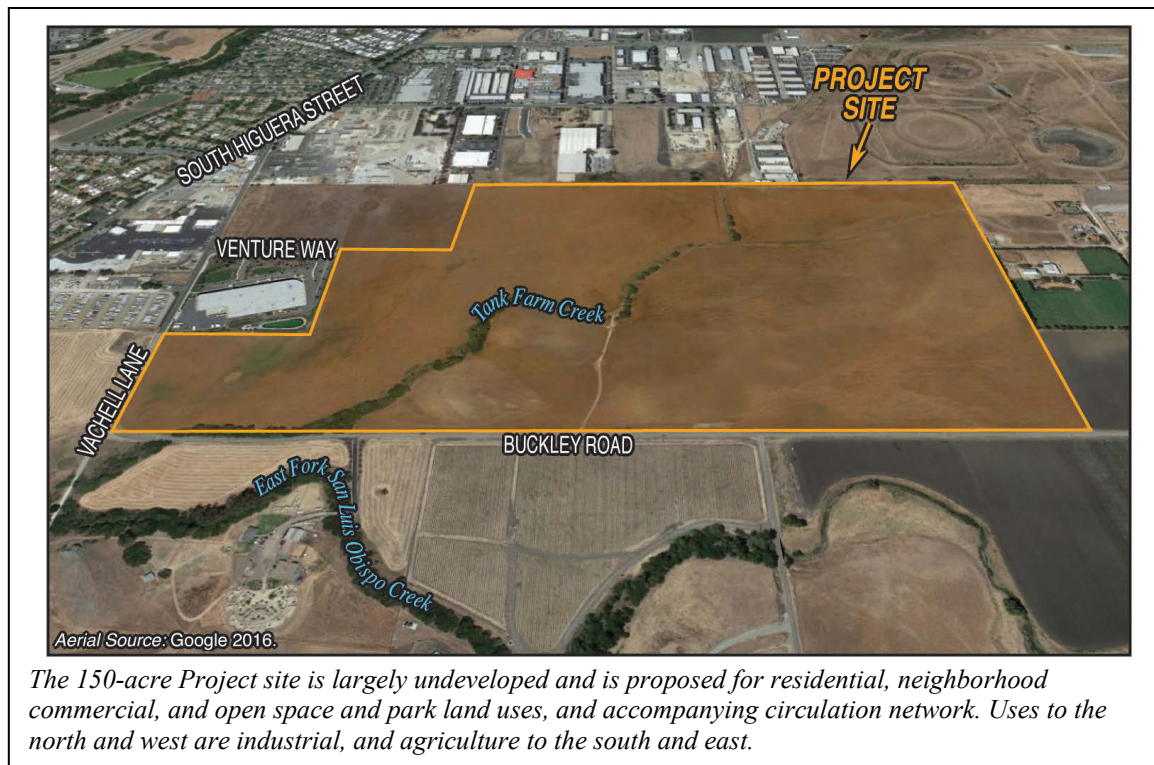


2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

Avila Ranch, LLC (Applicant) proposes the implementation of the Avila Ranch Development Plan (Development Plan), including a General Plan amendment, amendments to the Airport Area Specific Plan (AASP), and related actions to permit development of the approximately 150-acre Project site, which collectively comprise the Avila Ranch Development Project (Project). The Project is intended to implement the City of San Luis Obispo's (City's) vision for the Project site as guided by the City's 2014 Land Use and Circulation Elements of the General Plan (LUCE). The City's LUCE specifically identifies the Project site as a Special Focus Area and requires preparation of a specific plan for this area to address key planning and environmental issues including: the designation of an appropriate land use mix; the need for a variety of housing types and levels of affordability; provision of open space, parks and trails and restoration of Tank Farm Creek; protection and mitigation of impacts to agricultural resources; a circulation network and linkages to the surrounding community; and the incorporation of utilities and infrastructure.

In order to implement this vision, the Development Plan and an amendments to the AASP provide a detailed set of standards and requirements to guide development of the Project



site. The Development Plan details the allowable mix of land uses and development types, the roadway, bicycle and pedestrian circulation framework, development standards, and open space/resource protection. The Draft Development Plan (December 2015) is contained within Appendix D.

The proposed Project would consist largely of low, medium, medium-high, and high density residential land uses on 68.23 acres (45 percent of site), to support a range of housing densities and affordability levels. Open space and park land uses would comprise approximately 71.30 acres (47 percent of site) to provide recreational facilities for future residents and protect Tank Farm Creek and its riparian corridor and adjacent agricultural uses. Commercial land uses would be limited to a 3.34-acre Town Center, connected to the proposed residential neighborhoods through a new network of roadways and bicycle paths. The Project would include burying approximately one-fifth (600 feet) of the length of Tank Farm Creek and realigning and extending the creek 1,200 northeast through the site to improve connectivity with upstream drainage, allow for more developable area and support include restoration of a continuous riparian corridor through the site.

2.2 PROJECT APPLICANT TEAM

Applicant:

Avila Ranch, LLC
Andrew Mangano
735 Tank Farm Road
San Luis Obispo, CA 93401

Applicant's Agent:

Stephen Peck, AICP
Peck Planning and Development
2455 Greenwood Avenue
Morro Bay, CA 93442

Project Design:

Pam Ricci, AICP
RRM Design Group
3765 South Higuera St., Ste. 102
San Luis Obispo, CA 93401

Project Engineer:

Cannon Corp.
c/o John Rogers
1050 Southwood Drive
San Luis Obispo, CA 93401

2.3 EXISTING PHYSICAL SETTING

2.3.1 Project Location

The Project site is located within City limits, northeast of the intersection of Buckley Road and Vachell Lane, and extends for approximately 0.75 miles along Buckley Road east of this intersection. The Project site consists of three parcels totaling 150 acres with Assessor's Parcel Numbers (APNs) 053-259-004, 053-259-005, and 053-259-006. The Project site is surrounded by industrial and commercial development to the north and west,

and by agricultural lands in unincorporated areas of the County of San Luis Obispo (County) to the south and east (see Figure 2-1); the San Luis Obispo County Regional Airport (Airport) lies 0.6 mile east of the Project site.

2.3.2 Project Vicinity

The Project site is located in the Los Osos Valley. The region has relatively level topography with vegetation that consists primarily of grasslands, low lying wetlands and drainages and agricultural fields. Mature trees within the region are generally located within established windrows along riparian corridors of

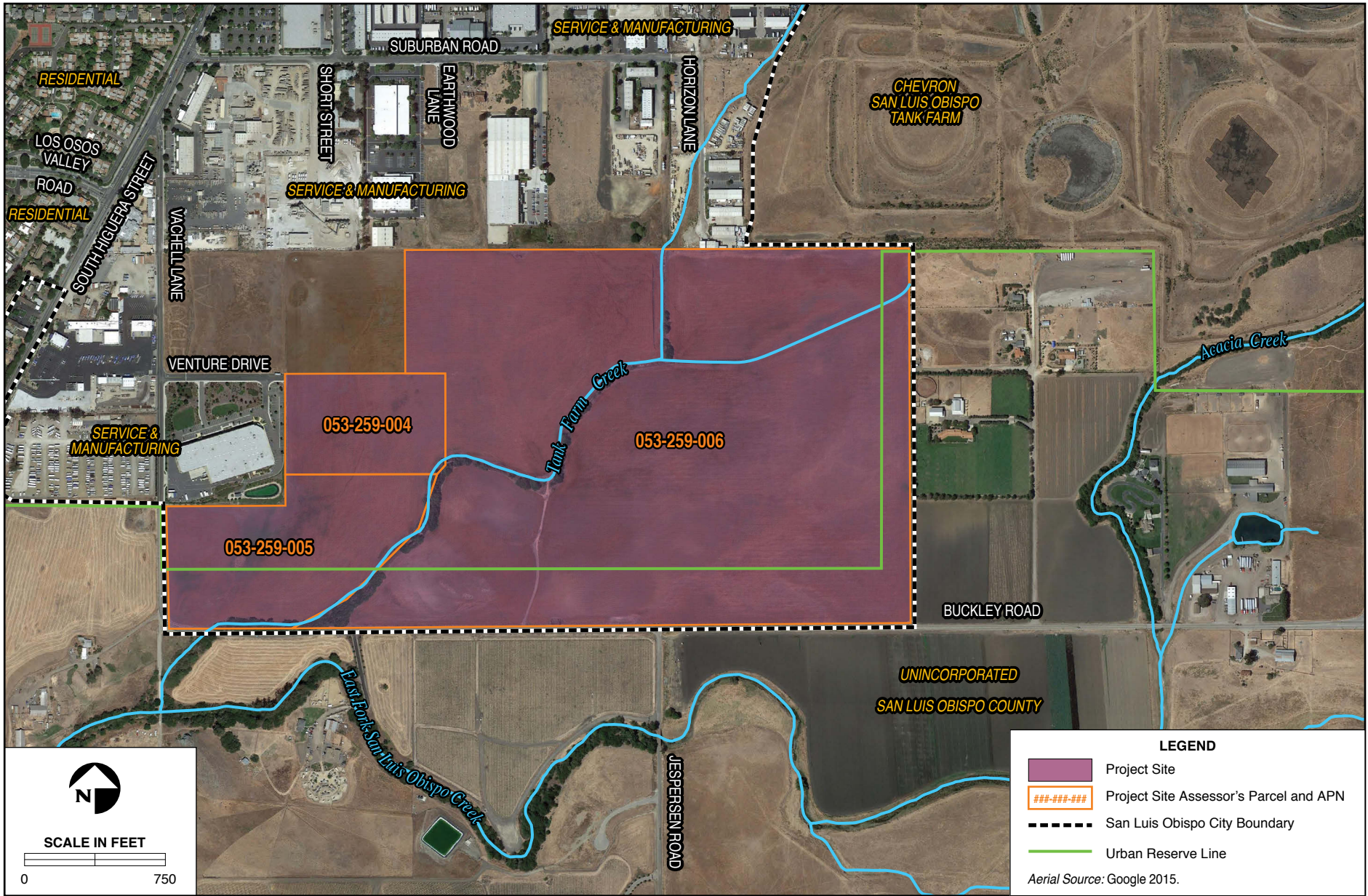


Although the Project site is undeveloped, existing development borders the site along the northern and western boundaries.

four tributaries to San Luis Obispo Creek that flow through the area or as landscaping in developed areas. The tributaries of San Luis Obispo Creek include Tank Farm Creek, Acacia Creek, Orcutt Creek, and the East Fork of San Luis Obispo Creek, and are subject to flooding during major storm events. The local hydrology, including combination of creeks, relatively flat topography, and periodic flooding, provides substantial areas of freshwater marsh, seasonal wetlands and riparian habitats within low-lying areas of the region. These marsh, seasonal wetland, and riparian habitats are considered sensitive biological communities.

Land use in the Project vicinity is characterized by a mix of undeveloped open areas, agriculture, and urban industrial development. Existing nearby development consists primarily of light industrial and commercial uses to the west and north of the Project site along South Higuera Street, Vachell Lane, Suburban Road, and Tank Farm Road. Development along these roads includes large light manufacturing facilities, older structures with a mix of storage yards, and multi-tenant commercial complexes. A large modern commercial office building occupied by Lockheed Martin is located on Vachell Lane adjacent to and west of the Project site.

Development along the northern border of the Project site comprises low-density industrial and service structures, including warehouses, small businesses, and offices. Several rural residences are located to the east of the Project site, with the nearest residential neighborhood located west of South Higuera Street, approximately 0.3 mile from the Project site.



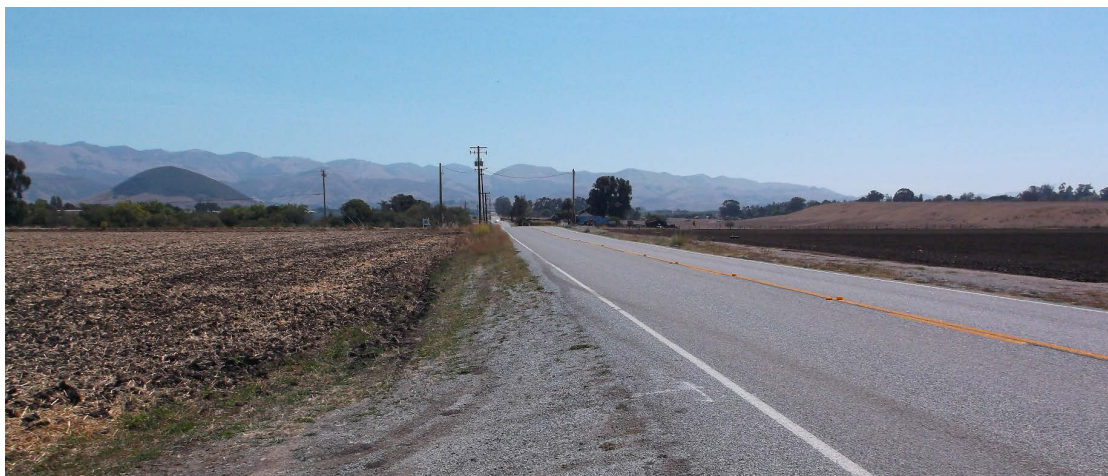
Project Site Aerial

FIGURE 2-1

The San Luis Obispo County Regional Airport (Airport) is a small commercial airport covering 340 acres with two runways and two regional carriers and is surrounded by a number of commercial complexes with industrial and service businesses. The primary runway is Runway 11-29, which is oriented in a northwest-southeast direction and the “crosswind” runway, Runway 7-25, is oriented in an east-west direction. The primary runway accounts for approximately 97 percent of all airport operations, and handles all of the commercial air traffic. The crosswind runway accounts for approximately 3 percent of total traffic, and is rated to handle only smaller general aviation aircraft (U.S. Department of Transportation Federal Aviation Administration 2006).

County agriculturally-designated lands lie across Buckley Road to the south, bordering the entire southern boundary of the Project site. This agricultural area is bisected by Jespersen Road and supports a mix of cultivated agriculture in level areas along Buckley Road and in valley bottoms, open grasslands on hillsides, and a few rural residences.

U.S. Highway 101 is located approximately 0.4 mile west of the Project site and provides regional access to the Project vicinity via Los Osos Valley Road or South Higuera Street, two major thoroughfares for the City. South Higuera Street, a two-lane road in the vicinity, links the Project site with the central portions of the City to the north and connects to Vachell Lane, which allows direct access to the western border of the Project site. Los Osos Valley Road, located approximately 1,000 feet northwest of the Project site, provides the only access across U.S. Highway 101 in the southern region of the City. Buckley Road, a two-lane roadway, serves as the southern boundary of the Project site and traverses the southern City/County boundary connecting Vachell Lane, the Airport, and State Route 227/Edna Valley Road.



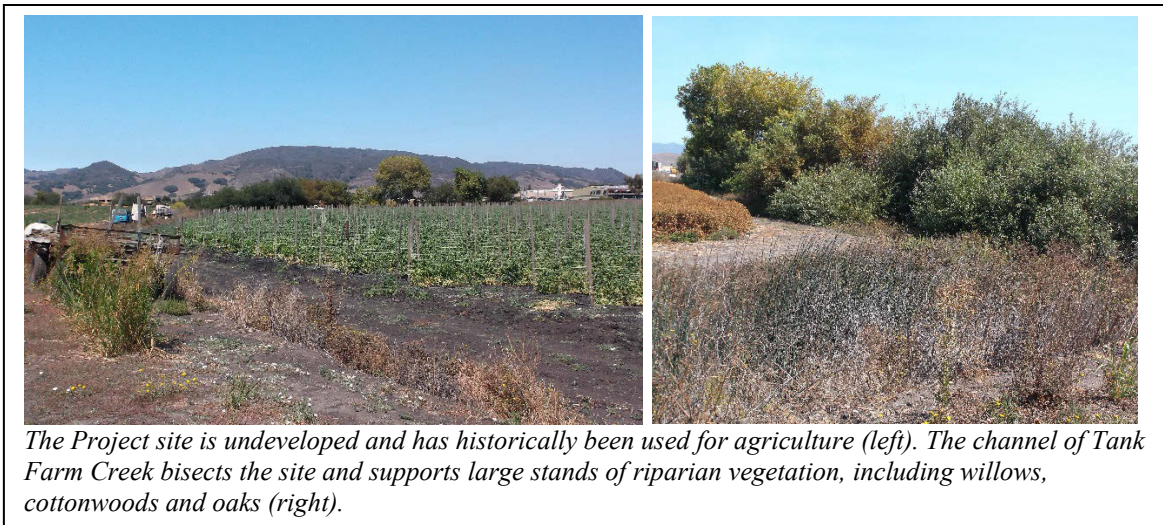
View facing west on Buckley Road. The Project vicinity is a mix of open space/agricultural lands and industrial and commercial development. Agricultural lands occupy both the Project site (left) and County lands adjacent to the site (right).

2.0 PROJECT DESCRIPTION

Northeast and adjacent to the Project site is the 332-acre Chevron Tank Farm property, which spans both north and south of Tank Farm Road.¹ The Chevron Tank Farm property was used as a major oil storage facility into the early 1990s; however, most facilities are now decommissioned and the majority of the tanks have been dismantled, but the circular berms that once enclosed the storage tanks remain on the property. The Chevron Tank Farm property is currently approved for a major remediation effort and cleanup of contaminated soils to permit redevelopment with a mix of light industrial/Business Park and open space and habitat restoration uses (City of San Luis Obispo and County of San Luis Obispo 2013).

