direct impacts*. **(Impact 2.6.a)**

Direct Effects to Wetlands and Riparian Habitats

Potential impacts to wetlands and riparian habitats include impacts to the following communities: southern willow scrub, southern sycamore willow woodland, mulefat scrub, arundo scrub, and disturbed wetlands. These impacts to wetland and riparian habitat types as a result of the proposed project are summarized in Table 2.6-2.

Permanent impacts to wetlands with ACOE or CDFG jurisdiction were defined as any placement of fill resulting in an elevation change or creation of an impervious surface within these agencies jurisdictions to construction of the proposed project. A temporary impact was defined as an impact where the preconstruction contours would be reestablished and the impact area would be revegetated in place. Table 2.6-3 lists the jurisdictional wetland impacts for the proposed project.

Direct effects to wetland and riparian habitats, including those areas under the jurisdictions of ACOE and CDFG, would be *significant impacts*. **(Impact 2.6.b)**

Indirect Effects to Vegetation Communities

Potential sources for indirect impacts to the vegetation communities and plant species known to occur adjacent to the project area include trampling of vegetation outside of the limits of grading by workers and vehicles during construction, erosion into off-site areas, and impacts related to storage and access areas. These impacts would be short term but are considered *potentially significant indirect impacts*. **(Impact 2.6.c)**

Direct and Indirect Effects to Sensitive Animals

Federally and/or state listed endangered or threatened species were not detected within the project area in previous surveys or during focused protocol surveys (KEA Environmental, Inc. 1997; Affinis 2000; EDAW 2003b). Sensitive species (federal species of concern and/or California Special Concern species) found within the project area include Costa's hummingbird, olive-sided flycatcher, Pacific-slope flycatcher, yellow warbler, hermit warbler, and yellow-breasted chat. Although these species are not threatened or endangered, they are considered rare and are afforded consideration under CEQA.

**Table 2.6-2
Impacts to Vegetation Communities and Habitat Types within the
South Santa Fe Avenue Reconstruction Project Area (in acres)**

Impact	Vegetation Communities and Habitat Types								
	Nonnative Grassland	Nonnative Woodland	Disturbed Habitat	Ornamental	Southern Sycamore Willow Woodland	Mulefat Scrub	Arundo Scrub	Southern Willow Scrub	Disturbed Wetlands
Permanent	8.30	0.58	0.30	0.37	0.28	0.03	0.33	0.24	0.06
Temporary	0	0	0	0	0	0	0	0.27	0

Table 2.6-3. Permanent and Temporary Impacts to Jurisdictional Waters

Impacts	Buena Creek Drainage	Agua Hedionda Creek
Impacts to ACOE Jurisdictional Waters¹		
Permanent	0.37	0.05
Temporary	0.07	0.003
TOTAL	0.44	0.053
Impacts to CDFG Jurisdictional Streambed¹		
Permanent	1.52	0.19
Temporary	0.30	0.03
TOTAL	1.82	0.22

¹ All measurements in acres. The jurisdictions of the ACOE and CDFG overlap.

Potential indirect impacts to these sensitive species within and adjacent to the proposed project area could arise from increased light and elevated noise levels from construction. Because the project area is surrounded by urban and developed land, indirect impacts that could result from increased noise or light from construction activities or future use of the site are not expected to significantly adversely affect wildlife. However, direct impacts to these species could occur from the proposed project through loss of foraging and potential nesting habitat. These potential direct impacts are considered *potentially significant* but could be mitigated through the provision of habitat-based mitigation. **(Impact 2.6.d)**

2.6.4 Cumulative Impact Analysis

Implementation of the proposed project would impact various amounts of riparian and wetland habitats. Of the other cumulative projects listed in Table 1-3, only the proposed NCTD commuter rail line and rail station would be expected to have direct impacts to wetlands. Implementation of compensatory mitigation at a minimum 1:1 basis for permanent impacts would be required pursuant to ACOE and CDFG requirements for other projects in the area. In addition, the creation of wetlands at a 1:1 ratio will fulfill the “no net loss” of wetlands policy of ACOE. With implementation of the measures specified in Section 2.6.5, the proposed South Santa Fe Avenue project would provide wetland habitat creation and restoration within the existing highly degraded streambeds of Buena Creek and Agua Hedionda Creek. It would also improve local water quality through implementation of storm water controls and filtering systems as part of the proposed project. Because these systems do not presently exist in the area, the project would have a beneficial effect on cumulative wetland impacts.

Focused surveys for threatened and endangered species were conducted in summer 2002 and no such species were found in the area. These surveys will be updated in spring 2004. Thus, the project would not contribute to cumulative impacts to threatened and endangered species. Effects to federal species of concern and/or California Special Concern species found within the project area would be compensated through the provision of habitat-based mitigation.

In summary, with implementation of the measures outlined in Section 2.6.5, the proposed project would not result in a contribution to a significant cumulative effect. Avoidance of project impacts and mitigation in accordance with County policy would ensure that

cumulative impacts to biological resources are avoided or reduced to a less-than-significant level.

2.6.5 Mitigation Measures and Environmental Design Considerations

Mitigation Measure 2.6.a. Direct Effects to Upland Habitats

Nonnative grasslands are considered sensitive by the County because they provide important foraging habitat for raptors and may support other sensitive wildlife and plant species. Mitigation for upland habitats will be provided according to the ratios provided in Table 2.6-4. The impact of 8.30 acres of nonnative grassland will be mitigated at a ratio of 0.5:1 in accordance with County policy. Mitigation would be fulfilled by either the purchase of credits within an approved mitigation bank or the purchase of suitable habitat and its placement within a dedicated open space easement.

Table 2.6-4. Mitigation Requirements for Nonnative Grassland (in acres)

Mitigation Ratio	Impact	Mitigation
0.5:1	8.30	4.15

Mitigation Measure 2.6.b. Direct Effects to Wetland and Riparian Habitats

Mitigation for impacts to southern willow scrub, southern sycamore willow woodland, mulefat scrub, arundo scrub, and disturbed wetlands shall be provided to achieve, at a minimum, no net loss of wetlands through habitat creation or restoration, for Buena Creek and Agua Hedionda Creek. County policy requires that all wetland impacts be mitigated at a 3:1 ratio. This requirement includes a component of 1:1 creation and 2:1 restoration/enhancement. The mitigation ratios and requirements that will be required using this guidance are presented in Table 2.6-5.

Table 2.6-5. Mitigation Requirements for Impacts to Wetland and Riparian Habitats (in acres)

Vegetation Communities/Habitat Type	Mitigation Ratio	Impact	Mitigation
Southern Sycamore Willow Woodland	3:1	0.28	0.84
Mulefat Scrub	3:1	0.03	0.09
Arundo Scrub ^{1,2}	3:1	0.52	1.56
Southern Willow Scrub	3:1	0.24	0.72
Disturbed Southern Willow Scrub	3:1	0.30	0.90
Disturbed Wetlands ^{1,2}	3:1	0.06	0.18

¹ Dominated by nonnative vegetation.

² Will be mitigated out-of-kind with native riparian habitat.

There are locations along Buena Creek and Agua Hedionda Creek suitable for wetland creation and restoration/enhancement. The provided mitigation shall address the regulatory requirements of ACOE and CDFG, pursuant to the Wetland Delineation and Impact Analysis Report (EDAW 2002). Compensatory mitigation ratios and the mitigation site selected must be reviewed and approved by the resource agencies before being considered final. The mitigation ratios based upon County policy would fulfill the ACOE and CDFG regulatory requirements. Compensatory mitigation for permanent and temporary impacts to wetlands may be accomplished by a combination of mitigation strategies that includes restoration, creation, enhancement, and/or preservation. The impacts, likely mitigation ratios, and acres of mitigation needed for the proposed project are summarized in Tables 2.6-6 and 2.6-7. These tables are informational only because the impacts and mitigation are included in Table 2.6-5.

Table 2.6-6. Proposed ACOE Mitigation (in acres)^{1,4,5}

Includes Agua Hedionda Creek	Habitat Types and Mitigation Ratios						Totals	
	Southern willow scrub 3:1		Disturbed wetland ^{2,3} 1:1		Nonwetland waters 1:1			
	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation
	0.04	0.12	0.15	0.15	0.23	0.23	0.42	0.50

¹ All measurements are in acres.

² Dominated by nonnative vegetation.

³ Mitigation out of kind.

⁴ Small discrepancies due to rounding errors.

⁵ Mitigation acreages included in CDFG mitigation.

Table 2.6-7. Proposed CDFG Mitigation (in acres)^{1,5}

Includes Agua Hedionda Creek	Habitat Types and Mitigation Ratios													
	Southern Sycamore willow woodland (disturbed) 3:1		Southern willow scrub 3:1		Southern willow scrub (disturbed) 3:1		Mulefat scrub 3:1		Disturbed wetland ^{2,4} 3:1		Arundo Scrub ^{3,4} 3:1		Totals	
	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation	Impact	Mitigation
	0.28	0.84	0.24	0.72	0.30	0.90	0.03	0.09	0.06	0.18	0.52	1.56	1.43	4.29

¹ All measurements are in acres.
² Dominated by nonnative vegetation.
³ Mitigation out of kind.
⁴ Small discrepancies due to rounding errors.
⁵ Mitigation acreages included in CDFG mitigation.

Mitigation Measure 2.6.c. Indirect Effects to Vegetation Communities

The following resource protection measures shall be implemented by the County to ensure that impacts to sensitive resources do not occur beyond those anticipated in this environmental analysis.

1. Prior to commencement of construction, the limits of each phase of project construction shall be clearly delineated by a survey crew. The limits shall be checked by the biological monitor before initiation of clearing or construction. The project biologist shall submit a letter to the County indicating that the limits of construction have been checked and work can commence.
2. Activities, including staging areas, equipment access, and disposal or temporary placement of excess fill, shall be prohibited within drainages outside of the identified project area.
3. Erosion and siltation into off-site areas during construction will be minimized. The contractor shall prepare an erosion control plan for approval by the County. The contract supervisor shall be responsible for ensuring that the erosion control plan is developed and implemented.
4. Construction access shall utilize existing developed areas or be within the ROW of proposed road and drainage improvements. If new or temporary access routes not within the project identified in this EIR are determined to be necessary, these areas shall be surveyed for biological resources prior to their use. Contractors shall clearly mark all access routes (i.e., flagged and/or staked) prior to the onset of construction.

5. Storage of soil or fill material from the project site shall be in developed areas. Contractors shall delineate stockpile areas on the grading plans for review by the County.
6. To avoid sensitive habitats, construction staging areas, equipment refueling areas, and other areas for equipment and materials storage shall be located on existing developed properties. To avoid inadvertent impacts to sensitive biological resources that may be present, storage and access areas shall be displayed on the approved project plans and specifications.

Mitigation Measure 2.6.d. Direct Effects to Sensitive Animals

Sensitive species (federal species of concern and/or California Special Concern species) found within the project area during the focused surveys include Costa's hummingbird, olive-sided flycatcher, Pacific-slope flycatcher, yellow warbler, hermit warbler, and yellow-breasted chat. These species could be impacted by the proposed project through loss of foraging and potential nesting habitat. Impacts to these species will be mitigated through provision of habitat-based mitigation, as required under Mitigation Measures 2.6.a and 2.6.b. In addition, brush removal shall not occur during the breeding season (March 15 to September 15).

No raptor nests were observed within the project area during biological surveys; however, they could become present. The County will conduct raptor nest surveys prior to tree cutting or grading near mature trees to ensure that active nests are not present. A qualified biologist shall conduct the surveys and prepare a survey report. If no raptor nests are discovered in the trees to be removed, no further mitigation is required. If any active raptor nests are discovered, the biologist shall mark all occupied trees and delineate a 300-foot buffer area around each occupied tree. No construction activity shall occur within the 300-foot buffer until the young have fledged, as determined by a qualified biologist.

2.6.6 Conclusions

With implementation of the mitigation measures listed in Section 2.6.5, biological resource impacts would be reduced to a less-than-significant level for the proposed project.



Source: AirPhotoUSA(2001)

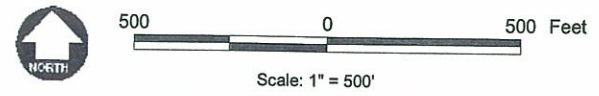
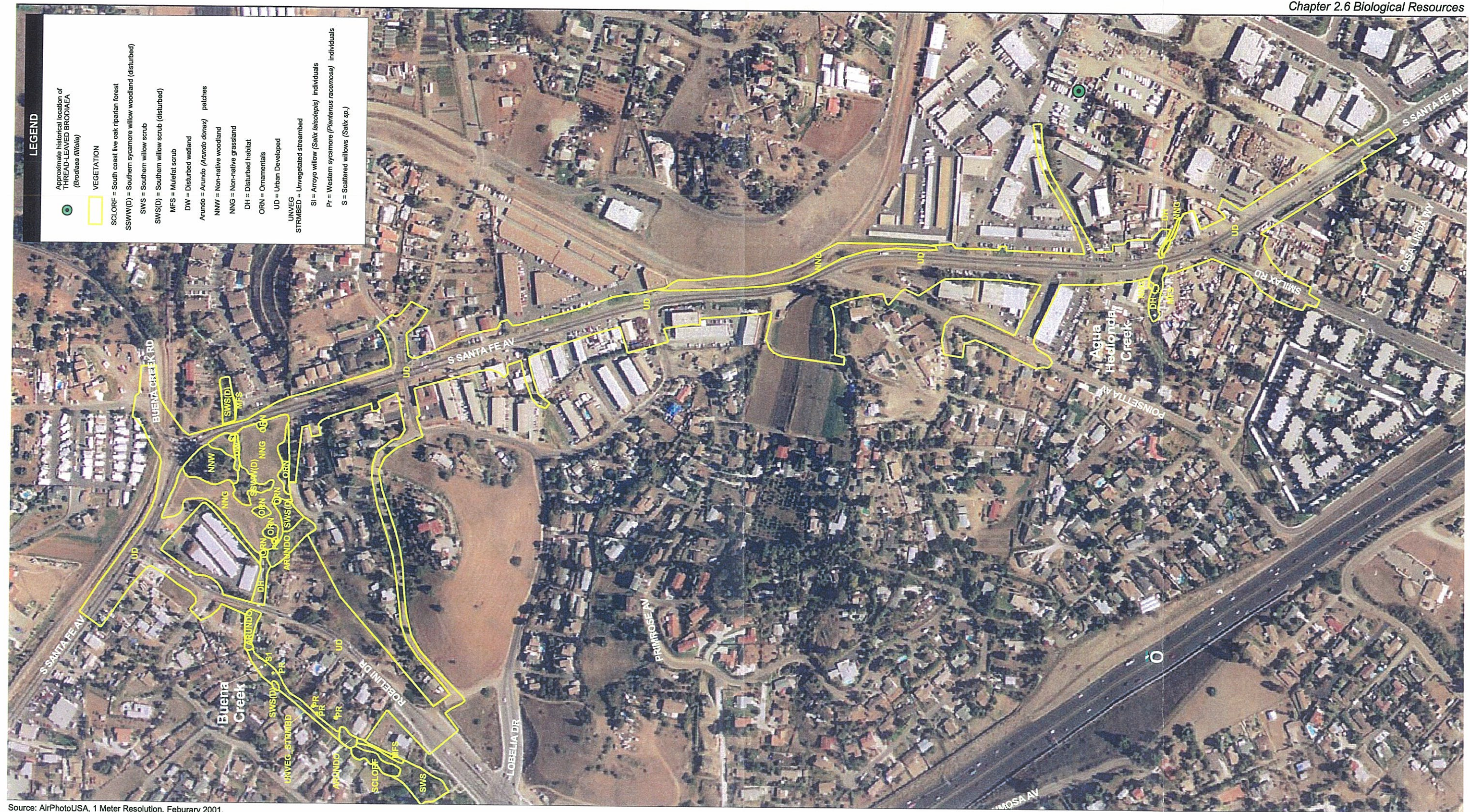


Figure 2.6-1
Northern Portion
Biological Resources

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LEGEND

Approximate historical location of
THREAD-LEAVED BRODIAEA
(*Brodiaea filifolia*)

VEGETATION

SCLORF = South coast live oak riparian forest
 SSWW(D) = Southern sycamore willow woodland (disturbed)
 SWS = Southern willow scrub
 SWS(D) = Southern willow scrub (disturbed)
 MFS = Mulefat scrub
 DW = Disturbed wetland
 Arundo = Arundo (*Arundo donax*) patches
 NNW = Non-native woodland
 NNG = Non-native grassland
 DH = Disturbed habitat
 ORN = Ornamentals
 UD = Urban Developed
 UNVEG = Unvegetated streambed
 STRMBED = Unvegetated streambed
 SI = Arroyo willow (*Salix lasiolepis*) individuals
 PR = Western sycamore (*Plantanus racemosa*) individuals
 S = Scattered willows (*Salix* sp.)

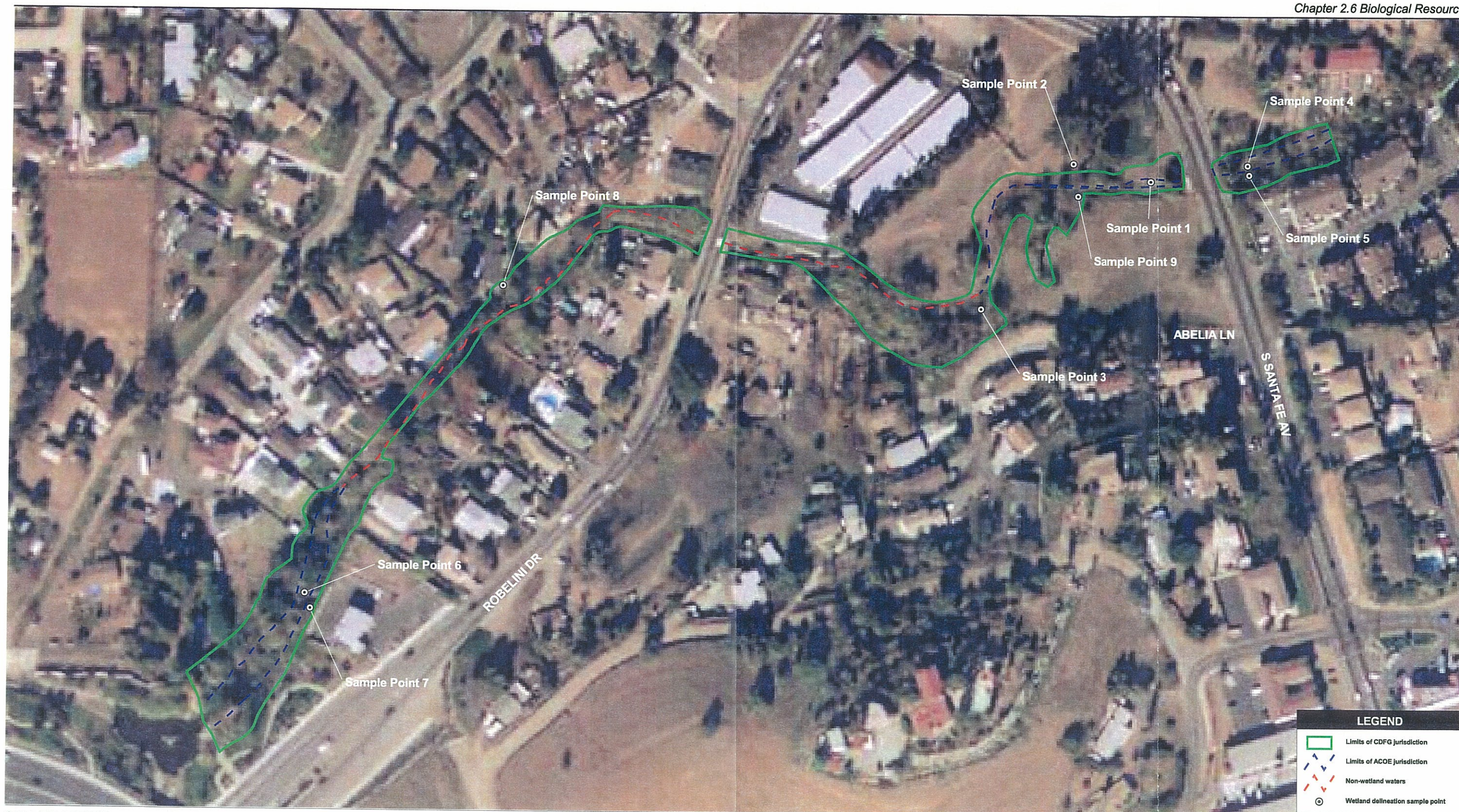
Source: AirPhotoUSA, 1 Meter Resolution, February 2001.

400 0 400 800 Feet

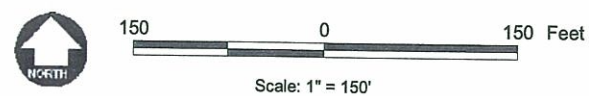
Scale: 1:4800; 1 Inch = 400 Feet

Figure 2.6-2
Southern Portion
Biological Resources

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Source: AirPhotoUSA(2001)



LEGEND	
	Limits of CDFG jurisdiction
	Limits of ACOE jurisdiction
	Non-wetland waters
	Wetland delineation sample point

Figure 2.6-3
ACOE and CDFG Jurisdictional Boundaries
at Buena Creek

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LEGEND

- Limits of CDFG jurisdiction
- Limits of ACOE jurisdiction
- Wetland delineation sample point

Source: AirPhotoUSA(2001)

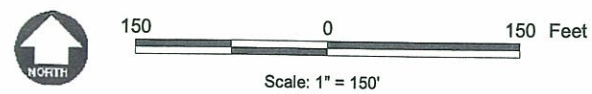


Figure 2.6-4
ACOE and CDFG Jurisdictional Boundaries
at Agua Hedionda Creek

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SUBCHAPTER 2.7 - AESTHETICS

The purpose of this aesthetic and visual assessment is to evaluate potential impacts to visual resources that could result from project implementation. This section describes the existing visual setting, project viewshed, and planned projects within the viewshed that would introduce new viewers and then provides an analysis of the proposed project from key views.

2.7.1 Existing Conditions

Visual Setting and Project Viewshed

The viewshed for a project is defined as the surrounding geographic area from which the project is likely to be seen. For the South Santa Fe Avenue project area, the viewshed includes those areas immediately adjacent to South Santa Fe Avenue and Sycamore Avenue/Robelini Drive, and elevated areas in the surrounding hillsides (Figure 2.7-1).

