

# Southern California Logistics Airport Specific Plan Review DRAFT

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Section 1

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INTRODUCTION

## 1.0 INTRODUCTION

### 1.1 Specific Plan Overview

The Southern California Logistics Airport (SCLA) Specific Plan, also hereafter referred to either as the “Specific Plan” or the “Specific Plan area”, covers approximately 8,611 acres in the City of Victorville. Refer to [Exhibit 1.1, \*SCLA Specific Plan Land Use Plan\*](#), for the boundary of the Specific Plan area and the land use designations within the Specific Plan. The Specific Plan area designates 2,525 acres as Airport and Support Facilities (ASF) and 210 acres of Runway Protection Zone (RPZ) land uses, where existing airport uses exist. The Specific Plan also has approximately 1,125 acres of area designated as Business Park (BP) land use, 3,767 acres designated as Industrial (I) land use, and 44 acres of area designated as Public Open Space (POS) land use. In addition, there are approximately 940 acres of area designated as Public Institutional (PI) land use, which encompasses the existing Federal Correction Complex in the southern portion of the Specific Plan area.

The following provides a Specific Plan outline where additional information can be found:

[Section 1.0, \*Introduction\*](#), provides a brief overview of the Specific Plan designated land use plan, purpose and intent, authority, location and setting, and site history and background of the Specific Plan.

[Section 2, \*Planning Context\*](#), provides information regarding the Specific Plan’s relationship to other City planning documents, identifies development districts within the Specific Plan area, and describes existing site conditions.

[Section 3, \*Plan Elements\*](#), provides land use designation descriptions, along with circulation plan concepts and infrastructure plan concepts (including stormwater and drainage, water system, sewer system, utilities, public services, and phasing).

[Section 4, \*Development Standards\*](#), provides general land use provisions for the Specific Plan area and focused land use designation development standards for these areas.

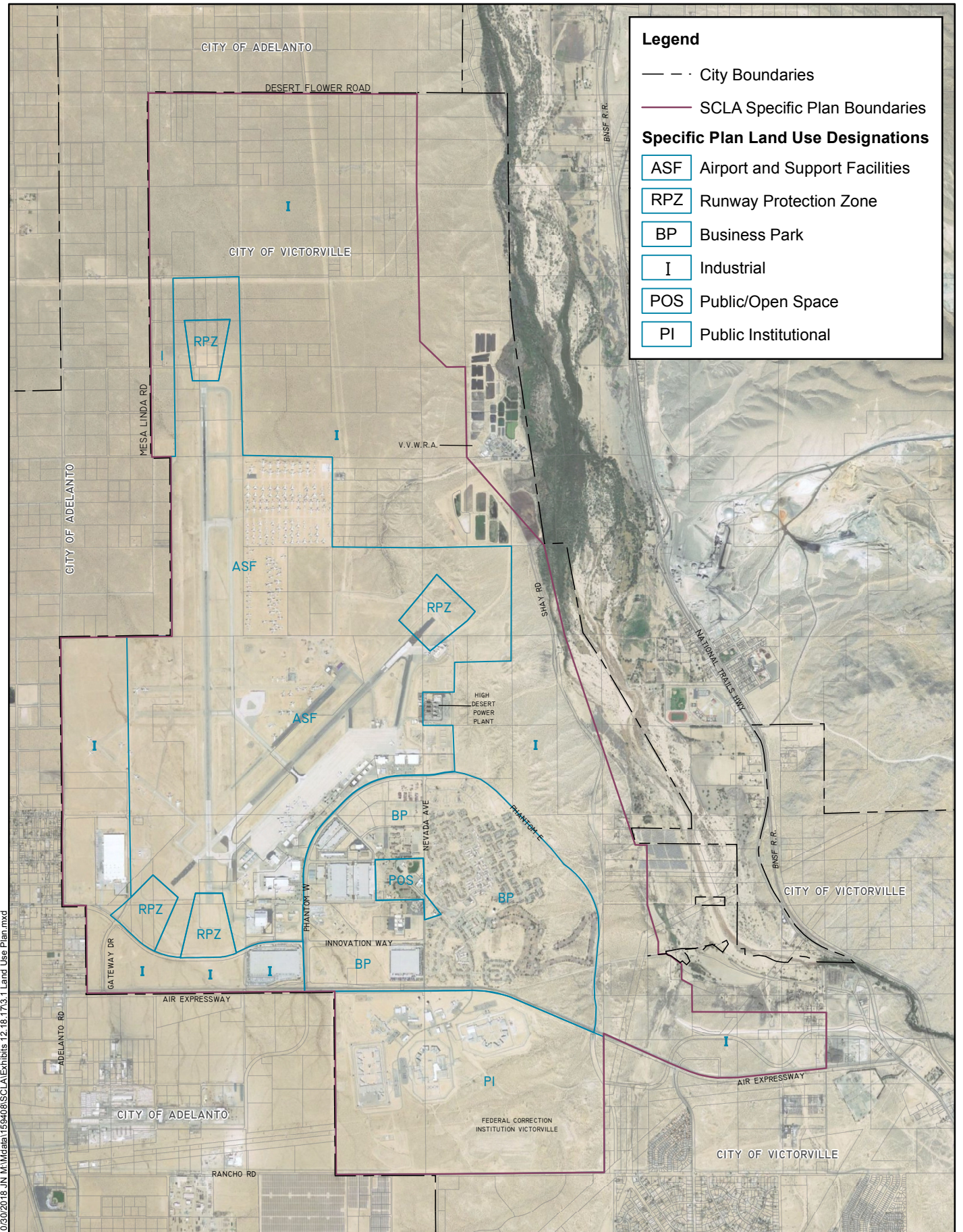
[Section 5, \*Design Guidelines\*](#), provides site design guidelines, landscape design guidelines, architectural guidelines, signage design guidelines, and lighting design guidelines concepts.

[Section 6, \*Administrative Procedures\*](#), provides general provisions for interpretation and severability, along with enforcement procedures, maintenance responsibilities, and Specific Plan adjustments and amendments.

### 1.2 Purpose and Intent of the Specific Plan

The Specific Plan is a focused guiding document for implementation of the City’s General Plan with the Specific Plan area. The Specific Plan provides a description of the proposed land uses, infrastructure, and specific implementation requirements. The Development Standards establish permitted uses, building regulations, and general development criteria.

The Specific Plan is consistent with the applicable goals and policies of the City of Victorville General Plan. The provisions and regulations contained in the Specific Plan shall apply to the Specific Plan area and shall prevail in instances of conflict with the provisions and regulations of the Victorville Municipal Code that regulate the same subject matter.



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**Legend**

- City Boundaries
- SCLA Specific Plan Boundaries

**Specific Plan Land Use Designations**

- ASF Airport and Support Facilities
- RPZ Runway Protection Zone
- BP Business Park
- I Industrial
- POS Public/Open Space
- PI Public Institutional

Where the Specific Plan is silent on an issue, the goals, objectives and implementing actions contained in the City of Victorville General Plan, that address the same issue shall prevail, and the standards in the City of Victorville Municipal Code or other applicable city, state or federal code that regulate the same issue shall apply. The Specific Plan is designed with flexibility and considers a dynamic marketplace that could result in logical shifts in industrial and commercial needs, demands and design.

### 1.3 Authority of the Specific Plan

The State of California Legislature has established the authority and scope of cities and counties to prepare and implement specific plans. The State requires that all cities and counties in California prepare and adopt a comprehensive General Plan for the development within their jurisdiction. To implement the policies described in the General Plan, regulating programs are adopted (e.g., zoning ordinances, subdivision ordinances, building and housing codes, etc.). California State law authorizes cities with complete General Plans to prepare and adopt specific plans. Local planning agencies or their legislative bodies may designate areas within their jurisdiction as areas for which a specific plan is “necessary or convenient” (*Government Code Section 65451*).

Specific plans are intended to serve as a bridge between the General Plan and an individual development proposal for a specific area. Specific plans contain planning policies and regulations, and may combine zoning regulations, capital improvement programs, and other regulatory requirements into one document.

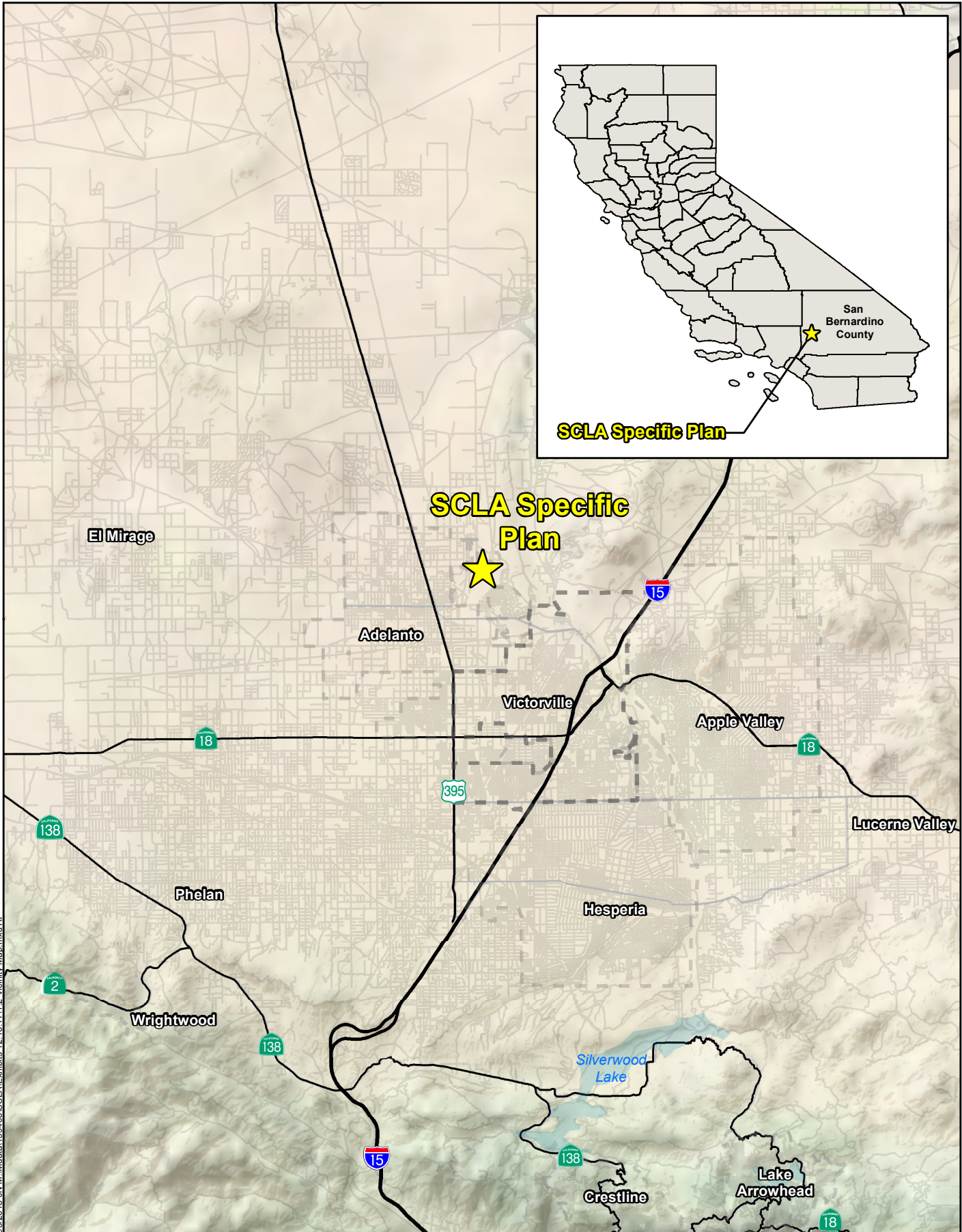
The Specific Plan has been created through the authority granted to the City of Victorville by the California Government Code, Sections 65450 through 65453 and is pursuant to the Victorville Development Code, Chapter 3, Article 14, Specific Plan District. This Specific Plan is prepared in accordance with the provisions of the California Government Code, which stipulate that a specific plan contain text and diagrams specifying the following:

- Land Use
- Public Facilities
- Development Standards
- General Plan Consistency
- Optional Contents: Design Guidelines

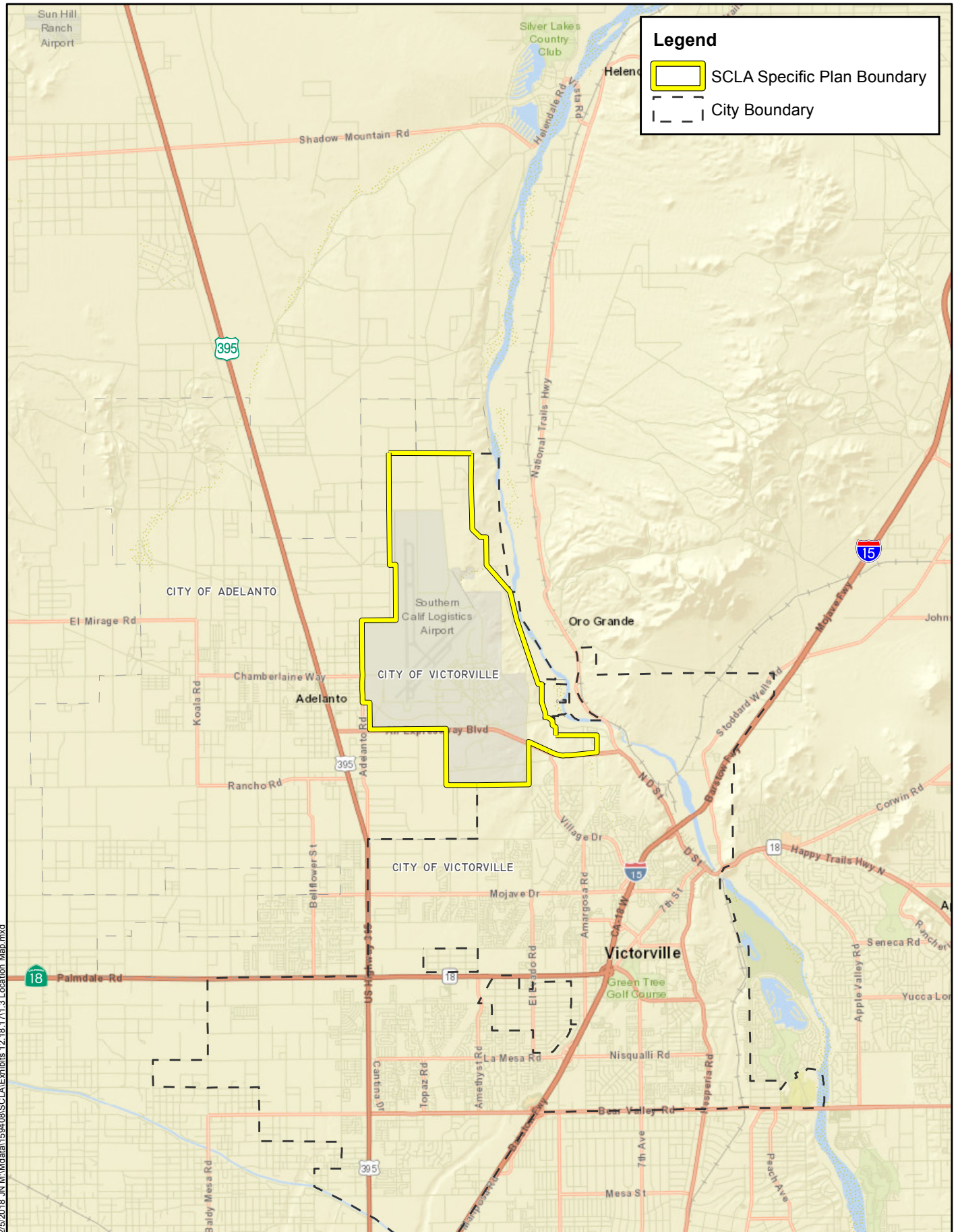
### 1.4 Specific Plan Location and Setting

The Victor Valley lies in the southwestern portion of the Mojave Desert in San Bernardino County, approximately 97 miles northeast of the City of Los Angeles, and approximately 40 miles northwest of the City of San Bernardino; refer to [Exhibit 1.2, \*Vicinity Map\*](#). The City of Victorville is located in the central region of Victor Valley.

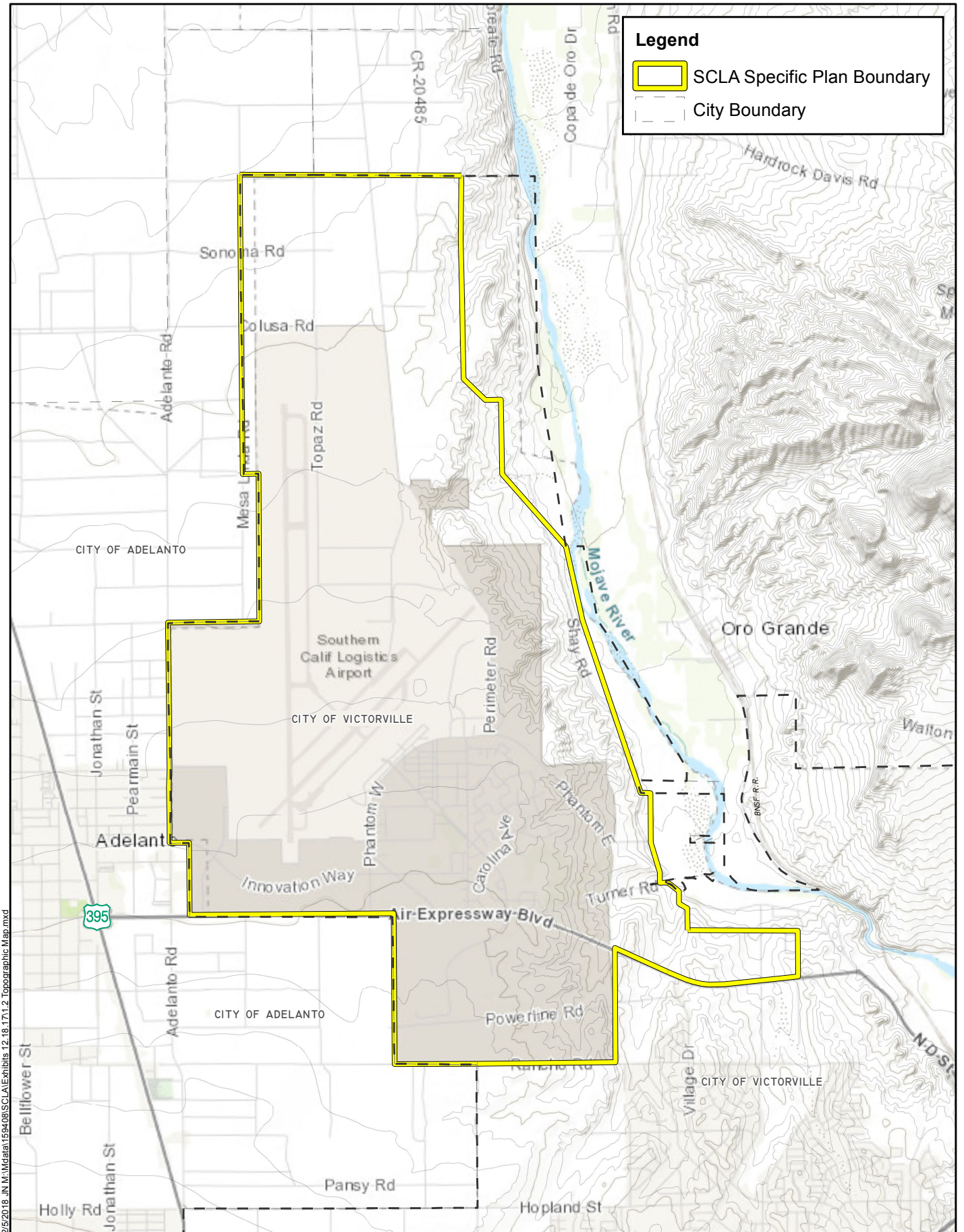
The Specific Plan area is located in the northwestern portion of the City of Victorville and is bound on the north and west by the City of Adelanto city limits. The Specific Plan area is located, generally, north of Rancho Road, south of Desert Flower Road, east of Adelanto Road, and west of National Trails Highway (Historic Route 66): refer to [Exhibit 1.3, \*Location Map\*](#) and [Exhibit 1.4, \*Topographic Map\*](#). The Specific Plan area is approximately 8,611 acres in size. SCLA is accessible by U.S. Highway 395 via Air Expressway and I-15 via National Trails Highway/Air Expressway.



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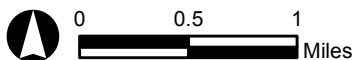
2/5/2018 JN M:\Mdata\159408\SCLA\Exhibits 12.18.17\1.3 Location Map.mxd



2/5/2018, JN M:\data\159408\SCLA\Exhibits\12\_18\_17\1.2 Topographic Map.mxd

SCLA SPECIFIC PLAN  
CITY OF VICTORVILLE

Topographic Map



Source: Esri USA Topographic Basemap, San Bernardino County, USGS

According to the 2010 Census, the city's official population was 115,903 persons. The City of Victorville's current population estimate as of January 2020, is 126,432 individuals. <sup>1</sup>

## 1.5 Site History and Specific Plan Background

A large portion of the Specific Plan area (approximately 5,350 acres) was formerly the George Air Force Base (AFB). George AFB was also formerly known as the Victorville Army Airfield. Initial construction of the Victorville Army Airfield began on July 1941 and was completed in May 1943. The facility officially became known as the George AFB in June 1950. In December 1988, the Secretary of Defense announced the closure of George AFB, pursuant to the Base Realignment and Closure Act (BRAC), and the base was officially deactivated on December 15, 1992. The present physical condition of development in the Specific Plan area is a mix between new, permanent structures and improved World War II era metal, block concrete masonry unit, and wood construction buildings.

In response to BRAC, federal law authorized the formation of local reuse authorities to address the impacts of the base closures. The Victor Valley Economic Development Authority (VVEDA) was formed in 1989 and comprised of elected officials from San Bernardino County, Apple Valley, Hesperia, Adelanto, and Victorville. VVEDA prepared a Base Reuse Plan to mitigate the adverse impacts of the base closure, and guide future land uses and development. VVEDA has since turned over all administration responsibilities to the City of Victorville.

The George AFB was annexed into the City of Victorville in April 1993 and was reopened as the Southern California International Airport (SCIA) on October 29, 1994. Subsequently, the SCIA Authority (SCIAA) was also formed. On July 6, 1999, the SCIA and SCIAA were renamed the Southern California Logistics Airport (SCLA) and The SCLA Authority (SCLAA) respectively. To help transform the former AFB into a civilian airport, SCIAA engaged the services of Stirling Airports International (Stirling) in 1999 to attract investment new business users and focus the development goals of the air facility. The major vision is to replace the lost economic engine the George AFB provided Victorville and the rest of the region, by redeveloping SCLA into a multi-use business center and multi-faceted industrial airport. Initially focused on aviation and air cargo, this vision expanded to include manufacturing, logistics, office and other ancillary business uses supporting redevelopment.