2.3.3 Project Site

The Project site is currently undeveloped and has been historically used for cultivated agriculture. Existing site features include pastures, row crops, Tank Farm Creek, ruderal (weedy) vegetation in disturbed areas along the edges of agricultural fields, and a shallow drainage ditch located along the southern edge of the site that supports limited upland vegetation. When viewed from Buckley Road, the Project site provides a rural and open visual character with expansive views of agricultural lands and the distinctive foothills and ridgelines that surround the area. Tank Farm Creek traverses the site diagonally from the northeast to southwest for approximately 0.8 mile and comprises approximately 10 acres



¹ The Chevron Tank Farm property was originally owned and operated by Union Oil, which reorganized in the 1980s to become Unocal Corporation and was subsequently purchased by Chevron in 2005. In 1910, Union Oil developed the property as a petroleum tank farm with a number of below-grade reservoirs and above-grade tanks for storing and distributing crude oil. The use of the site declined in 1926 when a lightning strike ignited a major fire, resulting in the spilling of large amounts of oil and tar across much of the site (City of San Luis Obispo and County of San Luis Obispo 2013).

out of the 150-acre site. Tank Farm Creek is a tributary to the East Fork of San Luis Obispo Creek and carries runoff onto the site from the Chevron Tank Farm property and other industrial properties to the north. The creek passes through an 84-inch culvert on the site where an existing dirt road crosses the creek. The creek contains a riparian corridor that varies from approximately 10 to up to 100 feet in width, with varying cover and qualities of riparian vegetation. Portions of the creek, especially in the southern reaches of the site, support high-quality dense stands of willows and scattered cottonwoods. The central and northern reaches of the creek support less vegetation with several large gaps in the riparian habitat which can be dominated by non-native or disturbed vegetation; however, a grove of mature native cottonwoods occurs along the northern end of this creek channel. Several freshwater emergent wetland areas in various states of disturbance also exist across the site. Tank Farm Creek conveys site runoff and flood waters under a narrow bridge at Buckley Road from the southwest corner of the site to San Luis Obispo Creek. In addition, a shallow manmade channel connects to Tank Farm Creek within the northeastern portion of the Project site.

2.4 EXISTING REGULATORY SETTING

Land use and development potential within the Project site and vicinity are governed by the City's LUCE and AASP as well as the County's Airport Land Use Plan (ALUP) for the San Luis Obispo County Regional Airport as discussed below.

2.4.1 City of San Luis Obispo Land Use Element

The City's General Plan, Land Use Element is the primary plan that guides potential development of the Project site (see Table 2-1). The Land Use Element identifies the Project site as Special Focus Area, SP-4, one of four special focus areas that require a specific plan prior to development. Guidance for development of the Project site is found in the Land Use Element, Section 8.1.6, which states:

Purpose: This area will be developed as primarily a residential neighborhood development with supporting Neighborhood Commercial, park, recreation facilities, and open space/resource protection. Within the Project, emphasis should be on providing a complete range of housing types and affordability. The specific plan for this area should consider and address the following land use and design issues:

- a) Provision of a variety of housing types and affordability levels.
- b) Modification of the AASP to either exclude this area or designate it as a special planning area within the AASP.

- c) Provision of buffers along Buckley Road and along eastern edge of property from adjacent agricultural uses.
- d) Provision of open space buffers along northern and western boundaries to separate this development from adjacent service and manufacturing uses.
- e) Provision of open space buffers and protections for creek and wildlife corridor that runs through property.
- f) Safety and noise parameters described in this General Plan and the purposes of the State Aeronautics Act; or other applicable regulations relative to the San Luis Obispo County Regional Airport.
- g) Participation in enhancement to Buckley Road and enhancement of connection of Buckley Road to South Higuera Street.
- h) Appropriate internal and external pedestrian, bicycle, and transit connections to the City’s circulation network.
- i) Implementation of the City’s Bicycle Transportation Plan including connections to the Bob Jones Trail.
- j) Water and wastewater infrastructure needs as detailed in the City’s Water and Wastewater Master Plans. This may include funding and/or construction of a wastewater lift station.
- k) Fire protection and impacts to emergency response times.
- l) Architectural design that relates to the pastoral character of the area and preserves view of agrarian landscapes.
- m) Provision of a neighborhood park.

Table 2-1. Land Use Element Performance Standards for the Project Site

Type	Designations Allowed	Minimum ¹	Maximum
Residential	Low Density Residential Medium Density Residential Medium-High Density Residential High Density Residential	500 units	700 units
Commercial	Neighborhood Commercial	15,000 sf	25,000 sf
Open Space/ Agriculture	Open Space Agriculture	50% site coverage ²	

¹ There can be a reduction in the minimum requirement based on specific physical and/or environmental constraints.

² Up to 1/3 of the open space may be provided offsite or through in-lieu fees consistent with the AASP.

Source: City of San Luis Obispo 2014.

2.4.2 Airport Area Specific Plan

The Project site is within the 1,500-acre AASP planning area. The AASP is a land use program with policies, goals, guidelines and infrastructure financing strategies to guide future development to ensure land use compatibility within the AASP planning area. The

Project site was annexed into the City in 2008 after the adoption of the AASP in 2005, and was given a holding land use designation of Business Park, the same designation the County applied to the site prior to its annexation to the City. The AASP was most recently amended in 2014 to address changes to the Chevron Tank Farm property to the northeast of the Project site. The AASP is proposed to be amended as part of the Project (see Section 2.6.2, *AASP Amended Policies*).

2.4.3 Airport Land Use Plan

Airport land use compatibility is a key constraint that has guided the design of the proposed Project. The San Luis Obispo County Airport Land Use Commission (ALUC) adopted the ALUP for the San Luis Obispo County Regional Airport in 1973, which includes the location of airport safety boundaries and noise contours, determined by the layout of airport facilities and regular flight paths. The ALUP is currently in the process of being updated, a process anticipated to be completed in 2017. Because the Project involves a Development Plan, which includes a Reservation Area for emergency landings and clusters development in conformance with the ALUP, it qualifies as a Detailed Area Plan and a Clustered Development Zone project and will be reviewed as such under the ALUP. The ALUP planning area is broken down into two airport safety zones and three subzones, and associated policies and standards guide land use densities and development within these zones (see Table 2-2).

Table 2-2. ALUP Safety Area Standards¹

Airport Safety Area	Project Site Designation (acres) ²	Maximum Land Use Density - Non-Residential (persons/acre)	Maximum Land Use Density – Residential (units/acre)
ALUP Safety Area S-1B	34.9	75	0.2
ALUP Safety Area S-1C	7.6	120	0.2
ALUP Safety Area S-2	107.5	Unlimited	Unlimited

¹ ALUP Safety Area standards are based on Clustered Development Zone project classification and Project compliance with a Detailed Area Plan that would be developed in consultation with ALUC and determined to be consistent with ALUP.

² Based on adjusted maps from the Applicant-submitted ALUP Conformity Analysis pre-application. Source: ALUC 2005.

The Project site is located within ALUP Safety Areas S-1B, S1-C and S-2. The City also has a recently approved Airport Compatible Open Space Plan (ACOS), which differs somewhat in configuration of its ALUP Safety Areas that the ALUP due to difference in mapping. These difference are being reviewed as part of the ALUP update process.

The proposed Project is intended to be designed to respect restrictions set forth for both the ALUP Safety Areas as well as the City's ACOS (see Section 3.8, *Land Use and Planning*). In addition, a small portion of the site is located within the 65 decibel (dB) single event noise contour, and approximately 4.5 acres in the northeast portion of the site is located in the 55 dB CNEL contour (see Section 3.9, *Noise*).

2.5 PROJECT OBJECTIVES

Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines requires a statement of a project's objectives and Section 15124(b) requires that the statement of objectives includes the underlying purpose of the Project. Major objectives of the Project include:

- 1) Development of an economically feasible specific plan that is consistent with, and implements policies within the City's LUCE and AASP.
- 2) Establishment of a complete "linked" community with the inclusion of amenities such as neighborhood parks and commercial goods and services that can serve the neighborhood.
- 3) Provision of a variety of housing opportunities for a wide range of socioeconomic groups and affordability levels.
- 4) Provision of a well-connected open space network that includes the addition of community gardens, neighborhood parks, bicycle paths, pedestrian sidewalks, open space buffers, and spaces for recreational activities.
- 5) Establishment of an internal transportation and circulation network of collector and residential roads, Class I and II bicycle paths, and pedestrian sidewalks that is integrated with, and enhances the regional transportation system.
- 6) Restoration of Tank Farm Creek with improvements to the riparian creek corridor and establishment of open space buffers.
- 7) Model sustainable development practices and design features and achieve compliance with Leadership in Energy and Environmental Design Neighborhood Development (LEED-ND) Silver standards and the County of San Luis Obispo's Emerald certification rating.

2.6 PROJECT OVERVIEW

Adoption of the Development Plan would involve the required approvals from the City and other public agencies as described below in Section 2.6.1, *Required Approvals*, including a General Plan amendment, an AASP amendment, Vesting Tentative Tract Map (VTM), architectural review, and a Development Agreement/Memorandum of Understanding. The

following sections provide detailed descriptions of major Project components outlined in the Avila Ranch Development Plan, which include:

- a) A land use plan that would allow for the development of residential housing, commercial services, and open space areas;
- b) Sustainable design and development practices;
- c) Development of a circulation system with new Project collector and residential roads, bicycle paths, transit, and offsite improvements;
- d) Extension of utility lines and infrastructure; and
- e) Realignment of Tank Farm Creek to improve hydrology and associated restoration and enhancement of the riparian habitat.

2.6.1 Required Approvals

The following entitlements and reviews would be required to implement the Project:

- **General Plan Amendment** – The LUCE identifies the Project site as SP-4, one of four Special Focus Areas, and designates SP-4 for "primarily a residential neighborhood development with supporting Neighborhood Commercial, park, recreation facilities, and open space/resource protection" (Section 8.1.6 of the Land Use Element). Within the Project, emphasis would be on providing a complete range of housing types and afford abilities. A General Plan amendment would be needed to accommodate a proposed land use map update.
- **AASP Amendment** – The AASP would need to be amended to accommodate the proposed Development Plan and to assure consistency with existing and amended programs, policies, and guidelines. As with other specific plans in the community, the amended AASP would provide the development regulations equivalent to zoning. The AASP amendment would also add residential design standards that are typical of other residential specific plans. While the AASP covers an area greater in size than that Project, the amendments to the AASP are intended to specifically cover the Project and needed changes to the AASP to conform to the Project. The proposed AASP amendment does not include land use changes other than those for the Project.
- **Vesting Tract Map (VTM)** – A VTM would be submitted to establish the proposed lot lines to allow individual ownership of properties and to layout the required infrastructure and utilities. Detailed plans for development of lots have been provided for the R-1 and the R-2 land uses. Specific unit configurations, condo plans, etc. are not provided in this VTM and would be provided by subsequent development applications. The VTM would also be submitted with a Storm Water Control Plan that demonstrates the Project's compliance with the Regional Water Quality Control Board's (RWQCB) Low Impact Development regulations. A drainage report would also accompany the VTM in compliance with various federal, state, and local regulations, and is included within Appendix C of this Environmental Impact Report (EIR).

- **Architectural Review** – Architectural guidelines are included in the design framework in the Development Plan to guide the architectural character and quality of structures on the Project site. These guidelines would supplement the City’s Community Design Guidelines which prescribe architectural designs and site planning concepts. Final architectural review of housing, commercial buildings, and some site facilities would be conducted at the time that applications are made for the development of individual neighborhoods. The Architectural Review Committee would review the design guidelines in the Project’s design framework, as well as the applications for the individual projects.
- **Development Agreement/Memorandum of Understanding** – The Development Agreement/Memorandum of Understanding between the Project Applicant and the City would outline a framework for process, fees, and a methodology for determining fair share and timing for improvements.
- **Water Supply Assessment** – An SB610 Water Supply Assessment was prepared for the Project to demonstrate the adequacy of water supplies and would be reviewed and considered by the City during the decision-making process.
- **ALUP Conformity Determination** – The Project includes a qualitative analysis of conformance with policies and density limits in the ALUP, and is reviewed by the ALUC. Further, the Project must be formally referred to the ALUC in order to make a determination of consistency with the ALUP. The Draft ALUP Pre-Application Conformity Analysis is contained within Appendix N of this EIR.

In addition, other advisory bodies that would weigh in on aspects of Project development include the Parks and Recreation Commission for the review of proposed parks, and the Bicycle Advisory Committee for review of the proposed bicycle path network.

Other permits, required approvals, or participation agreements from public agencies required to implement the Project include:

- California Department of Transportation (Caltrans) Excess Land Disposal for any needed improvements related to extension of Buckley Road;
- Finding of consistency by the San Luis Obispo ALUC;
- U.S. Army Corps of Engineers (USACE) Nationwide or Individual Permit (depending on acreage of total wetland disturbance);
- California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement;
- RWQCB Section 401 Water Quality Certification, National Pollutant Discharge Elimination System (NPDES) Permit;
- San Luis Obispo County Air Pollution Control District (APCD) – Grading Permit, and fugitive dust regulation compliance; and
- Encroachment permits and approval of improvement plans by San Luis Obispo County for portions of the Project’s infrastructure to be developed outside of the City limits, namely the Buckley Road frontage, the Buckley Road Extension, the

widening of Vachell Lane at Buckley Road, and the installation of sidewalks on South Higuera Street.

2.6.2 AASP Amended Policies

The Project includes changes to the AASP to accommodate the proposed Development Plan and to ensure consistency with the existing and amended programs within the AASP. The proposed amendments reflect residential development standards that were not previously included in the AASP, updated design standards related to the Project, and changes to reflect recent amendments to the LUCE, which were adopted after the Chevron Tank Farm Remediation Project's amendments to the AASP. These amendments provide additional regulations and development requirements for the Project site, and may serve to mitigate potential impacts. The amended AASP policies reference the Development Plan where appropriate to provide specific information regarding land uses, locations for amenities, parks, open space, roads, land uses, and other physical features.

Amendments to the AASP are proposed for policies and programs within the Conservation and Resource Management Framework, Land Use Framework, Design Framework, Circulation Framework, Infrastructure/Public Facilities Framework, and Public Facilities Financing Framework. The following list summarizes key amended policies within the AASP pertaining to the Project. The proposed amended AASP is contained within Appendix R.

Policy 3.2.1 Riparian Vegetation. Establish healthy, continuous riparian vegetation along (1) East Branch of San Luis Obispo Creek from Broad Street to Santa Fe Road, (2) Acacia Creek from the northern planning area boundary to the confluence with the East Branch of San Luis Obispo Creek, (3) Orcutt Creek from the planning area northern boundary to its confluence with Acacia Creek, and (4) Tank Farm Creek from the planning area's northern boundary to its southern boundary. Where riparian vegetation and resources are impacted by development, there should be compensating improvements elsewhere in the Planning Area.

Policy 3.2.2 East Branch San Luis Obispo Creek Riparian Corridor. Realign Tank Farm Creek to its historic alignment with a connection to the Chevron Tank Farm property open space.

Policy 3.2.5 Restoring Marginal or Degraded Wetlands.

- A. The contiguous state wetland in the southeast portion of the Avila Ranch site (identified as wetland 1.4) will be protected from development and preserved as a contiguous habitat area to enhance the open space value of this part of the Project.
- B. The Tank Farm Creek corridor on the Avila Ranch site will be widened to enhance the visibility of the wetland and to mitigate wetland and riparian losses elsewhere on the Project to create contiguous habitat rather than the existing fragmented ruderal system.

Policy 3.2.7 Mitigation of Wetland Losses. On the Avila Ranch property, loss of federal wetlands shall be mitigated at a ratio of at least 2.5 acres to 1 acre of lost wetland; for, state wetlands the mitigation ratio shall be at least 1 to 1.

Policy 3.2.10 Recreational Use of Wetlands Complex. Recreational use of the wetlands complex and buffer areas should be limited to non-intrusive observation and study. The type and extent of public access should be restricted in order to maintain high-quality wildlife habitat. The state wetland south of the Neighborhood Park in the Avila Ranch area should be for interpretative viewing only and shall not be used for active recreational purposes.

Policy 3.2.16 Continuous Wetlands. Replacement or restoration of wetlands within the Project site shall give priority to augmenting the Tank Farm Creek corridor rather than isolated or fragmented locations.

Policy 3.2.18 Mitigate Loss of Ag and Open Space Land. Development shall help protect agricultural and open space lands to the south and east by securing conservation easements for protected areas at least equal to the area of new development, where onsite protection is not available. Potential areas for conservation easements shall be in areas which also serve to implement the City's ACOS, and other policies in support of the ALUP. The overall goal is to expand and preserve agricultural areas that are of sufficient size and with sufficient support systems to be economically viable. Creation of isolated non-contiguous preserve areas, preserves on non-prime land, or for the sole purpose of creating a buffer between urban land uses should be avoided.

Policy 3.2.20 Acquire Land South of Airport. Utilize locally-generated acquisition funding, agricultural mitigation specified in Policy 3.2.18, other sources, as well as outside grant support, to acquire fee or easement interest in lands south of the Airport in the following order of priority:

- A. Buckley Road Area. Agricultural lands on either side of Buckley Road between Vachell Lane and Broad Street should receive the highest priority in conservation funding. There is ongoing, incremental conversion of lands from agriculture to other uses, as well as ongoing small-scale subdivision of rural properties. There are relatively few large properties in this area. Easements to secure development rights and maintain scenic character would be the primary focus of this effort, and easement acquisition is the preferred strategy.

Goal 4.1.9 Airport Operations. Airport Area land uses and development, including Airport Compatible Open Space, should be compatible with the long-term operation of the airport, and enhancing the viability of the airport as a regional transportation facility.

Policy 4.3.3 Airport Land Use Plan Consistency. Airport Area development must be consistent with the standards and requirements of the ALUP and/or Public Utilities Code Sections 21670-21679.5. In determining the location of safety zones and the consistency of the land uses with the ALUP, the ALUP policies and the most recent ALUC determinations shall be used.