The quality of views of the project site from surrounding areas varies from location to location within the viewshed due to the low profile of the roadway, undulating terrain, urbanized level of development along the corridor, and maturity of landscaping and ornamental trees in the area. Unobstructed views of the project site are largely limited to the roadway itself and the buildings adjacent to South Santa Fe Avenue. In most cases, intervening structures and vegetation partially or completely block views from the surrounding residential areas. There are no scenic vistas in the project area.

NCTD railroad tracks parallel much of South Santa Fe Avenue in the project area. From Montgomery Drive to York Drive, the tracks are located to the west of the roadway, at the bottom of a slope. The tracks cross South Santa Fe Avenue near York Drive and parallel the roadway on the east side. At Buena Creek Road, the railroad tracks curve away from South Santa Fe Avenue to the east, then curve back near Poinsettia Avenue. Currently, the tracks are used by limited freight train service.

Two public projects are planned within the viewshed that would increase the frequency of viewing opportunities: the proposed Inland Rail Trail and the proposed NCTD Oceanside to Escondido Rail Project.

The Inland Rail Trail, a 22-mile bicycle and pedestrian trail, is being planned along the NCTD railway ROW from Escondido to Oceanside and would connect to the Coast Rail Trail in Oceanside. The rail trail would provide an opportunity for bicycle commuting on a path that would be completely separated from automobile traffic, except where the trail crosses over a surface street. The trail would also serve as a recreational facility for bicyclists and pedestrians.

In addition, NCTD plans to provide light rail commuter service between Oceanside and Escondido, the Sprinter Passenger Rail Line, using the existing freight rail line. Fifteen stations, including one within the project area, are proposed. The Buena Creek Station would be located east of the intersection of South Santa Fe Avenue and Buena Creek Road. Commuters riding on the train will be afforded a short-term view of the project improvements as the train passes through the area and slightly longer-term views from the proposed Buena Creek Station.

Existing Visual Character

The South Santa Fe Avenue corridor is an area in transition between a rural landscape (large-lot, noncontract residences, and undeveloped land), and an urban landscape with a major thoroughfare lined with commercial, industrial, and higher-density residential development. The roadway is lined with buildings of varying shapes, designs, and colors; work yards; and urban landscaping. Residential, industrial, institutional, and commercial uses are intermingled along the gently undulating and moderately curving South Santa Fe Avenue and the adjacent hillsides. There is no structural design theme that visually connects the buildings. Urban elements such as parking lots, advertising signage, and auxiliary buildings contribute to the cluttered urban look of the South Santa Fe Avenue corridor. Utility poles and lines run the length of the roadway on both sides.

Although the area has experienced a primarily urban level of development, there remain certain aspects of the viewshed that have more rural characteristics. For instance, there are no sidewalks, curbs, or gutters along South Santa Fe Avenue. Some development is set back from the roadway, particularly between Montgomery Drive and Buena Creek Road, partially due to the railroad ROW. Also, many of the surrounding hillsides have custom homes on large lots rather than small-lot subdivisions with similar-looking houses.

The vegetation intensity along the roadway corridor is variable, from sparse to concentrated, with scattered ornamental trees and shrubs, nonnative grasslands, and nonnative woodlands (eucalyptus and ornamental trees). Landscaping on the developed hillsides is well established and mostly associated with residential units.

Existing Viewer Sensitivity

Viewer sensitivity in the area varies due to the different types of viewers and their visual quality expectations.

Viewer sensitivity along this corridor is considered to be low for the industrial and retail users because the viewers' focus is not on the scenery but rather is on working or performing necessary tasks.

Viewer sensitivity for residents along the transportation corridor is considered moderately low. The residents of the apartment buildings that front on South Santa Fe Avenue near Palmyra Drive generally do not have scenic views; their views consist primarily of other buildings, roadways, and utility poles and lines, though a few have views of the Buena Creek area. Residents in single-family homes along Sycamore Avenue and Robelini Drive also have limited views.

Larger-lot residences are scattered on the hillsides. Their relative elevation affords many of the residents unobstructed views of the surrounding area. Viewer sensitivity from this area is considered moderate.

The visual experience of motorists traveling along South Santa Fe Avenue changes along the alignment because of the varied views that are available: buildings of different sizes, designs, and conditions; signage associated with those building users; parking areas and car lots; utility poles and lines; corridors of open, grassy areas adjacent to the railroad tracks; Buena Creek natural area; and adjacent hillsides with homes and established landscaping. Viewer sensitivity for motorists is considered moderately low.

Although there are currently no parks or recreation areas in the viewshed, the proposed Inland Rail Trail is planned parallel to the railroad tracks. Construction of the trail would introduce more bicyclists and pedestrians to the area who would have a temporary, foreground view of the proposed project, particularly from Hannalei Drive to Buena

Creek Road. This would be particularly true of the 1,510-foot-long, 12-foot-high retaining wall west of South Santa Fe Avenue near Hannalei Drive. Viewer awareness of some elements of the proposed project would be high from this group of viewers.

Applicable Planning Documents

The project site is located in an unincorporated area of San Diego County, and development is subject to the policies and guidelines of the County General Plan. The site is located within the North County Metropolitan Subregional Plan area of San Diego County. South Santa Fe Avenue is not categorized as a scenic highway (County of San Diego 1986), and no scenic resources are identified for the project area in applicable planning documents.

2.7.2 Guidelines for Determination of Significance

The CEQA Guidelines provide guidance regarding the significance of aesthetic and visual resource impacts in Appendix G, which contains a recommended environmental checklist form. Based upon these guidelines, the proposed project would create a significant aesthetic impact if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of light and glare that would adversely affect community residents.

2.7.3 Analysis of Project Effects and Determination of Significant Impact

Permanent Visual Effects

The project would not have an adverse effect on a scenic vista because the project does not propose to construct any object that would extend, project, or intrude into any view of a recognized scenic vista. The project area is heavily urbanized and no unique topographical formation or natural landmarks exist. The project area has not been

distinguished for its scenic quality. Because no scenic or visual resources exist in the vicinity of the project area, implementation of the project would not negatively affect scenic resources. For these reasons, the following analysis focuses on whether the project would substantially degrade the existing visual character of quality of the site and its surroundings or result in physical changes that are in substantial conflict with the character of the project area.

Because analyzing all the views in which the proposed project would be seen is not feasible, it is necessary to select several key viewpoints that would most clearly display the visual effects of the project. Key views also represent the primary viewer groups that would potentially be affected by the project.

Nine key views have been identified based on the types of project-related features that would be visible, the number and frequency of views, and the potential sensitivity of viewers. Each key view is presented in its existing condition and its future condition with implementation of the proposed project. The locations of key views are shown in Figure 2.7-2. Figure 2.7-3 provides the landscape concept plans associated with each key view location.

Each of the key views has been assessed for visual quality in both the existing condition and with the proposed project. A summary of the aesthetic analysis for the key viewpoints is provided in Table 2.7-1.

Table 2.7-1. Aesthetic Quality Summary

Key View	Existing Aesthetic Quality	Aesthetic Quality with Implementation of the Project
1	Moderate	Moderate
2	Low	Low
3	Low	Moderate
4	Moderate	Moderate
5	Low	Moderate
6	Low	Low
7	Low	Moderate
8	Moderate	Moderate
9	Low	Moderate

Although certain elements of the proposed project would have an adverse effect on views (e.g., the larger retaining walls), the overall aesthetic quality of the project area would not significantly degrade with implementation of the proposed project. In addition, as summarized in Table 2.7-1, the aesthetic quality of some areas along South Santa Fe Avenue would improve with the project.

Establishment of the proposed planting clusters at York Drive and Smilax Road with irrigated ornamental trees, shrubs, and groundcover, and the revegetation of Buena Creek with native trees and shrubs on both sides of South Santa Fe Avenue would mitigate potential adverse impacts resulting from the removal of trees along the roadway alignment. The project design includes the removal of all utility poles and lines that are adjacent to, or cross, South Santa Fe Avenue. These vertical features currently add to the visual clutter of the area, and removal would improve the overall visual experience.

The South Santa Fe Avenue corridor is currently in transition from a rural landscape (large-lot, nontract residences, and undeveloped land), to a more urban landscape. The project area has numerous urban elements, including commercial and industrial establishments, as well as more dense residential developments. The South Santa Fe Avenue project would help to unify the corridor and create a stronger urban character, which is consistent with long-range land use planning for the area.

In summary, the proposed project would change the visual character of the area, but this change would not be considered significant. As summarized in Table 2.7-1, many of the viewpoints would experience an increase in visual quality. In addition, the project includes many unifying elements that would contribute to an urban character, which is consistent with the long-range vision for the South Santa Fe Avenue corridor. Thus, the proposed project would result in a *less-than-significant impact* to the existing visual character and quality of the project area.

More detail on the changes that would occur for each of the key views with implementation of the project is provided in the following sections.

Analysis of Key View 1

An existing conditions photograph is provided for Key View 1 in Figure 2.7-4. In this area, single-family and multi-family residences, and a few commercial establishments,

are located on the east side of South Santa Fe Avenue between Montgomery Drive and York Drive. Several large, mature eucalyptus trees are located within the road ROW on either side of the roadway to the railroad tracks.

With the proposed project, the visual environment for motorists traveling along South Santa Fe Avenue would be altered as a result of the roadway widening and removal of the trees from the ROW. Figure 2.7-4 shows the existing view from a motorist's perspective and includes a simulation of the roadway as it would appear after the proposed widening. Figures 2.7-5 and 2.7-6 provide examples of the wall types proposed in this area.

The retaining wall on the east side of the roadway would replace a natural-appearing, grass-covered slope bank. Because it would be below the roadway, the long retaining wall on the west side of the roadway would not be seen by residents on the east side of the road or by northbound motorists on South Santa Fe Avenue. Southbound motorists would get a very brief, partial view of that wall because it would extend down from the roadway.

In this area, the removal of mature eucalyptus trees would result in a change to the visual character of the area. This change would be noticed both by residents in the area and by motorists traveling through the area. Due to the limited planting area at this location, trees would be replaced at the new South Santa Fe Avenue/York Drive/Woodland Drive intersection.

The proposed South Santa Fe Avenue Reconstruction project would change the Key View 1 area from a semirural to a suburban character, represented by a wider road surface; curbs, gutters, and sidewalks; retaining walls; signage; and underground utilities.

The project would affect single-family residences immediately east of the roadway due to their increased proximity to the road and greater line-of-sight. Removal of the mature trees would increase the road's visibility to the residences. Potential negative aesthetic impacts of the project would be avoided by measures that would minimize the visual impacts associated with road widening and would include the replacement of removed trees at the new South Santa Fe Avenue/York Drive/Woodland Drive intersection with new trees; the provision of a more natural-appearing textured wall; and the planting of vines, shrubs, and groundcover to soften the visual impact of the wall.

Project improvements in the Key View 1 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 1 area would be *less than significant*.

Analysis of Key View 2

An existing conditions photograph of Key View 2 is provided in Figure 2.7-7. In this area, the west side of South Santa Fe Avenue is largely occupied by the NCTD ROW, which provides a buffer between the nearest development and the roadway. The railroad tracks lie beside a relatively steep embankment that rises to the roadway. Hannalei Drive parallels the tracks to the west, and the Hannalei Elementary School is located between the street and the nearest residences on the hillside. (The Hannalei Elementary School was under construction when the photos for Key View 2 were taken; the school has since been completed.) The area has a semirural character, with lower-density residential development, mature landscaping, and a lack of sidewalks. The elementary school, with a series of white, one-story structures, replaced a ball field and open lots.

Implementation of the proposed project would result in the construction of a very long, relatively high retaining wall that would introduce a horizontal band of man-made materials in an area where an existing manufactured, but natural-appearing, slope bank currently exists. The wall would appear to be relatively natural, especially from a middleground distance, due to the choice of battered keystone wall material (see Figure 2.7-6 for an example of this wall type). The planting of camouflaging vines would visually soften the walls. Although the topographic relief of the area would be essentially the same, the character of the area would have a slightly more urbanized feeling.

The visual memorability, integrity, and coherence of the Key View 2 area would remain about the same as what currently exists because the proposed retaining wall would include vine plantings to soften the appearance of the wall. Man-made elements dominate the view, and the addition of a natural-appearing, vine-covered retaining wall would not adversely affect views in this area. The removal of the overhead power lines would decrease visual clutter, resulting in a positive visual effect.

Project improvements in the Key View 2 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 2 area would be *less than significant*.

Analysis of Key View 3

In the Key View 3 area, the west side of South Santa Fe Avenue south of York Drive is currently lined with commercial development that is generally close to the roadway shoulder. Two commercial establishments are also located on the east side of South Santa Fe Avenue near York Drive. The buildings have no unifying architectural theme and are different sizes and shapes; some are in poor condition. Many of the structures are surrounded by pavement, with minimal landscaping. Advertising signage is common, as are automobiles that belong to business employees or patrons or are being sold in used car lots. Overhead utilities parallel both sides of the roadway.

With project implementation, the topographic relief of the area would be essentially the same, and the character of the area would have a somewhat more urbanized feeling. Key View 3 (Figure 2.7-8) provides a view in consideration of the railroad crossing component, which would realign York Drive to form a four-way intersection with South Santa Fe Avenue and Woodland Drive.

With the railroad crossing component, the realignment of York Drive, including construction of a retaining wall, would change the existing visual environment of this segment of the South Santa Fe Avenue corridor, as illustrated in Figure 2.7-8. Because this area is already developed and currently lacks unifying visual elements, the implementation of a new intersection in this location would not create adverse visual effects.

Project improvements in the Key View 3 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 3 area would be *less than significant*.

Analysis of Key View 4

An existing conditions photograph of Key View 4 is provided in Figure 2.7-9. Overall, the area has a semirural character, with areas of open space, adjacent homes and businesses, and a railroad corridor. The eucalyptus woodland along Buena Creek between the Sycamore Self Storage buildings and Abelia Lane is the largest undeveloped, natural-looking area within the proposed South Santa Fe Avenue project area. Mature

vegetation, including large eucalyptus and palm trees, and an undeveloped patch of short grass add to the sense of openness in this triangular-shaped area.

There are no sidewalks or curbs on the area roadways. Traffic signals on South Santa Fe Avenue at Buena Creek Road and Robelini Drive, railroad track crossing arms, and utility poles add vertical elements to the Key View 4 area. The proposed Buena Creek Station for the future light rail commuter train would be constructed south of Buena Creek Road near South Santa Fe Avenue.

Although the Buena Creek area is surrounded by semirural (single-family residences) and urban (multi-family residences and self storage business) levels of development, the area itself has no structures or man-made elements and has a creek area and stand of mature trees.

The conditions in the area of Key View 4 after project implementation are shown in Figure 2.7-9. The proposed project would permanently alter the views in the area by realigning South Santa Fe Avenue to the southwest into the Buena Creek area, by widening and straightening out Buena Creek Road, and by extending Sycamore Avenue through the Buena Creek area.

The area of natural open space would be reduced by the roadway and drainage improvements, and the mature trees on the north side of the creek would be eliminated. The proposed extensive planting of native vegetation in three quadrants of the intersection would soften the effects of the roadway widening and creek bed improvements. The placement of utilities underground would also have a positive visual effect.

Project improvements in the Key View 4 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 4 area would be *less than significant*.

Analysis of Key View 5

An existing conditions photograph of Key View 5 is provided in Figure 2.7-10. Apartment buildings line the roadway corridor from Buena Creek to Palmyra Drive on

the east side of the road and from Abelia Lane to Palmyra Drive on the west side. Most of the buildings are set back from, and elevated above, the roadway.

On the west side of South Santa Fe Avenue, the slope banks are covered with short grasses or shrubs. Large eucalyptus trees line a portion of the top of the slope. On the east side of the road, the slopes have exposed dirt or are covered with landscaped shrubs and trees that hide most of the buildings. A white, cinder block retaining wall is located in front of some of the buildings on the east side. Overhead utilities run along both sides of the roadway. When traveling on this segment of South Santa Fe Avenue, all that can be seen is the roadway and immediately adjacent slopes.

The widening of the roadway, construction of sidewalks and retaining walls on both sides of South Santa Fe Avenue, elimination of trees in the Buena Creek area, and placement of traffic signals at the realigned intersection of South Santa Fe Avenue/Buena Creek Road/Sycamore Avenue would change the visual character of this segment of the road. As illustrated in Figure 2.7-10, the increased pavement surface and removal of the trees along the west side of the road would result in a more urbanized character.

On the east side of South Santa Fe Avenue, the widening of the roadway, replacement of a primarily dirt- and weed-covered manufactured slope and white retaining wall with a new vine-covered retaining and sound wall, and removal of the utility pole would create a less cluttered look. Although these elements would introduce more hardscape into the area, they would provide a more maintained character.

The improvements associated with the proposed project would increase the visual integrity of Key View 5 due to the consistency of the landscaping along the South Santa Fe Avenue alignment. The roadway and landscape improvements to the Key View 5 area would also contribute to the compositional harmony of this area.

Project improvements in the Key View 5 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 5 area would be *less than significant*.

Analysis of Key View 6

An existing conditions photograph of Key View 6 is provided in Figure 2.7-11. Sycamore Avenue and the southern portion of Robelini Drive are lined with single-family houses. The existing two-lane roadway has some dirt shoulders. Adjacent ornamental landscaping varies between each residential lot. A lack of sidewalks, curbs, and gutters gives this heavily traveled roadway a semirural character.

The Key View 6 area has no noticeably distinct visual character. Although some of the residential units and the adjoining landscaping are well kept, the appearance of other properties could be improved.

A visual simulation of the proposed project features in the area of Key View 6 is provided in Figure 2.7-11. Construction of a four-lane roadway through an existing residential neighborhood and natural creek area would permanently alter the visual character of the area from this viewpoint. The widened road would add more hard surfaces to the visual environment and the elimination of vegetation and mature trees would result in a more urbanized appearance. The horizon of treetops would be punctuated with the intersection traffic light fixtures.

Project improvements in the Key View 6 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 6 area would be *less than significant*.

Analysis of Key View 7

The Key View 7 area north of Palmyra Drive is the same as that described for Key View 4. An existing conditions photograph of the area is provided in Figure 2.7-12.

The Key View 7 area is not particularly scenic except for the line of mature eucalyptus trees on the top of the western slope on South Santa Fe Avenue north of Palmyra Drive and, to a lesser extent, trees at the top of the slope on the east side of the roadway.

The Palmyra Drive area, particularly to the south on South Santa Fe Avenue, is a conglomeration of different land uses, varying architectural styles, and landscaping that is

either minimal or lacks consistency between lots. Some properties appear “run down,” while others have comprehensive landscape treatments.

A visual simulation of the proposed project features in the area of Key View 7 is provided in Figure 2.7-12. The widening of the roadway, construction of sidewalks, and erection of retaining and sound walls on both sides of South Santa Fe Avenue would change the visual character of this segment of the road. The increased pavement surface and removal of the trees along the west side of South Santa Fe Avenue north of Palmyra Drive would result in a more urbanized character, as would the widening of the roadway, and replacement of a primarily dirt- and weed-covered manufactured slope and white retaining wall with a new vine-covered retaining and sound wall on the east side of the road. The removal of existing vegetation in this area would reduce the vertical orientation and softening effect of the vegetation. However, the removal of the utility poles on both sides of the street would create a less cluttered effect.

Project improvements in the Key View 7 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 7 area would be *less than significant*.

Analysis of Key View 8

Existing conditions photographs of the Key View 8 area are provided in Figures 2.7-13 and 2.7-14. This segment of South Santa Fe Avenue is developed with retail and light industrial uses. The condition of the buildings varies from poor to very good, and there is no unifying architectural theme. Many of the businesses are fronted by parking lots. Landscaping varies between lots; some have more extensive shrubs and trees than others. Except for the area of open space near Poinsettia Avenue and the lack of sidewalks, curbs, and gutters flanking South Santa Fe Avenue, this area has an urbanized character due to the almost continuous row of buildings, signage, parking, and overhead utilities on both sides of South Santa Fe Avenue.

The visual character of the Key View 8 area would change with the road widening and by the construction of a 33-foot-high retaining wall on what is now a vegetation-covered slope. The undeveloped hillside adjacent to Poinsettia Avenue, however, would remain in its present condition. The road corridor would be improved by the addition of shrubs,

groundcover, and vines between the proposed wall and sidewalk, and by the undergrounding of utilities that now are a dominant vertical element in this area.

Improvements to the visual condition of the area would occur with unification of roadway improvements, construction of a comprehensive system of the landscape areas next to the sidewalks, construction of the retaining wall with natural-appearing materials, planting of vines adjacent to the wall, and removal of overhead utility lines on both sides of South Santa Fe Avenue.

Project improvements in the Key View 8 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 8 area would be *less than significant*.

Analysis of Key View 9

South Santa Fe Avenue, along this segment of the alignment, is almost entirely lined with commercial land uses. The narrow roadway corridor has retail, service-oriented, and light manufacturing businesses housed in a variety of buildings and auxiliary structures with no overall unifying theme or architectural style. Many of the buildings are in poor condition, and there is a hodgepodge of ornamental landscaping, numerous signs, and overhead utilities on both sides of the roadway.

Figure 2.7-15 provides a plan and perspective drawing of proposed conditions in this area. The widened road would result in the elimination of several buildings, most of which are in poor condition. Although Agua Hedionda Creek would be channelized, the corners of the Smilax Road/South Santa Fe Avenue intersection would be landscaped with ornamental trees. Therefore, the amount of visible landscaping in the Key View 9 area would increase.

With the establishment of tree- and shrub-covered planting nodes at Smilax Road, the demolition of several structures, and the undergrounding of utilities on both sides of the roadway, the visual experience through this area would be improved.

Project improvements in the Key View 9 area would not affect a scenic vista, damage significant visual resources, or damage the existing visual quality of the area. For these reasons, project impacts in the Key View 9 area would be *less than significant*.

Construction-related Visual Effects

During the construction phase of the project, the presence of grading activities and heavy machinery (e.g., large trucks, bulldozers, and cranes) would be very evident to businesses, residents, and commuters. There could be storage of construction equipment, stockpiles of road materials and demolition spoils, as well as road barricades. The combination of the required construction activities and equipment would create short-term, negative visual impacts. These impacts would not be considered substantial because there are no recognized or identified scenic vistas or resources in the project area that could be negatively affected. These impacts would be temporary, and they are *not considered significant*.