In 2000, Stirling and SCLA began the redevelopment process by focusing on repositioning the airfield, hiring and setting up airport operations staff, a US Customs office, a Foreign Trade Zone designation (243) among other necessary airport operations. The result of this first phase of re-development attracted several multi-national businesses to SCLA including Boeing, Pratt & Whitney, Leading Edge, FedEx, GE Aircraft Engines, Southern California Aviation, along with a complimentary FBO operation. With the airport infrastructure largely in place, the Master Agreement between SCLAA and Stirling was renegotiated in 2016, eliminating Stirling's role in developing on airport property but continuing Stirling's involvement in off airport development.

The Victorville City Council approved the original Specific Plan on February 2, 1993 and it became legally effective on March 5, 1993. The City of Victorville has approved several amendments to the Specific Plan, with the most recent in 2004, which added approximately 2,800 acres to the Specific Plan area. A list of past Specific Plan Amendments (SPA) is in Appendix A. Within the confines of the Specific Plan area, Stirling has developed approximately 4,500,000 square feet of industrial, commercial and manufacturing

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<sup>1</sup> California Department of Finance, Demographic Research Unit, *Tables of January 2020 City Population Ranked by Size, Numeric, and Percent Change*, released May 1, 2020.

facilities that serve the goal of regional economic development. The private sector investment during this process to date is approximately 500 million dollars with over 4,000 jobs created.

This amendment is a complete update and restatement of the Specific Plan and supersedes all prior versions of the Specific Plan. The amendment will help maintain momentum for the overall development process, and refocus and update the entitlements with a more identifiable allocation of planned infrastructure resources.

## 1.6 Definitions and Acronyms

**Airport Director:** The director of airport operations and administration at SCLA for the Southern California Logistics Airport Authority (SCLAA).

**Applicant:** A person, developer, owner or entity.

**ASF:** Airport and Support Facilities, a land use designation within the Specific Plan area.

**Avigation Easement:** A navigation easement is an agreement that compels property owners to cede land use right son their property. Avigation easements compel property owners to cede air rights over their property. This also includes the right of allowing noise and pollution that occurs from the operation of aircraft over the property. Avigation easements restrict owners from building over a specific height and to keep the airspace above the property free and clear of obstructions.

**Building Site:** A legally created parcel which is to be improved in conjunction with a detailed site plan.

**Caltrans:** Refers to the California Department of Transportation

**City:** Refers to the City of Victorville

**City Council:** Refers to the City Council of the City of Victorville

**City Engineer:** The City Engineer is a designated staff member of the Victorville Public Works Department with discretionary approval power regarding infrastructure.

**CLUP:** Comprehensive Land Use Plan, an airport land use plan used to inform decisions within the airport vicinity. The CLUP is not officially adopted or certified by the City, and thus is not a formal regulatory document.

**Development:** Aviation, Industrial, Commercial or other construction, together with the land, upon which the buildings or structures are constructed.

**FAA:** Federal Aviation Administration, part of the United States Department of Transportation. The FAA is responsible for the safety of civil aviation through regulation. Major roles include: regulating civil aviation activities; developing and operating air traffic control and navigation; encouraging, developing and researching civil aeronautics; aircraft noise control and minimizing environmental effects; regulating U.S. commercial space transportation. The FAA does not regulate land uses outside of airports; this responsibility remains with the local jurisdiction.

**FAR:** Floor to Area Ratio is the relationship between the total amount of permitted floor area or building footprint compared to the gross or total lot size. The ratio is determined by dividing the total building floor area by the gross lot area. Lower ratios indicate low density building, and higher ratios more likely indicate dense or urban construction.

**GABA:** Global Access Business Association, established by the master developer to regulate certain developments in the Specific Plan area.

**GAFB:** George Air Force Base, the former military operation located on the SCLA property subject to redevelopment by the SCLAA.

**Master Developer:** A person or entity that assumes, as a condition of land disposition, the responsibilities prescribed by the Development Department for infrastructure or community identified package amenities, or both, for implementing a development plan containing a master plan area.

**Navigational Easement:** A navigational easement is an agreement that compels property owners to cede land use rights on their property.

**Planning Commission:** Refers to the City of Victorville Planning Commission.

**Retail:** The selling of goods, wares, or merchandise directly to the ultimate consumer.

**Site Plan:** A detailed engineering and architectural plan drawing of proposed improvements on a given lot. A site plan usually shows, but is not limited to, the following: building footprint, accessways, parking, drainage facilities, water/sewer lines, lighting, and landscaping.

**Site Plan Review:** The process, as outlined in this Specific Plan, dealing with the review and approval of site plans submitted in accordance with the Specific Plan.

**Southern California Logistics Airport (SCLA):** The Southern California Logistics Airport is the subject of this specific plan, as a logistics and shipping airport.

**Southern California Logistics Airport Authority (SCLAA):** The Southern California Logistics Airport Authority is the Joints Power Authority responsible for the redevelopment of the former George Air Force Base (AFB).

**Tilt-Up Construction:** A type of construction technique using concrete elements formed on-site horizontally on a concrete slab. After the concrete has cured, the elements are “tilted” to the vertical position with a crane and braced into position as the remaining building components (roof, floors, etc.) are secured. This type of building is cost-effective and popular for large structures (particularly industrial, warehousing and manufacturing uses). Also known as “Tilt-up”, “Tilt-slab” or “Tilt-wall”.

**Victor Valley Economic Development Authority (VVEDA):** A joint powers authority composed of the County of San Bernardino, cities of Hesperia, Adelanto and Victorville, and Town of Apple Valley, previously charged with addressing the impacts of the closure of George Air Force Base and establishing a plan for its reuse. This authority was given pursuant to the Federal Base Closure and Realignment Act (BRAC).

**Zoning Administrator:** The Zoning Administrator is a designated staff member of the Victorville Development Department with discretionary approval power as defined in [Section 6](#) of this Specific Plan.

Section 2

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PLANNING CONTEXT

## 2.0 PLANNING CONTEXT

### 2.1 Relationship to the City General Plan, Zoning Code, and Other Planning Documents

As required by State Law and the City of Victorville General Plan, the Specific Plan is consistent with the Victorville General Plan and the requirements for Specific Plans outlined in the City of Victorville Development Code. This Specific Plan serves as Zoning for the Specific Plan area. Refer to [Exhibit 2.1, General Plan Land Use – City of Victorville](#) and [Exhibit 2.2, General Plan Land Use – City of Adelanto](#).

#### 2.1.1 City of Victorville General Plan

As required by State Law, this Specific Plan is consistent with the applicable goals and policies contained within the adopted City of Victorville General Plan. The goals and policies identified within each element of the City of Victorville General Plan have been evaluated as follows:

##### 2.1.1.1 *Land Use*

This Specific Plan is consistent with the Land Use Element by establishing land use intensity and density standards. These are implemented through designation of land use areas such as: Business Park, Industrial, Airport and Support Facilities, and other associated uses that further the goals of providing balanced land use in the City of Victorville and ensuring orderly growth. This Specific Plan addresses development of an aviation facility, with adjacent industrial and business park uses, and a correctional institution. The City of Victorville General Plan Land Use Map, including the Specific Plan area, and surrounding area, is included herein as [Exhibit 2.1](#). For informational purposes, the City of Adelanto General Plan Land Use Map, showing land use designations immediately southwest, west and north of the Specific Plan area, is included as [Exhibit 2.2](#).

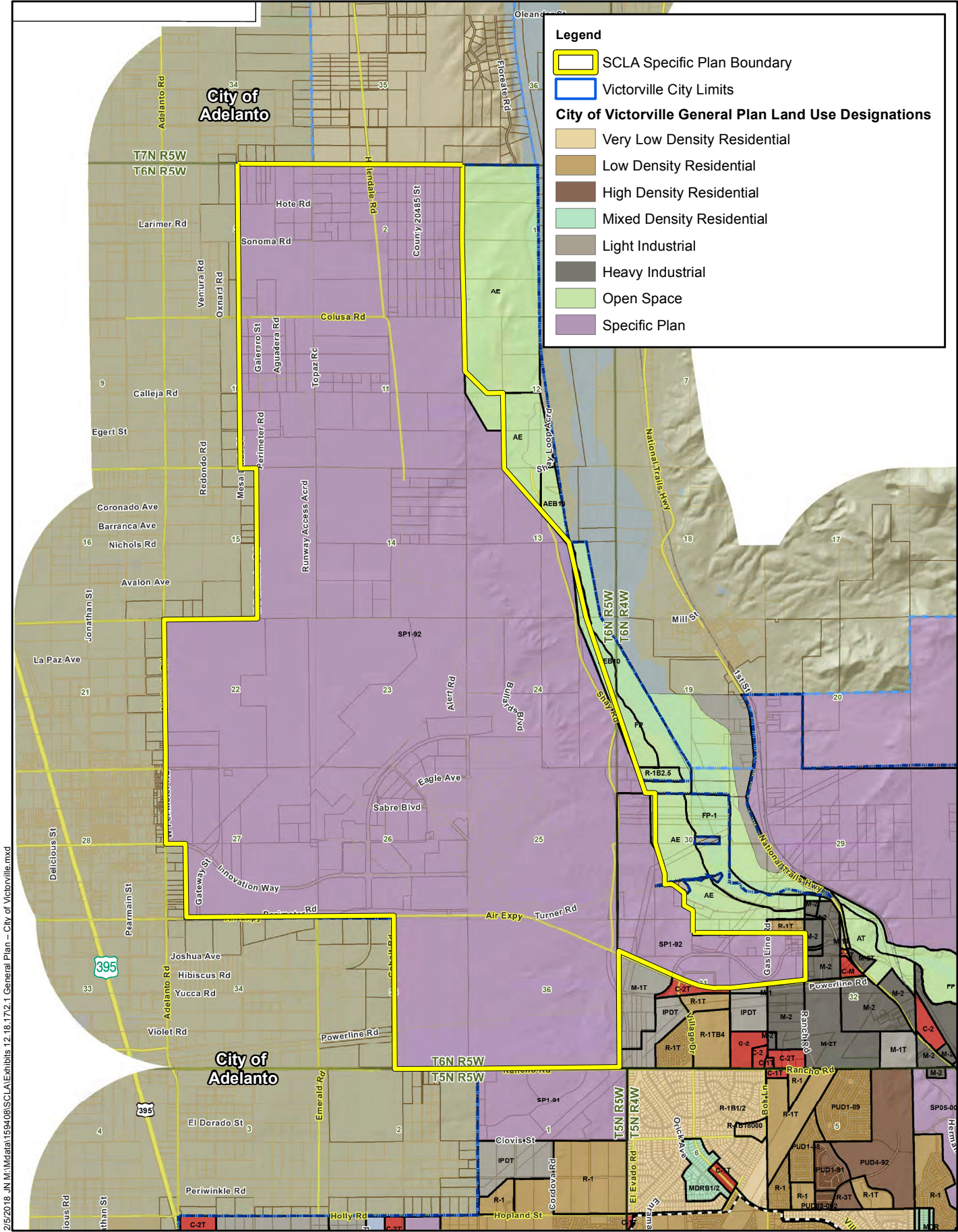
##### 2.1.1.2 *Housing*

Housing and residential uses within the Specific Plan area are not acceptable uses due to their incompatibility with an airport and industrial uses that are permitted. The uses planned within the Specific Plan area are intended to provide employment opportunities for both residents and the surrounding region in order to provide a more balanced jobs to housing ratio.

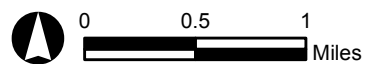
##### 2.1.1.3 *Circulation*

This Specific Plan seeks to promote the goals and policies of the City of Victorville General Plan Circulation Element through a rational arrangement of circulation infrastructure with qualities of convenience and safety. The site is principally accessed via regional routes such as Interstate 15 and U.S. Highway 395. Interstate 15 interchanges exist at Mojave Drive, National Trails Highway, D Street, and Palmdale Road for access to the freeway. An at-grade intersection access currently exists for U.S. Highway 395.