Goal 5.14(H). Development in the Avila Ranch area shall be designed so the projected water consumption is 30 percent less than the average community water consumption. To meet this goal, the following performance standards shall be used:

1. Turf shall not be permitted for individual yard landscaping. Landscape plans shall be developed which require lower water usage and lower maintenance. Landscape plans shall reflect the local climate zones and local plant material.
2. Turf may be used where it is associated with a common open space, parkways, sports field or other common area. Where feasible, these areas will be irrigated with recycled water.
3. Landscape and irrigation plans should use drip irrigation systems to the extent feasible. General broadcast irrigation is discouraged.

6.2.7 Transit Plan. Route 2 should be extended into the Avila Ranch Project as development progresses and demand warrants.

Program 6.3.2 Transit Plan. Transit service will be incrementally implemented (in terms of hours of operation and frequency) consistent with development, roadway extensions without endangering state transit funding and farebox recovery requirements. The City shall anticipate development and, subject to available transit funding, extend service into the growth areas prior to demand developing. This shall include initial extension of Route 2 to Avila Ranch by way of Venture Drive to Earthwood Lane and, in the long run, extension of Route 2 through Avila Ranch, along Buckley Road to Higuera Street to serve the Caltrans Maintenance facility and District Headquarters.

Standard 6.4.3.1. Buckley Road shall be extended as a two-lane rural arterial from its current western terminus at Vachell Lane to South Higuera Street. A continuous two way left turn lane is required to the Octagon Barn parking lot.

Standard 6.4.3.2. Adjacent to the Avila Ranch property, Buckley Road shall be consistent with street Section 2, 3 and 4 as described in the Avila Ranch Development Plan (refer to Appendix D), as applicable. The roadway shall be design to minimize impact to adjacent creeks and open space where possible.

Standard 6.4.6.1. The Avila Ranch residential collector shall have a minimum of two 12-foot travel lanes and two 6-foot bicycle lanes. Each side of the road will have 7-foot tree-lined parkways between the curb and a 5-foot wide sidewalk unless an alternative cross section is approved by the Director of Public Works. No parking will be allowed. Direct access from adjacent residential lots will also not be permitted.

Standard 6.4.6.2. The Avila Ranch local streets shall have two 11-foot travel lanes, a 7-foot parking lane, and a 6-foot monolithic sidewalk adjacent to the street.

Policy 7.2.2 Water Conservation. Development in the Avila Ranch area shall be designed so that the projected annual water consumption is 30 percent less than the average per-person annual community water consumption for residential units. To meet this goal, the following performance standards shall be used:

- A. Turf shall not be permitted for individual yard landscaping. Landscape plans shall be developed which require lower water usage, and which require lower

maintenance. Landscape plans shall reflect the local climate zones and local plant material.

- B. Turf may be used where it is associated with a common open space, parkways, sports field or other common area. Where feasible, these areas will be irrigated with recycled water supplies.
- C. Landscape and irrigation plans should use drip irrigation systems to the extent feasible. General broadcast irrigation is discouraged.

Policy 7.9.1 Adequate Fire Suppression Services and Facilities. The City shall provide adequate fire suppression services and facilities to the Airport Area, consistent with the Safety Element of the General Plan, by completing area transportation improvements, co-locating City fire services with existing CAL FIRE facilities located on Broad Street, and/or establishing a permanent facility within the Airport Area. Interim improvements may be provided at the Chevron and Avila Ranch development areas until permanent facilities are available. In order to ensure that the long-term public safety needs of the AASP and MASP are met, and to ensure the feasibility of those improvements, the City shall facilitate the initiation of a Community Facilities District (CFD) as part of the Avila Ranch Project. The CFD shall provide for the equitable assessment of the cost of construction and operation of public safety facilities. The CFD shall have annexation provisions so that additional benefitting properties may be added to it.

Policy 7.9.3 Interim Safety Improvements. Until a permanent facility is developed that enables the City to achieve its response travel time objectives, new development in the Airport Area may be required to finance other improvements that will contribute to alleviating current deficiencies, as identified in the San Luis Obispo Fire Department Master Plan (2009). This policy will be implemented on a case by case basis through conditions of approval when project specific fire and life safety impacts are identified. The Avila Ranch Project may provide an interim fire and/or emergency response substation at the intersection of Earthwood Lane and Venture Drive. Such facilities shall be to the satisfaction of the City Fire Chief.

Policy 7.10.1 Avila Ranch Park Development. Parks will be provided at a rate of ten acres per 1,000 residents in the following manner:

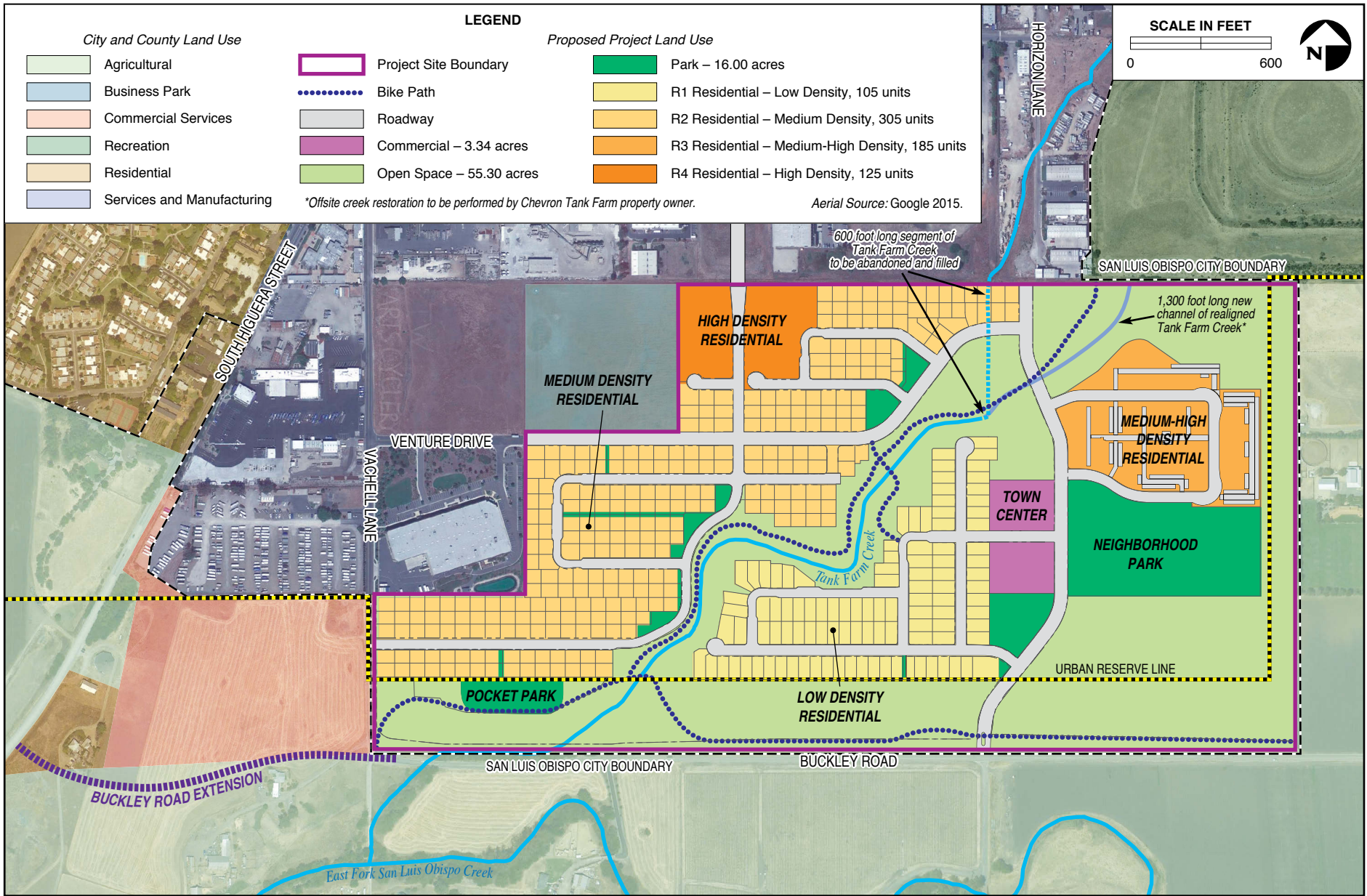
- A. 9.8-acre Neighborhood Park in the eastern portion of corner of the Avila Ranch Project site adjacent to the Town Center, with frontage on the residential

collector. Planned activities in the park include ballfields, basketball, open space, picnicking, passive recreation, and other uses consistent with the City's Parks and Recreation Element.

- B. Mini-parks shall be provided in each phase of the Avila Ranch development. These mini-parks will range in size from 0.5 acre to 2.5 acres and include passive recreation areas, and small game areas such as basketball, or other areas appropriate to the size of the park.
- C. Recreational and bicycle trails shall be constructed sequentially with each phase so that the Tank Farm Creek trail will be completed by Phase 3 of the Avila Ranch development.
- D. Avila Ranch residential developments will contribute an amount equal to one acre per thousand population for community wide facilities. While not required by the Parks and Recreation Element, these special facilities (e.g., Sinsheimer Park, Mission Plaza, Santa Rosa Park, Laguna Park, Damon-Garcia Sports Complex), serve the entire community (including new residential areas in the AASP) and the residential units shall contribute towards expanding their capacity, or addressing unmet community wide park and recreation facility needs (such as those identified in Policy 3.12 of the Parks and Recreation Element).

2.6.3 Development Plan

The proposed Project includes a land use plan which designates 68.23 acres of residential land uses, 71.30 acres of open space and parks, and 3.34 acres of Neighborhood Commercial development (see Figure 2-2; Table 2-3). This would allow for the development of approximately 720 residential units (including a 20-unit density bonus) and 15,000 square feet (sf) of commercial buildings. Low, medium, medium-high, and high density residential developments would be constructed along proposed collector and residential roadways. One Neighborhood Park, five mini-parks and one pocket park would be established as part of the 16.00 acres of developed park space planned for the Project site.



Land Use Plan

FIGURE 2-2

Table 2-3. Summary of Proposed Land Uses

Land Use	Acreage	Housing Units/ Square Footage
Residential	68.23	720 total units ^{1, 2}
R-1 Low Density	17.45	105 single-family units
R-2 Medium Density	35.03	305 single-family units
R-3 Medium-High Density	11.04	185 multi-family units
R-4 High Density	4.71	125 multi-family units
Neighborhood Commercial	3.34	15,000 sf
Major Roadways	7.03	N/A
Open Space and Parks	71.30	N/A
Open Space	55.30	N/A
Parks	16.00	N/A

¹Total exceeds 700 units as allowed in Section 8.1.6 of the Land Use Element due to assumed density bonus units.

² Inclusionary units are those intended to provide long-term affordable housing and are subject to restrictions on sales price or rent. The Applicant proposes affordable inclusionary units as needed to comply with the City’s Inclusionary Housing Program. See Section 3.10, *Population and Housing* for additional information.

2.6.3.1 Proposed Housing

Proposed housing would range from traditional single-family homes to higher density multi-unit complexes, enabling construction of approximately 720 total units. The mix of residential densities include low density R-1 lots, medium density R-2 “four-pack” and “6-pack” clustered single family detached units, medium-high density R-3, and high density R-4 multi-family dwellings, with densities ranging from 7 to up to 24 units per acre as described below (see also Table 2-4).

- The proposed 105 R-1 low density single-family residences would occupy 17.45 acres and comprise 14.6 percent of all residential units. R-1 residences would include lot sizes that range from 4,000 to 8,500 sf with front garages and driveways. These residences are intended to provide market rate housing for middle or upper income households.
- The estimated 305 R-2 medium density units would comprise approximately 40 percent of the proposed residential units over an area of 35.03 acres on lots of 3,200 to 7,200 sf. This would include detached and attached clustered residences of “four packs” or “six packs” with units ranging from 1,350 sf to 2,000 sf. These units are intended to serve as workforce housing needs for moderate income households, with income 120 to 160 percent of the City’s median household income, as described in Policy 4.2.12 of the AASP.²

² 120% to 160% equates to a County median family income of roughly \$92,520 to \$123,360 per year based on the 2014 County median annual household income of \$77,100 (U.S. Census Bureau 2015).

- Proposed development of 185 R-3 medium-high density multi-family units would constitute 25.6 percent of the planned residential development onsite over 11.04 acres. R-3 units would include apartments, townhomes, and condominiums arranged around a central amenity or open space. The design and site layout of these R-3 units is intended to address noise and safety issues associated with the proximity of these units to airport noise, where living portions of the units would be oriented away from airport noise. These units would be constructed on a 480,900 sf lot and would range from 1,100 to 1,700 sf in size. Density of R-3 units would be up to 20 du/acre, with the incorporated density bonus in accordance with Chapters 17.16.010 and 17.28 of the City’s Zoning Ordinance.
- Proposed development of 125 R-4 high density multi-family units would constitute approximately 17.3 percent of the planned residential development onsite over 4.71 acres. High density residential R-4 units would include apartments up to three stories in height located within the northwest portion of the Project site, adjacent to existing and future Business Park and Commercial Service development. Density of R-4 units would be up to 24 du/acre. These units would be built on two lots in the northern portion of the site of 93,500 and 111,600 sf in size and units would range from 650 to 1,150 sf in size. In order to address any potential noise impacts from adjacent land uses, living portions of R-4 units would be designed to be oriented away from Business Park and Commercial Services uses. Density of R-4 units would be up to 24 du/acre, with the incorporated density bonus in accordance with Chapters 17.16.010 and 17.28 of the City’s Zoning Ordinance (see Figure 2-3).

Table 2-4. Summary of Housing and Population

Housing type	Maximum Units/Acre ²	Total Proposed Units	Estimated Population ¹
R-1 Single-family	7	105	240
R-2 Single-family	12	305	698
R-3 Multi-family ²	20	185	424
R-4 Multi-family ²	24	125	286
TOTAL	N/A	720	1,649

¹ Population estimates are based on the number of units multiplied by the average number of persons per household. In the City of San Luis Obispo, the average number of persons per household is 2.29 (City of San Luis Obispo 2015).

² Per City zoning and Specific Plan policies R-3 and R-4 units are expressed and density units, and R-1 and R-2 densities are expressed as dwelling units. The number of actual dwelling units in the R-3 and R-4 zone may vary depending on the number of bedrooms.

2.6.3.2 Project Inclusionary Housing

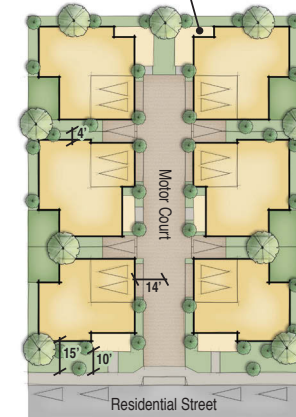
The proposed Project would provide a mix of market rate, “workforce” and inclusionary housing through provision of different densities and design of proposed new homes, as well as meeting the City’s ordinance requirements for provision of affordable housing. These units are intended by the Applicant to be subject to resale and rental restrictions to



R-1
Low Density Detached
Single Family Residences

105 Units
 Lot size: 4,000 to 8,500 sf
 Height: 1-2 stories
 Lot Coverage: 40% - 50% max
 Design: Mix of 3 varied architectural styles – will include covered porch, and front and back yards
 Parking: 2-car garage
 Landscaping: private landscaping, streetscaping and street trees, and sidewalks

Cluster Scenario 1: if cluster opens onto residential street, park, or open space, the front porches must orient to those spaces and not internally as shown



R-2
Medium Density Detached
Single Family Residences

305 Units
 Lot size: 3,200 to 7,200 sf
 Height: 1-2 stories in height
 Lot Coverage: 60% max
 Design: Private yard, detached or attached "four-pack or six-pack" clusters, private yard, street-facing units will include porch
 Parking: 2-car garage or covered carport, onstreet parking, 2 guest spaces per "four pack" or "six pack"
 Landscaping: private landscaping, streetscaping and street trees, and sidewalks



R-3
Medium-high Density Multi-family Townhomes,
Condominiums, and Apartments

185 Units
 Height: 1-3 stories
 Unit size: 1,100 to 1,300 sf
 Design: Uniform architectural style
 Parking: surface parking on shared lots
 Landscaping: shared landscaped spaces, street trees, and sidewalks

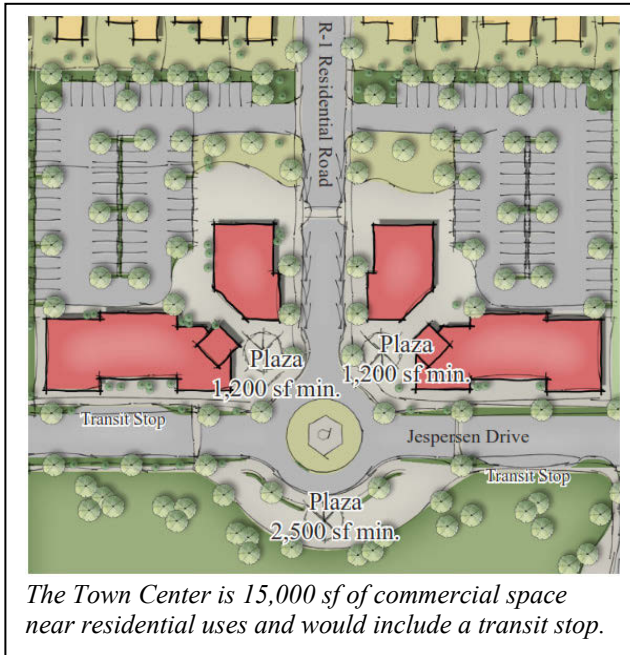


R-4
High Density Multi-family
Apartments

125 Units
 Height: 1-3 stories
 Unit size: 650 to 1,150 sf
 Design: Uniform architectural style
 Parking: Surface parking surrounding complex, oriented away from public streets
 Landscaping: shared landscaped spaces, street trees, and sidewalks

meet the housing needs of low and moderate income households. Consistency of these proposals with City Housing Element policies and Chapter 17.91 of the City Municipal Code, particularly the number and potential affordability of such units to targeted low and moderate income households are more fully discussed in Section 3.10, *Population and Housing*, Impact PH-3.