Light and Glare

Under the proposed project, a new connection would be constructed from Poinsettia Avenue to South Santa Fe Avenue. Nighttime headlights from westbound traffic on the new connection could potentially shine into two residences, resulting in a new light pollution source. The driveway of one of these residences is directly opposite the new Poinsettia Avenue connection to South Santa Fe Avenue. The house would be set back about 110 feet from oncoming traffic and would be separated by the roadway, a sidewalk, and a 40-foot-long driveway. There is limited direct window exposure on the east side of the house, but introduced light from automobile headlights could be a nuisance to residents.

Another house, located to the south of the aforementioned home, could also experience the effects of added nighttime light from headlights. This house is closer to the roadway (78 feet) but would not be in a direct line-of-sight of oncoming traffic on the Poinsettia Avenue connection. An existing industrial building would block some of the light generated by oncoming headlights. A large window faces the street, but an ornamental tree in the front yard would diffuse much of the light.

In summary, light and glare from headlights could be intrusive to two residences on Poinsettia Avenue (225 and 231 Poinsettia Avenue), which would be considered a *significant impact*. **(Impact 2.7.a)**

2.7.4 Cumulative Impact Analysis

The project area includes a wide range of commercial, industrial, and residential land uses, including some in visually blighted areas. There are no scenic resources in the project area. The North County Square Specific Plan on Sycamore Avenue near SR 78 has resulted in substantial landform alteration to create a large commercial center.

Views of the Buena Creek area would be possible from the proposed future Inland Rail Trail between Robelini Drive and Buena Creek Drive (and the proposed light rail Buena Creek Station). South of Buena Creek Road, the proposed trail would head away from South Santa Fe Avenue, and no views of the project would be possible. Although future views from the trail would be possible north of Buena Creek Drive, the level of impact to bicyclists and pedestrians on this section of the trail would be reduced by project design elements.

The planned Buena Creek Station for the proposed future light rail commuter train would be constructed south of Buena Creek Road near South Santa Fe Avenue. No views of the proposed project improvements would be possible by commuters from east of the proposed station, but views would be possible from trains traveling north of the proposed station. These views would be very short term. Thus, the views for commuters in this segment of South Santa Fe Avenue would not be negatively affected.

Other visual effects associated with the project would result from retaining walls, graded slopes, and noise walls along South Santa Fe Avenue. Overall, given the urbanized condition of the area, the presence of large commercial and industrial buildings and associated landform alterations, and the lack of scenic resources in the area, visual changes as a result of the proposed project in combination with other projects would not be significant.

2.7.5 Mitigation Measures and Environmental Design Considerations

Mitigation Measure 2.7.a. Light and Glare

The County shall provide shrubs to the two residences on Poinsettia Avenue (225 and 231 Poinsettia Avenue) of sufficient height and density (at least 5-gallon containers) to minimize light impacts from oncoming headlights of the new Poinsettia Avenue/South Santa Fe Avenue connection.

Environmental Design Considerations

In addition to the mitigation measure listed above, the analysis in this subchapter assumes that the following project features would be incorporated into the project, as described in Chapter 1:

- The proposed retaining wall between the railroad tracks and the western edge of the proposed South Santa Fe Avenue alignment in the northern portion of the project area would be constructed of battered keystones, which would be planted with *Ficus pumila* (creeping fig), or a similar vine. The wall planting would be irrigated.
- All other retaining walls and sound walls would be constructed of split-faced masonry blocks in earth-tone colors. To soften and camouflage the split-faced masonry walls, and to visually reduce their scale, vines would be planted in the landscape strip adjacent to those walls that extend up from the road elevation.
- Planting strips would be provided adjacent to retaining walls, where space allows. Areas with planting strips along South Santa Fe Avenue include an area south of Montgomery Drive; the eastern side of South Santa Fe Avenue, north of Poinsettia Avenue; and the area north and south of the Palmyra Drive intersection.
- Trees removed as a result of roadway construction would be replaced within the proposed project alignment, where space allows. In addition, several key locations would include additional landscaping, including trees. These include the area around York Drive and Woodland Drive, the Buena Creek area, and the vacated land on the north and south sides of Smilax Road.
- The County would also offer property owners a 1:1 replacement of trees removed from their property as a result of project construction. Trees would be in 15-gallon containers. Because there would not be room to replant trees removed in areas where the road has been widened, the property owners may plant these trees at any location within their property.
- All planting areas would be irrigated. Irrigation would conform to the standards of the County of San Diego Landscape Technical Manual and all other landscape-

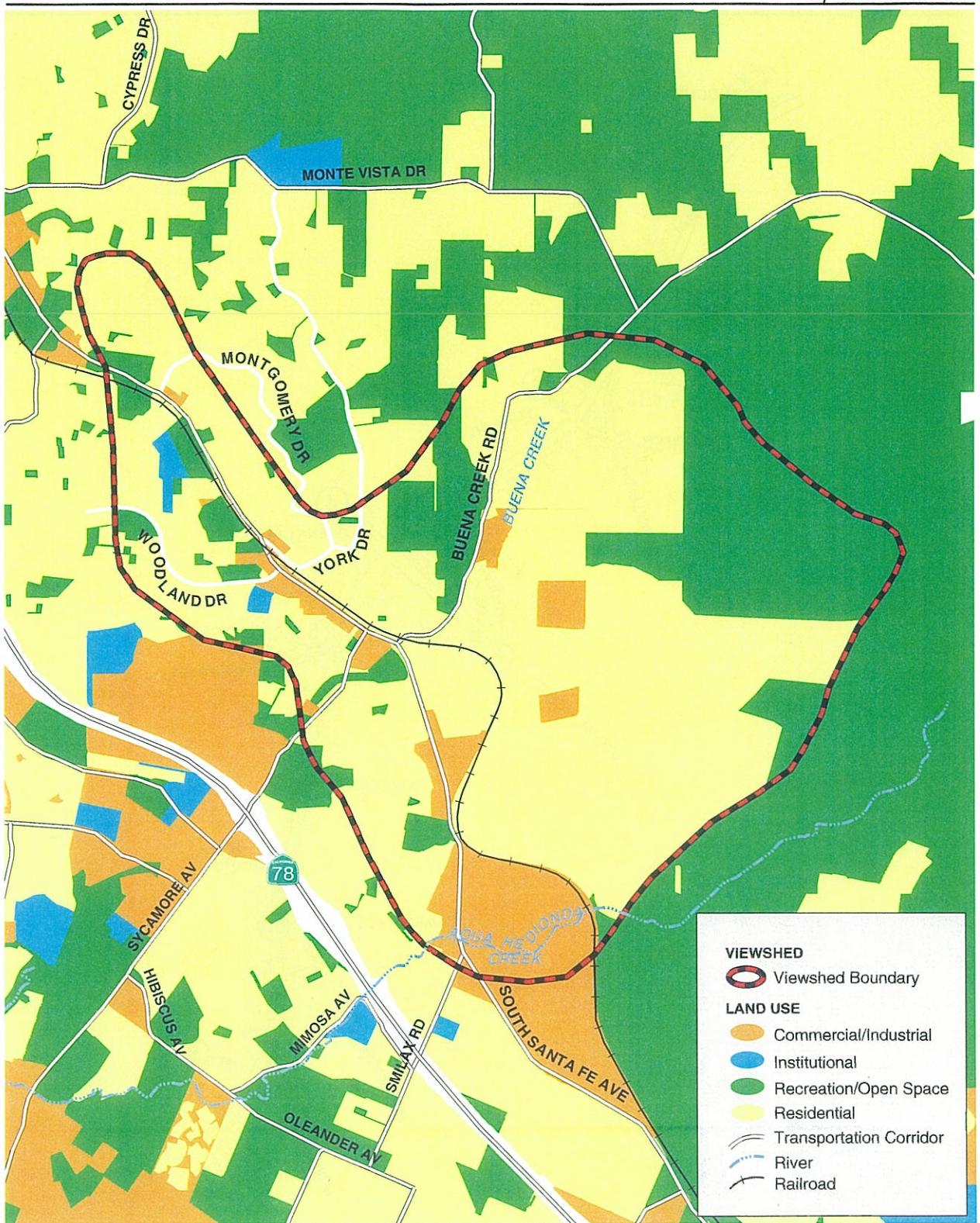
related regional standards. The County would install and maintain the irrigation system.

- Median paving (stamped concrete or decorative pavers) would be designed to incorporate appropriate elements to provide color, texture, and character that are compatible with the established design themes.

More detail on these project features is provided in Chapter 1 of this EIR.

2.7.6 Conclusions

With implementation of the mitigation measure and project features listed in Section 2.7.5, visual impacts would be reduced to a less-than-significant level for the proposed project.



Source: SANDAG, Existing Land Use 2000

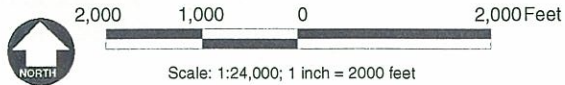
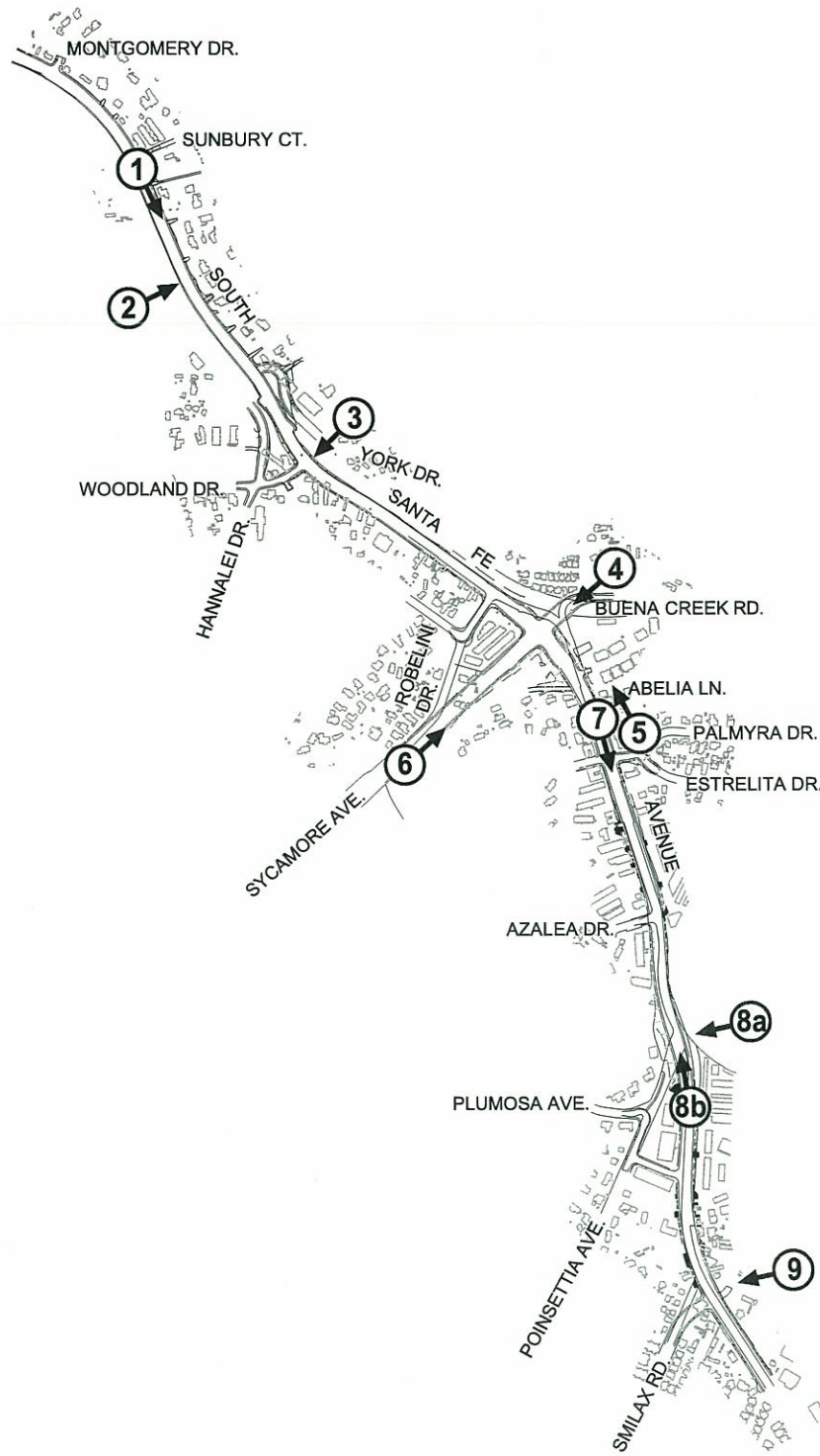


Figure 2.7-1
South Santa Fe Avenue Viewshed

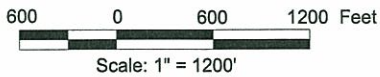
South Santa Fe Avenue EIR

GIS\k155\MXD\Figure 2.7-2 Viewshed.mxd SP83\F6 (E.Coughlin) 12/22/03



Source: Project Design Consultants, January 2002; Berryman and Henigar, December 2001.

Figure 2.7-2
Locations of Key Views



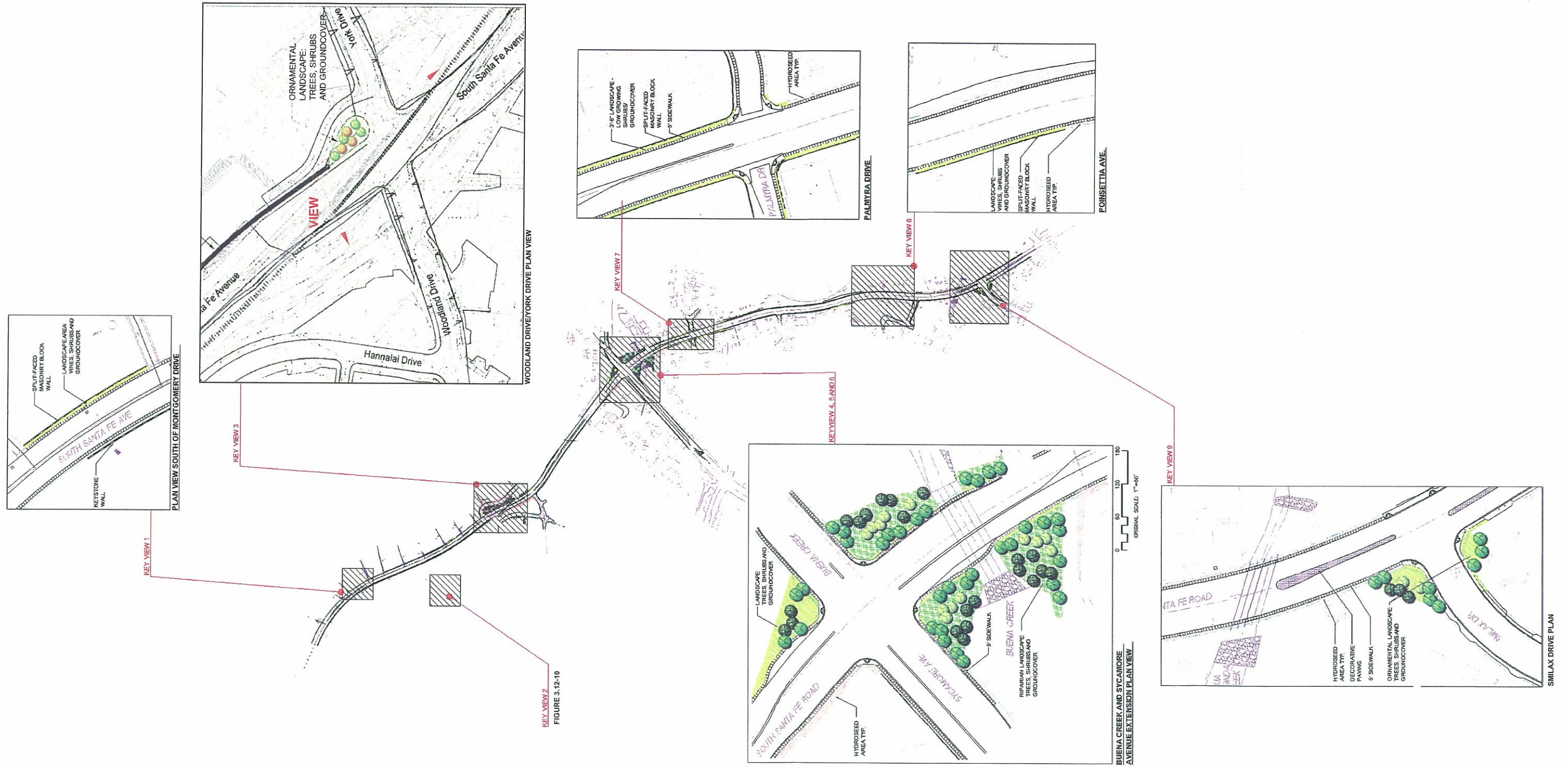


FIGURE 3.12-10



Figure 2.7-3
Key Views and Landscape Concept Plans

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Existing Conditions



Visual Simulation

Figure 2.7-4
Key View 1
South Santa Fe Avenue, View South from South of Montgomery Drive

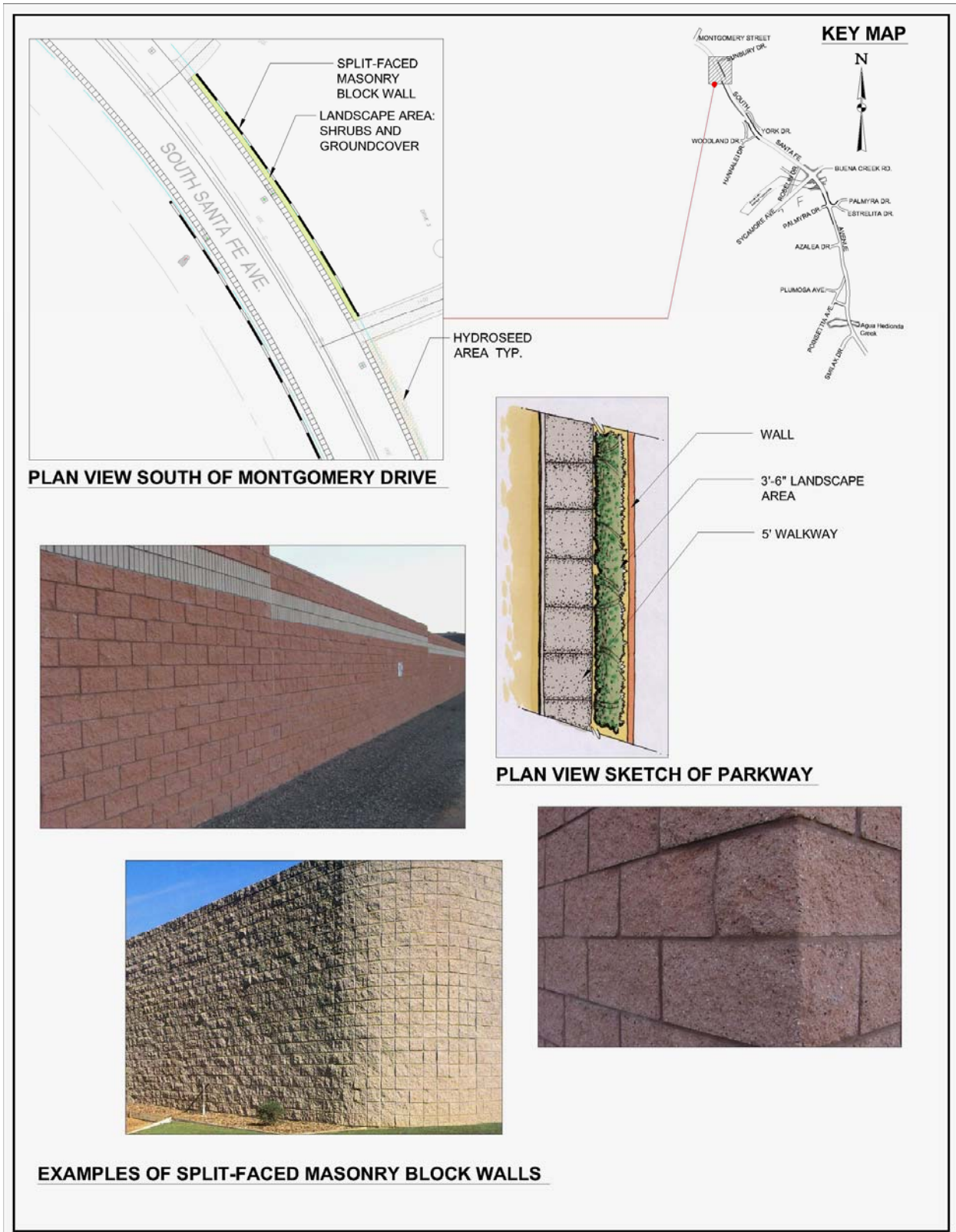
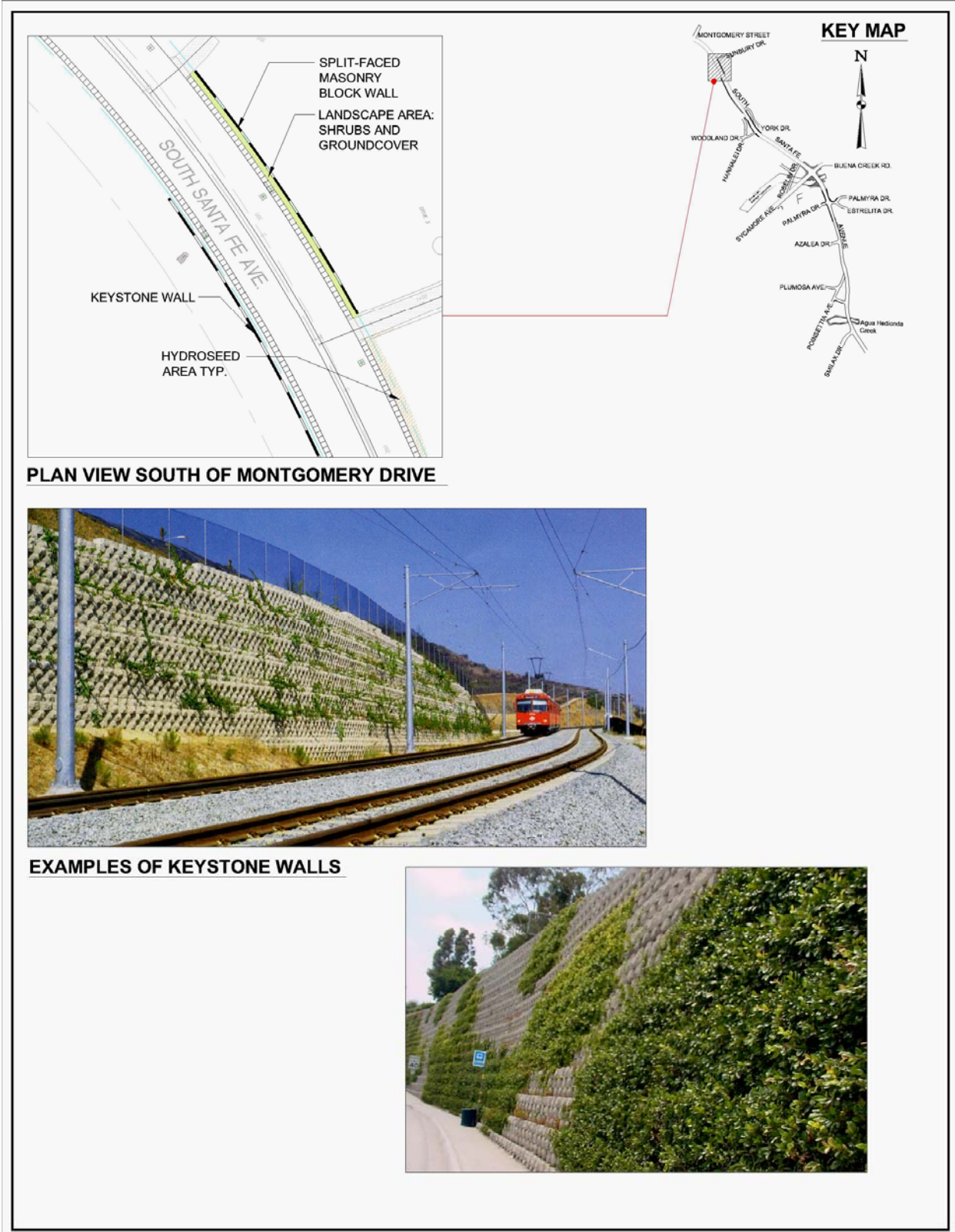