The general alignment of most former base roads will remain in place and would be improved and upgraded as necessary. Certain former roads such as George Boulevard, between Sabre Boulevard and Air Expressway, will be eliminated as will most local residential roads serving the old base housing located east on Nevada Avenue. Additional roads will be constructed to accommodate future growth. Additionally, this Specific Plan is intended to accommodate for the preferred plans for the High Desert Corridor as proposed in 2018. A description of the High Desert Corridor, as proposed in 2018, is provided in [Section 2.2.7](#) of this Specific Plan. The existing and proposed Specific Plan roadways and roadway designations have been added to the City's General Plan Circulation Element to ensure future consistency between the Specific Plan and the General Plan.

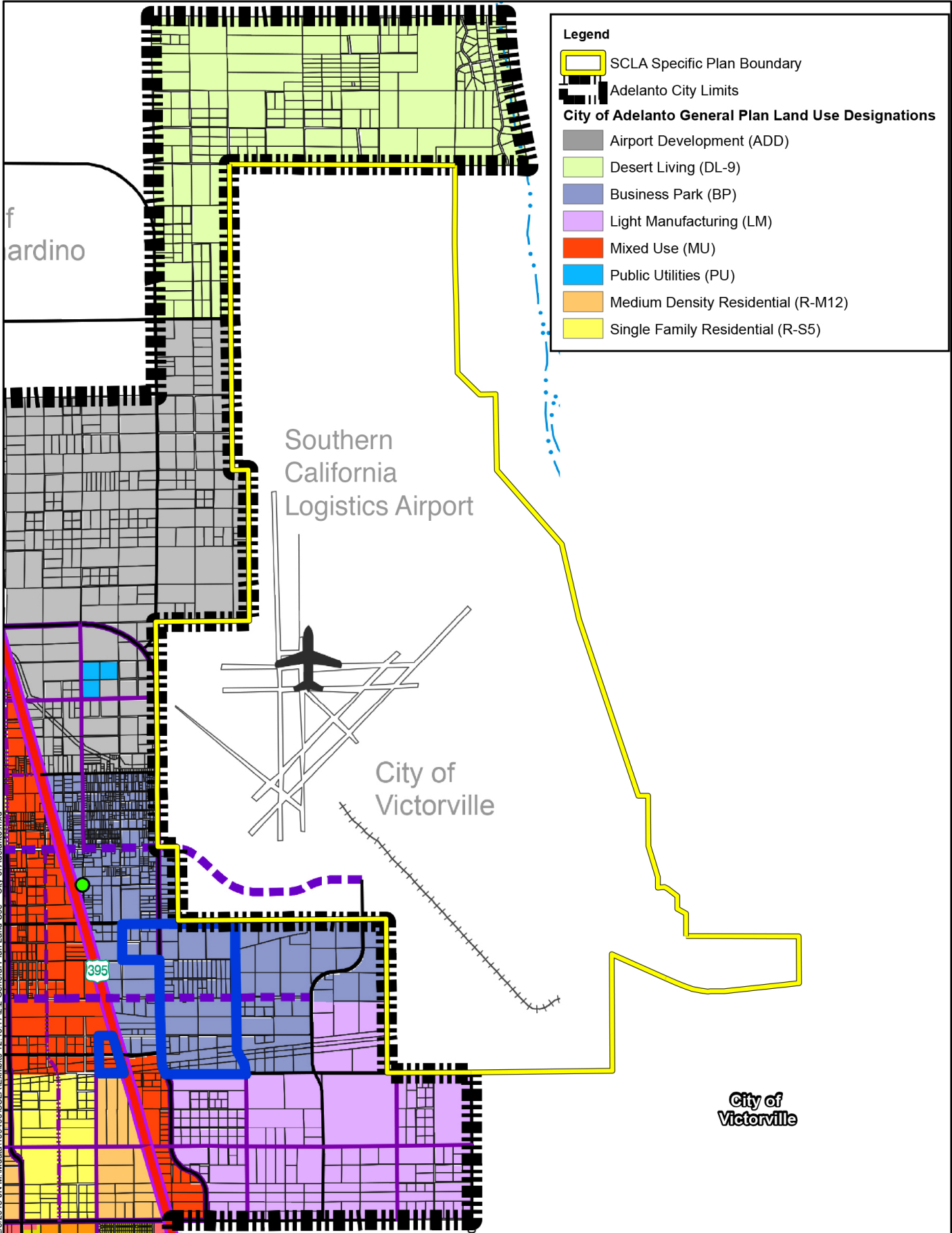


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Source: San Bernardino County, City of Victorville

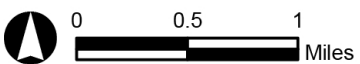
SCLA SPECIFIC PLAN  
CITY OF VICTORVILLE  
**General Plan Use - City of Victorville**



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SCLA SPECIFIC PLAN  
CITY OF VICTORVILLE

# General Plan - City of Adelanto



Source: San Bernardino County, City of Adelanto

The development of the Specific Plan will result in vehicle trips generated by employees working on-site and trips generated by trucks serving the manufacturing and logistics as assumed within the various Specific Plan traffic impact analyses.

#### **2.1.1.4 Safety Element**

This Specific Plan supports the City's goal of emphasizing public health and safety in land use planning. Preparation of the Specific Plan included an assessment of natural hazards and other environmental data for the Specific Plan area. The data was incorporated into the planning and design standards of the Specific Plan. In addition, all development within the site will be constructed according to the latest applicable fire and building codes and standards.

#### **2.1.1.5 Environmental Resources**

This Specific Plan provides for the maintenance of open space and the protection of natural resources. The Development Standards establish landscape and setback requirements for sites within the Specific Plan. Areas adjacent to the Mojave River may be designated a protected open space area consistent with the goals and policies of the Environmental Resource Element. Archeological and/or paleontological resources identified on-site will be studied and/or collected by qualified professionals consistent with requirements of the South Central Coastal Information Center (SCCIC) and/or the San Bernardino County Museum Earth Sciences division.

#### **2.1.1.6 Noise**

The Specific Plan area is a generator of noise from aviation, truck traffic and additional road traffic. The Specific Plan is consistent with the Noise Element by properly managing incompatible land uses to minimize noise impacts to sensitive receptors. The goals and objectives of the Noise Element was previously promoted through remediation, prevention and mitigation measures identified within the *Final Environmental Impact Report: George Air Force Base General Plan, Rezoning, the 2004 Specific Plan Subsequent Program Environmental Impact Report: Southern California Logistics Airport Specific Plan Amendment and Rail Service Project*, and the *2020 SCLA Specific Plan Amendment Subsequent Program EIR (2019 SPEIR)*, which is incorporated herein by reference.

#### **2.1.2 City of Victorville Development Code**

This Specific Plan provides development standards and zoning for the subject property within the Specific Plan (SP) area. This Specific Plan augments the City of Victorville Development Code, Title 16 of the Victorville Municipal Code, development regulations. When an issue, condition or situation occurs which is not covered or provided for in this Specific Plan, the regulations of the Development Code in effect at the time that are most applicable to the issue, condition or situation shall apply. In the event that the provisions of this Specific Plan are in conflict with the Development Code, the provisions of this Specific Plan shall prevail unless specifically prohibited by Victorville Municipal Code Title 16.

#### **2.1.3 Relationship to Southern California Logistics Airport Comprehensive Land Use Plan**

The Specific Plan is the land use regulatory document for the Specific Plan area. There must be consistency and conformity between the Specific Plan and airport land use compatibility plans adopted for the SCLA Airport, which is intended to provide consistency in the land use plans and development standards surrounding the airport operations area with the operation of the airport. Airport land use compatibility planning must be done in accordance with State law (Public Utilities Code, Section 21670 et seq.). The California Department of Transportation (Caltrans), Division of Aeronautics, is responsible for administering much of this statute. Article 3.5 of this statute mandates that the Caltrans Division of

Aeronautics is mandated to create a handbook that contains the identification of essential elements for the preparation of an Airport Land Use Compatibility Plan (PUC Sections 21674.5 and 21674.7). The purpose of the California Airport Land Use Planning Handbook (Handbook) is to provide guidance for conducting airport land use compatibility planning as required by Article 3.5. Article 3.5, in part, outlines the statutory requirements for the preparation of an Airport Land Use Compatibility Plan (ALUCP). The Division of Aeronautics has prepared the California Airport Land Use Planning Handbook, which was last updated and published in 2011. This Handbook is intended to (1) provide information to airport proprietors, cities, counties, consultants, and the public, (2) to identify the requirements and procedures for preparing effective compatibility planning documents.

A SCLA Comprehensive Land Use Plan (CLUP) was drafted for the City of Victorville in 2008 by Coffman Associates, Inc; however, this document was not officially adopted by the City. Thus, this CLUP is not a regulatory document, but generally contains information that can be used to inform land use decisions for the purposes of this Specific Plan. The 2008 draft SCLA CLUP was prepared pursuant to the requirements of the 2002 Handbook of the State. As the 2008 CLUP was prepared prior to the 2011 Handbook, the CLUP may be inconsistent with updated regulations. The information from the 2008 draft SCLA CLUP is included below for informational purposes, as the land use guidance provided is applicable to areas around SCLA.

#### **2.1.3.1 Background**

In 1996, an Airport Comprehensive Land Use Plan (CLUP) for SCLA was prepared and approved, and then was revised in July 1999. Since the 1996 CLUP preparation, Caltrans Division of Aeronautics has published updates to their Airport Land Use Planning Handbook (including in 2002 and 2011). The handbook provides compatibility planning guidance to jurisdictions with influence over airport area land uses. Previous editions of the handbook presented the information as suggestions and recommendations; however, with legislation passed in 1994 (See [Section 2.1.3.2](#)), the document tone changed to be more definitive in nature, reflecting the opinion of the Division of Aeronautics.

#### **2.1.3.2 Authority**

In 1967, the California State Legislature enacted airport land use laws mandating the creation of Airport Land Use Commissions (ALUC) to assist local agency land use compatibility efforts. In 1993, Senate Bill 443 modified the law making the establishment of an ALUC permissive rather than mandatory. After consultation with all cities affected by airports, San Bernardino County disbanded the County ALUC per Resolution 93-295, effective November 18, 1993. However, in 1994, Assembly Bill 2831 was enacted which reinstated the requirement in that to address the potential for land use conflicts, each County in which there is an airport operated for the benefit of the general public establish either, (1) an ALUC; (2) a designated agency to act as the ALUC; or (3) an alternative process with a designated responsible agency or agencies.

San Bernardino County and the cities of Adelanto and Victorville adopted resolutions in 1995 supporting the establishment of an alternative process where each local agency affected by the SCLA will serve as the responsible agency for projects within their jurisdiction.

Section 21675 of the California Public Utilities Code requires that the responsible agencies develop a comprehensive land use plan for nearly all public user airports in the state. The Handbook states, "Compatibility plans are the fundamental tool used by airport land use commissions in fulfilling their

purpose of promoting airport land use compatibility.” There are two purposes for the comprehensive land use plan specified in Section 21674(a):

- To “provide for the orderly growth of each public use airport and the area surrounding the airport within the jurisdiction of the commission...”
- To “safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.”

Pursuant to resolutions 95-81, 95-26, and 95-46 adopted by the County of San Bernardino, City of Adelanto and the City of Victorville, the agency responsible for the preparation, adoption and amendment of the CLUP is the local jurisdiction that contains the airport within its boundaries, in cooperation with adjacent impacted jurisdictions. As a result, in accordance with these adopted resolutions and Public Utilities Code 21670.1(c)(2), the City of Victorville is responsible for preparing and maintaining the SCLA CLUP. In addition to the requirement for adopting this process, the California Public Utilities Code also requires the County and the appropriate affected cities to do the following:

1. Adopt processes for the notification of the general public, landowners, interested groups, and other public agencies regarding the preparation, adoption and amendment of comprehensive land use plans.
2. Adopt processes for the mediation of disputes arising from the preparation, adoption, and amendment of comprehensive land use plans.
3. Adopt processes for the amendment of general and specific plans to be consistent with comprehensive land use plans.