2.6.3.3 Proposed Neighborhood Commercial Uses



The proposed Project would include a “Town Center” with limited Neighborhood Commercial uses. Approximately 15,000 sf of commercial development within the 3.34-acre Town Center would be designated for office development and retail purposes. Shopping, offices, and small-scale convenience stores may be provided in the Town Center. A transit stop would be installed near the Town Center and space for community events such as a farmer’s market would be provided. The Town Center would be located near multi-family residential

housing neighborhoods to provide convenient access to transit and limited commercial services.

2.6.3.4 Proposed Parks and Open Space

Proposed acreage for open space and parks is derived from LUCE policies and standards in the Parks and Recreation Element of the City’s General Plan. The Parks and Recreation Element Policies 3.13.1 and 3.15.3 prescribe at least 10 acres of recreational parks to be provided for each 1,000 residents, with at least 5 acres per 1,000 population to be in a Neighborhood Park serving local residents. Based on the population anticipated for the Project site, at least 16.49 acres of parks are required. This Project would provide 16.0 acres of Neighborhood Park, mini-parks, and pocket parks onsite, and would provide a contribution or fee equal to 1.5 acres to the City for community park space or community facilities.

2.0 PROJECT DESCRIPTION

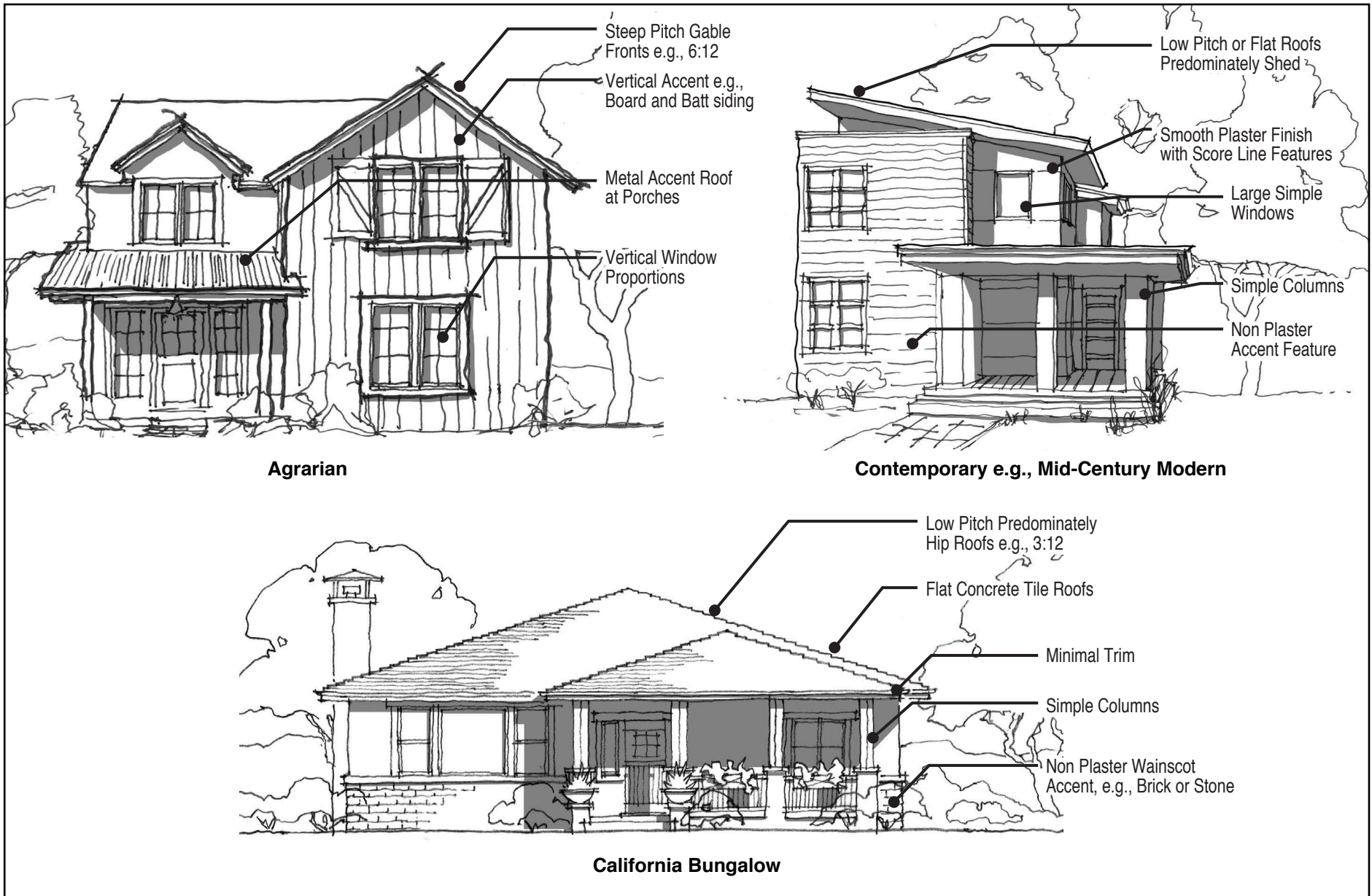
A 9.80-acre Neighborhood Park would be located to the east of the Town Center, and within 0.5 mile from most proposed residential neighborhoods. The Neighborhood Park would be linked to surrounding neighborhoods, the Tank Farm Creek riparian corridor, and the regional bikeway system with Class I and Class II bicycle paths. Neighborhood Park facilities would include group BBQ areas, basketball courts, baseball diamonds, play areas, and volleyball



The Project includes a 9.80-acre Neighborhood Park with community gardens and would be connected to the Town Center.

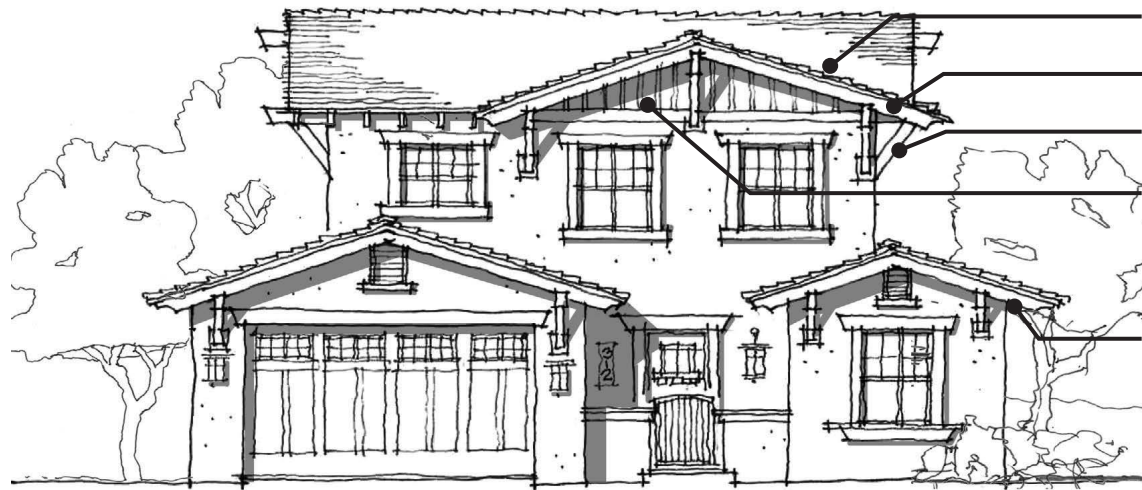
courts. Community gardens would be located on 1.30 acres of the planned open space as part of the Neighborhood Park. The Project would also include five mini-parks, and one dual pocket park and bioretention basin. The pocket park would be a 0.2-acre public park located within the southwest portion of the Project site that would also detain storm runoff generated within the southwest portion of the Project site. The mini-parks and pocket park would be created on irregular-shaped tracks of land near residential areas to serve the local population. These parks would serve residential areas farther from the Neighborhood Park (see Table 2-5).

Proposed open space is based on guidance from the LUCE and the AASP, and would consist of agricultural buffers, open lands along Tank Farm Creek, and open lands supporting wetlands. The proposed Project will provide 55.3 acres of open space in accordance with LUCE Policy 8.1.6 that would be dedicated to the City as open space easements, including approximately 27 acres proposed by the Applicant for dry land farming agriculture that would be maintained by a private farm operator under conditions developed with the City, and 18 acres for riparian open space. The City's Urban Reserve Line (URL) coincides with the AASP requirement to preserve a buffer from surrounding agricultural land uses. The City's URL establishes a 300-foot setback from the site's southern boundary and a 150-foot open space buffer along the eastern boundary. This open space would provide an agricultural buffer between the proposed development and bordering agricultural land uses to the south and east and would include approximately 27 acres. In addition, the land fronting Buckley Road would be planted with productive crops similar to the surrounding fields, and in conformance with ALUP policies regarding crop type and obstructions. A portion of the agricultural area along the Buckley frontage is also planned to serve as an ALUP emergency landing Reservation Area.



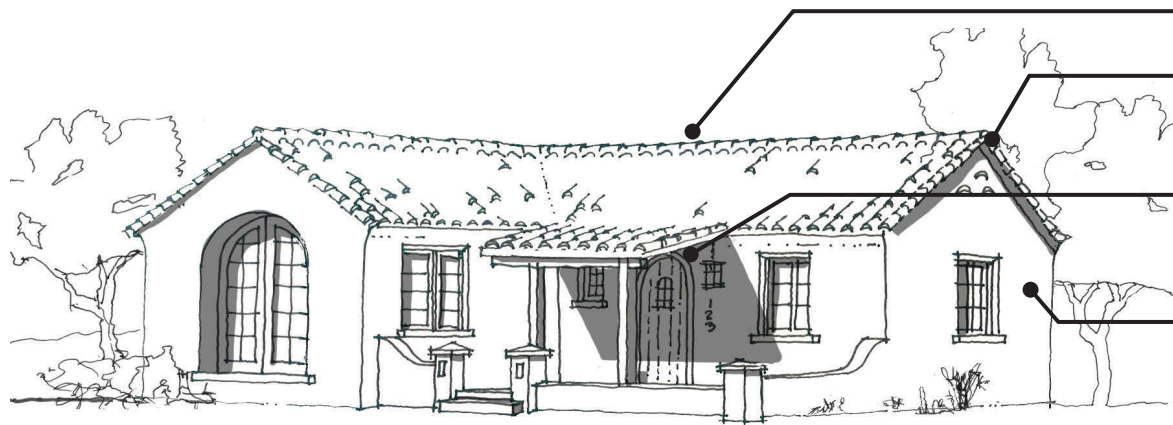
Architectural Design Concepts

FIGURE 2-4a



- Concrete Flat Tile Roofs
- Large Exposed Overhangs
- Oversized Bracing
- Predominately Gable Roofs With Non-Plaster Gable End Treatments
- Simple Trim

Craftsman



- Low Sloping S-Tile Roofs
- Exposed Minimal Eaves
- Arched Openings e.g., Doors, Windows, Porches
- Smooth or Sand Plaster Finish

Mission

Table 2-5. Summary of Proposed Parks and Open Space

Onsite Parks and Open Space	Acres
Neighborhood Park (including 1.3 acres community gardens)	9.80
Mini-Parks	6.00
Pocket Park	0.20
Onsite Open Space (Tank Farm Creek Riparian Corridor & Agricultural Buffer)	55.3
Total	71.30

The LUCE requires that 50 percent of the Project site area shall be provided in open space, allowing up to one-third of that space to be provided offsite. This results in a minimum requirement that 50 acres of open space be provided on the Project site. Total onsite open space (not including recreational park areas), totals 55.30 acres.

Additionally, the setbacks required from Tank Farm Creek would provide open space buffers between the creek and residential development. The buffer required for Tank Farm Creek would allow at least 18 acres of riparian open space along its edges.

2.6.3.5 Relationship of Project Development to ALUP Safety Areas

Project design and land use has been adjusted to reflect constraints imposed by Airport Safety Areas and airport noise corridors. The ALUP 55 dB CNEL and 65 dB single event noise contours intersect the northeastern corner of the development plan and are wholly contained within ALUP Safety Area S-1C and are outside of the City URL; no development is proposed within the 65 dB single event noise contour or within the 55 dB CNEL noise contour (see Section 3.9, *Noise*).

As described above, ALUP Safety Areas S-1B, S-1C, and S-2 overlay the site. All R-4, R-1 and R-2 units would be located within the 2005 ALUP Safety Area S-2, with up to seven R-3 units located in the northwest portion of ALUP Safety Area S-1B. The Project's consistency with ALUP Airport Safety Areas is analyzed within Section 3.8, *Land Use and Planning*.

2.6.4 Project Design

The proposed Project is intended to be consistent with the City-adopted Community Design Guidelines (2010), AASP, and Zoning Ordinance, with the siting and design of proposed development intended to respect site character and constraints, including natural features and access requirements. The Development Plan identifies specific standards and guidelines that address building orientation, setbacks, visual quality of the streetscape,

pedestrian activity areas, design of parks, access and parking, and architectural design (see Appendix D, Development Plan, for the complete list). Development Plan standards include actions or requirements that must be fulfilled by new development, while guidelines refer to methods and approaches used to achieve the desired outcome.

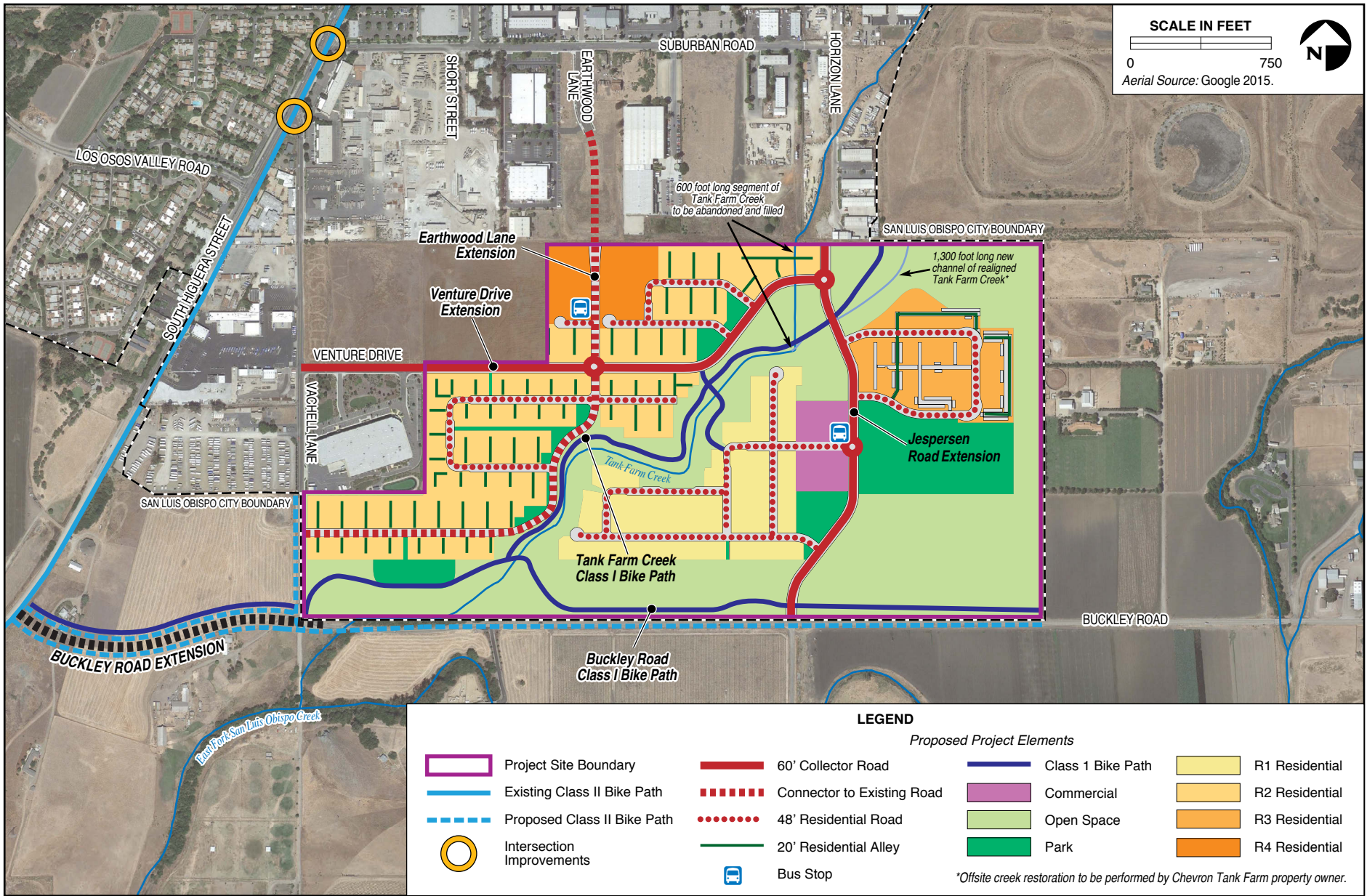
The Project would include sustainable development design in compliance with the U.S. Green Building Council's LEED-ND "silver" certification, as well as San Luis Obispo County's Green Build "emerald" certification rating. To the extent feasible, building orientation would follow the County's Green Build Passive Solar guidelines, and photovoltaic solar panels would be installed on at least 50 percent of the proposed residential units and be capable of providing up to 50 percent of average daily Project-generated power demand. Water efficient fixtures and landscaping would be utilized in order to reduce average potable water usage by 35 percent below community wide averages. Streets would be tree-lined and pervious/porous concrete would be used for at least 20 percent of driveways and parking areas in order to reduce storm water runoff (see Section 3.7, *Hydrology and Water Quality*).