Figure 2.7-5
Key View 1
Plan View of South Santa Fe Avenue South of Montgomery Drive
Examples of Split-Faced Masonry Block Walls



**Figure 2.7-6
Key View 1
Plan View of South Santa Fe Avenue South of Montgomery Drive
Examples of Keystone Walls**

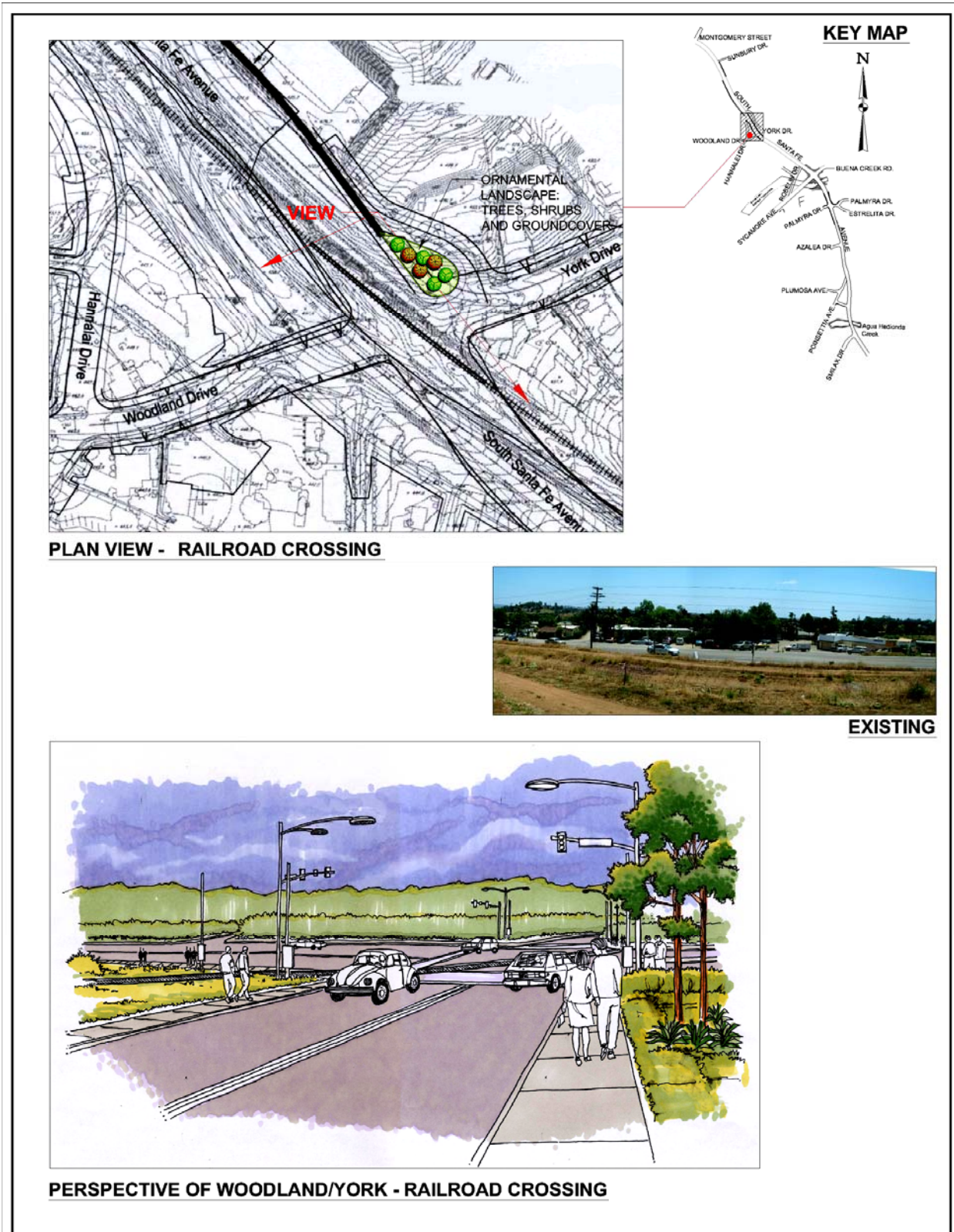


Existing Conditions



Visual Simulation

Figure 2.7-7
Key View 2
View East from Hannalei Drive toward South Santa Fe Avenue



PLAN VIEW - RAILROAD CROSSING

EXISTING

PERSPECTIVE OF WOODLAND/YORK - RAILROAD CROSSING

**Figure 2.7-8
Key View 3
Perspective of Woodland Drive / York Drive Intersection
Railroad Crossing**



Existing Conditions



Visual Simulation

Figure 2.7-9
Key View 4
View from Buena Creek Road to Sycamore Avenue Extension



Existing Conditions



Visual Simulation

Figure 2.7-10
Key View 5
South Santa Fe Avenue – View North toward
Sycamore Avenue/Buena Creek Road Intersection



Existing Conditions



Visual Simulation

Figure 2.7-11
Key View 6 – Sycamore Avenue
View Northeast toward Sycamore Avenue/South Santa Fe Avenue Intersection



Existing Conditions



Visual Simulation

Figure 2.7-12
Key View 7
South Santa Fe Avenue, View South toward Palmyra Intersection



Existing Conditions



Visual Simulation

Figure 2.7-13
Key View 8a
View West toward South Santa Fe Avenue and the Retaining Wall at Poinsettia Avenue



Existing Conditions



Visual Simulation

Figure 2.7-14
Key View 8b
South Santa Fe Avenue
View North from about 500 feet South of Poinsettia Avenue

CHAPTER 3.0 - ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

Effects to the following environmental resources that would be caused by the proposed project were determined to be not significant during the environmental review process.

3.1 Agricultural Resources

Agricultural resource impacts would be considered significant if the project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use; conflict with existing zoning for agricultural land use or a Williamson Act contract; or involve other changes in the existing environment that, due to their location or nature, could result in the conversion of farmland. No agricultural uses exist in the project area. In addition, the Natural Resource Conservation Service (NRCS) has determined that no important farmland is located in the project area. Thus, no farmland would be converted to a nonagricultural use and no adverse effects to farmlands would occur with project implementation.

3.2 Cultural Resources

Prehistoric resources were studied by Affinis in June and September of 1999; a cultural resources study of potential historic resources was conducted in June 1999 by P.S. Preservation Services and Affinis. Additional historic analysis of several buildings outside the scope of the previous study was conducted by EDAW, Inc. in May 2003 (EDAW 2003c). No properties listed in the National Register of Historic Places, California Register of Historical Resources, California Historical Landmarks, California Points of Historical Interest, or any local lists of historical properties are located within the project area. In addition, no prehistoric resources were identified.

A review of the paleontological maps provided by the San Diego Museum of Natural History indicates that the project is not located on geological formations that contain significant paleontological resources. The geological formations that underlie the project have a low probability of containing paleontological resources.

Thus, implementation of the proposed project, including the railroad crossing and drainage components, would not result in significant impacts to cultural resources.

3.3 Geology and Seismic Hazards

The proposed project would result in a significant geology and soils impact if it would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving geologic and seismic hazards. The project does not include the use of septic tanks or alternative wastewater disposal systems. No active or potentially active faults are known to underlie the project. Major faults in the region include the San Andreas, Elsinore, and San Jacinto faults to the northeast of the site, and the Rose Canyon, Coronado Bank, Newport Inglewood, and San Clemente faults located offshore to the west. The approximate distances between the proposed project site and the known nearby major faults are between 12 and 68 miles away. Because no known active faults are located along the proposed alignment, the proposal does not have the potential to significantly increase the exposure of people to hazards related to fault rupture (Alquist-Priolo Zone). No unique conditions exist in the project area that would constitute an increased seismic hazard risk with implementation of the proposed project. Project engineering would address potential engineering constraints related to soils having high shrink-swell characteristics, instability or weaknesses, and other soils factors.

3.4 Emergency Response

The realignment and extension of Sycamore Avenue would have the benefit of improved access between SR 78 and South Santa Fe Avenue and would also relieve congestion on Robelini Drive and eliminate traffic impacts through this residential area.

Overall, implementation of the proposed project would improve emergency vehicle access patterns. Response times would be slightly shorter in some areas and slightly longer in others, depending on the direction from which the emergency vehicle would come. Overall, there would not be an adverse impact to emergency service response times because the distances to major roads would not be substantially increased.

The project lies outside any mapped dam inundation area for major dams/reservoirs within San Diego County, as identified on inundation maps prepared by the dam owners. Thus, the project complies with all applicable plans as established by the County Office of Disaster Preparedness.

The proposed road improvements would not increase the potential for fire hazards beyond the existing fire hazard risk of South Santa Fe Avenue.

3.5 Land Use and Planning

Land use and planning impacts would be considered significant if the proposed project would physically divide an established community, or conflict with any applicable policy that has been adopted with the purpose of protecting the environment, including policies in any adopted habitat conservation plan or natural community conservation plan.

The proposed project would not change the general division of the existing community because the roadway alignment would be similar to the existing alignment. Slight changes in the alignment would occur to improve circulation in the project area. These changes would not cause any physical barriers or divisions of the community. Driveways and accessibility would be improved in the project area.

The proposed project is consistent with the General Plan, community plans, land use designations, and zoning. The Circulation Element of the San Diego County General Plan includes guidelines for the development of the regional transportation network necessary to serve the designated land uses, both existing and planned in the unincorporated area of San Diego County. The Circulation Element designates South Santa Fe Avenue, Buena Creek Road, and Sycamore Avenue as four-lane Major Roads. The County's Major Road classification of South Santa Fe Avenue is consistent with the Major Arterial designation of South Santa Fe Avenue in the City of San Marcos' Circulation Element and with the present buildout of South Santa Fe Avenue in Vista.

Along the South Santa Fe Avenue corridor, south of York Drive, the predominant land use is commercial and light industrial. North of Robelini Drive, the area is typically zoned as C36 (General Commercial). South of Robelini Drive, the area is primarily zoned as M52 (Limited Impact Industrial). The Robelini Drive area, within the channel segment of the project, is primarily zoned as residential as is the easterly side of South Santa Fe Avenue, north of the York Drive intersection. The proposed project would not change the existing zoning or interfere with any land use designations. Based on the above information, the proposed project is consistent with the General Plan, community plans, land use designations, and zoning.

The proposed project is located outside of the boundaries of the Multiple Species Conservation Program.

3.6 Mineral Resources

Impacts to mineral resources would be considered significant if the project would result in the loss of availability of a known mineral resource that would be of value to the region or residents of the state or that would result in the loss of a locally important mineral resource. No known important mineral resource uses exist in the project area. The project area is urbanized, and mining does not occur in the immediate vicinity. Existing land uses generally preclude any anticipated future mining or mineral recovery in the area.

3.7 Population and Housing

Environmental impacts related to population and housing would be considered significant if the project would displace substantial numbers of people or housing necessitating the construction of replacement housing elsewhere. The proposed project would displace existing housing. The Department of General Services prepared a Draft Relocation Impact Report (County of San Diego 2003a) to determine the project's impact. Relocation resources are proposed to compensate property owners and tenants. Preliminary staff inquiries reveal there are low-income residential occupants that would be displaced from the current low-rent units being impacted by the project. With home prices and rental rates rising steadily for the past few years, the possibility of "last resort housing" may occur in about 25 to 40 percent of anticipated residential displacements. The "last resort housing" provision covers the additional housing costs when a displaced person cannot be relocated due to a lack of comparable housing, or when replacement housing costs exceed the displacee's financial ability and the relocation housing payment limits set by relocation code. With these provisions, replacement housing would not be constructed elsewhere to replace the displaced homes or populations.

3.8 Public Services

The project area is within unincorporated San Diego County and is served by a variety of municipal services and government facilities. The project would result in a significant impact to public services if it would result in substantial adverse physical impacts

associated with the provision of new or physically altered government facilities. Because the proposed project would not alter government services or facilities, and because the project would not result in an increased population, no environmental impacts related to the provision of public services would occur.

3.9 Recreation

Because no parks or recreation facilities exist within the project area, and because the project would not result in an increased population, no environmental impacts related to the provision of parks and recreational facilities would occur with implementation of the proposed project.

3.10 Utility and Service Systems

A variety of utility lines traverse the project area, including natural gas, telephone, water, and both overhead and underground electricity. Utility location conflicts with the project have been identified and relocations of these facilities would occur with implementation of the project. Utilities that currently overhang the project area would be relocated underground. Utility relocations would occur within the project limits and would be coordinated with the service providers. Because the project would not result in an increased population, no additional utility demands would occur with project implementation.

The proposed project would not involve any significant potential sources of chemicals or compounds that would contaminate groundwater sources and decrease the quality of the groundwater to below the standards as set by the San Diego RWQCB's Basin Plan, Groundwater Quality Objectives.

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CHAPTER 4.0 – PROJECT ALTERNATIVES

4.1 Alternative Development Process

Project alternatives were developed based on the project objectives and the need for construction of a four-lane divided road in accordance with the County Circulation Element and the circulation elements of the adjacent cities of Vista and San Marcos. Evaluations of project alignment alternatives have been ongoing since the 1970s and have concluded that some alternative alignments are not feasible due to environmental, economic, and physical design constraints, or other reasons, and should not be evaluated in greater detail. The project design and selection of alternatives were based on technical studies conducted to examine impacts of the road widening. A detailed study by Pountney & Associates was initiated by the County in 1987 with the objective of providing a fiscally reasonable road design within the controlling parameters of public safety, community and environmental impact, and implementation concerns (Pountney & Associates 1988). Initially, four basic alternatives were identified and, with further study, four variations of the basic alternatives evolved. Two public meetings were held on November 17, 1998, and June 29, 1999, to present and discuss the various alternatives described under NEPA.

Previous federal funding had triggered environmental review under NEPA. Under NEPA, each alternative must be evaluated at an equal level of detail throughout the entire document. Accordingly, there were two roadway alternatives (A and B), three railroad crossing options (A, B, and C), and four drainage options (A, B, C, and D) analyzed in the technical appendices. In December 2003, the funding sources for the project changed and all federal funds were eliminated. The entire project is now being funded locally and the NEPA evaluation is not necessary; only a CEQA evaluation is now necessary. This EIR is the appropriate document under CEQA. Under CEQA, the proposed project is evaluated and the alternatives are addressed in a different format. In this draft EIR, the proposed project (evaluated in Chapter 2) corresponds to the modified Major Road standard (roadway alternative A), railroad crossing with the four-leg intersection at Woodland Drive/York Drive (railroad crossing option C), and the Buena Creek drainage improvements for redirection of excess flows (drainage option C) in the technical appendices. Other alternatives are evaluated in this chapter of the EIR. Though the technical appendices were generated to correspond to the NEPA document, the analysis

in the technical appendices sufficiently evaluates the project impacts under CEQA and those appendices were not reformatted for this EIR.

A community meeting is planned for March 2004 to receive input from the public on the proposed project and alternatives described under CEQA.

4.2 Project Alternatives

CEQA requires the lead agency to consider alternatives to the proposed project that meet the project's basic objectives and that avoid or reduce significant impacts. Two project alternatives and the No Project Alternative were considered reasonable alternatives. The two project alternatives were chosen based on the analysis prepared in the technical appendices that describes the two roadway designs (A and B), the three railroad crossing options (A, B, and C), and the four drainage options (A, B, C, and D) to avoid and minimize environmental impacts.

4.3 The No Sycamore Avenue Extension Alternative

4.3.1 Description and Setting

South Santa Fe Avenue would be improved to a paved width of 78 feet within a 98-foot ROW width. The typical section would include two 12-foot inside traffic lanes; two 14-foot outside lanes; two 6-foot bicycle lanes; sidewalks; a 14-foot striped, two-way, left-turn median with formal left-turn pockets at public road intersections; and minor improvements to Agua Hedionda Creek crossing. This alternative would differ from the proposed project road design in that the outside travel lanes would meet the County's Major Road standards, resulting in a ROW 2 feet wider than the proposed project.

The railroad crossing component would be the same as the proposed project. The railroad crossing component would reconstruct the York Drive/Woodland Drive intersection to form a signalized four-leg intersection with South Santa Fe Avenue, with the railroad passing through the center of the intersection. Figure 1-5, Sheet 3 includes an insert that shows the configuration of the railroad crossing component.

The drainage component of the project would be eliminated because this alternative would eliminate the Sycamore Avenue extension. However, there would still be impacts

to Buena Creek due to the upgrades of the existing culverts beneath South Santa Fe Avenue.

4.3.2 Comparison of the Effects of the No Sycamore Avenue Extension Alternative to the Proposed Project

Traffic and Circulation

With the No Sycamore Avenue Extension Alternative, the signalized intersection at South Santa Fe Avenue and Robelini Drive would not be eliminated. This intersection would operate at unacceptable LOS E or LOS F in the peak hours in the horizon year (2025), assuming Robelini Drive remains a two-lane road. The South Santa Fe Avenue/Buena Creek Road intersection would continue to be a three-leg intersection and would operate at LOS D in the peak hours. Operations at the other intersections in the project area would be the same as described for the proposed project.

The segment of Robelini Drive between University Drive and South Santa Fe Avenue would continue to operate at LOS E in the short term. The continued increase in traffic on this segment would cause operations to degrade to LOS F within a few years.

With this Alternative, short-term construction impacts would be greater than with the proposed project because the wider road would require more grading, materials import, and paving. However, in comparison to the overall effort, this difference is not considered substantial.

Air Quality

With this Alternative, long-term regional and local air quality impacts would be less than significant, which is the same as for the proposed project. Also, as stated for the proposed project, this Alternative would improve traffic flow and intersection operation, compared to the No Project Alternative, which would improve localized air quality. However, the emissions with the No Sycamore Avenue Extension Alternative would be greater than with the proposed project because of the congested conditions that would occur on Robelini Drive between South Santa Fe Avenue and University Drive,

With this Alternative, construction emissions of fugitive dust and equipment engine exhaust associated with the South Santa Fe Avenue improvements would be greater than with the proposed project because the wider road would require more grading, materials import, and paving. However, the elimination of the Sycamore Avenue Extension and the drainage component would eliminate emissions associated with grading, materials import, and pavement in those areas, thereby offsetting the increases at South Santa Fe Avenue.

Noise

This Alternative would result in less significant, unmitigable traffic noise impacts because the Sycamore Avenue extension would be eliminated. The wider road proposed in this Alternative would move the location of the traffic noise sources 1 foot closer to abutting properties on each side of South Santa Fe Avenue. Traffic volumes and speeds for this Alternative are forecast to be the same as for the proposed project. The changes in noise levels along South Santa Fe Avenue between this Alternative and the proposed project would be negligible and noise impacts would be essentially the same. However, the elimination of the Sycamore Avenue Extension would result in the elimination of the significant noise impact for Receptor 19A on the southern part of Robelini Drive, and Receptors 20, 21, 22A, 23, 57A, 58, and 59, representing seven single-family homes in the Abelia Lane neighborhood. However, implementation of this Alternative would result in increased traffic noise at seven homes on the northern part of Robelini Drive, Receptors 50 through 56A, compared with the proposed project, which would reduce noise to these homes. Existing noise levels at these homes exceed 60 dBA CNEL; the increase with this Alternative would be less than significant.

Hydrology and Water Quality

The permanent and construction-related hydrology and water quality impacts from either this Alternative or the proposed project would not be measurably different.

There would not be a drainage component at Buena Creek for this Alternative so there would be no water quality impact associated with that component. As with the proposed project, Buena Creek drainage would remain an earthen channel and would continue to have a positive benefit to water quality downstream because it would continue to allow

pollutants the opportunity to settle out. However, the existing flood control problem in this area would not be addressed by this Alternative as it would be by the proposed project.

Hazardous Materials

The potential for this Alternative to release or disrupt known potential sources of contamination would be less than for the proposed project because there would be no ROW acquisition or construction associated with the Sycamore Avenue extension.

Biological Resources

In comparison to the proposed project, this Alternative would result in a decrease in biological impacts because the Sycamore Avenue extension would not be constructed. Impacts to riparian and wetland habitats vary only due to the drainage component for Buena Creek. This Alternative eliminates the Sycamore Avenue Extension, which therefore eliminates the drainage improvements to Buena Creek. This would result in fewer impacts to both the wetland and riparian habitats. In addition, this Alternative would result in fewer impacts to all vegetation communities in comparison to the proposed project as shown in Table 4.3-1.