Section 21676 requires that local agencies’ plans conform to the CLUP and grants the authority to review amendments to general plans, specific plans, zoning amendments and building regulations that apply within the airport planning boundary.

### **2.1.3.3 Airport Noise Exposure**

The draft 2008 SCLA CLUP analyzed noise exposure patterns for both existing airport activity conditions and projected long-term activity conditions. The methodology employed to define aircraft noise levels is the Community Noise Exposure Level (CNEL). CNEL is defined as the average A-weighted sound level as measured in decibels (dB) during a 24-hour period. The 65 CNEL contour is the threshold of incompatibility, meaning noise levels below 65 CNEL are considered compatible with underlying land uses.

Since noise decreases at a constant rate in all directions from a source, points of equal CNEL noise levels are routinely indicated by means of a contour line. The various contour lines are then superimposed on a map of the airport and its environs. It is important to recognize that a line drawn on a map does not imply that a particular noise condition exists on one side of the line and not the other. CNEL calculations do not precisely define noise impacts. Nevertheless, CNEL contours can be used to: (1) highlight existing or potential incompatibilities between an airport and any surrounding development; (2) assess relative exposure levels; (3) assist in the preparation of airport environs land use plans; and (4) provide guidance in the development of land use control devices such as zoning ordinances, subdivision regulations, and building codes.

The noise contours for SCLA pursuant to the draft 2008 SCLA CLUP have been developed from the Integrated Noise Model (INM) Version 6.1. The INM is required by the FAA for federally funded aircraft noise assessments. Airport activity data is used for noise modeling and establishing airport safety zones and standards. Airport activity data inputs include the number of aircraft operations (takeoffs and landings), the mix of aircraft types using the airport, runway use percentages, and flight tracks.

The aircraft noise contours generated for SCLA are depicted on Exhibit 2.3, *Long Range Noise Contours*. The contours expected to have a significant noise effect are the 75, 70 and 65 CNEL contours. For existing activity levels, the 70-75 CNEL contours remain entirely on airport property. The 65 CNEL noise contour extends off airport property to the south. The 60 CNEL noise contour extends off airport property to the north, south, and southwest; however, uses proposed within this noise contour (industrial, manufacturing, office) would not result in land use conflicts.

#### **2.1.3.4 *Airport Comprehensive Land Use Policies***





The following proposed policies from the draft 2008 SCLA CLUP intend to ensure compatible development and land uses within the airport area; refer to Section 2.1.3. The policies were developed in accordance with the California Airport Land Use Planning Handbook (January 2002). These 2008 Draft SCLA CLUP policies are in *italics* below:

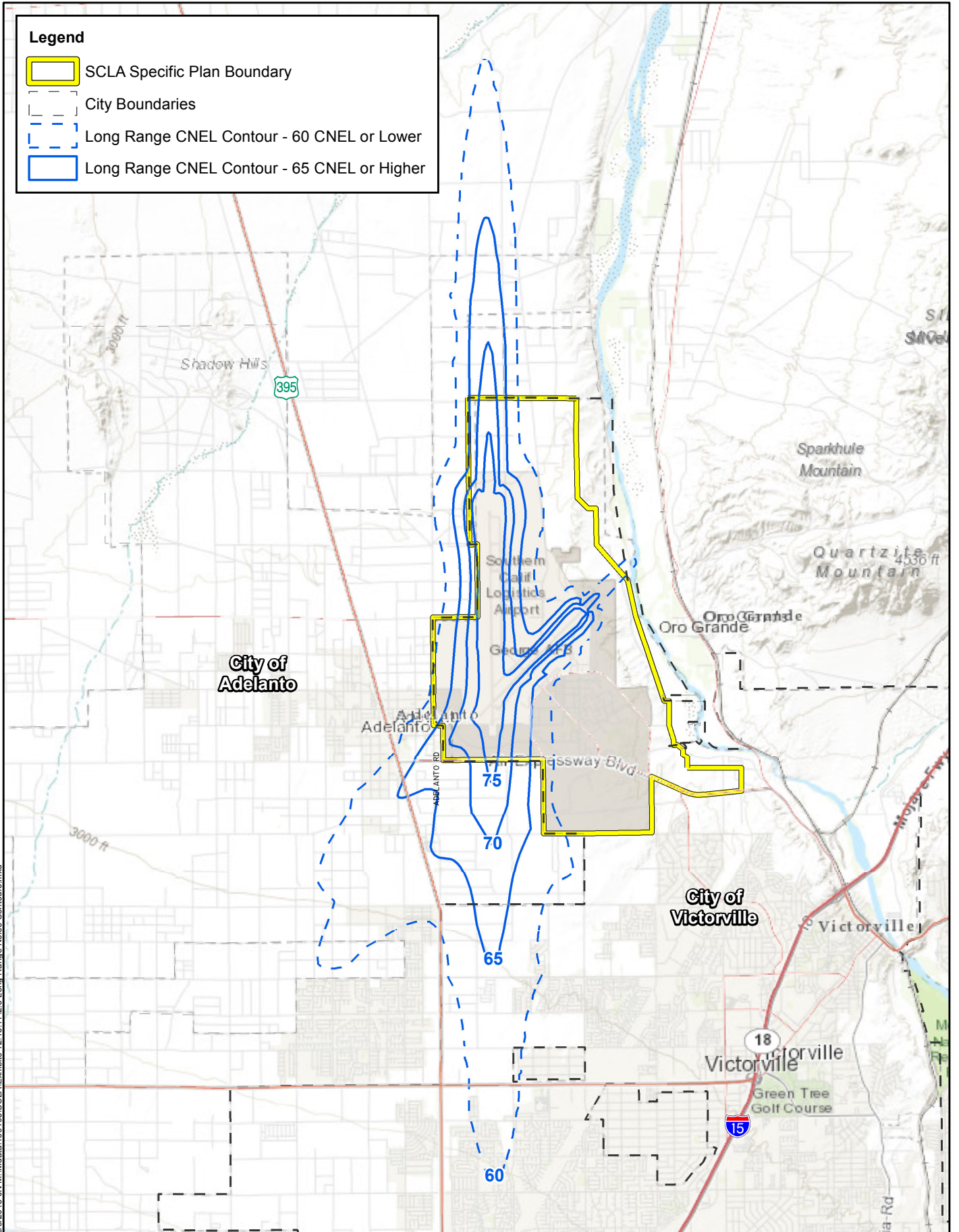
1. ***Local Jurisdictional Responsibilities:*** *This section outlines the responsibilities of the jurisdictions affected by the SCLA CLUP and the following are a few selected sections.*

**1.1 *Geographic Scope:*** *The geographic scope of the SCLA CLUP encompasses:*

- A. *All lands on which the uses could be negatively affected by present or future aircraft operations at SCLA.*
  - B. *The specific limits of the Review Areas depicted on SCLA CLUP Exhibit 3B and defined as follows:*
    - i. *Review Area 1 – Runway Protection Zone as illustrated on the Southern California Logistics Airport Layout Plan*
    - ii. *Review Area 2 – Future 65 SNEL Noise Contour based on long range (2029) noise exposure contours*
    - iii. *Review Area 3 – Part 77 Horizontal Surface based on the Southern California Logistics Airport Layout Plan*
    - iv. *Review Area 4 – Airport Planning Area based on the Detailed Land Use Study Area found in the 2008 SCLA CLUP Update.*
  - C. *Other lands, regardless of their location, on which certain land use characteristics could adversely affect the safety of aircraft flight.*
2. ***Types of Actions Reviewed:*** *The following projects should require compliance with this plan, if adopted, before project approval by the local jurisdiction having permit authority over the project, subject to review and approval by all affected agencies. All projects subject to this section should also be referred to the SCLA management for review:*

**Legend**

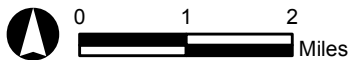
-  SCLA Specific Plan Boundary
-  City Boundaries
-  Long Range CNEL Contour - 60 CNEL or Lower
-  Long Range CNEL Contour - 65 CNEL or Higher



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SCLA SPECIFIC PLAN  
CITY OF VICTORVILLE

# Long Range Noise Contours



Source: Esri World Topographic Basemap, San Bernardino County, Noise Contours by Coffman Associates, Inc. 2008, Comprehensive Land Use Plan, Southern California Logistics Airport, Victorville, California

- 
- A. *Any projects that are determined by the local jurisdiction not to be appropriate for the safety or noise compatibility areas, judged on their impact to the airport and aviation activities, compliance with local ordinances, and compliance with the development standards of this plan. Projects that are inconsistent with this plan shall require review by all affected agencies, and potentially amended to this plan before project approval.*
  - B. *All proposed amendments to the text or maps of the San Bernardino County, City of Victorville, or City of Adelanto General Plan, or any Specific Plan which affects any territory within the planning areas, or changes the existing permitted land use or building standards within the Airport Planning Area.*
  - C. *All new projects proposed within the Airport Planning Area boundaries of the CLUP shall be reviewed for consistency utilizing the Land Use Compatibility Noise and Safety standards found in CLUP Section 3.*
3. **Types of Airport Impacts:** *This section identifies the compatibility concerns to be addressed by the CLUP. Rationale for including these concerns can be found in CLUP Chapter 2. This plan is concerned only with the potential impacts related to:*
- A. *Exposure to aircraft noise;*
  - B. *Land use safety with respect to both occupants of aircraft and to people on the ground;*
  - C. *Protection of airport airspace; and*
  - D. *General concerns related to overflights.*
4. **Review Process:** *This section outlines the review process proposed for the CLUP. Any development proposed within the Airport Planning Area should be subject to review and must be checked for compliance with the compatibility criteria outlined in [Table 2.1](#).*
- 4.1. Noise and Safety Policies:** *All new projects proposed within the Airport Planning of the CLUP should be reviewed for consistency utilizing the compatibility standards. This table identified land uses and established the compatibility standard for those types of uses.*
5. **Airspace and Overflight Policies:** *This section includes the policies for protecting the airspace surrounding SCLA.*
- 5.1. Airspace Obstructions:** *The proposed use or structure shall not be greater than the imaginary surfaces defined according to 14 CFR Part 77.*
- 5.2. Visual Hazards:** *The proposed use or structure shall not reflect glare, including distracting lights that could be mistaken for airfield lights, or produce smoke that would endanger aircraft operations. Outdoor lights shall be shielded so that they do not aim above the horizon.*
- 5.3. Electronic Hazards:** *The proposed use or structure shall not emit electronic signals that will interfere with aircraft instruments or radio communication.*

**Table 2.1**  
**Land Use Compatibility Standards**

<b>Land Use Category</b>	<b>Review Area 1</b>	<b>Review Area 2</b>	<b>Review Area 3</b>	<b>Review Area 4</b>
	Runway Protection Zone	Future 65 CNEL Contour	Part 77 Horizontal Surface	Airport Planning Area
Residential – Single Family, Duplex, Mobile Home	CU	CU	CU	NA <sup>3</sup>
Residential – Multi-Family	CU	CU	CU	NA <sup>3</sup>
Transient Lodging – Motels, Hotels	CU	CU	CA <sup>1</sup>	NA
Schools, Libraries, Churches, Hospitals, Nursing Homes	CU	CU	CA <sup>1</sup>	NA
Auditoriums, Concert Halls	CU	CU	CA	NA
Sports Arenas, Outdoor Spectator Sports, Amphitheaters	CU	CU	CU	NA
Playgrounds, Neighborhood Parks	CU	CA <sup>1</sup>	NA <sup>2</sup>	NA
Golf Courses, Riding Stables, Water Recreation, Cemetery	CU	CA <sup>1</sup>	CA <sup>2</sup>	NA
Office Buildings, Business Commercial, Professional	CU	CA <sup>1</sup>	NA <sup>2</sup>	NA
Manufacturing, Transportation Services, Contract Construction	CU	NA <sup>1</sup>	NA <sup>2</sup>	NA
Wholesale/Warehouse Operations, Salvage Operations	CU	NA <sup>1</sup>	NA <sup>2</sup>	NA
Utilities	CU	NA <sup>1</sup>	NA <sup>2</sup>	NA
Agriculture	NA	NA	NA	NA
Livestock, Animal Breeding	CU	NA <sup>1</sup>	NA <sup>2</sup>	NA
Retail Trade/Commercial Services	CU	CA <sup>1</sup>	NA <sup>2</sup>	NA
<ol style="list-style-type: none"> <li>1. The average intensity should not exceed 100 people per gross acre</li> <li>2. The average intensity should not exceed 150 people per gross acre</li> <li>3. Fair disclosure notice required for residential real estate transactions</li> </ol>				
<p>NA – Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>CA – Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Uses also subject to intensity/density restrictions for the purposes of public safety.</p> <p>CU – Clearly Unacceptable: New construction of development should generally not be undertaken due to noise and safety concerns.</p>				

**5.4. Wildlife Hazards:** The following land uses should be considered to be kept at least 10,000 feet away from the runways at SCLA to prevent the attraction of birds when possible:

- A. Golf courses with water hazards;
- B. Wetlands created as mitigation measures;
- C. Water features incorporated into landscaped area;
- D. Wildlife refuges; and
- E. Cereal grain agriculture.