Architectural design of the Project site is intended to relate to the pastoral and agricultural landscapes surrounding the Project. Architecture of residential structures are anticipated to incorporate ranch, bungalow, mission, contemporary, mid-century modern, and craftsmen style features. Exterior façades may utilize brick veneer, stone, metal canopies and smooth stucco finishes. The Project would follow outdoor lighting standards in the Design Guidelines and Zoning Ordinance aimed at the reduction of glare and light pollution. Proposed lighting fixtures would include glare-reducing reflectors and shields to direct light downwards.

Details of the Project are provided in the Development Plan submitted for the Project in December 2015 contained within Appendix D, as well as AASP amendments proposed by the Applicant and submitted to the City in May of 2015 contained within Appendix R. The Development Plan includes primarily physical design, land use design, circulation design and infrastructure features, where the proposed amendments to the AASP include programmatic Project description proposals.

2.6.5 Circulation

Circulation throughout the Project site would consist of new collector and residential roads, residential alleys, Class I and II bicycle paths, sidewalks and pedestrian walkways, and transit improvements (see Figure 2-5). The Project would include five principal circulation



Proposed Circulation Plan

FIGURE 2-5

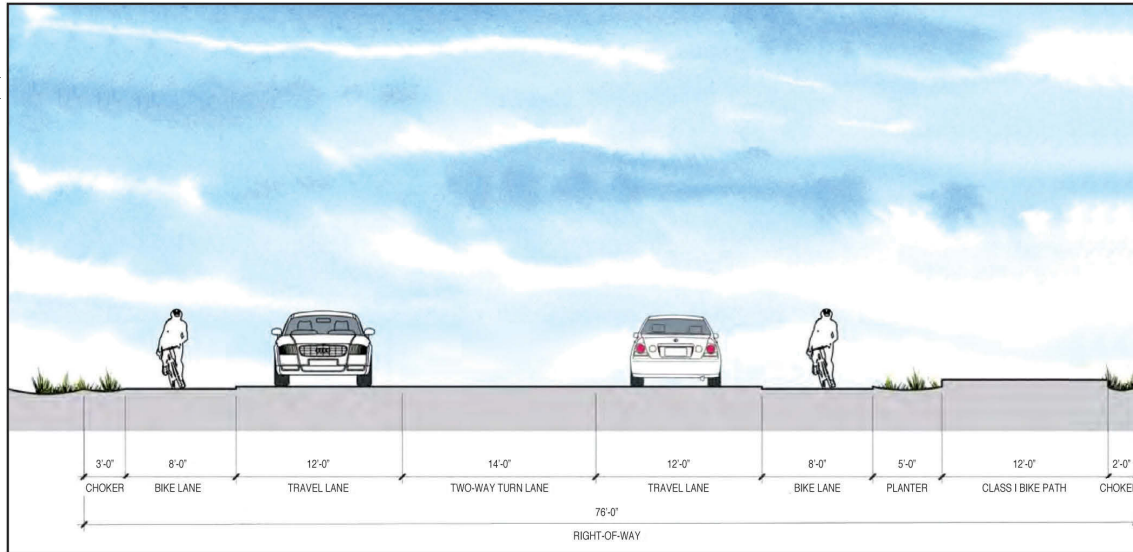
features that would be installed over the course of six proposed phases of Project construction (see Figure 2-14; Table 2-7):

- 1) Offsite roadway improvements that include: the extension of Buckley Road along the “Caltrans alignment” established by the San Luis Obispo County Public Works Department to South Higuera Street and the establishment of connections to the external circulation system within the City, the extension of Earthwood Lane from the Project site to its current terminus approximately 580 feet north of the Project site to provide a connection to Suburban Road, and other improvements on Vachell Lane;
- 2) Bicycle and pedestrian circulation with proposed Class I and Class II bicycle paths throughout the Project site;
- 3) A proposed internal vehicle circulation network of Project collector and residential roadways with the extension of Venture Drive through the site and connecting with the extension of Jespersen Road from Buckley Road;
- 4) Parking; and
- 5) Transit improvements that connect to the regional public transportation network.

2.6.5.1 Offsite Improvements and Integration with the External Circulation Network

Buckley Road Extension

The proposed Project would include an offsite extension of Buckley Road to the west of the existing Buckley Road/ Vachell Lane “dog leg” by 0.25 mile to connect with South Higuera Street. The proposed intersection of Buckley Road and South Higuera Street would be signalized. The Buckley Road Extension road segment would be approximately 69 feet wide and would include two lanes and a left-turn center lane, and 8-foot shoulders with Class II bicycles lanes on either side, and a 5 to 10-foot wide planter on the north side of Buckley Road (see Figure 2-6). The Buckley Road Extension would also include a Class I bicycle path on the north side that would eventually connect to the Bob Jones Trail at the Octagon Barn and the Buckley Road/South Higuera Street intersection. Construction of the Buckley Road Extension would occur during Project Phase 2 and would require demolition and removal of existing structures and septic system, relocation of a shed, relocation of existing utilities and installation of new utilities (gas, electricity, water, and wastewater), and installation of drainage infrastructure and bioretention areas on both sides of the proposed roadway.



**Buckley Road Extension
Cross Section**

**FIGURE
2-6**

The extension would improve connectivity from the region and Project site to U.S. Highway 101 and to South Higuera Street, one of the City's main arterials. The extension is planned in the 2014 Regional Transportation Plan (RTP), the 2014 City LUCE, the 2014 AASP, and County of San Luis Obispo Circulation and Urban Reserve Line Elements. Caltrans holds the right-of-way for the majority of the route extension and an Excess Lands process is currently underway. The County secured one portion of the right-of-way, and the Applicant acquired the remaining portion of the right-of-way. Construction of the Buckley Road Extension would require coordination between Caltrans, the County, the City, and the Applicant. This is proposed as part of Phase 2 of Project Development and would occur in roughly 2023.

Buckley Road Frontage Improvements

The proposed Project would include frontage and other improvements along 0.75 mile of Buckley Road along the Project site. Left and right turn lanes would be added along Buckley Road at Vachell Lane and at the southern entrance to the Project site at Jespersen Road. 8-foot-wide Class II bicycle lanes would be installed along both the north and south sides of Buckley Road. However, no westbound Class II bicycle lane is proposed for the most western 0.25 segment of the north side of Buckley Road along the Project frontage because of the narrow Tank Farm Creek bridge and Tank Farm Creek that runs adjacent to it; instead, cyclists would be diverted to the Class I bicycle path within the Project site's open space buffer for this segment.

Earthwood Lane Extension

As part of the Project, Earthwood Lane would be extended approximately 580 feet from the northern boundary of the Project site to connect to the existing southern terminus of this roadway stub that extends south from Suburban Road, and would continue onsite as a proposed 48-foot-wide residential collector road. This roadway would include Class II bicycle lanes and 6-foot sidewalks on both sides of the road. This extension would be constructed during Phase 1.

Vachell Lane/South Higuera Street Intersection

The Project includes implementation of offsite improvements, including left turn restrictions at the Vachell Lane/South Higuera Street intersection that would prohibit left turns into and out of Vachell Lane. This would be installed during Phase 1 of construction.

South Higuera Street/ Suburban Road Intersection

The proposed Project would include offsite intersection improvements to the South Higuera Street/Suburban Road intersection, including restriping to make the westbound turn lane into a shared right/left turn lane and protected signal phasing for left turns.

2.6.5.2 Class I Paths and Class II Bicycle Lanes, and Pedestrian Circulation

The proposed Project would include the development of approximately 3 miles of multiple use bicycle paths that would provide bicycle and pedestrian circulation (refer to Figure 2-5). The proposed bicycle paths include internal Class I paths throughout the site that link the Town Center, residential areas, Tank Farm Creek, the Neighborhood Park, and Buckley Road, and connect to proposed City Class I bicycle paths along South Higuera Street. The Project would include: 1) Tank Farm Creek Class I bicycle path that would run parallel to the creek and 2) the Buckley Road Class I bicycle path within the Project open space buffer. The Tank Farm Creek Class I bicycle path would cut diagonally across the Project site paralleling Tank Farm Creek for most of its course, and terminating at the Project's northern border with the Chevron Tank Farm property and 15-foot high berm. The Buckley Road Class I bicycle path would extend outside the Project site along the northern side of the Buckley Road Extension to South Higuera Street that would connect the Project and the other existing bicycle facilities to the Octagon Barn and the Bob Jones Trail. Class I bicycle paths would be up to 20 feet in width, with a minimum of 12-foot travel lanes and 2-foot shoulders, except in hillside areas to minimize grading impacts and along the creek.

Class II bicycle lanes of 8 feet in width are proposed along the western and southern boundaries of the Project site along the south side of Buckley Road and west side of Vachell Lane. These Class II bicycle paths would be constructed in accordance with the Bicycle Transportation Plan design criteria along these roads. The proposed bicycle paths would connect with City-proposed Class I and II bicycle lanes and would assist in the implementation of the City's Bicycle Transportation Plan, which is included in the LUCE objectives for the Project site. In places where Class I and II lanes are proposed within the County, bicycle lanes would be designed in accordance with County design standards.

Construction of Class I and II bicycle networks would be a multi-agency effort between the City, County, and Applicant. The Applicant would develop all segments within the Project site. Depending on the jurisdiction of the proposed bicycle lane segment, the City and/or County would develop Class I and II bicycle lanes along the Buckley Road Extension, as well as future offsite connection along Santa Fe Road, and East Branch of San Luis Obispo Creek as part of capital improvements. Implementation of these future offsite segments is also dependent upon right-of-way acquisitions.

Pedestrian circulation would be accommodated with sidewalks along neighborhood streets as required by street design standards included in the Development Plan, and off-street multi-use paths along streets and adjacent to open space areas, as well as pedestrian improvements to the street network outside the Project site.

2.6.5.3 Proposed Vehicular Circulation within the Project Site

Project access to adjacent public roads would include connections from the internal Project roadway system to: Buckley Road, Vachell Lane, Venture Drive, Jespersen Road, Earthwood Lane to Suburban Road (refer to Figure 2-5).

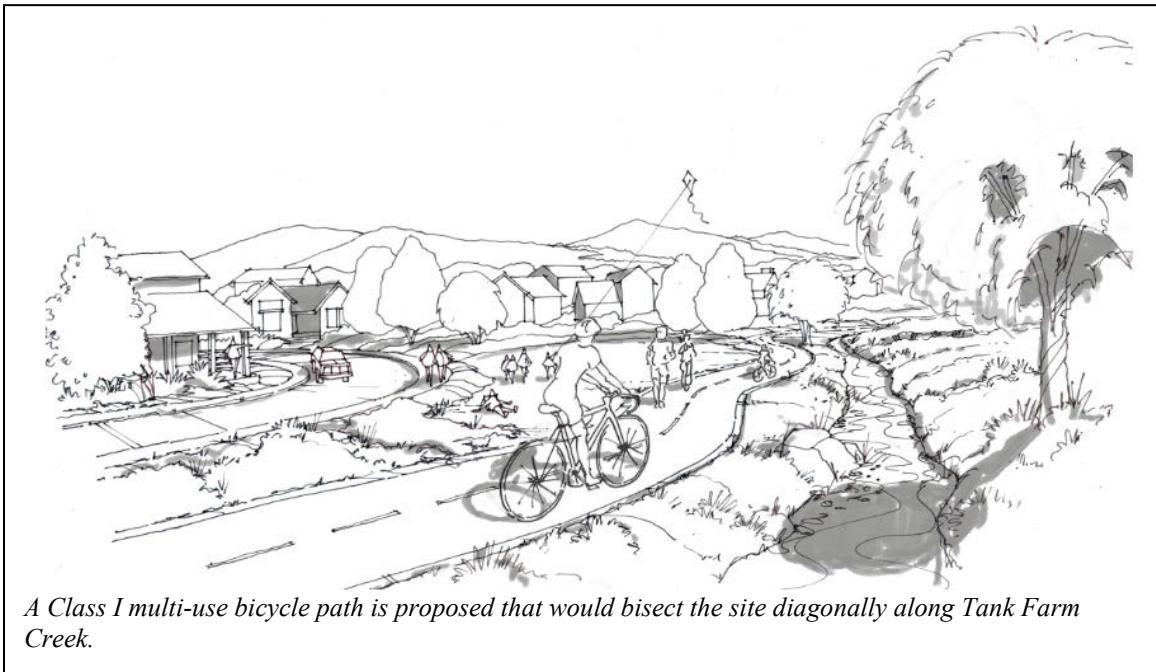
The proposed internal Project roadway system would be linked to existing surrounding collector streets, as well as to the primary Project entrance off of Buckley Road.

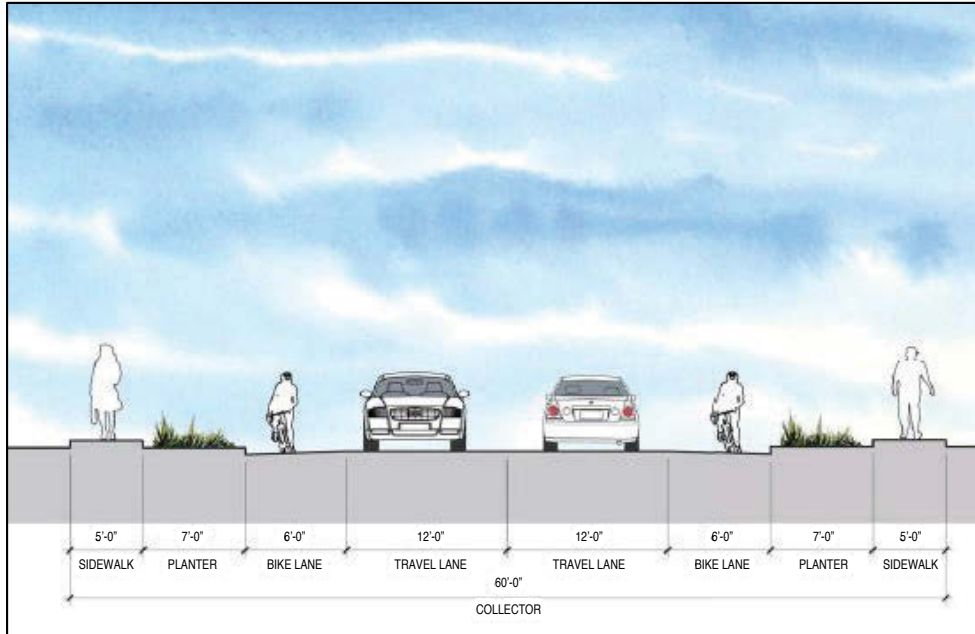
- Jespersen Road Extension: At the east end of the Project site, Horizon Lane would be extended approximately 2,000 feet south across the site to provide a primary Project entrance off of Buckley Road at Jespersen Road. Jespersen Road would be constructed as a proposed 60-foot wide Project collector road, including two 7-foot-wide on-road Class II bicycle lanes during Phase 4 of construction.
- Earthwood Lane Extension: In the central portion of the site, Earthwood Lane would be extended south approximately 1,800 feet through the site, then swing for 1,000 feet west to connect with Vachell Lane on the site's western boundary.

2.0 PROJECT DESCRIPTION

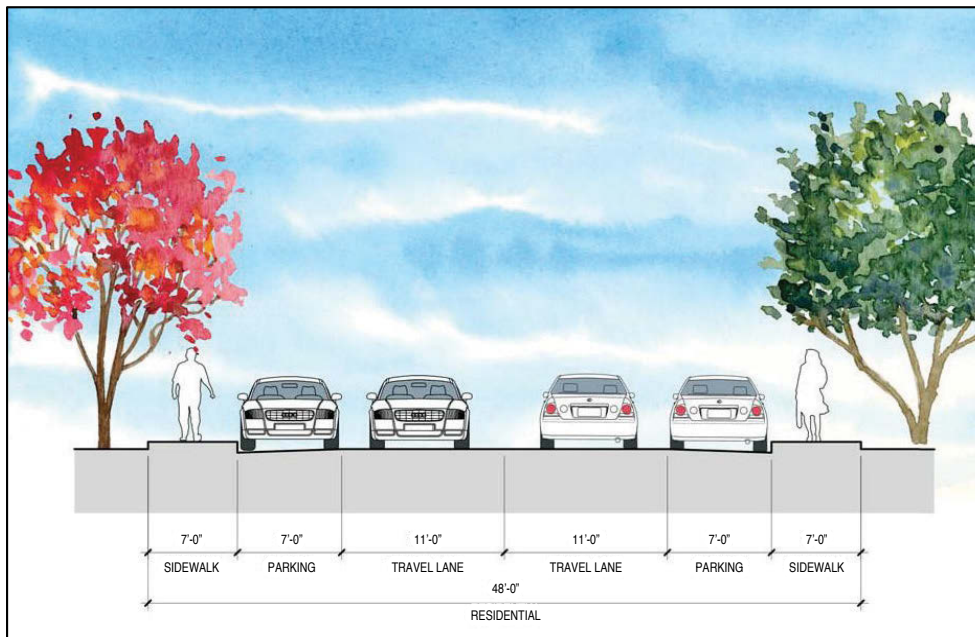
- **Venture Drive Extension:** Venture Drive would be extended approximately 2,200 feet east from the site's western boundary to link up with the Horizon Lane Extension, with these two 60-foot wide collector roads forming the backbone of internal site circulation.