Aesthetic Resources

This Alternative would result in similar visual conditions compared to the proposed project, except the roadway would be 2 feet wider in this Alternative. This difference would not be noticeable to the average viewer. Thus, visual effects of this Alternative would be the same as the proposed project, except that the Sycamore Avenue extension would be eliminated. Though the Sycamore Avenue extension would be eliminated, the County would still be making minor improvements to the culverts under South Santa Fe Avenue and would therefore revegetate Buena Creek with native vegetation to mitigate for temporary biological impacts and improve the aesthetics of the area.

4.3.3 Rationale for Preference of the Project Design over the No Sycamore Avenue Extension Alternative

Though the No Sycamore Avenue Extension Alternative would decrease the significant, unmitigable traffic noise impacts and the biological impacts, this Alternative would not

**Table 4.3-1
Comparison of the Proposed Project and No Sycamore Avenue Extension Alternative Vegetation Impacts**

Impact	Vegetation Communities and Habitat Types								
	Nonnative Grassland	Nonnative Woodland	Disturbed Habitat	Ornamental	Southern Sycamore Willow Woodland	Mulefat Scrub	Arundo Scrub	Southern Willow Scrub	Disturbed Wetlands
Total impacts from Proposed Project	8.30	0.58	0.30	0.37	0.28	0.03	0.33	0.51	0.06
Impact acreage avoided by No Sycamore Avenue Extension Alternative	0.916	0.023	0.09	0.118	0.008	0.01	0.33	0.379	0
Total impacts from No Sycamore Avenue Extension Alternative	7.384	.557	0.21	0.252	0.272	0.02	0.33	0.131	0.06

meet the project's objective of improving the transportation network by realigning South Santa Fe Avenue's intersection with Sycamore Avenue/Buena Creek Road to form a four-leg intersection in conformance with the County Circulation Element. Nor would it meet the objective of improving drainage conditions to accommodate 100-year flows and reduce flooding risks in the area adjacent to Buena Creek. These objectives would not be met because the Sycamore Avenue Extension and associated drainage component would not be constructed under this Alternative.

4.4 The Alternate Railroad Crossing Component Alternative

4.4.1 Description and Setting

The roadway design would be the same as for the proposed project except for the railroad crossing component. South Santa Fe Avenue would be improved to a paved width of 76 feet within a 96-foot ROW width. The typical section would include two 12-foot inside traffic lanes; two 13-foot outside lanes; two 6-foot bicycle lanes; sidewalks; a 14-foot striped, two-way, left-turn median with formal left-turn pockets at public road intersections; and minor drainage improvements to the Agua Hedionda Creek crossing (Figure 1-7). The proposed project would not meet the County's Major Road standards due to a 1-foot reduction in the width of outside travel lanes. Variations of this typical section would be required on certain portions of the road due to NCTD ROW encroachment constraints. No on-street parking would be provided.

The railroad crossing component would decrease the crossing by an angle of approximately 5 degrees less than the existing roadway crossing. This Alternative would add railroad crossing arms and lights. York Drive currently intersects South Santa Fe Avenue at a severe acute angle of 20 degrees. As part of this component, York Drive would be realigned to intersect South Santa Fe Avenue at approximately 70 degrees to satisfy intersection design standards. The realigned section would be approximately 500 feet long and 40 feet wide (curb to curb).

The drainage component of this Alternative would be the same as the proposed project's drainage component. As part of the drainage component, a reconstructed channel would be built upstream of the proposed Sycamore Avenue extension. Once the flow reaches Sycamore Avenue, it would enter into quintuple 6-foot by 10-foot reinforced concrete box culverts that would be constructed underneath Sycamore Avenue. A small

conveyance culvert or pipe would be installed at the entrance to this quintuple box culvert to allow low flows to continue along the existing open, natural Buena Creek channel (Figure 1-8). The small conveyance pipe would be sized to allow only 50 cfs (the existing channel capacity) to enter the channel. The existing Buena Creek channel downstream of Sycamore Avenue would not be physically altered.

Instead of reconstructing the existing Buena Creek channel, low flows would still occur in the existing natural channel. This would allow for a smaller low-flow channel thereby minimizing ROW impacts and displacement of adjacent residential and commercial properties. In addition, the concrete culverts underneath Sycamore Avenue would require lower maintenance because there would be no vegetation to clog the open channel

4.4.2 Comparison of the Effects of the Alternate Railroad Crossing Component Alternative to the Proposed Project

Traffic and Circulation

There would be minor differences in long-term traffic and circulation between this Alternative and the proposed project. As shown in Appendix B, in the near term after improvement of South Santa Fe Avenue with separate intersections at York Drive and Woodland Drive (this Alternative), the South Santa Fe Avenue/York Drive intersection is calculated to operate at LOS C in the AM and PM hours and the South Santa Fe Avenue/Woodland Drive intersection is calculated to operate at LOS B in the AM and PM peak hours. A combined intersection at York Drive/Woodland Drive (the proposed project) would operate at LOS D in both peak hours. In 2025, the South Santa Fe Avenue/York Drive intersection is calculated to operate at LOS D in the AM and PM hours and the South Santa Fe Avenue/Woodland drive intersection is calculated to operate at LOS C in the AM and PM peak hours. The combined York Drive/Woodland Drive intersection is calculated to operate at an acceptable LOS D in the AM and PM peak hours.

An arterial analysis was also conducted on South Santa Fe Avenue between Montgomery Drive and Buena Creek Road, a distance of 1.5 miles. Table 2.1-7 summarizes the results of the year 2025 arterial analysis. As shown in Table 4.4-1, the arterial operations of South Santa Fe Avenue would result in the same LOS for both the proposed project and the Alternate Railroad Crossing Component Alternative.

Table 4.4-1
Alternate Railroad Crossing Component Alternative
Railroad Crossing Year 2025 Analysis

	Alternate Railroad Crossing Component Alternative (separate intersections at York Drive and Woodland Drive)				Proposed Project (combined York Drive/ Woodland Drive intersection)			
	Northbound		Southbound		Northbound		Southbound	
	AM	PM	AM	PM	AM	PM	AM	PM
Speed	29.5 mph	23.1 mph	26.3 mph	23.6 mph	24.2 mph	23.4 mph	20.3 mph	24.0 mph
LOS	B	C	C	C	B	C	C	C

LOS = Level of Service

The railroad crossing component of this Alternative would result in acceptable traffic conditions. However, the railroad crossing component of the proposed project would control the railroad crossing with a traffic signal and would create signalized control for York Avenue traffic to turn onto South Santa Fe Avenue.

With this Alternative, short-term construction impacts would be less than with the proposed project. The proposed project's railroad crossing component would require more grading, materials import, and paving than this Alternative; therefore, it would require more time to construct. However, the difference in construction time between this Alternative and the proposed project is not considered substantial.

Air Quality

As discussed above in Traffic and Circulation, this Alternative and the proposed project would result in very similar traffic operations in future conditions. The only difference would be at the railroad crossing, and this difference is minor. Because the traffic conditions are similar between this Alternative and the proposed project, long-term air quality impacts would be generally the same with no substantial differences.

With this Alternative, construction emissions of fugitive dust and equipment engine exhaust would be the generally the same as the proposed project because it would require the same amount of grading, materials import, and paving for the roadway construction and drainage component. The railroad crossing component would require slightly less grading and construction, however; this difference is minimal. Therefore, there would be

no measurable difference in short-term construction air quality impacts between this Alternative and the proposed project.

Noise

This Alternative would remove the house at Receptor 13A on South Santa Fe Avenue near York Drive, thereby exposing the home at Receptor 13 to traffic. This Alternative would also move York Drive closer to Receptor 13. The result would be a significant, unmitigable impact at Receptor 13 in addition to the other significant, unmitigable impacts from the proposed project. As stated in the Supplemental Noise Impact Analysis, it would not be feasible to construct a visually acceptable noise wall that would provide effective mitigation along the ROW; therefore, a sound wall would not be proposed as part of this alternative. If this alternative were to be pursued, the construction of a sound wall on private property to reduce the noise impact should be considered further.

Hydrology and Water Quality

The permanent and construction-related hydrology and water quality impacts from either this Alternative or the proposed project would not be measurably different because drainage improvements for this Alternative are the same as for the proposed project.

Hazardous Materials

The potential for this Alternative to release or disrupt known potential sources of contamination would be less than for the proposed project because there would be less ROW acquisition and construction associated with this railroad crossing component.

Biological Resources

As compared to this Alternative, the proposed project would result in an additional 1.11 acres of impacts to nonnative grasslands. As described in the Biological Technical Report, the remainder of the biological impacts would be the same for this Alternative as for the proposed project.

Aesthetic Resources

This Alternative would result in similar visual conditions compared to the proposed project. Neither this Alternative's railroad component nor the proposed project's railroad component would result in a significant visual impact. The area near the railroad crossing would be landscaped as a project design feature of either this Alternative or the proposed project. Two drawings show the future visual environment with the implementation of this Alternative and two separate intersections at York Drive and Woodland Drive. The drawings of these two intersections are shown in Figures 4.4-1 and 4.4-2, respectively. Though this Alternative would align the intersections at the railroad crossing differently than the proposed project, the overall visual effect is similar in that both designs create new roadway features such as curbs, gutters, sidewalks, and landscaping. The visual difference is not considered substantial.

4.4.3 Rationale for the Preference of the Project Design over the Alternate Railroad Crossing Component Alternative

Though this Alternative would result in less significant impacts to nonnative grassland than the proposed project, the railroad crossing component in this Alternative would not combine the railroad crossing with the four-leg intersection at South Santa Fe Avenue/York Drive/Woodland Drive. The operational efficiency at the intersection would be improved with the proposed project because the railroad crossing would be controlled with a traffic signal and the intersection would create additional signalized control for York Avenue traffic to turn onto South Santa Fe Avenue.

4.5 No Project Alternative

Under the No Project Alternative, South Santa Fe Avenue would not be widened and the extension of Sycamore Avenue would not be built. The existing transportation system would remain in place. Additionally, the measures included in the project to control flooding of Buena Creek would not be implemented. Under the No Project Alternative, all impacts to Buena Creek would be avoided and no residences or businesses would have to be relocated. Without the project, traffic operations would worsen and South Santa Fe Avenue, Buena Creek Road, Robelini Drive, the intersection of South Santa Fe Avenue/Robelini Drive, and the intersection of South Santa Fe Avenue/Buena Creek Road would be at LOS F (gridlock condition) by the year 2025. The No Project

Alternative would not contribute to relief of congestion on SR 78 as no improvements to the South Santa Fe Avenue arterial would occur, nor would it alleviate traffic and community impacts on Robelini Drive. In addition, flooding risk for private property on Robelini Drive and Sycamore Avenue along Buena Creek would continue.

When compared with the proposed project, air emissions from traffic in the project area would be greater with the No Project Alternative because of the reduced speeds and greater delays at intersections. There would be no construction phase air quality impacts under the No Project Alternative.

Traffic noise levels adjacent to South Santa Fe Avenue and Robelini Drive would be less with the No Project Alternative because of the reduced speeds. Noise level increases and traffic noise impacts forecast for the proposed project, at homes on Abelia Lane, would not occur. With the No Project Alternative, there would be no construction; therefore, there would be no construction noise impacts.

With the No Project Alternative, there would be no construction, so there would not be the potential to disrupt existing hazardous materials. However, any hazardous sites affected by the project would be remediated with project implementation. Thus, the potential benefit of remediation would not occur with the No Project Alternative.

The No Project Alternative would eliminate all potentially permanent biological resources impacts associated with new project construction and operation. Under the No Project Alternative, none of the proposed improvements would be constructed, and the existing roadway configurations in the project area would remain unchanged. This Alternative would eliminate all biological resources impacts associated with new project construction and operation.

The comparison of the visual effects between the project alternatives and the No Project Alternative is subjective. The No Project Alternative would result in less unity in the project area infrastructure improvements and less new landscaping. However, the No Project Alternative would also not affect existing resources of some visual quality, such as Buena Creek. In addition, the No Project Alternative would not result in the light and glare impacts to the two residences along Poinsettia Avenue.

4.6 Alternative Locations

CEQA also requires the consideration of off-site alternatives. Per Section 15126.6(f)(2) of the CEQA Guidelines, the key question to ask when considering whether alternative locations should be analyzed in an EIR is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Alternative locations would not avoid the impacts discussed in the preceding sections. In addition, construction-related impacts (e.g., potential noise, air quality, and water quality) would exist in other areas of the region. These types of construction-related impacts are most appropriately mitigated to less-than-significant levels with implementation of construction-related measures and BMPs, as outlined in this EIR, and should not drive the consideration of alternative locations. Furthermore, the improvements to South Santa Fe Avenue are specific to this location. Improving another roadway would not address the existing and projected operational deficiencies of South Santa Fe Avenue.

4.7 Additional Project Alternatives Considered and Withdrawn

The Alternative Study prepared for the County by Pountney & Associates evaluated four basic road design alternatives that had been identified for the project (Pountney & Associates 1988). From this evaluation, four subalternatives (variations of the basic alternatives) evolved. Each of these eight project design Alternatives was withdrawn from further detailed evaluation, though features of some of these project alternatives were incorporated into the two road design alternatives that are evaluated in this EIR.

Project Alternative I

Alternative I would improve South Santa Fe Avenue, generally following its existing alignment, using Major Road standards and design criteria. This would provide a four-lane divided roadway with raised median, within 112 feet of ROW, and with bike lanes, parking, and sidewalks on both sides of the road. While this Alternative would substantially achieve the project's capacity and design speed goals, perceived detriments were community land use impacts and high costs for ROW acquisition and construction to full Major Road design standards.

Project Alternative II

Alternative II would improve South Santa Fe Avenue, generally following its existing alignment, with modified Major Road standards and design criteria. This would provide a four-lane divided roadway while modifying design cross-sectional standards to reduce impacts to existing ownerships and land uses. ROW width would vary from 75 feet to 90 feet. The narrower ROW would provide four lanes with a painted median, bike lanes on both sides, sidewalk on one side, and no parking on either side. The wider ROW would provide four lanes with a raised median, sidewalks and bike lanes on both sides, and parking on one side. This Alternative would minimize community land use impacts and reduce ROW acquisition and construction costs. The reduced design standards, unresolved intersection conflicts, and relatively high construction costs associated with maintenance of access in the northerly portion were perceived detriments to this alternative.

Project Alternative III

Alternative III would relocate the northerly portion of South Santa Fe Avenue to the west side of the railroad and use the modified design cross-sectional standards of Alternative II to reduce impacts to existing ownerships and land uses. A bridge would be constructed to provide a grade-separated crossing of the railroad for local traffic circulation. Perceived benefits of this alternative would be reduced impact to existing developed properties and optimized traffic flow through a congested area. Perceived detriments were additional costs for a new road alignment and for construction of a bridge.

Project Alternative III-A

Alternative III-A would be similar to Alternative III in that it would relocate the northerly portion of South Santa Fe Avenue to the west side of the railroad, but it would use full Major Road standards and design criteria instead of the modified design cross-section of Alternative II. The full Major Road standards would improve traffic flow in comparison to Alternative III. As with Alternative III, the additional costs for a new road alignment and for construction of a bridge would be perceived detriments.

Project Alternative III-B

Alternative III-B would also relocate the northerly portion of South Santa Fe Avenue to the west side of the railroad but would use modified Major Road standards and design criteria to reduce community land use impacts, and ROW acquisition and construction costs. The reduced traffic flow improvement in comparison to Alternative III-A was a perceived detriment of this alternative.

Project Alternative III-C

Alternative III-C would relocate the northerly portion of South Santa Fe Avenue to the west side of the railroad and also relocate the existing grade crossing of the railroad to an alignment following Alternative III. This would eliminate the need for the bridge over the railroad and would probably require closure of the grade crossing to local traffic. This alternative would use either Major Road standards or modified Major Road standards and design criteria. Perceived benefits would be reduced acquisition and construction costs, reduced disruption to existing land uses, improved railway crossing geometry, and improvement of conflicting intersection movements. The reduced design standards were a perceived detriment to this alternative.

Project Alternative IV

Alternative IV would improve South Santa Fe Avenue through partial realignment of the southbound traffic lanes in the north portion of the road to the west side of the railroad. This would provide one-way couplet roads in this north portion with two lanes and a bike lane in each direction, and a sidewalk and parking on one side of each couplet. The modified design cross-sectional standards of Alternative II would be used to minimize impacts to existing ownerships and land uses. A bridge would be constructed to provide a grade-separated crossing of the railroad to connect the couplets. The existing grade crossing of the railroad would be redesigned to a T configuration. Perceived benefits of this alternative would be reduced cost in comparison to the realignment alternatives and reduced impact to existing developed properties. Perceived detriments were additional costs for departure from the existing ROW and for construction of a bridge, constriction of traffic flow at the railroad grade crossing, and a high degree of “out-of-direction” travel for local traffic.

Project Alternative IV-A

Alternative IV-A would modify the one-way couplet roads of Alternative IV to eliminate the bridge crossing of the railroad. Instead, a second at-grade railroad crossing would be provided for the southbound lanes. Perceived benefits would be reduced acquisition and construction costs, reduced disruption to existing land uses, improved railway crossing geometry, and improvement of conflicting intersection movements. The time and difficulty in securing NCTD approval for the additional railroad crossing and reduced design standards were perceived detriments of this alternative.

Realignment to Cross the Railroad at York Drive at a 90-degree Angle

South Santa Fe Avenue is located immediately adjacent to the railroad in the crossing area. A realignment to allow the crossing to be at a 90-degree angle and still retain safe curve radii for a major roadway would require the realignment to be 1,400 feet away from the crossing on both sides to set up the approaches to the crossing. This alternative was rejected because of the large number of displaced residential and commercial properties that would be needed to acquire the additional ROW. In addition, the west side of the road would need to be widened directly into a hillside; this would not be in keeping with limiting the amount of grading required.

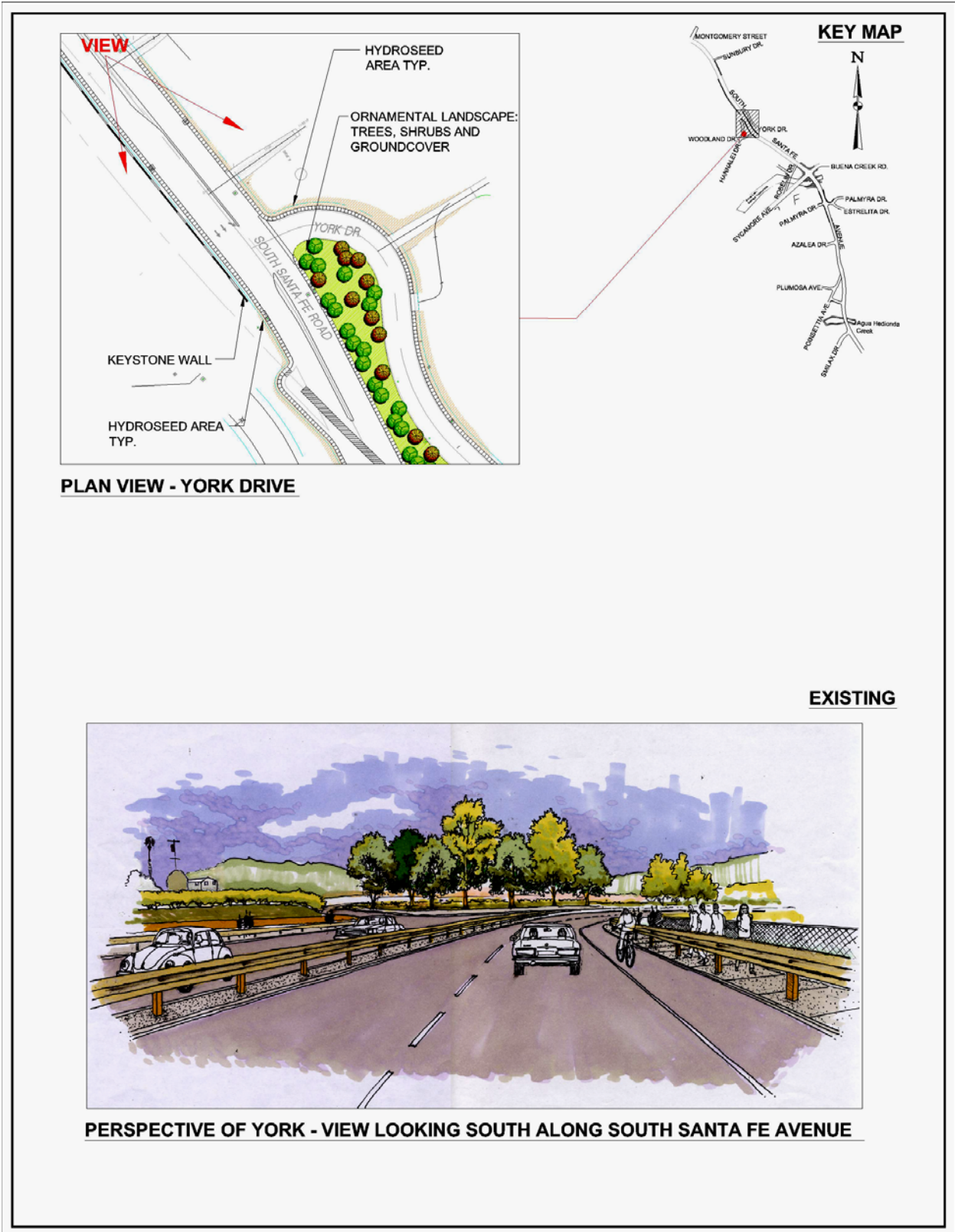


Figure 4.4-1
York Drive, Railroad Crossing Alternative

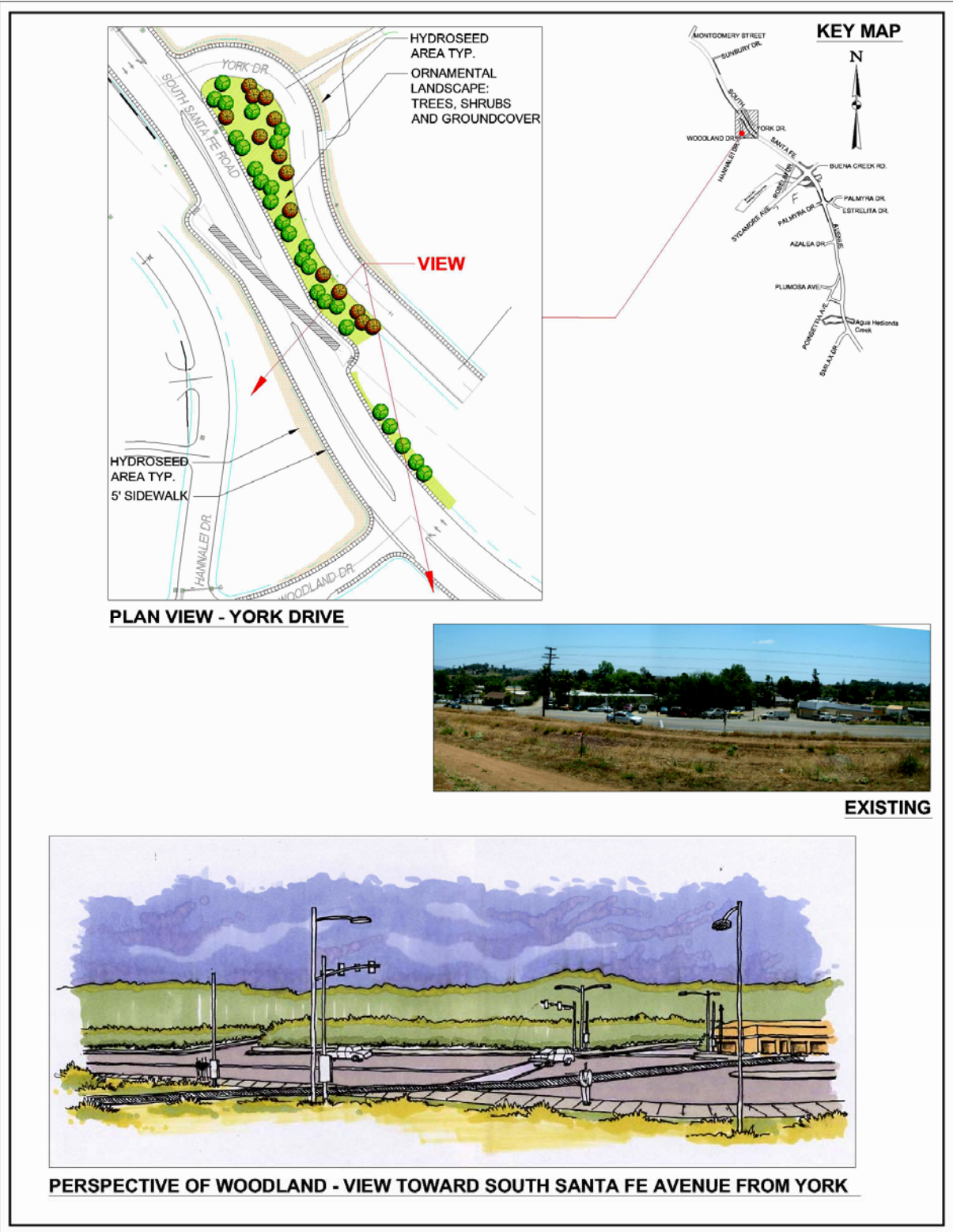


Figure 4.4-2
Woodland Drive, Railroad Crossing Alternative

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2003b 2030 San Diego Regional Transportation Plan for the San Diego Region: Air Quality Conformity Finding. April 9.