**5.5. Avigation Easements:** *An avigation easement should be recorded for each property developed within Compatibility Review Area Three prior to the issuance of a building permit or conditional use permit. A copy of the Grant Avigation Easement can be found in Appendix B.*

**5.6. Fair Disclosure:** *All owners and potential purchasers should receive full and accurate disclosure concerning the noise, safety, or overflight impacts associated with airport operations prior to entering any contractual obligation to purchase any property within the Airport Planning Area. A copy of the SCLA Airport Influence Map can be found in Appendix C.*

## 2.2 Existing Site Conditions

### 2.2.1 Site Topography

The Specific Plan area is situated in the Victor Valley, a geographic sub-region of the Mojave Desert. The region is also known as the “High Desert,” due to its approximate elevation 2,800 feet above sea level. The Specific Plan area is located in the northwestern portion of the City of Victorville, east of U.S. Highway 395 and west of National Trails Highway (Historic Route 66). Much of the Specific Plan area is relatively flat, providing a suitable area for aircraft runways or other industrial/commercial facilities. The eastern portion of the Specific Plan area generally slopes toward the Mojave River with topography ranging from gentle well-rounded hills to locally steep and moderately rugged slopes.

On-site and adjoining soils were reviewed in the Specific Plan Biological Resources Report (2018), and are listed below:

- Bryman loamy fine sand, 0 to 2 percent slopes
- Cajon sand, 2 to 9 percent slopes
- Cajon sand, 9 to 15 percent slopes
- Haplargids-Calciorthids Complex, 15 to 50 percent slopes
- Helendale loamy sand, 0 to 2 percent slopes
- Mohave variant loamy sand, 0 to 2 percent slopes
- Gravel pits

Soil textures identified on-site were generally consistent with those mapped on the Web Soil Survey. No hydric soils were mapped within the survey area.

### 2.2.2 Surrounding Vicinity

The area immediately surrounding the Specific Plan area is in a predominantly undeveloped condition, with the exception of the southwest portion. Existing land uses in the surrounding vicinity are primarily industrial and commercial manufacturing, with scattered single-family residential located north, east, southeast and west of the Specific Plan area. The City of Victorville General Plan Land Use Map of the area including the Specific Plan area and surrounding area, that shows planned land uses, is included herein as [Exhibit 2.1](#). For informational purposes, the City of Adelanto General Plan Land Use Map, showing that city’s land use designations immediately southwest, west and north of the Specific Plan area is included herein as [Exhibit 2.2](#).

### 2.2.3 Biological Resources

The Specific Plan area is situated in the western Mojave Desert, which is characterized by broad alluvial fans, old dissected terraces, playas and scattered mountains. The dominant watercourse traversing the

Mojave Desert Region is the Mojave River. The Mojave River links the San Bernardino Mountains with the Mojave Desert, sustaining a unique combination of riparian and desert plants and animals. In general, the Mojave Desert area is distinguished by sparse vegetation that consists of drought-resistant shrubs and cacti, and riparian features that support riparian flora and provide a critical source of water for wildlife. Numerous animals inhabit the region, including many species of mammals, reptiles, and amphibians.

According to the SCLA Specific Plan Biological Resources Report (2018), the survey area is dominated by Mojave creosote brush scrub, bare ground, and disturbed habitat with widely scattered non-native grasses, shrubs, and a few ornamental tree recruits. Mojave creosote brush scrub on-site consists of areas along the slopes of the eastern end of the survey area, along with the southern end of the survey area. These areas are relatively undisturbed by development and non-native vegetation. Dominant species within this habitat primarily include creosote brush (*Larrea tridentata*) and rubber rabbitbrush (*Ericameria nauseosa*).

Disturbed habitat on-site consists of areas that have undergone substantial disturbance and are either frequently and repeatedly disturbed through vegetation clearing, grading, or compaction, and/or are dominated by non-native, annual, opportunistic weed species that preclude the re-establishment of native vegetation communities. Dominant species within the disturbed habitat, albeit widely scattered, include common Mediterranean grass (*Schismus barbatus*), Russian thistle (*Salsola tragus*), foxtail chess (*Bromus rubens*), and cheat grass (*B. tectorum*). The Specific Plan area contains minimal vegetation or friable soils necessary to support various wildlife species, along with areas densely vegetated with native vegetation. Species common to disturbed areas were observed during the general survey. Some common species observed include common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California quail crow (*Callipepla californica*), killdeer (*Charadrius vociferous*), rock pigeon (*Columbia livia*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), Say's phoebe (*Sayornis saya*), and Allen's hummingbird (*Selasphorus sasin*). A barn owl was observed occupying an abandoned plane along the western end of the survey area. In addition, several nest mounds of red harvester ant were observed throughout the survey area.

### 2.2.3.1 Special-Status Biological Resources

According to the SCLA Specific Plan Biological Resources Report, no special-status plant or wildlife species were observed during the field survey. However, it was determined that the following special-status plant species have a moderate or high potential for occurring within the survey area:

- Pinyon rockcress (*Boechera dispar*)
- White pygmy poppy (*Canbya candida*)
- Mojave monkeyflower (*Diplacus mohavensis*)
- Crowned muilla (*Muilla coronata*)
- Beaver Dam breadroot (*Pediomelum castoreum*)

Additionally, Michael Baker determined that the following special-status wildlife species have a moderate or high potential for occurring within the survey area:

- Desert tortoise (*Gopherus agassizii*, Federally Threatened/State Threatened)
- Coast horned lizard (*Phrynosoma blainvilli*, Species of Special Concern)
- Burrowing Owl (*Athene cunicularia*, Species of Special Concern)
- Loggerhead shrike (*Lanius ludovicianus*, Species of Special Concern)
- Le Conte's thrasher (*Toxostoma lecontei*, Species of Special Concern)

- Pallid bat (*Antrozous pallidus*, Species of Special Concern)
- Townsend's big-eared bat (*Corynorhinus townsendii*, Species of Special Concern)
- Mohave ground squirrel (*Xerospermophilus mohavensis*, State Threatened)

No special-status vegetation communities were observed within (or in proximity to) the survey area. Currently, no USFWS-designated critical habitats (proposed or final) have been mapped within the survey area.

On September 22, 2020, the California Fish and Game Commission listed the western Joshua tree under the California Endangered Species Act (CESA) as a "candidate species" to protect the species for at least a year. At the time of this Specific Plan writing, the California Fish and Game Commission is conducting a review of the species and will make a final decision regarding the listing status at a future meeting. During the status review period, the Joshua tree is protected under CESA.

### 2.2.3.2 *Jurisdictional Waters*

The surface flow of the Mojave River is highly irregular, with some stretches normally remaining dry even through the winter rainy season, resulting in a majority of the riverbed being comprised of open, un-vegetated sand. In the SCLA Jurisdictional Delineation (2018), 18,654 linear feet of drainages were mapped. A total of 1.71-acre of Corps/Regional Board Non-Wetland Waters of the United States and 2.90-acre of California Department of Fish and Wildlife Non-Vegetated Streambed/Banks were documented.

## 2.2.4 Geology and Soils

### 2.2.4.1 *Geologic Units*

The Specific Plan area is located in the Mojave Desert Geomorphic Province of California. This province is a wedge-shaped block between the San Andreas Fault on the southwest and the Garlock Fault on the north with no well-defined eastern limit. This intervening wedge is generally referred to as the Mojave Block. The crustal basement complex of the Mojave Block is overlain by several east-west trending trough-like basins in which volcanic and sedimentary deposits accumulated. These deposits have been deformed along the San Andreas Fault Zone and, locally, along the northwest trending faults within the Mojave Block. In more recent geologic time, the lower elevations of the Mojave Block have been blanketed by alluvial deposits.

The structural geology and fault patterns within the western Mojave Desert are relatively uniform and internally consistent, comprised of a series of northwest-southeast trending faults, in contrast to the fault patterns north and south of the province. Major faults in the vicinity of the Specific Plan area consist of: 1) the San Andreas and Garlock fault zones to the southwest and northwest; 2) the northwest-trending Helendale, Lockhart and Lenwood faults to the northeast; and 3) the North Frontal fault zone to the southeast. Lithologically, the region is dominated by alluvial-filled basins overlying Paleozoic and Mesozoic igneous and metamorphic basement rocks. The basement rocks are exposed at the surface in isolated mountain ranges throughout the desert.

### 2.2.4.2 *Soil Units*

The following is a brief description of the on-site soils and geologic units in order of increasing age.

Fill: Artificial fill is present in portions of the Specific Plan area in association with existing development such as roads and structures. Fill is typically derived from the surrounding terrain and is primarily sandy. A large debris pile is located east of National Trails Highway, southeast of the Specific Plan area.

Topsoil: The Specific Plan area includes three soil associations, including: Villa-Riverwash-Victorville soils along the Mojave River flood plain and river channel; Cajon-Manet soils along the bluffs west of the Mojave River; and Bryman-Helendale soils on the alluvial mesa west of the bluffs. These soil associations exhibit physical and chemical variations depending on the source of origin.

#### **2.2.4.3        *Seismicity***

The Specific Plan area is located in the highly seismic region of southern California within the influence of several fault systems that are considered to be active or potentially active. An active fault is defined by the State of California as a “sufficiently active and well-defined fault that has exhibited surface displacement within the Holocene time (past 11,000 years).” A potentially active fault is defined by the State as a “fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago).” Faults identified as being either active or potentially active are not known to be present onsite. The closest known fault is the Helendale fault, approximately 11 miles northeast of the Specific Plan area.

The Specific Plan area is not located within a designated Earthquake Fault Zone Boundary where a site-specific investigation would be required. The site is not located within any designated Active Fault Near-Source (Seismic) Zones as designated by the Uniform Building Code.

The largest maximum credible event to impact the Specific Plan area may be generated by the Helendale fault, which could generate a moment magnitude M7.1 earthquake; or the San Andreas Fault, which could generate a moment magnitude M7.8 earthquake. The known active and potentially active faults are considered capable of producing potentially damaging seismic shaking within the Specific Plan area.