These three proposed collector roads would be designed to carry through vehicle traffic and through bicycle and pedestrian trips, and would include 7-foot-wide Class II bicycle lanes, 7-foot planters, and 5-foot sidewalks on each side, with no street parking (refer to Figure 2-6). At the intersections of the proposed Project site collectors, roundabouts would be constructed; this includes the intersections of the proposed Earthwood Lane Extension/Venture Drive Extension, Venture Drive Extension/Jespersen Road Extension, and Town Center. From the collector roads, up to 17 new 48-foot-wide residential local roads would provide internal circulation and access to residential neighborhoods, the Town Center, and proposed parks. Residential roads would include street parking on both sides and 6-foot walkways to serve the neighborhood. Where proposed residential roads intersect with Project collector roads, residential roadways would be stop controlled.





Project Street Section: 60' Collector Road



Project Street Section: 48' Residential Road

Project Interior Road Cross Sections

**FIGURE
2-7**

2.6.5.4 Parking

Parking would be provided in accordance with City development standards for parking (Chapter 17.16 of the Municipal Code) and would be located along residential streets, in covered onsite garages, and onsite guest parking spaces. R-1 and R-2 single-family residences would provide a minimum of two spaces (at least 820 total spaces) while R-3 and R-4 multi-family units would provide spaces in accordance with the Zoning Ordinance based on the number of bedrooms proposed for development. Retail and commercial parking areas in the Town Center would provide approximately 50 to 75 spaces for the retail/office uses, and another 50 to 75 spaces to support the Neighborhood Park, Town Center community events, and commercial/office peak parking needs.

2.6.5.5 Transit Improvements

Transit improvements, including new bus stops, are proposed for the Project. The Applicant would coordinate with City's Transit Division (SLO Transit) to accommodate changes in bus routes and install two bus stops: one at the Town Center, and one within the residential neighborhood north of Tank Farm Creek near the Venture Drive/Earthwood Lane intersection. Routes would follow the new collector roads that feed into Buckley Road and Venture Lane. Refer to Section 3.12, *Transportation and Traffic*, for a more complete discussion of transit operations.

2.6.6 Utilities and Services

Water, sewer, police and fire services would be provided by the City. Natural gas service would be provided by Southern California Gas Company (SoCal Gas). Pacific Gas & Electric (PG&E) would provide electrical service. Charter Communications would provide cable and television services.

2.6.6.1 Water

Existing water main facilities that would serve the Project include an 18-inch main along South Higuera Street, a 12-inch main along Suburban Road, and a new 10-inch main beneath Earthwood Lane. Currently, the Earthwood water line is approximately one-third completed, and prepared for extension into the Project site from the north. The Project includes extension of the Earthwood Lane water line beneath the proposed Project collector to eventually become a looping system through the Project site. Water line extensions would also occur along 2,200 feet of Vachell Lane to South Higuera Street, 600 feet along Venture Drive between Vachell Lane and the Jespersen Road Extension, and beneath the

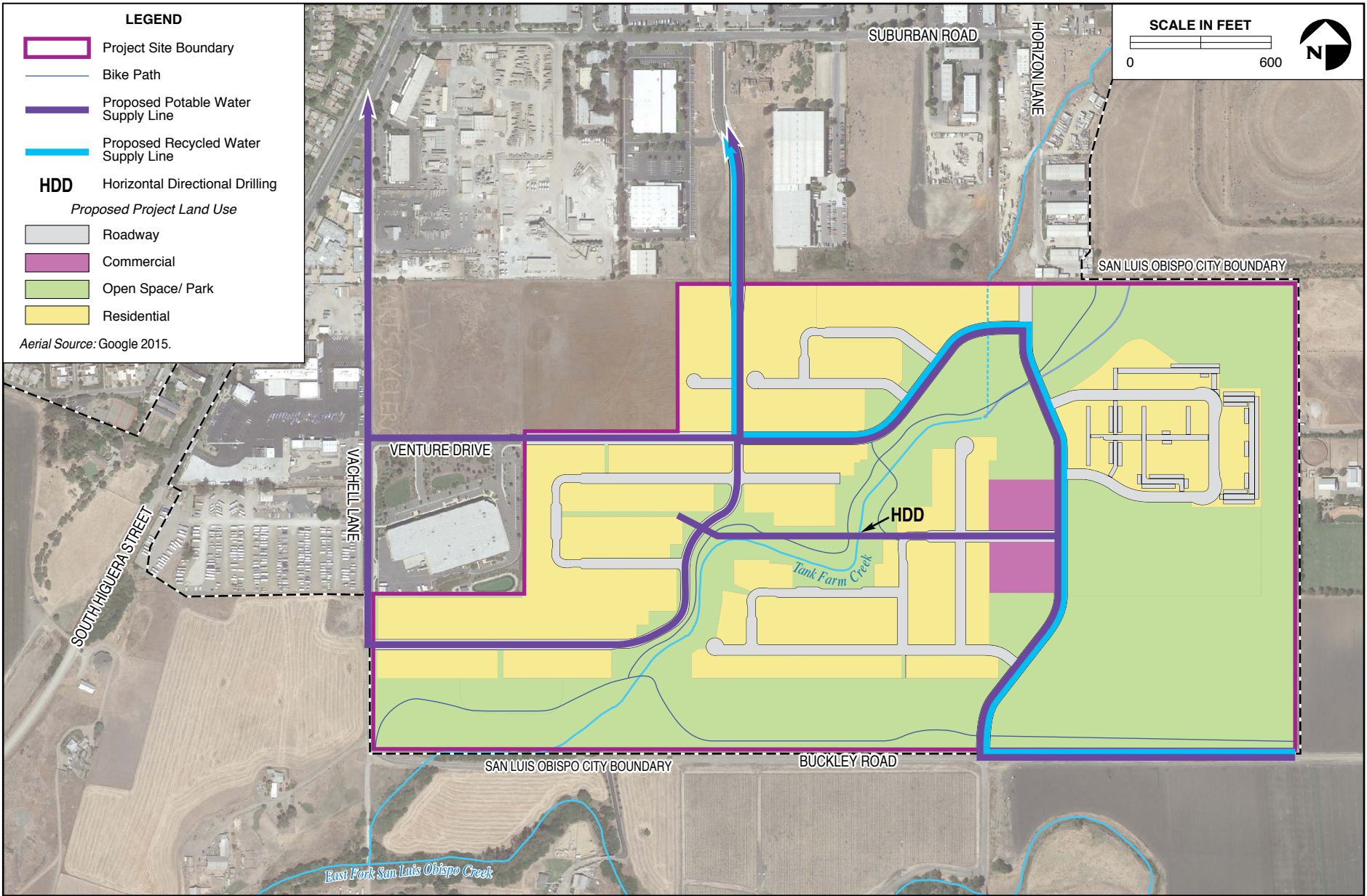
Jespersen Road Extension. Project development would include use of horizontal directional drilling (HDD) beneath Tank Farm Creek for two utility lines (water and sewer) that traverse Tank Farm Creek (see Figure 2-8). The water line beneath the Jespersen Road Extension would then connect to a proposed stubbed water main along Buckley Road. This Buckley Road water main would also enable future connections east of the Project site along Buckley Road. This would enable circulation for adequate domestic and fire flows.

The City's recycled water system would be extended from the existing recycled water line underlying Earthwood Lane into and throughout the Project site along the Earthwood Lane Extension and other roads. The recycled water line would enter the Project site from the north and traverse easterly and southerly passing the Town Center and neighborhood park before traversing east along Buckley road and stubbing out at the Project boundary. Recycled water would be used for street landscape parkways, mini-parks, pocket parks, and the Neighborhood Park, and for limited irrigation of the non-agricultural open space areas.

2.6.6.2 Sanitary Sewer

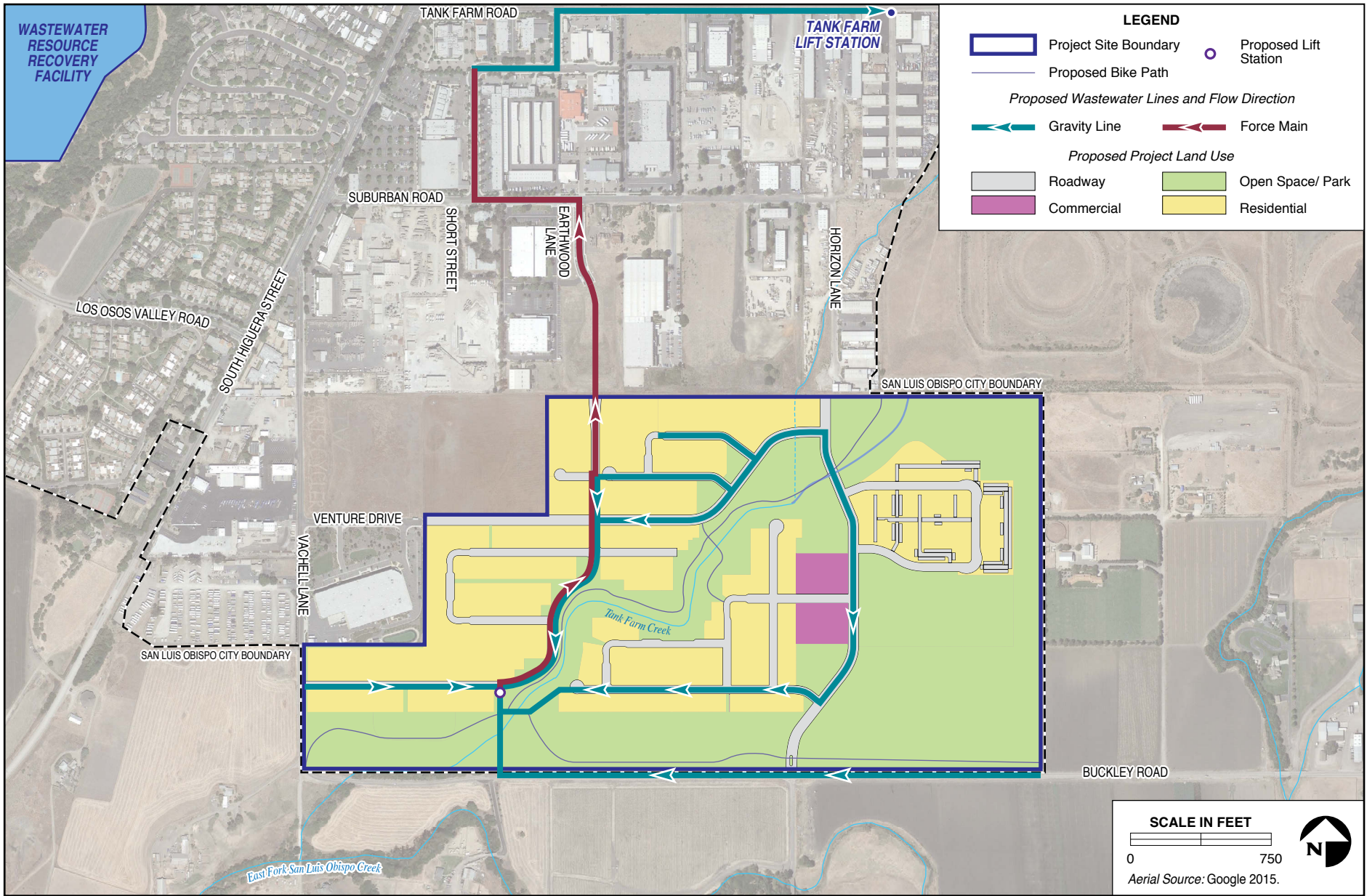
Project site topography would result in gravity flow for wastewater to the south, downstream from the existing Sewage Treatment Plant, which is located approximately 0.5 mile northwest of the Project site. As such, a system of force mains and/or lift stations would be needed to transport flows to the lines that feed into the Sewage Treatment Plant. Sewage would be conveyed through new gravity lines toward the proposed new junction of Vachell Lane and with the Earthwood Lane Extension, and a pump station would be constructed within the southwest portion of the Project site near Tank Farm Creek. This City-owned and operated pump lift station would connect to a proposed force main system that would be used to transport wastewater flows against gravity flow northwest through the Project site. It would not only serve the Project but also areas further east on Buckley Road, and would include a backup generator. A gravity line extending 400 feet south of the proposed pump station would traverse Tank Farm Creek and would then run easterly for 2,500 feet beneath Buckley Road.

Offsite, a force main would then be extended 550 feet beneath Earthwood Lane, and the offsite sewer lines would either 1) tie into an existing main on Suburban Road; or, 2) a gravity line would be installed along Suburban Road that would extend approximately 800 feet east from Earthwood Lane. The proposed gravity line would then be constructed to extend northerly to Tank Farm Road to tie in to the existing main line in Tank Farm Road. This Tank Farm Road main line feeds directly into the existing Tank Farm Lift Station (see Figure 2-9).



Proposed Water Supply Lines

FIGURE 2-8



Proposed Wastewater Collection System

FIGURE 2-9

2.6.6.3 Dry Utilities

Electrical service would be provided by PG&E with the underground extension of lines from overhead lines along the west side of Vachell Lane and the south side of Suburban Road. Natural gas service would be provided by SoCal Gas and proposed gas lines would tie into the existing 16-inch high pressure main line extending southeasterly beneath Vachell Lane and Buckley Road, including a pressure reducing station. Cable and television services exist along Vachell Lane and would be extended into the site. Solid waste disposal would be provided by the San Luis Obispo Garbage Company.

2.6.6.4 Fire Protection Services

Fire protection services for the site would be provided by the San Luis Obispo Fire Department (SLOFD). The proposed residential, commercial, and open space uses would require increased fire and emergency response services from SLOFD. The 2016 Fire Service Master Plan Update identifies the need for a fifth fire station to serve the southern extent of the City, including the Project site, in order to maintain acceptable service levels and response times. However, the timing of the construction and operation of the fifth fire station is not currently determined and is dependent on the timing of development and collection of development impact fees and land-based funding mechanisms. As such, an Interim Fire Station would be required to provide adequate service to the Project site. A 0.3-acre site to house an Interim Fire Station would be set aside within Phase 3 of the Project at the intersection of Earthwood Lane/Venture Drive. The Interim Fire Station would be constructed at 50 percent buildout of the Project site and would include a two-person crew. At 90 percent build out of the Fire Station 5's primary service area within the 2016 Fire Department Master Plan, a full, three-person crew would be provided. The station would be located at the southern planning area of the City as identified in the 2016 Fire Department Master Plan (see also Section 3.11, *Public Services*). This Interim Fire Station would remain in operation until the City's fifth fire station is constructed and fully operational, at which point the City's fifth fire station would provide fire protection services for the new residential units and surrounding population near the City's southern edge. The Interim Fire Station would be decommissioned after the fifth fire station is operational and the site would be converted to a public park.

2.6.7 Stormwater Conveyances

The Project would be subject to the Low Impact Development (LID) standards of the Regional Water Quality Control Board's (RWQCB's) Post Construction Requirements.

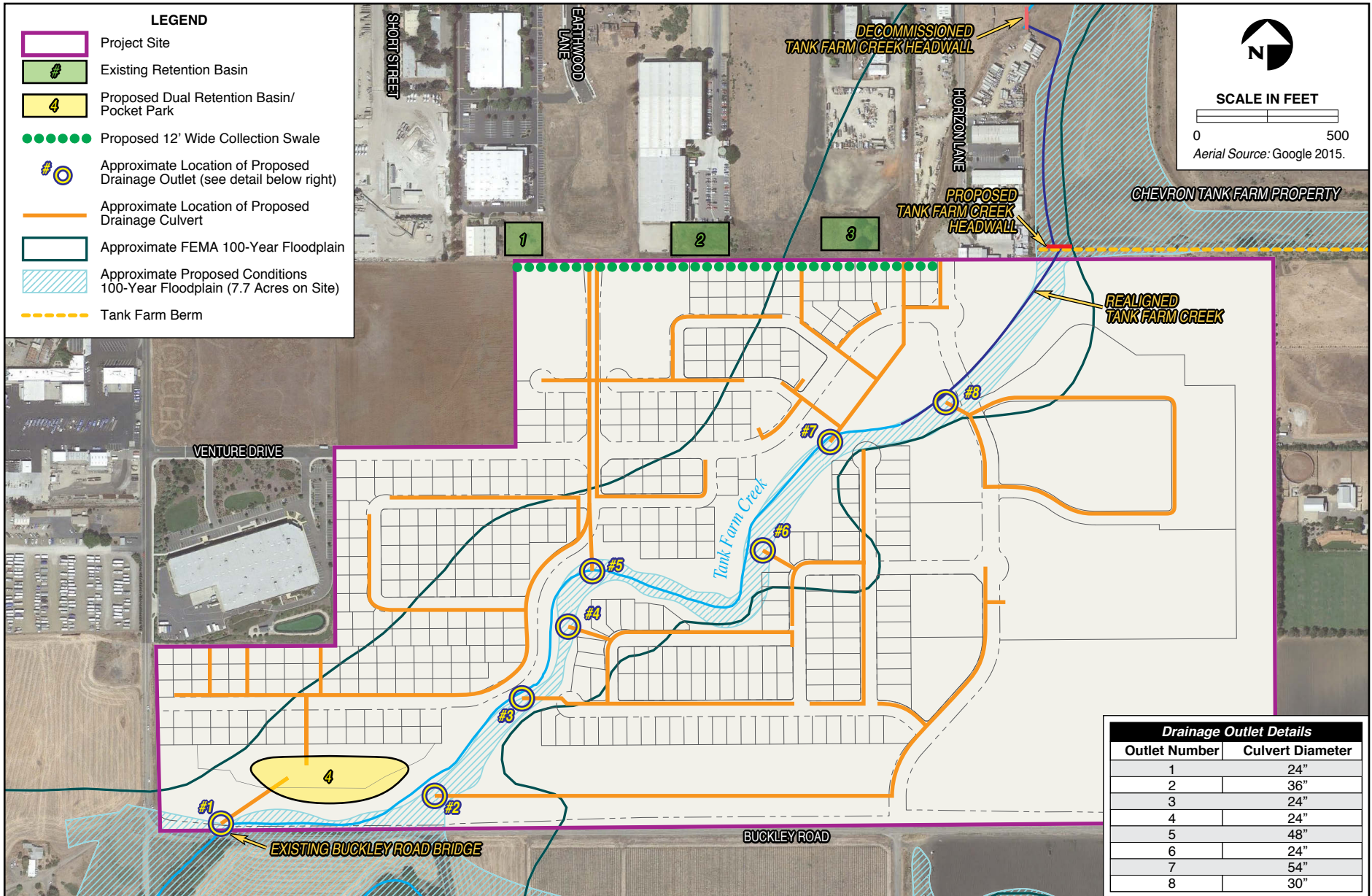
Proposed storm water conveyance infrastructure would include an approximately 1,600-foot long, 12-foot-wide surface flow collection swale along the northwestern boundary of the Project site, drainage culverts throughout the site installed beneath proposed Project roadways, and a dual pocket park/bioretention basin (see Figure 2-10). The 12-foot wide collection swale would be constructed onsite from the northwest corner of the Project site to the proposed Jespersen Road Extension. The swale would contain a concrete retaining wall rising 2 to 4 feet above the existing grade on the south side, and would contain 2:1 slopes on either side of the swale. The swale would collect offsite runoff entering the site from the north and would connect with three existing retention basins located offsite adjacent to the northern Project boundary; the swale would contain a 5 percent longitudinal slope that would send runoff flows east to connect with three proposed culverts that would convey runoff for discharge into Tank Farm Creek. This swale would be managed and maintained by the local homeowners group.