San Diego Herpetological Society (SDHS)

1980 Survey and status of endangered and threatened species of reptiles natively occurring in San Diego County.

Tate, J. Jr., and D.J. Tate

1986 The Blue List for 1986. *American Birds* 35(1):3-10.

United States Department of Transportation (USDOT)

2003 Federal Highway Administration and Federal Transit Administration joint letter of acceptance for the SANDAG Air Quality Conformity Determination. April 9.

United States Fish and Wildlife Service (USFWS)

1999 Endangered and Threatened Wildlife and Plants. 50CFR 17.11 and 17.12. December 1999. 55pp.

U.S. Environmental Protection Agency (USEPA)

1993 Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule. 40 CFR Parts 6, 51 and 93. November 30.

- 2003 Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; 1-Hour Ozone Standard for San Diego, CA. Final Rule. Federal Register Vol. 68, No. 123, Pages 37976-37978. June 26. (Note: a minor correction to this Rule was published in the Federal Register Vol. 68, No. 155, Page 47964. August 12, 2003.)

University of California, Davis. Institute of Transportation Studies (UCD ITS)

- 1997 Transportation Project-Level Carbon Monoxide Protocol (UCD-ITS-RR-97-21). December.

URS Corporation

- 2002a Additional Phase I Environmental Site Assessment Services and Supplemental Summary, South Santa Fe Avenue Reconstruction Project, San Diego County, California. May 24.

- 2002b Phase I Environmental Site Assessment, South Santa Fe Avenue Reconstruction Project, San Diego County, California. April 16.

Vista Fire Protection District

- 1999 Personal communications with Fire Protection District Chief Purdie. November.

CHAPTER 6.0 - LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

This EIR was prepared by the County of San Diego, Department of Public Works, with support by EDAW, Inc.

County of San Diego

Nelson Olivas

Daryl Trumbo

Casey Lydon

Steve Ron

Sandy Maule

Marcos Peraza

Kathleen Hider

Joan Goosens

EDAW, Inc.

Ray Hrenko

B.S., 1980, Environmental Science, Florida Institute of Technology

Years of Experience: 21

Contribution: Principal-in-Charge

Bobbette Biddulph, AICP

B.S., 1992, City and Regional Planning, California State Polytechnic University,

San Luis Obispo

Years of Experience: 11

Contribution: Project Manager

Jerry McLees

B.A., 1967, English, San Diego State University

M.A., 1977, Public Administration, San Diego State University

Years of Experience: 33

Contribution: Environmental Specialist

Megan Ashbaugh

B.A., 1987, Biology, Scripps College

Years of Experience: 6

Contribution: Environmental Analyst

Karen Brandt

B.A., 1975, Geography, San Diego State University

Years of Experience: 26

Contribution: Visual Analysis

Kevin Derby

B.S., 1994, Environmental Conservation, University of Colorado

Years of Experience: 8

Contribution: Biologist

Kara Friedman

B.A., 1999, Environmental Studies, University of Kansas

Years of Experience: 4

Contribution: Environmental Analyst

Paula Jacks

B.A., 1979, Biology, Habitat and Plant Studies, University of Colorado

M.S., 1984, Biology, Vegetation Ecology, San Diego State University

Years of Experience: 14

Contribution: Biologist

Jim Kurtz

B.S., 1961, Engineering, University of California, Los Angeles

Years of Experience: 35

Contribution: Noise and Air Quality Analysis

John Messina

B.S., 1985, Conservation and Resource Studies, University of California, Berkeley

M.S. 1990, Ecology, University of California, Davis

Years of experience: 11

Contribution: Biologist

Erin Riley

B.S., 1999, Biology-Behavioral Ecology, University of Maryland, College Park

Years of Experience: 4

Contribution: Biologist

Persons and Organizations Contacted

The project has involved coordination with the USFWS on the list of potentially affected species and the NRCS on the Farmland Conversion Impact Rating. Pre-application coordination meetings were also held to discuss the proposed project on September 15, 1999, and December 15, 1999, with ACOE, USFWS, CDFG, and RWQCB. Follow-up meetings were held on March 12, 2002, with ACOE, and on April 16, 2002, with CDFG, to discuss wetland permitting requirements.

ACOE, Terrance Dean

CDFG, Libby Lucas

CDFG, Kelly Fisher

CDFG, William Tippetts

NRCS, Jason N. Jackson

RWQCB, Mike Porter

RWQCB, Robert Morris

USEPA, Becky Tuden

USFWS, Patricia Cole

USFWS, Pete Sorensen

USFWS, Susan Wynn

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From: [Shabo, Caroline \(Carly\)](#)
To: [Sandra Farrell](#)
Subject: RE: [External] Buena Creek Moves presentation
Date: Monday, November 4, 2024 10:54:49 AM

Good morning Sandra,

Thank you for clarifying. CBT itself will not result in any physical changes that would require an EIR because the deliverable is a neighborhood mobility plan that will serve as a visioning document, but I reached out to DPW to better understand what would be required if a project were to move forward in that area.

There is currently a proposal for a project at South Santa Fe Avenue South Phase 2 at Robelini to Improve intersection of South Santa Fe at Robelini Drive and Buena Creek Road by realigning Robelini Drive toward the southeast to improve operation of the intersection. County environmental staff are reviewing the currently proposed design for road improvements to South Santa Fe Avenue. The project proposes to improve a section of the road, but not the entire section evaluated in the previous EIR. Their preliminary review, conducted pursuant to section 15162 of the CEQA Guidelines, indicates that the current project will not result in new significant impacts beyond those identified in the previous EIR. Therefore, a supplemental EIR is not proposed. Rather, an Addendum to the previous EIR will be prepared documenting their review. Please let me know if I can connect you with staff in DPW for additional information.

Best,
Carly

-

Carly Shabo (she/her)

Planner I Planning and Development Services | Long Range Planning
[County of San Diego](#) | [5510 Overland Ave. Suite 310 | San Diego, CA 92103](#)
Phone 619-541-0033 Email Caroline.Shabo@sdcounty.ca.gov

From: Sandra Farrell <tovcsg.vice.chair@gmail.com>
Sent: Wednesday, October 30, 2024 9:23 PM
To: Shabo, Caroline (Carly) <Caroline.Shabo@sdcounty.ca.gov>
Subject: Re: [External] Buena Creek Moves presentation

Hi Carly,

No, I thought since the 2005 EIR for the South Santa Fe Road improvement was adopted prior to the adoption of the 2011 County General Plan, the General Plan would have changed land use designations and therefore the South Santa Fe Road, EIR, would need to be updated with a Supplemental EIR. An EIR for any major or Community Based

Transportation project should consider the EIR and design elements of the South Santa Fe improvements since everything needs to work together.

I think one of the reasons why Buena Creek can't move is because South Santa Fe improvements from San Marcos to Vista were never completed. As a result, when combined with the Sprinter at grade crossing and the odd Robellini intersection, traffic on Robellini backs up to University Ave, South Santa Fe backs up from Vista to San Marcos, Palmyra/Primrose Ave/ Lobelia, backs up the Sycamore, and Buena Creek backs up to Monte Vista. I think the County needs to do a traffic study first for the area to understand what is happening.

Sandra

On Mon, Oct 28, 2024 at 4:18 PM Shabo, Caroline (Carly)
<Caroline.Shabo@sdcountry.ca.gov> wrote:

Hi Sandra,

I just want to make sure I understand your question- do you mean a supplemental EIR for the Community Based Transportation Project (Buena Creek MOVES)?

Best,
Carly

-

Carly Shabo (she/her)

Planner | Planning and Development Services | Long Range Planning
[County of San Diego](#) | [5510 Overland Ave, Suite 310 | San Diego, CA 92103](#)
Phone 619-541-0033 Email Caroline.Shabo@sdcountry.ca.gov

From: Sandra Farrell <tovcsg.vice.chair@gmail.com>
Sent: Friday, October 25, 2024 5:29 PM
To: Shabo, Caroline (Carly) <Caroline.Shabo@sdcountry.ca.gov>
Subject: Re: [External] Buena Creek Moves presentation

Thank you Carly,
So much has changed since 2005 including the density changes with the VR designation during the 2011 General Plan update. Also, in light of the changes to increase density and provide transportation solutions that address GHG. Do you know if they will need to do a supplemental EIR to make sure the project will meet the new density requirements which may impact how the road needs to be designed?

Sandra

On Fri, Oct 25, 2024 at 10:51 AM Shabo, Caroline (Carly)

<Caroline.Shabo@sdcounty.ca.gov> wrote:

Hi Sandra,

I checked in with my colleagues in DPW and they let me know that the EIR you inquired about was certified. Let me know if you have any additional questions and I can connect you with someone who is more familiar with that project and can better assist!

Best,

Carly

-

Carly Shabo (she/her)

Planner I Planning and Development Services | Long Range Planning

[County of San Diego](#) | [5510 Overland Ave. Suite 310 | San Diego, CA 92103](#)

Phone 619-541-0033 **Email** Caroline.Shabo@sdcounty.ca.gov

From: Sandra Farrell <tovcsg.vice.chair@gmail.com>

Sent: Thursday, October 17, 2024 9:46 PM

To: Shabo, Caroline (Carly) <Caroline.Shabo@sdcounty.ca.gov>; Dawn Haake- Chair <tovcsg.chair@gmail.com>

Subject: [External] Buena Creek Moves presentation

Hello Carly,

Thank you for the wonderful presentation to the community on transportation needs of the Buena Creek Community.

As we discussed, I've attached the 2004 DEIR for South Santa Fe that you can forward to the consultant. I would like to know if this DEIR was certified and is now considered and FEIR. It is too bad the road improvements weren't done during the mid to late 2000's when public works projects cost far less than they do today.

--



Sandra Farrell, Vice Chair

Twin Oaks Valley Community Sponsor Group

From: [Shabo, Caroline \(Carly\)](#)
To: ["Sandra Farrell"](#)
Cc: [Marlett, Julie K](#)
Subject: RE: [External] input to Buena Creek Moves
Date: Thursday, October 10, 2024 2:54:00 PM

Good afternoon Sandra,

Received- thank you so much for this input! We will forward this to our consulting team to be included in feedback received for Buena Creek MOVES and I will follow up with you if they have any clarifying questions on what you have shared.

Thank you all for your continued engagement with this project!

Best,
Carly

-

Carly Shabo (she/her)

Planner | Planning and Development Services | Long Range Planning
[County of San Diego](#) | [5510 Overland Ave. Suite 310 | San Diego, CA 92103](#)
Phone 619-541-0033 **Email** Caroline.Shabo@sdcounty.ca.gov

From: Sandra Farrell <tovcsg.vice.chair@gmail.com>
Sent: Wednesday, October 9, 2024 9:57 PM
To: Shabo, Caroline (Carly) <Caroline.Shabo@sdcounty.ca.gov>
Subject: [External] input to Buena Creek Moves

Hi Carly,

At our meeting tonight we passed the following motion in response to Buena Creeks Moves. We may have more to add after your presentation.

Motion to support the County's process to increase movability in the Buena Creek Area by:

1. finish South Santa Fe between Vista and San Marcos,
2. provide sidewalks and multi-use paths for pedestrian and bicycles,
3. help prevent graffiti by requiring all vertical hardscape surfaces to be covered with low water use climbing vegetation such as Una de gato; Uncaria tomentosa or cat's claw,
4. provide traffic calming on Buena Creek Road to prevent speeding and accidents,
5. provide center median turn lane along Buena Creek so people can get in and

out of their driveways safely,

6. add adequate parking in the apartments near the sprinter so vehicles do not block pedestrian pathways to shopping on University avenue, and public transportation

7. and for the Sprinter Station:

- a. provide a way to make a left turn into the parking lot
- b. provide sufficient parking
- c. safe pedestrian access and security
- d. provide connectivity from the Sprinter Station to other public transportation,
- e. elevate the tracks at Buena Creek so that emergency vehicles are not prevented from addressing emergencies on Buena Creek Road when the Sprinter train is in the station and the crossing guards are down.

--

Thank you very much.

--



Sandra Farrell, Vice Chair

Sandra Farrell, Vice-Chair

Twin Oaks Valley Community Sponsor Group

From: [Shabo, Caroline \(Carly\)](#)
To: [Betsy Landers](#)
Cc: [Todd Landers](#); [Sandra Farrell](#)
Subject: RE: FW: The Peak at Buena Creek
Date: Wednesday, October 16, 2024 3:31:00 PM

Good afternoon Betsy,

Thank you so much, again, for joining us last night! We so appreciate your engagement in this project. I will pass this along to our consulting team to be included in feedback received and I will follow up with you if they have any clarifying questions. I will keep you posted as we work towards the neighborhood mobility plan and moving this project forward!

Best,
Carly

-

Carly Shabo (she/her)

Planner | Planning and Development Services | Long Range Planning
[County of San Diego](#) | 5510 Overland Ave. Suite 310 | San Diego, CA 92103
Phone 619-541-0033 Email Caroline.Shabo@sdcounty.ca.gov

From: Betsy Landers <blandersusa@gmail.com>
Sent: Wednesday, October 16, 2024 6:19 AM
To: Shabo, Caroline (Carly) <Caroline.Shabo@sdcounty.ca.gov>
Cc: Todd Landers <tlandersusa@gmail.com>; Sandra Farrell <tovcsg.chair@gmail.com>; Betsy Landers <blandersusa@gmail.com>
Subject: [External] Fw: FW: The Peak at Buena Creek

Hello Carly,

It was great meeting you all last night. Thank you for the outreach! We are really excited to work with you and your team to optimize, beautify and revitalize the Buena Creek area around the Sprinter station, etc.

As I mentioned last night, my friend mentored a team in 2016 for the Urban Land Institute (ULI) Healthy Places competition between local universities to come up with some ideas for the area around the Sprinter Station. Attached is the presentation. Please pass this along and let us know what you think. Also, we would be happy to host you at our house for a site visit if you are interested. Google our address so you can see the ponds in our neighborhood.

Thanks again and we look forward to working with you!

Regards,
Betsy Landers
2120 Walnut Lane
Vista, CA 92084

760.712.7727

From: Betsy Landers <blandersusa@gmail.com>
Sent: Monday, November 13, 2023 4:22 PM
To: Paola.Garcia-Betancourt@sdcounty.ca.gov
Subject: Fwd: FW: The Peak at Buena Creek

Hello Paola,

Attached is a project my friend worked on with a project team and local colleges about an idea for the area around the Sprinter Station. It was a competition between schools I believe.

--

You're welcome! It's a start.

On Wed, Jul 19, 2023, 11:36 AM Sandra Farrell <sfarrell1900@gmail.com> wrote:

This is great Betsy! Thank you!

Sandra

On Wed, Jul 19, 2023 at 8:59 AM Landers, Betsy <blanders@guardian-capital.com> wrote:

Hello All,

This is a project my friend worked on in 2016 for the Urban Land Institute (ULI) Healthy Places competition between local universities I believe. I've included her on the email and her contact information is below. It's been a while so I don't exactly remember the exact details. With the Buena Creek agenda item on the meeting tonight I wanted to share. Todd will be at the

meeting tonight and he can explain further.

Thank you all for all you do!

1. **Buena Creek/South Santa Fe Community Planning:** *Over many years, residents along Buena Creek have requested information about land use policies in their area and the Sprinter Station. The County is updating its Housing Ordinance to provide more varied housing types and promote growth around the Sprinter Station located at the Corner of Buena Creek Road and South Santa Fe. The County is developing a plan for the Buena Creek/South Santa Fe area that will guide development around the Sprinter Station and hopefully make the area a vibrant community hub. At this meeting we will hear from Vista City Manager, John Conley to learn how Vista used various tools to create a variety of housing and commercial uses to redevelop downtown Vista. Mr. Conley is familiar with the Buena Creek/South Santa Fe area and the areas between Vista and San Marcos. He will help the public understand the opportunities and challenges land use agencies and developers have when trying to build projects in an infrastructure deficient area. This discussion will tie into the 2023 Housing Zoning Ordinance Update*

Regards, Betsy

From: Crista Swan [<mailto:cristam@pmainc.com>]

Sent: Saturday, March 12, 2016 7:17 PM

To: Betsy Landers (<

Subject: RE: The Peak at Buena Creek

Hi Betsy, use this version. The slides are in order.

CRISTA SWAN, Business Development/ Project Manager

PROJECT MANAGEMENT ADVISORS, INC.