#### **2.2.4.4        *Liquefaction***

Liquefaction is a phenomenon that occurs because of earthquake shaking at locations where loose sandy soils are present and groundwater is shallow. Potential liquefaction hazards are limited to the Mojave River floodplain and tributary stream crossings where groundwater is shallow and loose sandy soils are anticipated. Other portions of the Specific Plan area susceptible to liquefaction include the southern portions and other areas where stream drainage channels are crossed.

#### **2.2.4.5        *Seismically Induced Settlement***

Seismically induced settlement occurs where earthquake shaking causes densification of loose sediment. Sediments that are sufficiently loose are subject to such densifications, which can cause surface settlement and damage to surface and near-surface structures. The Undifferentiated Alluvium soils located within the Specific Plan area are composed of mixtures of sand, silty sand, and silty sand with gravel and caliche. This soil type is susceptible to collapse and seismically induced settlement, located within the northern and eastern portions of the Specific Plan area, and small portions of the southern portion. While Older Alluvium soils located within the Specific Plan area have a similar settlement potential as the Undifferentiated Alluvium soils, coarse gravel layers separate Older Alluvium soils which results in a low to moderate potential for settlement.

### **2.2.5    Climate and Air Quality**

#### **2.2.5.1        *Climate Conditions***

The climate of the Victor Valley is characterized by hot summers, cool winters, low humidity, infrequent rain, and generally clear skies. Refer to [Table 2.2, City of Victorville Average High and Low Temperatures](#)

by Month, for details regarding climate around the Specific Plan area. Rainfall is typically less than 10 inches per year, and the annual average precipitation is 6.18 inches.

**Table 2.2**  
**City of Victorville Average High and Low Temperatures by Month**

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>HIGH</b>	58.5	62.2	66.8	73.7	82.0	91.4	98.0	97.1	91.1	80.5	67.5	59.2
<b>LOW</b>	30.4	33.6	37.1	41.7	48.1	54.6	61.3	60.5	54.7	45.0	35.5	29.8

Source: Western Regional Climate Center, *Victorville, California*, <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?cavict+sca>, accessed June 27, 2018.

### 2.2.5.2 Winds

The City of Victorville and the High Desert Region often experiences strong wind gusts, sometimes exceeding 50 to 60 miles per hour. Refer to [Table 2.3, \*City of Victorville Average Wind Speeds in Miles per Hour\*](#), for monthly average wind speeds in the Specific Plan area.

**Table 2.3**  
**City of Victorville Average Wind Speeds in Miles per Hour**

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>MPH</b>	18.6	22.9	7.3	18.4	6.6	12.3	8.7	4.5	7.0	18.3	10.1	23.6

Source: Victorville, CA Weather, *Monthly Average Wind Speed between 1980 to 2010*, <http://www.usa.com/victorville-ca-weather.htm>, accessed June 26, 2018.

In Victorville, prevailing winds come either from the south, predominantly, through the Cajon Pass, originating in the environments of San Bernardino and western Riverside counties, or from the west, where air from the San Fernando Valley enter the Antelope Valley through Soledad Canyon.

## 2.2.6 Hydrology

### 2.2.6.1 Drainage Patterns

The Mojave River drainage basin covers over 3,000 square miles in the south-central portion of the Mojave Desert. The river channel is approximately 125 miles long and has a gradient of 15 feet per mile in a south to north direction. The City of Victorville is located on top of a gently sloping alluvial fan situated to the northeast of the San Bernardino Mountains. Surface runoff from SCLA and the surrounding vicinity travels north/northeast towards the Mojave River, which is the nearest 100-year floodplain to the Specific Plan area. Infrequent rains with heavy precipitation are the principal source of surface water, responsible for the formation of gullies and drainage tributaries to the Mojave River.

The majority of the SCLA site drains toward the Mojave River. The Specific Plan area east of the runways drains east toward the Mojave River; whereas, the northern industrial area drains north toward the Freemont Wash. Most existing drainage facilities in the Specific Plan area are deficient or incompatible with planned future uses. However, there are instances where the existing drainage system could be used to divert the “first flush” of storm water runoff to an appropriate treatment system to improve storm water quality from the site.

### 2.2.6.2 Groundwater

The Specific Plan area is located within the Mojave River Groundwater Basin, an area that covers approximately 2,100 square miles. The Mojave River is the principle source of surface water to the region

and recharge to the basin. The Specific Plan area is located in the Alto sub-basin in the Mojave River Basin. The water bearing deposits include the unconsolidated and partly consolidated alluvial sediments that overlie the bedrock. These alluvial sediments form two aquifers, a shallow alluvial aquifer and an underlying regional aquifer. In the Specific Plan area, the shallow alluvial aquifer extends up to 1,000 feet in depth in some places.

The depth to groundwater varies within the Specific Plan area. Groundwater beneath other portions of the river channel and flood plain adjacent to the Specific Plan area is shallow or may be at the ground surface during seasonal periods of rainfall and surface flow. Several springs are noted on the USGS 7.5 Minute Topographic Map for the Victorville Quadrangle north of Turner Road. Groundwater beneath the northern portion of the Specific Plan area above the bluffs and in the mesa area is much deeper. Available information for this area indicates groundwater is approximately 210 to 250 feet below ground surface, corresponding to elevations of approximately 2,500 to 2,590 feet above MSL. Perched water is also reported in wells in the vicinity of the site at depths of approximately 90 to 150 feet below ground surface. As is typical for Southern California, seasonal fluctuations of shallow or regional groundwater would be found during periods of intense rainfall.

### 2.2.7 Circulation

The Specific Plan area is presently served by the regional and local road system. Air Expressway provides primary regional access to SCLA area at the south end, via connections with U.S. Highway 395 to the west, including via Adelanto Road, and I-15 to the east via National Trails Highway.

The Specific Plan area is situated approximately four miles west and northwest of Interstate 15 (I-15), one mile east of U.S. Highway 395, located for the most part north of Air Expressway, with only the portion of the Specific Plan containing the Federal Correctional Complex located south of Air Expressway. The north end of the Specific Plan area extends to the northerly boundary of the City of Victorville where Desert Flower Road is located, a currently unimproved road. National Trails Highway generally exists parallel to the eastern boundary of the Specific Plan area, located 0.5 to 1.5 miles to the east. Shay Road, an existing two lane paved roadway, is located on a portion of the easterly Specific Plan boundary and provides access to the Victor Valley Water Reclamation Authority facility located outside the Specific Plan area. Adelanto Road is on the western boundary of the Specific Plan area in the south.

I-15 (Barstow/Mojave Freeway) provides north-south regional access to the Victorville area with six-lanes (plus paved shoulders) and is classified as a freeway. Highway 395 provides north-south access to the City of Victorville and Victor Valley area, with two-lanes or wider (plus shoulders and passing lanes), and is classified as a super arterial. The ultimate condition is planned to have three-lanes in each direction.

Major arterials within the Specific Plan and in the vicinity, include and are proposed to include the following: Air Expressway, Adelanto Road, Phantom West and East, Innovation Way, Bartlett Avenue, Gateway Drive, Nevada Avenue, and Colusa Road. Refer to [Section 2.1.1.3, \*Circulation \(General Plan\)\*](#), and [3.4, \*Circulation Planning\*](#), for additional information regarding circulation within the Specific Plan area.

The California Department of Transportation (Caltrans) and the Los Angeles County Metropolitan Transportation Authority (Metro), along with the County of San Bernardino and support of local cities (including Victorville) formed a Joint Power Authority (JPA) and are proposing the future construction of a new freeway/expressway, the High Desert Corridor to connect the City of Palmdale in Los Angeles County with the town of Apple Valley in San Bernardino County. The proposed roadway would begin in Palmdale as a freeway, follow Avenue P-8 in Los Angeles County, run parallel to and south of El Mirage

Road when entering San Bernardino County, turn east along Air Expressway Boulevard near the south side of SCLA, cross National Trails Highway, Cross and intersect with the I-15 Freeway, transition to an expressway at Dale Evans Parkway and end at SR-18/Bear Valley Road in the Town of Apple Valley. From I-15 to US-395, the facility will be a six-lane freeway with grade separated interchanges at Phantom East, Phantom West and either Adelanto Road or existing US-395. The High Desert Corridor Final Environmental Impact Report/Environmental Impact Statement and Section 4(f) De Minimis Findings was approved June 20, 2016. Caltrans and Metro are now seeking funding and implementation strategies that would support continuation of the roadway through design and construction. It is unknown when construction might begin. The Specific Plan is intended to accommodate for the preferred plans for the High Desert Corridor as proposed in 2018.

### 2.2.8 Cultural Resources

Applied EarthWorks, Inc. (AE) conducted a cultural resource assessment within the priority development area, located on the southern portion of the Specific Plan area. Conditions across the priority development area vary, but the majority is extensively disturbed by current and former developments of the George Air Force Base, SCLA, and other industrial uses. Other vacant subareas are recently graded and display little to no potential for intact cultural resources. The far eastern subarea of the priority development area is the most significant undisturbed area, with intact vegetation, geology and soil. The assessment conducted by AE included a site survey, to record newly discovered cultural resources and revisit the location of previously discovered cultural resources. AE attempted to revisit and examine 11 cultural resources previously recorded in the priority development area; five resources were unable to be relocated and four newly discovered resources were identified and documented.<sup>2</sup>

Cultural resources assessments were conducted on Lots 2, 3, 18 and 19 to identify cultural resources within the Specific Plan area. Historic cultural materials that may be encountered during ground disturbing activities include:<sup>3</sup>

- Historic artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery fragments, and other metal objects;
- Historic structural or building foundations, walkways, cisterns, pipes, privies, and other structural elements;
- Groundstone artifacts, including mortars, pestles, and grinding slabs; and,
- Dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks.

#### 2.2.8.1 Historic Resources

A previously identified vintage highway bridge and a total of 28 historic-period buildings or groups of buildings were also noted and recorded during the survey for the 2004 EIR. Identified properties are not eligible for listing in the California Register or for designation under the City ordinance.

<sup>2</sup> Applied Earthworks, Inc., *Cultural Resource Assessment for the Southern California Logistics Airport Specific Plan Amendment Technical Study Project, City of Victorville, San Bernardino County, California*, June 2019.

<sup>3</sup> BCR Consulting, *Cultural Resources Assessment Southern California Logistics Centre Lot 2 Project*, April 7, 2017; BCR Consulting, *Cultural Resources Assessment Southern California Logistics Centre Lot 3 Project*, April 7, 2017; BCR Consulting, *Cultural Resources Assessment Southern California Logistics Centre Lot 19 Project*, April 7, 2017; BCR Consulting, *Cultural Resources Assessment Southern California Logistics Centre Lot 18 Project*, August 11, 2016.

### 2.2.8.2 *Archeologic Resources*

Of the 43 archeological sites previously recorded within the Specific Plan area, a total of 21 sites were located during the field survey for the 2004 EIR. In addition, 11 new sites and ten isolated finds were recorded in the Specific Plan area during this site. A total of 22 previously recorded sites could not be located during the investigation. For sites that could be potentially considered historical resources, additional testing and evaluation is recommended. Prehistoric materials that may be encountered during ground disturbing activities include:

- Prehistoric flaked-stone artifacts and debitage (waste material), consisting of obsidian, basalt, and or cryptocrystalline silicates; and,
- Dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks.

Site Reconnaissance Surveys were conducted on Lots 2, 3, and 18 in 2016. During the field survey, archaeologists did not discover any cultural resources within the Specific Plan area boundaries and no cultural resources of any kind have been previously recorded within Lots 2, 3, or 18. Although the cultural resources assessment has not indicated sensitivity for cultural resources within Lots 2, 3, or 18, ground disturbing activities have the potential to reveal buried deposits not observed during previous surveys. Additionally, there are several hundred acres of the Specific Plan area that were not included in the Site Reconnaissance Survey.