Surface runoff from streets and sidewalks within the Project site would be conveyed by gutters and streets that connect to the storm water pipe network. Stormwater conveyance culverts would flow into Tank Farm Creek via eight outlets of various pipe sizes (see Table 2-6). Installation of a storm water conveyance system would occur across all phases of construction, and drainage outlets along Tank Farm Creek would include the construction of headwalls and concrete aprons within the creek invert to direct flows (see Figure 2-11).

Table 2-6. Pipe and Riprap Sizes at Drainage Outlets

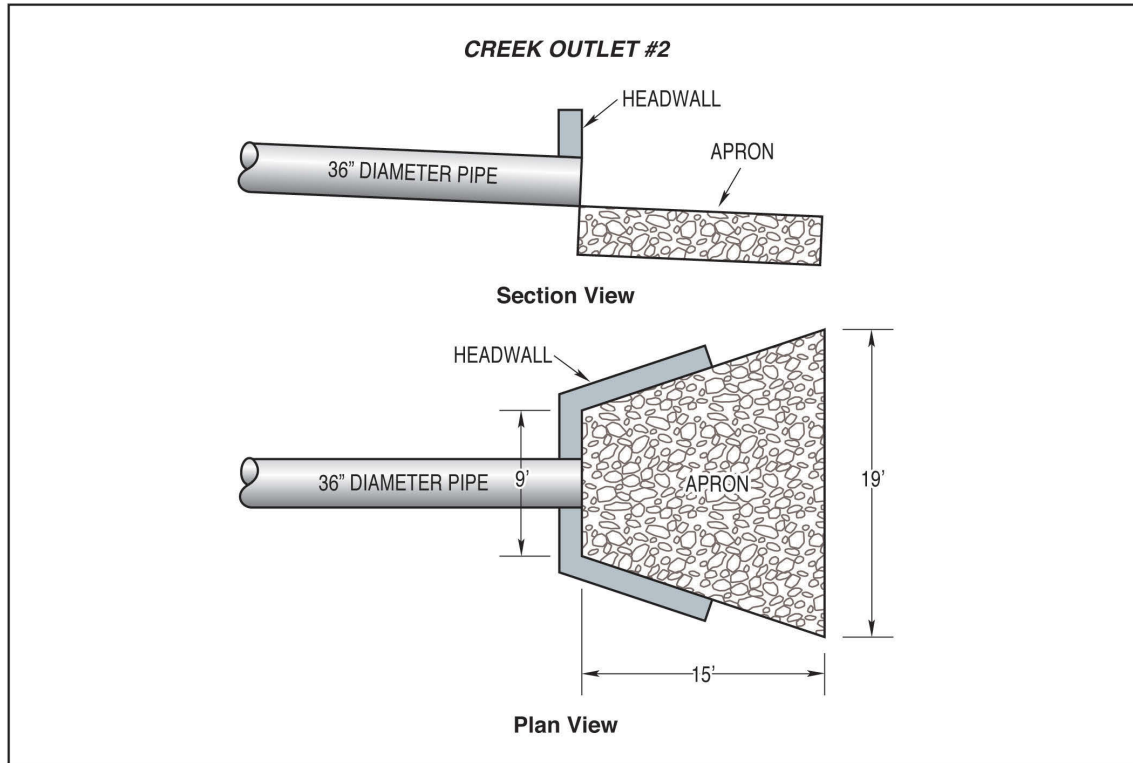
Drainage Outlet	Design Storm	Pipe Size (inches)	Apron Size
1	100-year	24	69.2
2	10-year	36	210.0
3	10-year	24	69.2
4	10-year	24	69.2
5	100-year	48	480.0
6	10-year	24	69.2
7	100-year	54	607.5
8	10-year	30	145.6

Apron dimensions based on methods in Federal Highway Administration (FHWA) HEC. No 14.
Source: Cannon 2015.



Proposed Drainage Conditions on the Project Site

FIGURE 2-10



**Proposed Drainage Outlet Structure
in Tank Farm Creek**

**FIGURE
2-11**

As described above, within the southwest portion of the site is a proposed dual pocket park/bioretention basin. The bioretention basin would lie within the proposed open space buffer and would contain recreational land uses and open areas. This would be a 0.2-acre basin that would detain runoff from streets and sidewalks within the R-2 neighborhood proposed on the western portion of the site. Surface runoff in the western portion of the site would enter the storm water pipe system, and would then discharge to the bioretention basin. In the event of a large storm event, a culvert would convey overflow from the bioretention basin to Tank Farm Creek.

In addition, the Project would include features to reduce impermeable surfaces. These include the usage of pervious pavement and pavers for R-2 driveways, and the usage of pavers and porous surfaces on at least 20 percent of parking areas in conjunction with V-gutters and French drains.

2.6.8 Tank Farm Creek Realignment and Restoration

The proposed Project would include realignment of segments of Tank Farm Creek in order to improve development and circulation design, improve on- and offsite drainage,

accommodate flood flows, and restore riparian habitats. As part of this effort, the Project would include realignment of Tank Farm Creek to its historic route, burial of 600 feet of the northern creek segment, restoration of disturbed areas, and enhancement of existing retained habitats. Key drainage improvements would include installation of a culvert through the existing 15- to 20-foot high berm along the Project site/Chevron Tank Farm property boundary to convey runoff water via Tank Farm Creek to San Luis Obispo Creek. Substantial grading would occur along both sides of the creek corridor to raise finish floor elevations for new building pads, and the creek would also undergo a series of modifications to control flood flows.

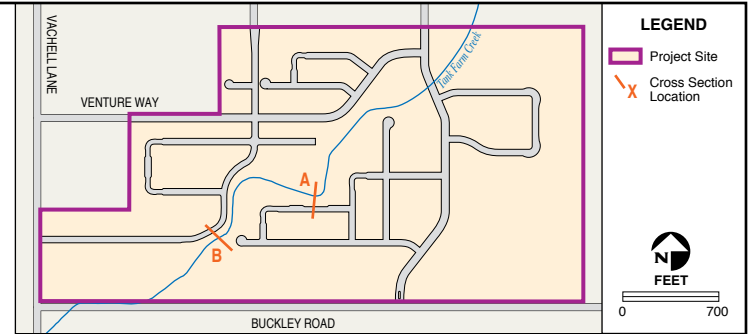
2.6.8.1 Offsite Improvements

Under existing conditions, runoff from the Chevron Tank Farm property is released into small drainage channels on properties located north of the Project site and west of the Chevron Tank Farm property, then flow to the North-South Creek Segment just west of Horizon Lane. Drainage also enters the Project site from properties to the east via the East-West Channel. These channels merge into the existing alignment of Tank Farm Creek.

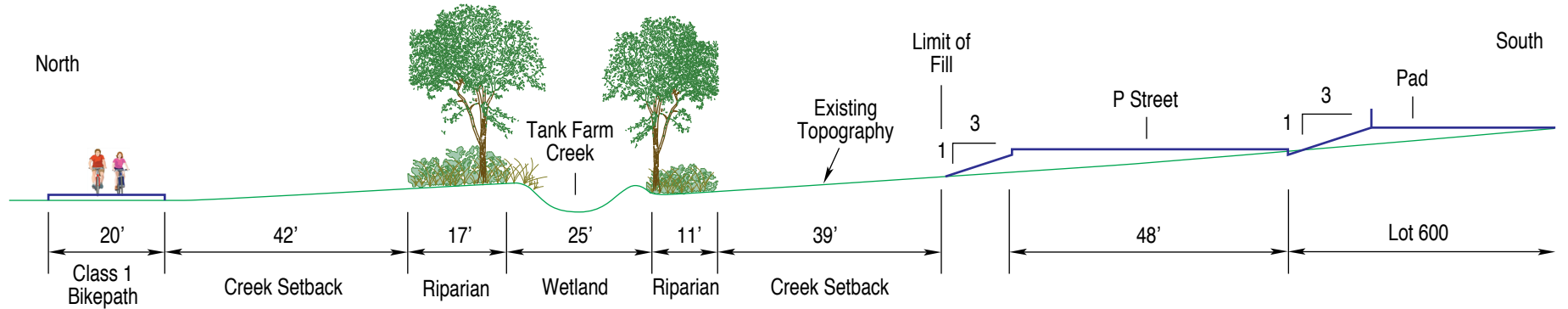
The final EIR for the Chevron Tank Farm Remediation and Development Project recommends realignment of the North-South Creek Segment to convey runoff through the Chevron Tank Farm property and connect to the Project site at approximately its northeastern corner. As described above as an onsite improvement, the Project would realign the North-South Creek Segment to connect with the recommended alignment of Tank Farm Creek from the Chevron Tank Farm Remediation and Development Project EIR. This realigned drainage would roughly match the location of the historic Tank Farm Creek alignment. The realignment of Tank Farm Creek as part of the proposed Project would connect with planned drainage improvements to the northeast from the Chevron Tank Farm property.

Offsite Tank Farm Creek improvements planned for the Chevron Tank Farm property would include improved flood flow storage, realignment of existing drainage patterns and conveyance of runoff to a new discharge location along the northwestern Project site boundary approximately 800 feet east of its current discharge location into the Project site. Planned Chevron Tank Farm property drainage improvements would include excavation of storage capacity for a 100-year storm event and along with discharge controls to regulate the rate of outflow to minimize downstream flooding. Three existing detention ponds upstream of the existing headwall on the western side of Chevron Tank Farm property,

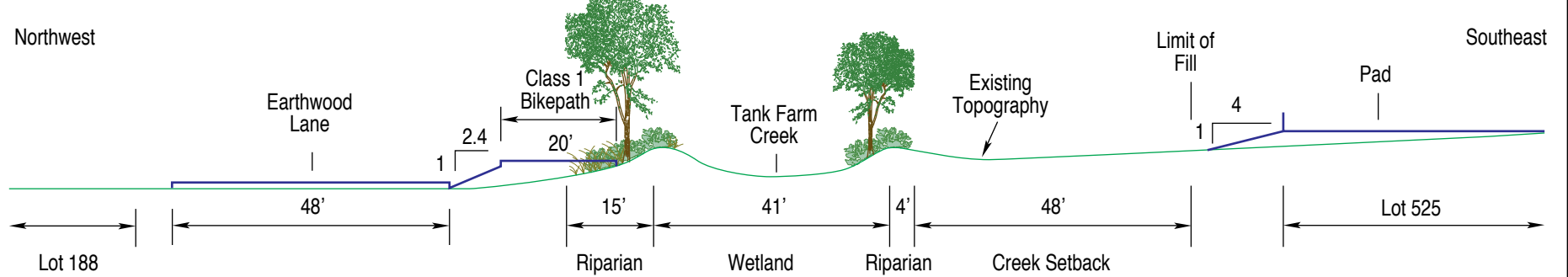
Based on CannonCorp Engineering Consultants Tentative Tract Map, Sheet C4 and Grading Plan, Sheets C17, C18, C21, C22 9/15/2015.



CROSS SECTION A



CROSS SECTION B



Illustrative Tank Farm Creek Cross Sections

FIGURE 2-12

approximately 950 feet upstream of the Project site boundary, would be excavated into a single pond. The future discharge location from this pond would be relocated from the western to southern boundary of the Tank Farm Property adjacent to the Project site. The existing headwall structure that regulates outflow from the Tank farm to properties to the west would be decommissioned. Further discharge would be conveyed to the south through a proposed underground culvert of up to 48 inches in diameter that would pass under the existing 15- to 20-foot-high levee along the southern boundary of the Chevron Tank Farm property into the Project site. The new culvert would convey flows from the new larger detention pond that would collect runoff from three Tank Farm Creek tributaries on the Chevron Tank Farm property, and direct flows underground to a discharge point, most likely a new concrete headwall structure along the northeast border of the Project site to connect with the realigned segment of Tank Farm Creek proposed as part of the Project. These improvements would be done as part of the Chevron Tank Farm Remediation and Development Project and would be required to conform to the City's Waterway Management Plan.

2.6.8.2 Onsite Tank Farm Creek Realignment and Floodplain Improvements

Onsite drainage improvements would consist of abandonment of the 600-foot long alignment of the North-South Creek Segment of Tank Farm Creek, fill of the 1,200-foot East-West Channel, construction of a 850-foot long realigned extension of Tank Farm Creek east to the Chevron Tank Farm property, installation of various headwalls, culverts, and down drains for runoff conveyance and grading to provide flood conveyance and storage areas along Tank Farm Creek. These improvements are discussed below.

The 600-foot North-South Creek Segment of the existing alignment of northern Tank Farm Creek that currently conveys runoff from north of the Project site into the main branch of Tank Farm Creek would be filled in to permit new development. Runoff from the Chevron Tank Farm property would be conveyed through the newly realigned channel of northern Tank Farm Creek.

As discussed in Section 2.6.6.1 above, runoff from the Chevron Tank Farm property would be collected in a new 48-inch culvert for conveyance into the newly realigned segment of Tank Farm Creek on the Project site. Although not yet specified, related improvements would likely include construction of concrete wing walls at the Tank Farm berm with an energy dissipater at the discharge point into the realigned Tank Farm Creek. From this discharge point, the newly realigned channel of Tank Farm Creek would extend approximately 850 feet southwest to connect to the remaining intact creek channel. The

newly realigned channel of Tank Farm Creek is proposed to be approximately 15 feet in width at the bottom of the invert with 3:1 slopes and would include a newly created riparian corridor with 25-foot setbacks from the edge of riparian habitat on both sides. This newly realigned creek channel would generally traverse a planned open space area of approximately 800 feet in width, but would pass under a proposed bridge supporting the 60-foot wide extension of Horizon Lane, and flow into the existing Tank Farm Creek drainage channel.

The remainder of the existing channel would largely remain intact through the rest of its course through the Project site; however, grading adjacent to the creek but outside of the riparian corridor would result in a 2- to 8-foot change in grade that would accommodate 100-year flood events. Riparian zones of at least 25 feet in width from the creek centerline are proposed along this realigned drainage segment to buffer habitat from adjacent planned development including housing and roads, although the majority of the Tank Farm Creek Class I bicycle path would be constructed within the riparian corridor (see Figure 2-12). Outflow from the Tank Farm Creek drainage would continue to be conveyed under Buckley Road and connect with the East Fork of San Luis Obispo Creek.

Runoff from residential areas within the Project site would be directed to vegetated treatment facilities onsite; however, for larger storm events, overflow from the vegetated treatment areas would discharge into the storm drain system for conveyance into Tank Farm Creek at eight outfalls along the creek. Runoff from public sidewalks, paths, and streets would also be conveyed by surface flow into the vegetated treatment areas, which would overflow into a storm drain system that discharges to the creek. For additional information on the hydrology of the Project site, please refer to Section 3.7, *Hydrology and Water Quality*.