DEVELOPMENT MANAGEMENT | PROJECT MANAGEMENT | INVESTOR REPRESENTATION

462 Stevens Avenue, Suite 106 | Solana Beach, CA 92075

direct 858.704.1973 | cell 760-458-0797 | fax 858.704.0795

www.pmainc.com



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The PEAK

At Buena Creek

Connecting People and Places



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Looking west toward storage unit facility



Looking west toward potential future development

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Site Plan

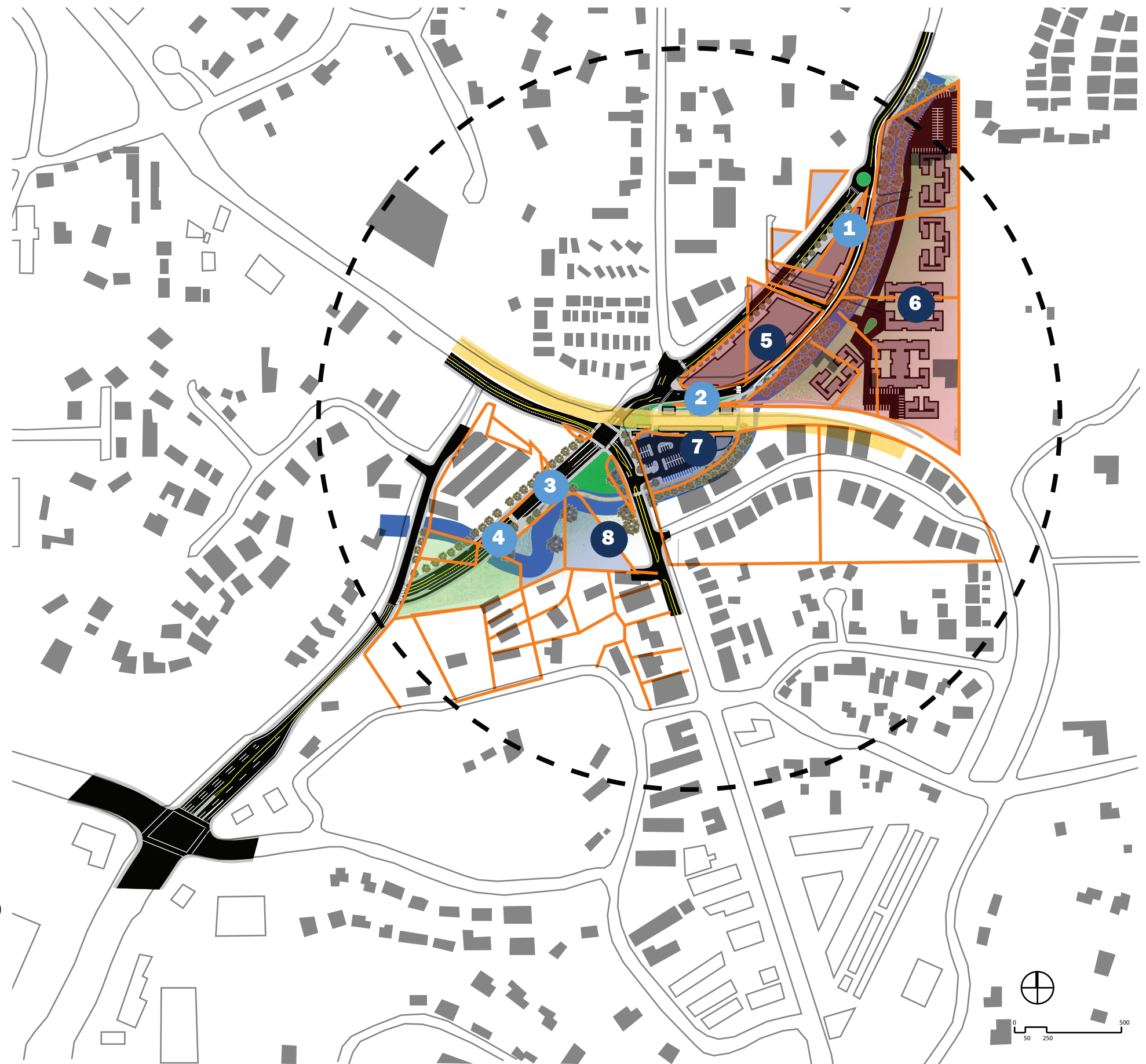
Site Plan

- 1** New Buena Creek Road (View North)
- 2** Old Buena Creek Road (View East)
- 3** New Buena Creek Rd.+Path (View North)
- 4** New Buena Creek Rd. w/Bike Path (View North)
- Mixed-Use Lofts **5**
- Multi-family Apartments **6**
- Library Kiosk/ Cafe **7**
- Community Garden/Outdoor Theater **8**

*Reference appendix for images

Legend

- | | |
|--|---|
|  Lots Acquired |  1/4 Miles (5 min. Walking Distance) |
|  Community Space |  Housing/ Non Commercial |
|  Easements Acquired |  Commercial/ Industry |
|  Property Lines |  Roads |

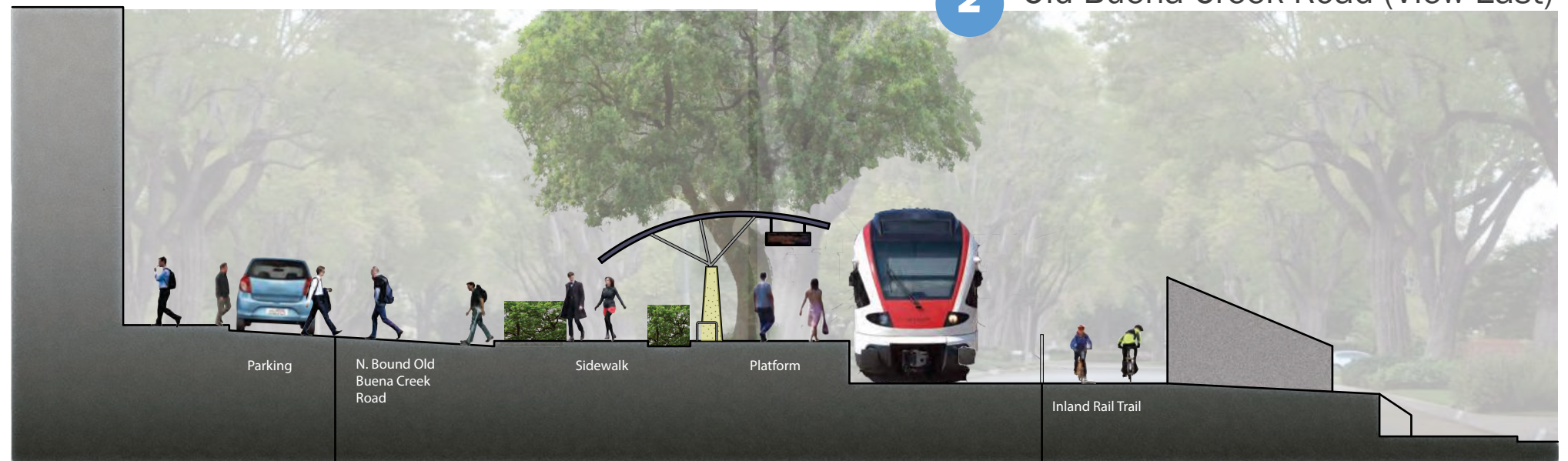


Site Plan - Cross Sections

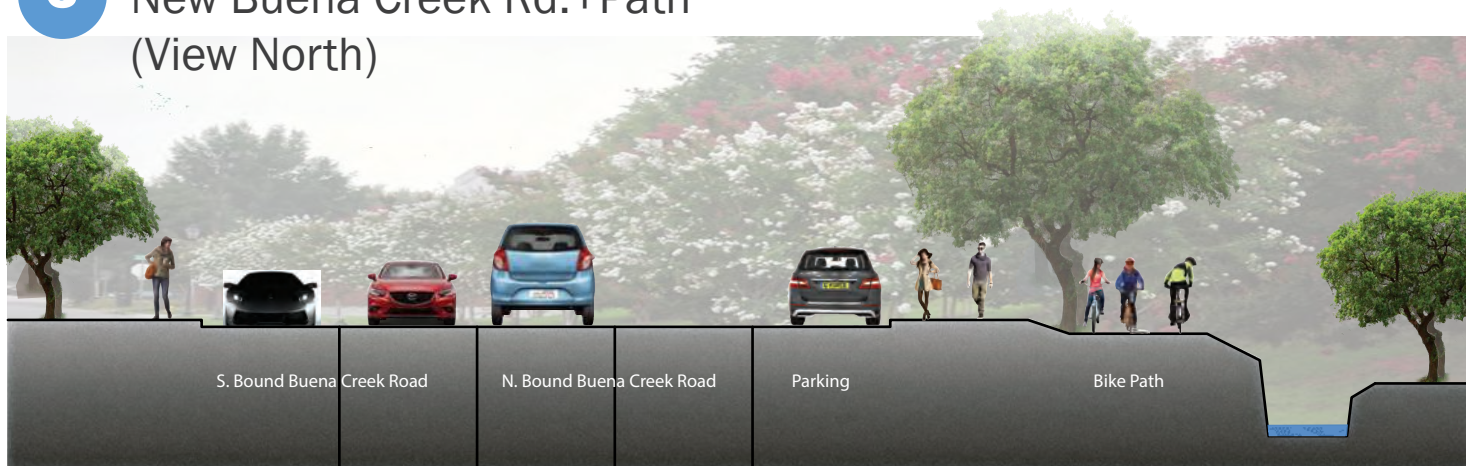
1 New Buena Creek Road (View North)



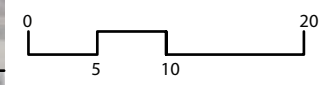
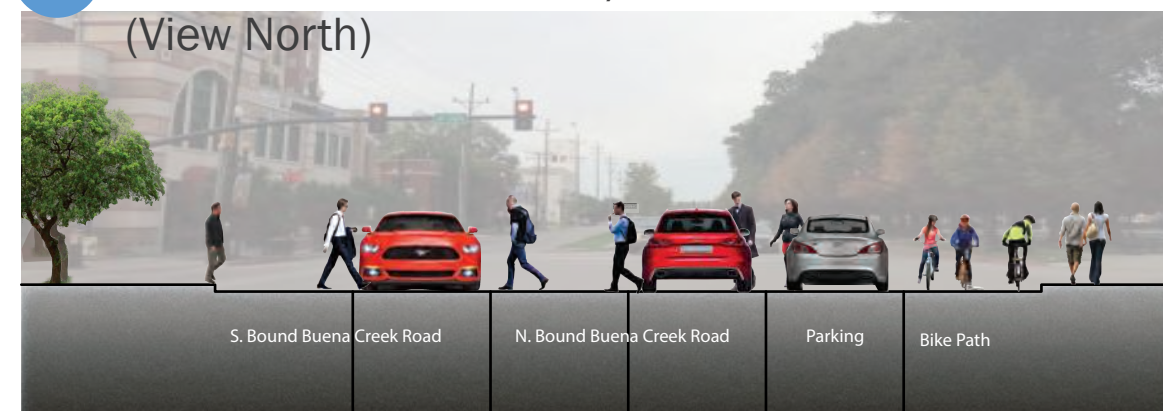
2 Old Buena Creek Road (View East)



3 New Buena Creek Rd.+Path (View North)



4 New Buena Creek Rd. w/Bike Path (View North)

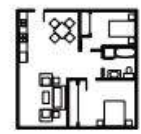


Site Plan - Healthy Places

5 Mixed-Use Lofts



6 Multi-family Apartments

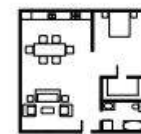


825 S.F. 2 bed, 1 bath

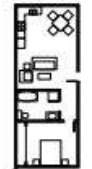


480 S.F. Studio

Potential floor plans



600 S.F. loft



560 S.F. 1 bed, 1 bath



7 Library Kiosk/ Cafe



8 Community Garden/Outdoor Theater





Narratives

Design & Development

People



The PEAK at Buena Creek is a development that values People, the Environment, Accessibility and the K[C]ommunity. Its design, in keeping with the Urban Land Institute's Healthy Places Principals, SANDAG's Regional Growth Plan, and the County of San Diego's Live Well initiative, connects people and places. Current and future residents will benefit from a number of infrastructure and place making improvements, including:

Pedestrian/Bicycle Path: Connecting to the Inland Rail Trail, this path follows the creek and provides a focal point for the community. Furthermore, the path provides enhanced connectivity for pedestrians and bicyclists from surrounding neighborhoods to the North County Square shopping center at Sycamore Ave. and University Drive.

Environment



Creek Revitalization: Buena Creek is the focal point of the community. Enhancing its features and inviting people to connect with this valuable resource is the lynchpin of The PEAK's design. In partnership with the County of San Diego funding will be obtained to revitalize the portion of Buena Creek along the developments proposed bike and pedestrian path.

Safety/Traffic Calming: The current design prioritizes safety for all users. The inclusion of street lighting along sidewalks and the pedestrian path provides an inviting atmosphere for pedestrians and bicyclists. In-pavement flashing crosswalk signals will be added to key crossings in an effort to slow vehicular traffic. Lastly, the design includes a roundabout where new and old Buena Creek Road converge to support the flow of traffic moving from the one-way to new Buena Creek Road.

Accessibility



Improved Vehicular Circulation: The realignment of Buena Creek Road supports the proposed improvements to the community's pedestrian and bicycle infrastructure. Most importantly, the design improves traffic flow for commuters trying to access State Route 78, and the community shopping center on University Drive.

Community Amenities: Creating ways for community members to connect with one another is highlighted with the addition of a community garden, deck/seating area overlooking Buena Creek, and a "Library To Go" kiosk placed at the Sprinter Station. Ideally, the project will engage the nearby elementary school to establish and support the maintenance of the community garden.

Konnections

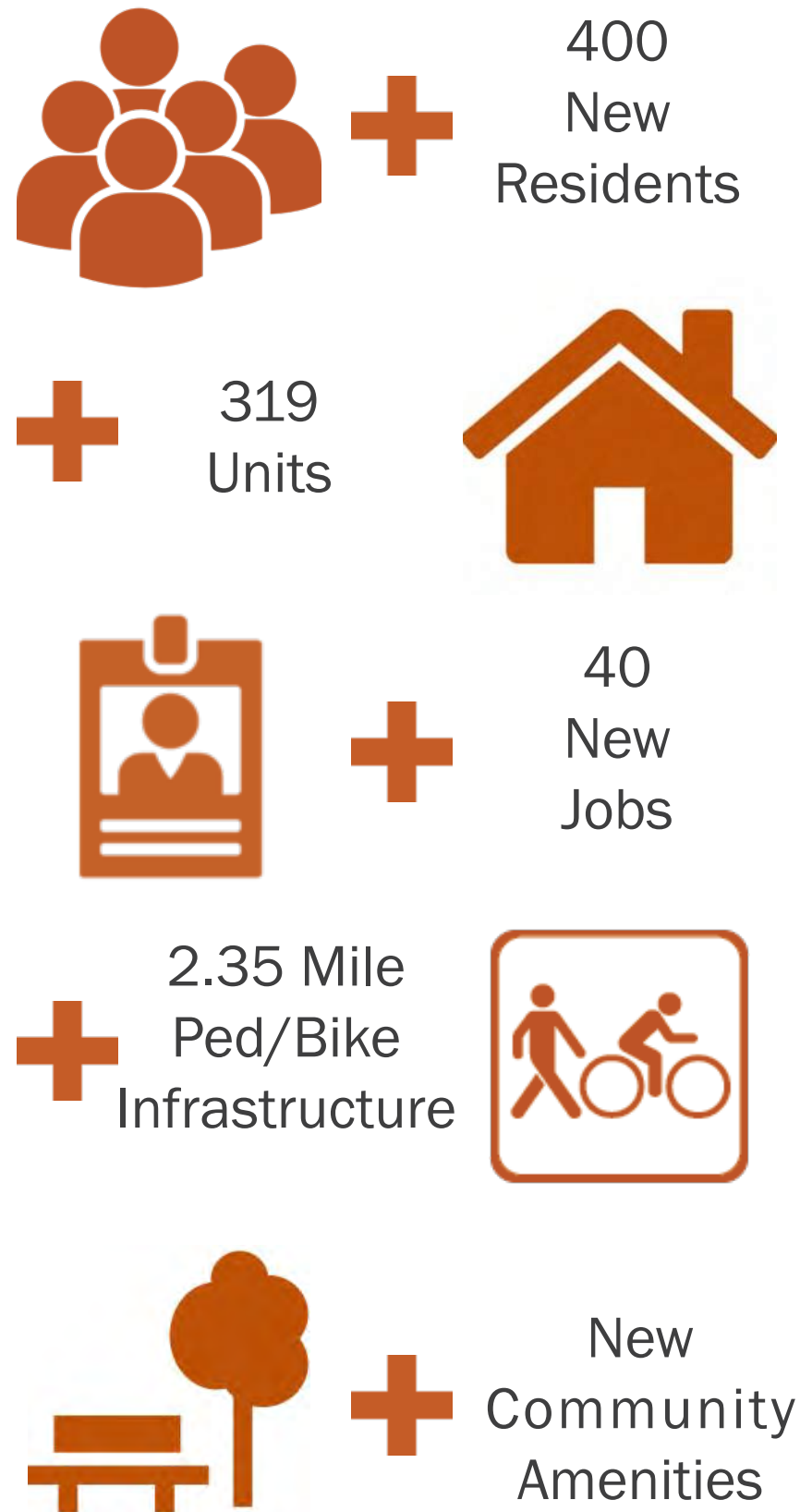


Multi-family Housing: The proposed development provides an array of housing options from luxury one bedroom lofts to affordable studio and one bedroom apartments.

Affordable Housing: The PEAK at Buena Creek is a place for all people. The inclusion of affordable housing enables a greater diversity, allowing more people to experience the numerous benefits of a connected community.

Mixed-Use: Incorporating several commercial spaces into the development was essential for creating balance and attracting people to the Buena Creek area. The commercial space will provide the station's riders added incentive, providing them opportunities for corner grocery, green dry cleaner, and other transit compatible businesses.

Financial Perspective



The financial plan of our Buena Creek proposal reflects the effort to comply with community objectives while creating a dynamic location that increases density and transit ridership while providing community oriented spaces and features and minimizing displacement of existing residents. Our project begins with acquisition of only 9 of the 18 parcels identified in the study area. This decision is based on our projection of high land acquisition costs, displacement considerations, and existing highest and best use situations. Our parcel cost was derived by assembling comps and adding a small premium to account for unmotivated sellers and then an average unit price was generated.

The vision of land use for our project is for dense multi-family housing with affordable elements to the north of the Sprinter station with mixed-use retail and lofts located across the creek along Buena Creek Road, with creek restoration planned and community spaces and amenities along a new walking trail that will extend into the publicly-owned green space south of Santa Fe Ave. Transit oriented upgrades including a deck, weather canopy, and transit café are planned as well.

Our multi-family unit mix and rent mix are as follows: 71 studios at 482 SF renting at \$2.06/SF, 110 one-bedroom apartments at 560 SF renting at \$2.05/SF, 86 two-bedroom apartments at 825 SF renting at \$1.97/SF, 9 one-bedroom affordable housing units at 560 SF renting at approximately \$1.47/SF, 23 studio affordable housing units at 482 SF renting at approximately \$1.47/SF, and 20 lofts at 650 SF renting at \$1.99/SF. The mixed-use complex includes 15,000 SF of small retail space segmented into five suites. One 6000 SF suite, two 3000 SF suites, and two 1500 SF suites. We project the space leasing out to a coffee shop, corner grocery, green dry cleaner, and other service retailers or transit compatible businesses at a rate of \$1.80/SF NNN.

Our project capital will consist of a large portion of syndicate equity with a 10% preferred return, and a 2-3 year construction loan, followed by permanent take-out financing, augmented by several public grants and partnerships related to our creek restoration and transit and infrastructure improvements. The PEAK has significant investment upside. If absorption remains relatively strong and our projected rent growth of 3.5% is achieved the current approach of building, stabilizing, and disposing of the property should earn the equity syndicate a projected internal rate of return close to 21% by delivering a dense, high quality product that meets community needs and creates a vibrant transit destination. With retail space, creek restoration, and transit upgrades, The Peak strives to be an ecosystem connecting people and places.

3



Financial
Documents

Pro Forma

Development Assumptions:	
Estimated Project cost	\$ 51,006,160.00
Built Cap Rate	5.86%
Grants	\$ 2,709,500.00
Construction Loan- Loan To Cost	65%
Loan Interest Rate	5%
GP/LP Equity	35%
Pref.	10%

Refinance Assumptions:	
Projected Value:	\$ 65,562,947
Cap Rate	4.80%
LTV	65%
Interest Rate	4%
Permanent Loan Sizing	1.21x DCR
Take Out Financing (Perm. Loan)	Year 1 Stabilized Opt.

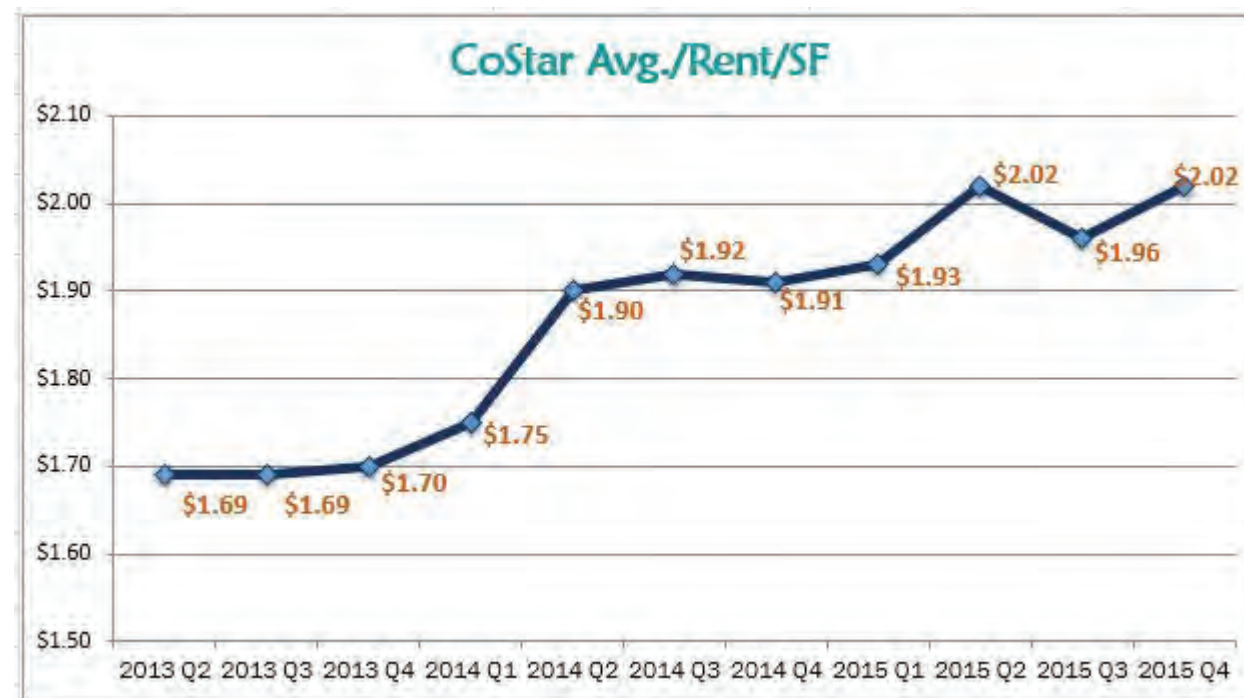
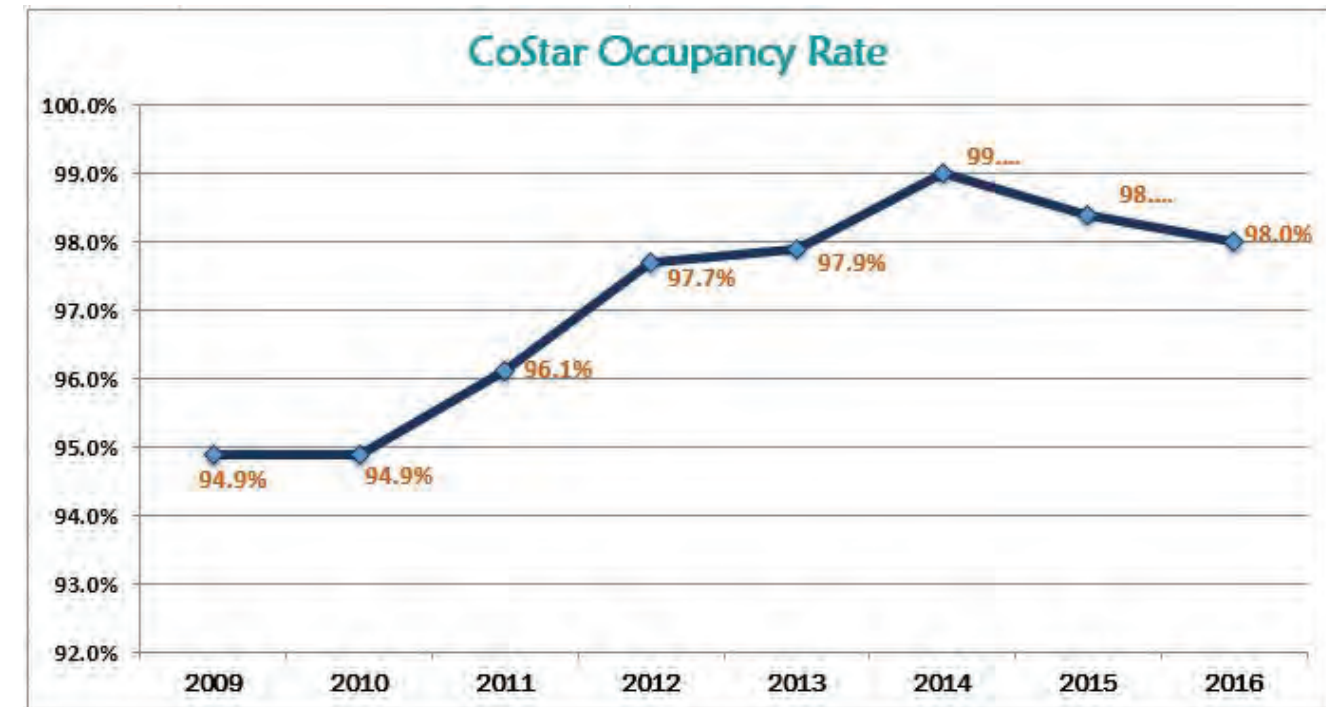
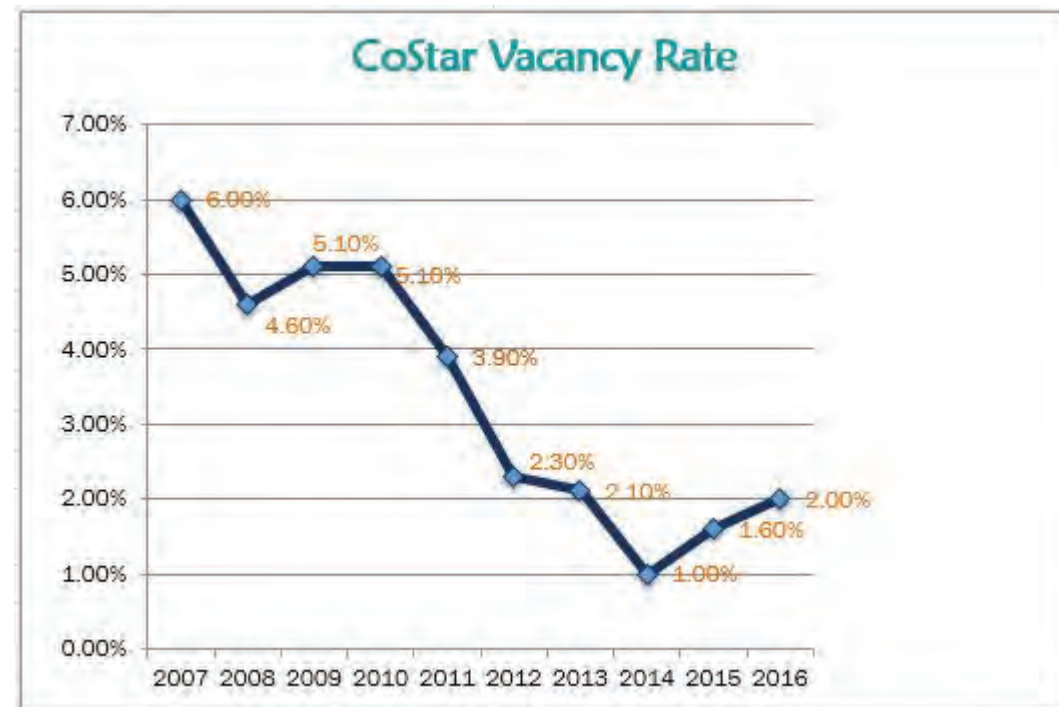
Unit-Mix	Rental Rate/SF
Studios	\$ 2.06
Lofts	\$ 1.99
1 Bedroom	\$ 2.05
2 Bedroom	\$ 1.97
Retail	\$ 1.80