2.7 PROJECT CONSTRUCTION

2.7.1 Phasing

Construction of the Project would occur over six phases, which are anticipated to be completed over a period of approximately 10 years between 2020 and 2030 (see Figure 2-13 and Table 2-7). Construction phases would involve site preparation, grading, building construction, paving, and architectural coatings with each phase of construction occurring over a span of one to three years. Phases 1 and 2 would also include grading of areas for Phase 3 and Phase 4 to borrow 8,000 cubic yards (cy) of soil needed for fill on

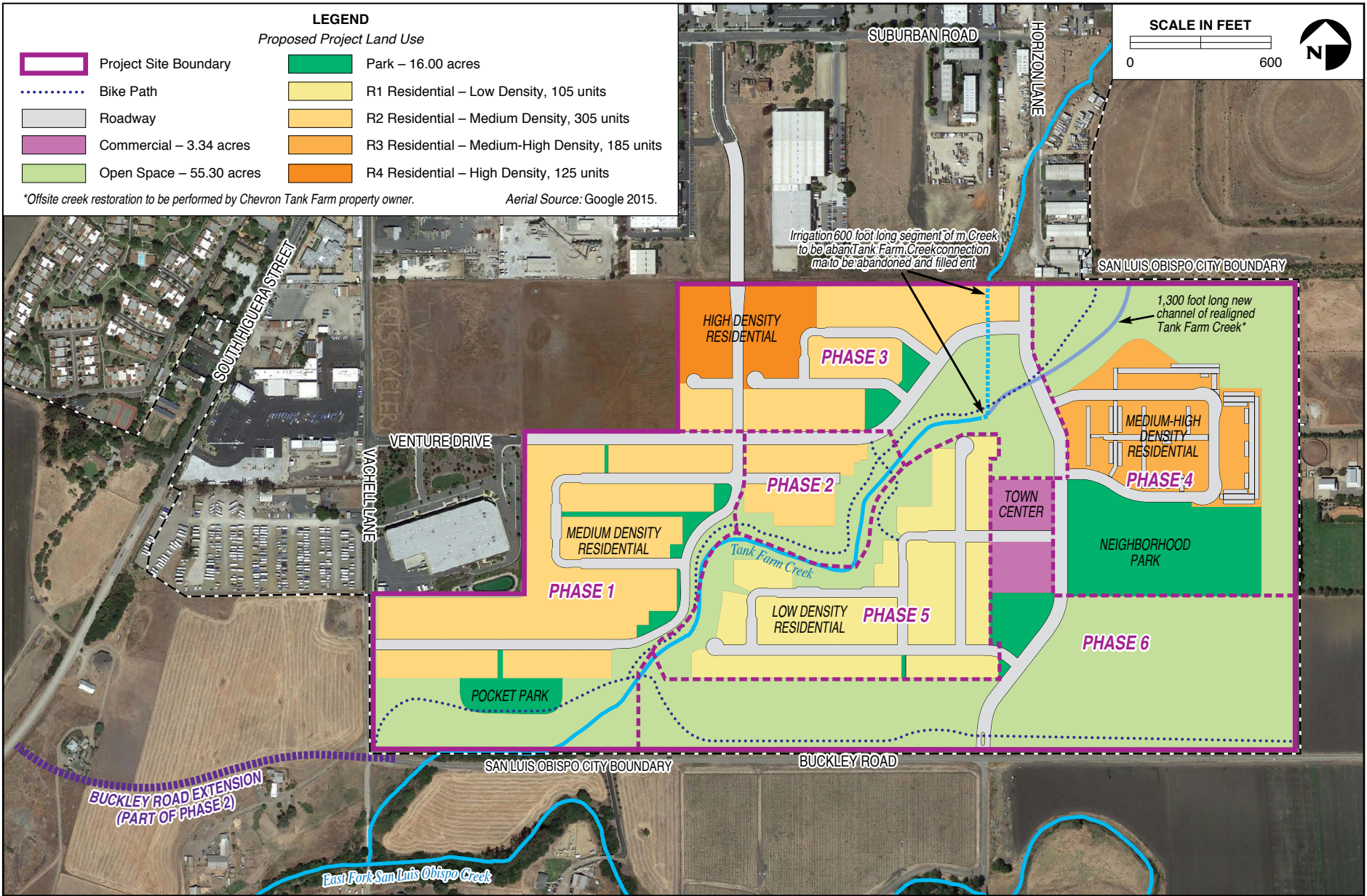
Table 2-7. Phases and Duration

Phase	Project Component	Year	Grading (cy) ¹
1	<ul style="list-style-type: none"> • Construction of 185 R-2 units. • Completion of frontage improvements along Buckley Road and Vachell Lane. • Extension of Earthwood Lane from the roadway segment off of Suburban Road through the Project site and connecting to Vachell Lane, along with Class II bicycle lanes and sidewalks. • Extension of Venture Drive along the frontage of the phase through the Venture Drive/Earthwood Lane roundabout and connection of Earthwood to Suburban, with Class II bicycle lane. • Construction of the sewer pump station and force main along Earthwood Lane Extension. • Extension of dry utilities proposed within Phase 1. • Completion of pedestrian and bicycle bridge over Tank Farm Creek in the southwestern portion of the site (Class I Tank Farm Bridge No. 1). • Construction of Class I bicycle path from the southwest corner of Buckley Road to Class I Tank Farm Bridge No. 1 within the Project site, and along Tank Farm Creek within Phase 1 of the site. • Construction of a Class II bicycle lane bridge on the south side of Buckley Road adjacent to the Buckley Road Tank Farm Creek Bridge. • Construction of residential roads. • Installation of transit stop to the east of the proposed roundabout at Venture Drive/ Earthwood Lane. • South Higuera Street/ Suburban Road intersection improvements. • Vachell Lane/South Higuera Street intersection improvements. • Development of the pocket park/bioretention basin and mini parks. • Development of 12-foot wide collection swale. • Grading of Phase 3 and 4 areas to provide 8,000 cy of fill for Phase 1 and 2. 	2020 - 2023	116,600 cut/ 119,400 fill
2	<ul style="list-style-type: none"> • Construction of 29 R-2 units. • Extension of utility lines throughout the Phase II area. • Completion of Buckley Road Extension from the Project site to South Higuera Street, including Class I & II bicycle paths. • Installation of the Tank Farm Creek Class I path along Tank Farm Creek within Phase 2. 	2024	69,650 cut/ 74,850 fill

Table 2-7. Phases and Duration (Continued)

Phase	Project Component	Year	Grading (cy) ¹
3	<ul style="list-style-type: none"> Construction of 91 R-2 units. Construction of 125 R-4 units (including 35 inclusionary housing units). Extension and completion of Project collector and residential roads throughout the site along the Project frontages to Horizon Lane. Realignment of the Tank Farm Creek segment to accommodate the 100-year flood event. Construction of the Phase 3 mini-parks. Completion of the Tank Farm Creek Class I path. Construction of the Interim Fire Station 	2024 - 2025	77,550 cut/ 68,700 fill
4	<ul style="list-style-type: none"> Construction of 185 R-3 units (including 35 inclusionary housing units). Development of the Neighborhood Park and Community Gardens. Construction of vehicle and pedestrian bridge from Venture to Jespersen Road. Completion of Jespersen Road to Buckley Road roadway segment and utilities along this roadway. Grading of Phase 5 area to provide 4,300 cy of fill. 	2026 - 2028	26,600 cut/ 30,900 fill
5	<ul style="list-style-type: none"> Construction of 105 R-1 units. Installation of utilities with the R-1 residential area 	2026 - 2028	62,700 cut/ 62,700 fill
6	<ul style="list-style-type: none"> Construction of the Neighborhood Commercial Town Center sites. Buckley Road frontage improvements. Construction of the remainder of street frontages, utilities along Buckley Road, and open space/buffer area along Buckley Road. 	2029- 2030	8,756 cut/ 8,756 fill
TOTAL			361,856 cut/ 365,306 fill

¹ Grading estimates are approximate. Includes all earthwork, including rough grading, utility trench spoils, and spoils from building foundations for all Project on and offsite construction.



Construction Phasing

FIGURE 2-13

Phases 1 and 2. Phase 4 would involve grading within areas of Phase 5 to borrow 4,300 cy of soil needed for fill in Phase 4. Building construction, paving, and architectural coating activities would then occur within each phase sequentially. At the time of construction, each phase would be subject to permit review to ensure conformity with the approved Avila Ranch Development Plan and the AASP, and consistency with applicable regulations. Each phase would include specifications to address the development activities to be performed during the phase and define specific mitigation measures and best management practices (BMPs) that would apply.

2.7.2 Construction Activities

Each phase of the Project would generally entail the following stages: pre-construction design and permitting, site preparation and grading, construction, and final landscaping. A list of equipment anticipated to be used during these activities can be found in Table 2-8.

Table 2-8. List of Construction Equipment

Typical Construction Equipment	
Backhoe	Grader
Boom Lift	Loader
Compactor (Roller)	Miscellaneous Small Tools
Concrete Pump (Tow)	Office Trailers
Concrete Truck	Paving Machine
Crane	Scaffolding
Dozer	Scissor Lift
Dump Truck	Scraper
Electric Man Lift	Sheepsfoot
Excavator	Skip Loader
Flatbed Truck	Tractor
Forklift	Water truck

2.7.2.1 Site Preparation and Grading

Site preparation for each phase would be performed through grading along proposed roadways, building pads, and installation of onsite utilities. Mobilization and staging of earth moving equipment would be required in order to bring the site and building pads to engineered elevations. During grading operations, standard dust control and construction runoff BMPs would be implemented. Additional requirements would be specified in detail during the design of final engineered drawings prior to issuance of grading permits. Cut

and fill estimates for each phase are provided in Table 2-7. Activities would include but not be limited to:

- Full mobilization and set up of onsite construction temporary facilities;
- Movement, placement and compaction of stockpiled soils;
- Over-excavation and recompaction of soils at building pads;
- Coordination of loading and trucking activities, truck routes, and export sites;
- Delivery, staging, and storing of materials;
- Trenching and installation of utilities (water, sewer, storm drain, natural gas, electric, telephone, cable television, and irrigation lines);
- Environmental monitoring, including fugitive dust control and implementation and monitoring of construction storm water runoff; and
- Monitoring and recording of BMPs.

Cut and fill would be balanced onsite and within each phase; no stock piling of soils would occur.

2.7.2.2 Onsite Infrastructure Improvements

The construction of onsite infrastructure would include installation of underground site utilities, precise site grading, and the paving of roads. Activities would include but not be limited to:

- Trenching for underground wet and dry utilities;
- Precise grading and compaction of soils for roadways;
- Precise grading for curb and gutter installation;
- Installation of concrete curb, gutter, and site concrete;
- Installation of base and asphalt paving of interior streets and parking areas; and
- Lighting and landscaping.

2.7.2.3 Offsite Infrastructure Improvements

Construction of offsite roadway improvements would occur at the following locations:

- Buckley Road Extension between Vachell Lane and South Higuera Street;
- Buckley Road improvements and Class II bicycle lane installation along the entire length of the southern site boundary;
- Venture Drive between the eastern terminus of Venture Drive and Jespersen Road;
- Horizon Lane between the Project site northern boundary and the Venture Drive Extension;
- Intersections of South Higuera Street/Suburban Road and South Higuera Street/Vachell Lane;

- Intersection of Jespersen Road and Buckley Road; and
- Earthwood Lane between the Project boundary and the existing Earthwood Lane roadway.

These roadway segments would experience closures during construction phases (see Figure 2-14). All work would be subject to traffic control, pedestrian protection, and notification plans. Project traffic control and pedestrian re-routing plans would be revised to reflect the changing conditions throughout construction.

Underground site utilities would be connected to the existing utility infrastructure and precise grading, concrete, underground utility work, and paving would be performed offsite. Work would take place primarily along Vachell Lane, Buckley Road, Suburban Road, and Earthwood Lane. Activities would include, but not be limited to:

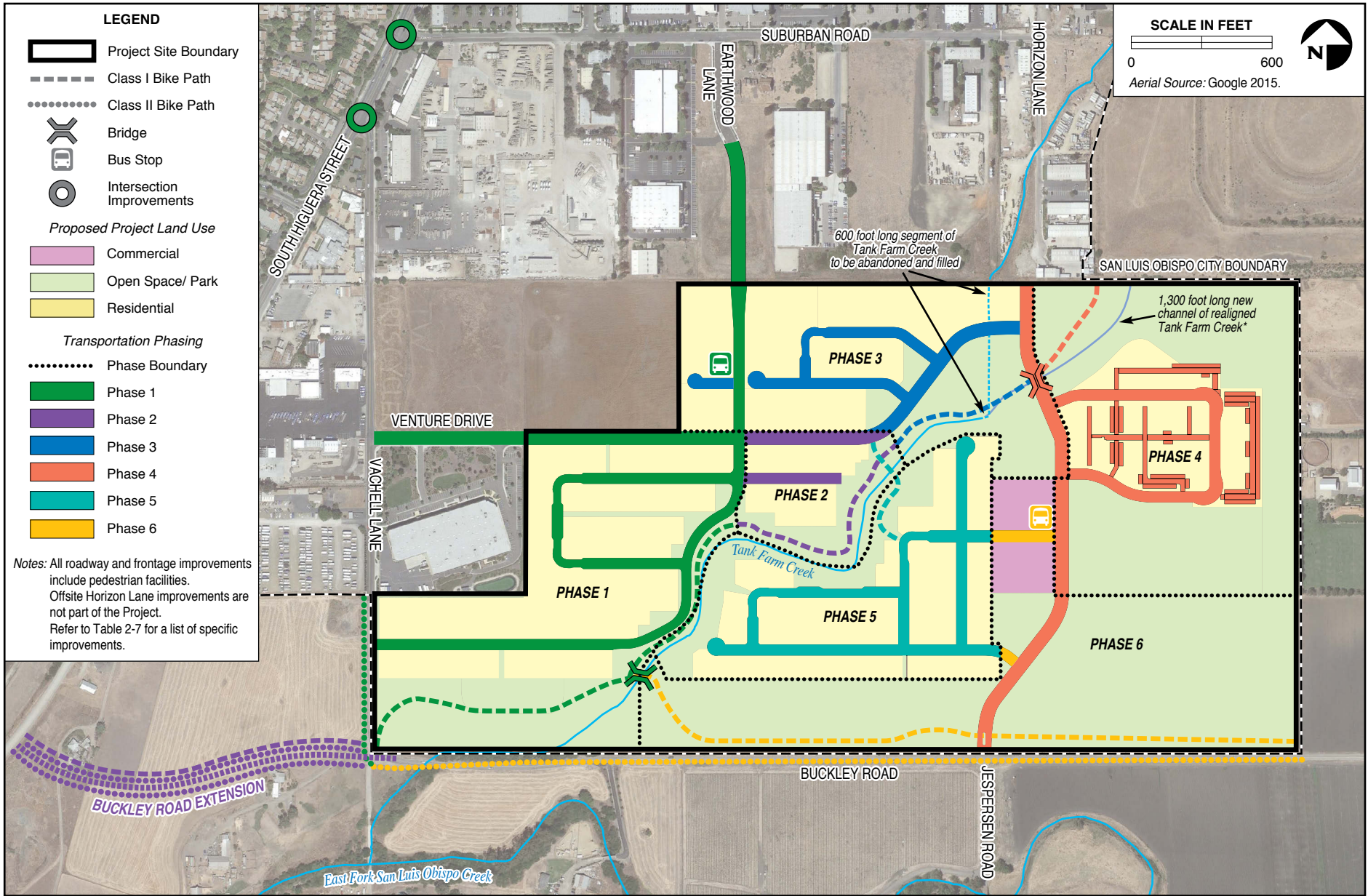
- Traffic control and lane closures on an intermittent basis;
- Trenching, installation, and roadway repair for underground wet and dry utilities along Vachell Lane and Earthwood Lane;
- Saw cut and demolition of the existing asphalt at the edge of the roadway on Buckley Road for the length of the site;
- Precise grading and compaction of soils;
- Installation of base and asphalt paving;
- Curb and gutter installation; and
- Streetlights, road striping, and signage work.

2.7.2.4 Building Construction

Building construction would consist of the construction of 720 housing units and 15,000 sf of commercial space in the Town Center. Construction of buildings would be concurrent within each phase, with construction crews working concurrently at multiple locations on the Project site.

2.7.3 Phasing of Transportation Improvements

The following transportation improvements are proposed as part of the Project (see Figure 2-14):



Phasing of Project Transportation Improvements

FIGURE 2-14

Phase 1 Project Improvements (On- and Offsite):

- Extension of Earthwood Lane from its current terminus south approximately 550 feet to the northern boundary of the Project site, and approximately 2,800 feet onsite curving through Phase 1 development and connecting to Vachell Lane (refer to Figure 2-14). Approximately the northern 2,350 feet would be a 60-foot wide collector road, and the last 1,000 feet would be a 48-foot wide residential road connecting to Vachell Lane.
- Extension of Venture Drive approximately 900 feet east from its current terminus to the proposed Earthwood Lane & Venture Drive roundabout intersection. This extension would be a 60-foot wide collector road.
- Class II bicycle paths along both sides of Venture Drive and Earthwood Lane.
- Class I bicycle path from the southwest corner of the site through the Phase 1 open space area in the south, and approximately 800 feet of the Tank Farm Creek Class I bicycle path.
- Completion of internal residential roads within Phase 1 development.
- Installation of left turn restrictions at the South Higuera Street & Vachell Lane intersection.
- Restriping the Suburban Road & South Higuera Street intersection to make the westbound right turn lane into a shared right/left turn lane.
- Approximately 1,000 feet of frontage improvements along Buckley Road and 650 feet of frontage improvements along Vachell Lane within Phase 1.

Phase 2 Project Improvements (On- and Offsite):

- Buckley Road Extension from Vachell Lane to South Higuera Street, with a Class I bicycle path to the north of the road and Class II bicycle lanes on both sides of the road.
- Class II bicycle lanes along Vachell Lane from Buckley Road north to approximately 250 feet north of the Earthwood Lane/Vachell Lane intersection.
- Continuation of the Tank Farm Creek Class I bicycle path through Phase 2 area.

Phase 3 Project Improvements (Onsite):

- Completion of internal residential roads within Phase 3 development, including the extension of Venture Drive from the roundabout east about 1,500 feet to the end of the Phase 3 development.

Phase 4 Project Improvements (Onsite):

- Completion of the Jespersen Road Extension from Buckley Road to the northern boundary with Class II bicycle lane on both sides.
- Buckley Road entrance improvements.
- Construction of the vehicle and pedestrian bridge from Venture Drive to Jespersen Road.

Phase 5 Project Improvements (Onsite):

- Completion of internal residential roads within Phase 5 development.
- Class I bicycle path bridge cross Tank Farm Creek that connects Venture Drive to local residential roads within Phase 5 development.

Phase 6 Project Improvements (On- and Offsite):

- Class I bicycle path along Buckley Road between Tank Farm Creek and the eastern Project site boundary.
- Buckley Road frontage improvements, including left and right turn lanes and 8-foot wide Class II bicycle lanes on both sides of Buckley Road along 0.75 mile of the Buckley Road Project frontage.