Disposition Assumptions	
Reversion Value	\$ 70,324,526.76
Cap Rate	5.25%
Vacancy Rate- Multifamily	5%
Vacancy Rate- Retail	8%
Annual Rent Appreciation	3%
Annual Expense Appreciation	2.5%
IRR	21%
Multiple	2.29

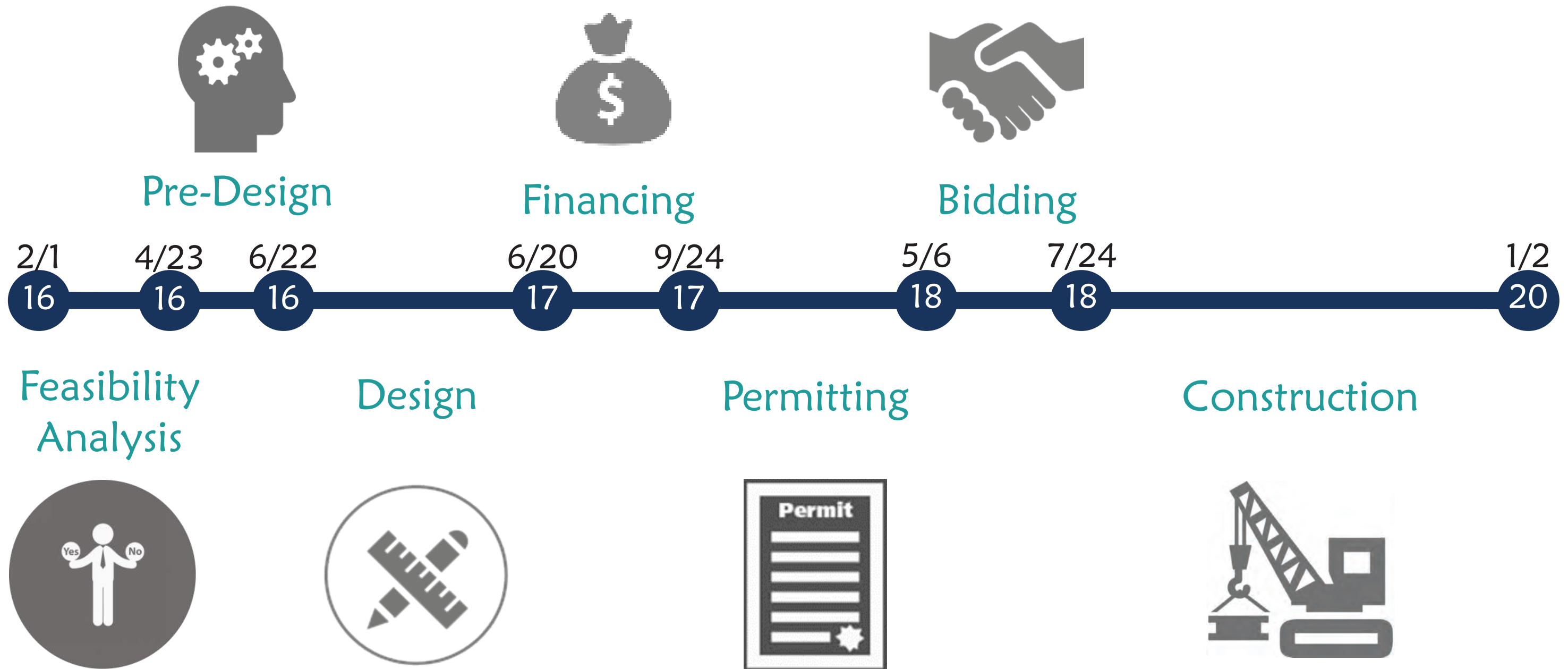
Project Costs				
Item	Number	Unit	Cost	Total
Parcels	9	Parcels	\$465,000	\$4,185,000
Site Remediation	10.77	Acres	\$90,000	\$969,300
Site Demolition	20,000	SF	\$5.00	\$100,000
Grading/Clearing/Erosion	10.77	Acres	\$20,000	\$215,400
Water/Sewer/Drainage	10.77	Acres	\$60,000	\$646,200
Parking Spaces (290SF)	111,012	SF	\$15.00	\$1,665,180
Sidewalks/Curbs	80,000	SF	\$12.00	\$960,000
Street Improvements	150,000	SF	\$12.00	\$1,800,000
Round About	1	Number	\$100,000	\$100,000
Road Paint	2,500	SF	\$1.00	\$2,500
Crosswalk safety lights	150	Number	\$30.00	\$4,500
Vehicular Bridge	1,500	SF	\$352.00	\$528,000
Street Lights	50	Number	\$6,000	\$300,000
319 Multifamily Units Type	204,643	GSF	\$150.00	\$30,696,435
Community/Retail Space	15,000	SF	\$180.00	\$2,700,000
Improved Storage Contain	1	Number	\$25,000.00	\$25,000
Library Kiosk	1	Number	\$0.00	\$0
Bike Racks	10	Number	\$1,000.00	\$10,000
Creek Restoration	4,300	SF	\$175.00	\$752,500
Landscape	50,000	SF	\$4.00	\$200,000
Gravel Walking Path	9,300	SF	\$2.50	\$23,250
Redwood Headers for Tra	1,860	LF	\$5.00	\$9,300
BBQ/Shaded Picnic Area	2	Number	\$17,500	\$35,000
Outdoor Exercise Equipm	10	Number	\$1,500	\$15,000
Large Canopy	1	Number	\$25,000	\$25,000
Wooden Transit Deck	3,000	SF	\$3.50	\$10,500
Benches	6	number	\$1,000	\$6,000
Path Easement	1	number	\$50,000	\$50,000
Sub Total				\$46,034,065
Contingency	5%	Percent	\$46,034,065	\$2,301,703.25
Acquisition Costs	3%	Percent	\$4,185,000	\$125,550
Architecture & Engineering			\$750,000	\$750,000
Specialty A & E			\$500,000	\$500,000
Entitlement			\$350,000	\$350,000
Park Fees	319	Units	\$6,103	\$1,946,857
Traffic Impact Fees	319	Units	\$3,315	\$1,057,485
Discretionary Fees			\$300,000	\$300,000
Permit Fees			\$350,000	\$350,000
Total				\$53,715,660

Please reference USB for additional pro forma information.

Market Feasibility



Development Schedule



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The Team

Lisa A. Maier, Project Manager

Masters in City Planning, Candidate

San Diego State University



Daughter to a retired navy veteran/vocational rehabilitation counselor and a registered nurse, Lisa Maier found a career in social and civic service a natural path. Never one to follow the grain, however, she was the only female on her first Little League team. By college, Lisa's ability to forge her own way led to internships and jobs with local political leaders, the first research collaboration between the Psychology and Political Science departments at the University of California Riverside, and a summer internship with the university's Office of Federal Government Relations in Washington, D.C..

After graduating in 2006, with a double major in both disciplines, Lisa focused on social service - supporting the development of young leaders through both the social integration and environmental movements. In 2011, Lisa moved to the Republic of Korea to teach English for two years. In that time she grew the after school program by 40 percent, and received Bronze Prize in the annual teaching competition. Ready to take on a new challenge, Lisa returned to the United States to pursue a career in emergency planning, and immediately began volunteering (and ultimately working) for the American Red Cross (ARC). Currently, she continues to volunteer for ARC, but is focused on her final semester of graduate school. This May, Lisa will graduate with honors and will receive her Masters in City Planning. Lisa's career goals include securing a position as a Chief Resilience Officer, and to serve as Chair of the Olympic planning committee.



Mark Ambrose

Masters of Science in Real Estate, Candidate
University San Diego

Mark Ambrose is a California licensed real estate agent (01975380) and native of the San Francisco Bay Area. He received his Bachelor of Arts in English Literature at the University of Colorado in Boulder. Upon graduating he went to work with distressed properties and value-add investments. Mark then spent several years working on tech start-up projects in San Francisco before returning to real estate. He is an investor with active interests in multi-family property, agriculture, and stock positions. Mark has also worked with self-storage facilities and small business concepts. He is currently a student in the MSRE program at the University of San Diego. During his free time Mark enjoys reading, fishing, kite boarding, and water skiing.



Courtney Armusewicz

Masters in City Planning, Candidate
San Diego State University

Courtney Armusewicz grew up in a small town on the east end of Long Island, she spent a much of her time outdoors and knew her career path would be different in comparison to her military family. She was eager to help both people and the environment. At San Diego State University, she discovered her niche majoring in Environmental Studies and Political Science. Being from a small town, not to mention the first to go to college, she jumped at the chance to participate in two study abroad opportunities. The first, Oxford University, she focused on international politics and foreign relations giving her insight into the complexities of the political realm. During her time here, she noticed that she could walk to class and experienced a positive, pedestrian friendly environment. Then, as a research assistant for the United Nations Millennium Development Goals in the Dominican Republic. This experience gave Courtney the opportunity to work hands on researching and assessing the region's success in addressing: poverty and hunger rates, primary education, gender equality, medical access (child mortality rates, HIV/AIDS, malaria), environmental sustainability, and development partnerships. At the end of the analysis, Courtney and her fellow researchers presented their findings to board members of Grupo Punta Cana.

After graduating in 2012, Courtney pursued her GIS certificate while interning for the San Diego River Park Foundation. Here she led volunteer cleanup events, witnessing first hand the impacts of homelessness and an ignored river system. These experiences opened her eyes to a number of planning and social issues. Soon after, she began as a Research Assistant in GIS for the SDSU Research Foundation and a private consulting firm. Courtney is currently completing her first year in the Masters of City Planning program at San Diego State University. Additionally, she is a transit intern at SANDAG, and continues her GIS work. Courtney plans on acquiring a position that will benefit from her hard work and well rounded knowledge that will result in creating communities that reflect a balance of the environment, social equity, and economic opportunity.



Herencia Del Rico

Masters of Architecture, Candidate
NewSchool of Architecture and Design

Growing up in a traditional American suburb for most of his life, driving was a necessity. Or so, he thought. After studying in small private institution classes, he was able to develop close relationships with the faculty. This ultimately helped him attain a greater understanding of design and design integration. Herencia received his Associates and a certificate in Drafting of Technology and went on to earn his Bachelors degree in Interior Design. He finally receiving the opportunity to attend an Architectural college, where he has developed a knowledge of space as a reaction to an action. A fact that has become more apparent after moving to the city, where a car is more of a luxury than a necessity. Currently, Herencia is pursuing his Masters of Architecture at New-School of Architecture and Urban Design. The focus of his program is exploring and discovering different environments, how people influence spaces, and how spaces influence people. Herencia's passion for architecture, forward design of space, and the interaction of space will continue influence his work after he graduates this June.



London Mandrell

Masters of Science in Architecture, Candidate NewSchool of Architecture and Design

From a young age, London had a passion for people, and a desire to help others. As an undergraduate at CSU - Channel Islands, she studied Psychology and gained a greater understanding of the complexities of human nature. This knowledge was a great platform for pursuing her other fascination - architecture. As young person, she enjoyed attending open houses with her parents in her hometown, Thousand Oaks, CA.

In 2012, she decided to move to San Diego for a few months, and despite her mother's protest the city won her heart. As a Community Representative for Shea Homes, London's craving to understand urban design and sustainability grew. It was her time volunteering with the Global Energy Network Institute (GENI) to further her knowledge of sustainability practices in San Diego, however, where she discovered this field was truly exciting and mattered deeply. In October of 2015, she joined her two interests, and began a Masters of Science in Architecture program at NewSchool of Architecture and Design. She has focused her academic studies in Healthy Urbanism, and intends to pursue a career in sustainable design.



Jason Rastegar

Masters of Science in Real Estate, Candidate
University San Diego

Mehrbod Jason Rastegar is a San Diego native. He attended Cal State University Northridge, where he received his Bachelor of Arts in Economic with a minor in Marketing. Jason's career in real estate began at the age of 17, working for a real estate office in San Diego. He obtained his real estate licenses at 19 and practiced for 5 years. During this time, he co-founded a real estate investment firm, La Jolla Beach & Properties, specializing in condo conversions. Jason later transitioned to real estate financing as a mortgage consultant and underwriter for Countrywide Home Loans. Here he produced and underwrote more than \$250 million in loans. As a mortgage banker, Jason specialized in refinances and purchases of residential properties.

Jason's experience and passion for real estate has inspired him to pursue an advance degree in real estate as a Master's of Science in Real Estate (MSRE) candidate at USD. As MSRE candidate, Jason looks forward to becoming more acquainted with all aspects of commercial real estate industry, and hopes to become more knowledgeable about the different facets of the real estate field, particularly: acquisitions, investment, development and asset management. In his free time, he enjoys exercising, cooking, and practices yoga.



Katie Spencer

Masters of Science in Architecture, Candidate New School of Architecture and Design

I was born and raised on Guam, which created a life-long passion for diving, sailing and devotion to the ocean. I studied international relations in Australia at Adelaide University and graduated from UC Santa Cruz with a Bachelor of Arts degree in Politics. I worked for the non-profit, Rotary funded, project, “Afghan Youth Connect,” which focused on educational and technology access for 7,000 high school students in Jalalabad, Afghanistan. I continue to volunteer and support the students and staff in grant writing and project support. I also worked for 5 years at the life-science venture capital firm, Forward Ventures.

I recently completed a certification in Project Management at UC San Diego. I am currently pursuing a Masters of Science in Architecture degree at the New School of Architecture with an emphasis on healthy urbanism and sustainability. I round out my hands-on learning by teaching a weekly ceramics class.



Crista Swan, Mentor

Business Development/Project Manager Project Management Advisors

Crista Swan is currently employed at Project Management Advisors, Inc. (PMA) and has diverse experience in residential and commercial construction project management and owner representation, business management, and real estate. She provides project management services primarily for landlords and tenant(s) to facilitate progress, resolve project issues, and drive schedule and budget goals.

Her business management and real estate experience derives from running her own real estate sales and investment corporation prior to joining PMA. In that endeavor, she worked with individual owners, buyers, and home builders on new construction and renovation projects throughout San Diego County. Prior to her real estate career, Crista worked in the software industry as a product manager and a quality assurance manager, responsible for software design and development, product marketing, QA plan design and implementation, training, and support.

Crista's educational background includes a B.S. in Computer Science at San Diego State University and a Master of Business Administration from University of Redlands. She spends her off-duty time leading an all-volunteer group, Friends of New Haven, that raises money to support the mission of New Haven Youth and Family Services which is to help equip and restore hope to youth in Southern California.

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Appendix

Grants

Grant Funding Sources

Grant Type	Amount Covered	Tasks Funded
SANDAG Smart Growth Incentive Program	\$ 500,000.00	Street Improvements, Sidewalk/Curbs, Round About, Road Paint, Street Lights, Crosswalk Safety Lights
SANDAG Active Transportation	\$ 500,000.00	Redwood headers for trails, gravel walking path, path easement, street improvements
People for Bikes Community Grant	\$ 10,000.00	Bike Racks
Affordable Housing and Sustainable Communities Program (Cap and Trade)	\$ 1,000,000.00	Housing, Street Improvements
Urban Greening Grant Program (Prop 84)	\$ 750,000.00	Creek Restoration

Allocation of Grant Funds

Project	Cost of Project	Amount Grant Paid	Balance
Sidewalks/Curbs	\$ 960,000.00	\$ 42,500.00	\$ 917,500.00
Round About	\$ 100,000.00	\$ 100,000.00	
Road Paint	\$ 2,500.00	\$ 2,500.00	\$ -
Street Lights	\$ 300,000.00	\$ 300,000.00	\$ -
Crosswalk Safety Lights	\$ 4,500.00	\$ 4,500.00	\$ -
Street Improvements	417,450.00	\$ 417,450.00	
Gravel Walking Path	\$ 23,250.00	\$ 23,250.00	\$ -
Redwood Trail Headers	\$ 9,300.00	\$ 9,300.00	\$ -
Path Easement	\$ 50,000.00	\$ 50,000.00	\$ -
Bike Racks	\$ 10,000.00	\$ 10,000.00	\$ -
Housing	\$ 30,696,435.00	\$ 500,000.00	\$ 30,196,435.00
Street Improvements	\$ 1,800,000.00	\$ 500,000.00	\$ 882,550.00
Creek Restoration	\$ 752,500.00	\$ 750,000.00	\$ 2,500.00
Total	\$ 33,758,935.00	\$ 2,709,500.00	\$31,081,485.00



peopleforbikes™



California
Strategic Growth Council

Please reference USB for additional grant information.

References



http://www.noozhawk.com/article/goleta_planning_commission_approves_175_unit_development_in_old_town



<http://www.sandiegouniontribune.com/news/2015/jun/26/county-buying-three-more-library-kiosks/>



<http://www.wellingtonnz.com/discover/word-on-the-street/eat-and-drink/stories-esspresso-nails-quality-and->



http://www.builderbytes.com/index_10-9-13.php



Source: <http://www.denverrealestatewatch.com/2015/08/08/terraza-del-sol-westwood-catalyst/>

References

California State Density Bonus

Rails To Trails

Density Bonus Chart*

Affordable Unit Percentage**	Very Low Income Density Bonus	Low Income Density Bonus	Moderate Income Density Bonus	Land Donation Density Bonus	Senior Density Bonus ***
5%	20%	-	-	-	20%
6%	22.5%	-	-	-	20%
7%	25%	-	-	-	20%
8%	27.5%	-	-	-	20%
9%	30%	-	-	-	20%
10%	32.5%	20%	5%	15%	20%
11%	35%	21.5%	6%	16%	20%
12%	35%	23%	7%	17%	20%
13%	35%	24.5%	8%	18%	20%
14%	35%	26%	9%	19%	20%
15%	35%	27.5%	10%	20%	20%
16%	35%	29%	11%	21%	20%
17%	35%	30.5%	12%	22%	20%
18%	35%	32%	13%	23%	20%
19%	35%	33.5%	14%	24%	20%
20%	35%	35%	15%	25%	20%
21%	35%	35%	16%	26%	20%
22%	35%	35%	17%	27%	20%
23%	35%	35%	18%	28%	20%
24%	35%	35%	19%	29%	20%
25%	35%	35%	20%	30%	20%
26%	35%	35%	21%	31%	20%

The proposed development includes 10% low income affordable housing, and is eligible for the density bonus and reduced parking requirements.



The proposed development connects to the current regional Inland Rail Trail project, providing additional pedestrian and bicycle infrastructure.

Please reference USB for additional information.

References

Urban Land Institute Healthy Places

Ten Principles for Building Healthy Places

1. Put People First
2. Recognize the Economic Value
3. Empower Champions for Health
4. Energize Shared Spaces
5. Make Healthy Choices Easy
6. Ensure Equitable Access
7. Mix It Up
8. Embrace Unique Character
9. Promote Access to Healthy Food
10. Make It Active



County of San Diego General Plan



SANDAG Regional Growth Plan