If buried cultural materials are encountered, work in the immediate vicinity should cease and a qualified archaeologist should be retained to assess the significance of the find. When applicable, it is recommended that archeological resources are preserved in-situ. However, if development is proposed, data recovery programs would need to be undertaken, consisting of surface collection of artifacts, laboratory analysis, and report documentation. Data recovery would mitigate impacts to less than significant levels.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner makes a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

### 2.2.8.3 *Paleontological Resources*

A records search service called the Regional Paleontologic Locality Inventory (RPLI) is provided by the San Bernardino County Museum in Redlands and the Natural History Museum of Los Angeles County in Los Angeles. The RPLI records search results are used to identify previously performed paleontological resource assessments and known paleontological localities near the Specific Plan area.

No paleontological resources were observed as part of the survey performed for the 2004 EIR, and it was determined that there is a low potential for finding significant paleontological resources within surficial granitic rocks, previously disturbed areas and in the Holocene alluvial sediments associated with the Mojave River drainage. Older alluvia, especially those of Pleistocene or early Holocene age, have a high potential to contain significant paleontological resources. AE completed a Paleontological Resource Assessment in June 2019, which confirms the findings from the previous studies. In addition, AE concludes

that there is a high likelihood for significant paleontological resources to be preserved at unknown depths throughout the entire Project area. Monitoring of earth-moving activities is required mitigation in the 2004 EIR. AE also recommends the City retain a professional paleontologist to provide construction monitoring, including full time monitoring at all depths in high potential locations and spot-check monitoring in low potential locations that will be disturbed at depths greater than seven feet.<sup>4</sup>

## 2.2.9 Noise

### 2.2.9.1 Existing Noise Environment

The existing noise environment is defined by ambient noise levels presently experienced in the Specific Plan area. The existing acoustical environment around the Specific Plan area is typical of urban and suburban communities. The primary sources of noise throughout the community include both stationary and mobile sources. The mobile sources include the various modes of transportation such as automobiles, trucks, motorcycles, trains and aircraft. The locations directly adjacent to the roadways experience noise dominated by vehicles. Additionally, another significant noise-producing use in the Specific Plan area vicinity is the High Desert Power Plant on the western portion of the Specific Plan area.

The Specific Plan area and land in the immediate vicinity outside of the of the Specific Plan area, currently experience noise from aircraft operations associated with airport operations at SCLA. The aircraft noise contours generated for SCLA are depicted on [Exhibit 2.3, Long Range Noise Contours](#). Refer to [Section 2.1.3.3, Airport Noise Exposure](#), for details regarding the methodology to define the Community Noise Exposure Level (CNEL) and assessment of noise exposure.

### 2.2.9.2 Noise Sensitive Receptors

Certain land uses are more particularly sensitive to noise than others. These more sensitive uses include residential structures, schools, hospitals, rest homes, long-term medical and mental care facilities, and parks. Existing sensitive receptors within the vicinity of the Specific Plan area include isolated and scattered residential uses and parks.

### 2.2.9.3 Ambient Noise Measurements

Noise measurements in the 2004 EIR were taken to quantify existing ambient noise levels in the Specific Plan area. The highest noise level measurement (85.3 dBA) was taken along Adelanto Road and Air Expressway and the lowest noise level measurement (43.7 dBA) occurred along the residential area near Hagador Avenue and Rancho Road.

## 2.2.10 Utilities and Public Services

Public services include fire protection, police protection, and schools. Utilities include solid waste, storm drainage, gas, water sewer, and communication systems. The following provides existing conditions information regarding utilities and public services for the Specific Plan area.

### 2.2.10.1 Fire Protection

The City of Victorville Fire Department took over fire services from the San Bernardino County Fire Authority, effective March 30, 2019. The airport boundaries within the Specific Plan area is served by the City of Victorville Fire Department and SCLA Fire Department (Fire Station 319) located at 18550 Readiness Street (within the Specific Plan area). The City of Victorville Fire Department has five other fire stations

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<sup>4</sup> Applied Earthworks, Inc., *Paleontological Resource Assessment for the Southern California Logistics Specific Plan Amendment Technical Study Project, City of Victorville, San Bernardino County, California*, June 2019.

within the vicinity of the Specific Plan area that provide fire protection services, including stations 311, 312, 313, 314 and 315. These stations consist of Administration, Hazardous Materials, Fire Prevention, and Suppression departments. The average response time to the Specific Plan area is between 15 to 20 minutes. The closest fire station to the Specific Plan area (excluding the airport station 319) is Station 312 on El Evado Road near Mojave Drive, approximately 3.5 miles from SCLA.

#### **2.2.10.2 Police Protection**

The Victorville Police Department (also referred to as the San Bernardino Sheriff's Department Victorville Patrol Station) is staffed by officers under contract with the San Bernardino County Sheriff's Department and provides law enforcement services for the City of Victorville, including the Specific Plan area. The Victorville Police Department station is located at 14200 Amargosa Road. In addition to the main station, the Sheriff's Department maintains four sub-stations (Wimbledon Center at 12370 Hesperia Road, Transportation Center at 15604 7<sup>th</sup> Street, a substation at Rodeo Drive, and a substation at the Mall of Victor Valley). Response time to the Specific Plan area is between five and seven minutes. It should be noted that the San Bernardino County Sheriff substation within the City of Victorville (not a part of the Victorville Police Department) provides law enforcement for the unincorporated areas of the county, as well as providing additional support to the City as necessary.

#### **2.2.10.3 Education**

One school is located within the Specific Plan area, the Excelsior Aviation, Medicine and Engineering (A.M.E.) Academy. This charter school serves High Desert students with vocationally-related education for grades 7<sup>th</sup> through 12<sup>th</sup>. Previously, the Henry R. Sheppard Middle School and George Air Force Base Elementary School operated within the Specific Plan area but have since been closed.

A total of four school districts (Victor Valley Union High School District, Victor Elementary School District, Hesperia Unified School District, and Adelanto School District) operate educational facilities within the City of Victorville. A total of 12 school facilities are operated by the Victor Elementary School District, nine school facilities by the Adelanto School District, six school facilities by the Victor Valley Union High School District, and 18 school facilities by the Hesperia Unified School District (of which only one is within the City of Victorville).

#### **2.2.10.4 Solid Waste**

The City of Victorville Solid Waste Division of Public Works Department provides for all refuse and recycling collection services in the City through the City's franchised hauler, Burrtec Waste. Non-hazardous solid and liquid waste within the City of Victorville is currently deposited in the Victorville Landfill, operated by the County's contractor Athens Services. This site is in the Sphere of Influence of the North Mojave and Quartzite Planning Areas and is a San Bernardino County operated facility approximately 2 miles northeast of the City's jurisdictional boundary. The City instituted a curbside recycling program in conjunction with the development of a Materials Recovery Facility (MRF) built in 1995. The City now processes non-hazardous recyclable waste at the MRF in an effort to reduce the amount of solid waste requiring disposal at the landfill.<sup>5</sup>

#### **2.2.10.5 Storm Water Drainage**

Existing storm drain culverts within the Specific Plan boundaries are limited to several culverts under Air Expressway, Phantom East, and Shay Road. The SCLA existing storm drain system consists of pipes ranging

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<sup>5</sup> City of Victorville, *Trash and Recycling*, <http://www.victorvilleca.gov/Site/CityServices.aspx?id=448>, accessed March 19, 2018.

in size from 12 to 60 inches in diameter. All drainage from the Specific Plan area flows into the Mojave River. Because of high evaporation and percolation rates association with the surrounding soils runoff from normal rainfall seldom reaches the Mojave River. However, during intense rainfall, localized flooding may occur and some runoff may reach the river. The Specific Plan area currently does not operate under a National Pollution Discharge Elimination system (NPDES) permit. Refer to [Section 2.2.6, \*Hydrology\*](#), and [Section 3.5.1, \*Stormwater and Drainage\*](#), for additional information, policies and standards regarding site drainage in the Specific Plan area.

#### **2.2.10.6 Gas**

The City of Victorville Municipal Utility Services (VMUS) provides natural gas service within the southern portion of the Specific Plan area. VMUS operates and maintains the gas facilities up to and including the service regulator and gas meter. Vacant properties within the northern Specific Plan area do not have natural gas infrastructure.

#### **2.2.10.7 Water**

The Victorville Water District (VWD) is the water purveyor (water retailer) for the City of Victorville, including the SCLA area, and is considered a subsidiary district of the City. VWD service includes the entire City of Victorville as well as areas within the City's sphere of influence. The service area encompasses approximately 85 square miles, and the Specific Plan area is located in Improvement District 1 (ID1) of VWD. VWD currently pumps potable water supplies from groundwater in Mojave Groundwater Basin and purchases water from MWA Regional Recharge and Recovery Project when available. The VWD also has a connection from the MWA Mojave River Pipeline to provide raw SWP water for cooling for the High Desert Power Plant.

The City of Victorville is located within the boundaries of the Mojave River Groundwater Basin, which covers an area of 1,400 square miles and consists of five separate sub-basins (the Baja, Centro, Alto, Este and Oeste). The Specific Plan area is situated within the Alto sub-basin. The Mojave River Groundwater Basin is governed by the Mojave Water Agency (MWA), which was established in 1960 due to concerns over declining groundwater levels in the Mojave Basin, El Mirage Basin, Lucerne Valley, Johnson Valley and Morongo Basin areas. MWA ensures sufficient water is available to meet the current and future water needs in their service area and is responsible for implementing the Mojave Basin Area Judgement, which adjudicated water rights to better manage groundwater supplies. MWA is also a State Water Project (SWP) contractor and imports wholesale water as a supplemental source for the service area.

The City of Victorville and George AFB (now SCLA) historically had independent water supply systems, and the former George AFB maintained its own wells located adjacent to the Mojave River (north of Turner Road about 0.5 to 1.0 miles east of the Specific Plan area). The land is owned by the City of Adelanto, was leased to George AFB, and the permit was vested jointly in the name of the former George AFB and the City of Adelanto.

The historical distribution system consisted of five ground level reservoirs (1,800,000-gallon total capacity), one elevated tank (500,000 gallon capacity), two pumping stations, five booster pumps, and three main supply lines (two 12-inch lines, one 14-inch line), left in place by the Department of Defense. Attempts were made by the City to acquire additional information; however, this was unsuccessful and not made a part of the original 1992 Specific Plan.

### **2.2.10.8 Sewer Service**

The wastewater generated within the service boundary of Victorville Water District (VWD), including the Specific Plan area, is collected via a gravity sewer system owned and operated by the City of Victorville. A portion of the city collection system conveys wastewater to the Victorville Wastewater Treatment Facility (VWTF), which is owned and operated by VWD. A portion of the collection system discharges to a regional interceptor, which conveys the wastewater flows to a regional wastewater treatment plan that is operated by the Victor Valley Wastewater Reclamation Authority (VWVRA)

In 2010, the VWD began operation of the VWTF, a domestic and industrial wastewater treatment plant at SCLA with a capacity of 2.5 MGD. The VWTF is designed to treat wastewater using anaerobic and aerobic treatment processes. The combined flows undergo complete-mix activated sludge (CMAS) and clarification using a membrane bioreactor in the next treatment steps. The final process is ultraviolet disinfection, resulting in tertiary treated recycled water that meets Title 22 requirements. Sludge from the facility is discharged to the VWVRA Wastewater Treatment Plant (WWTP) for treatment and disposal. The 2015 annual average flow treated at the VWTF was 1.49 MGD or 1,671 AF; this treated water is available as recycled water supply to VWD. Recycled water from the VWTF is currently distributed to HDPP for cooling water. The portion of treated effluent that is not reused at SCLA is conveyed to the VWVRA WWTP site for disposal at Percolation Pond 14, which is owned and operated by VWD.<sup>6</sup>

### **2.2.10.9 Telecommunications**

Frontier Communications currently provides telecommunications services to Specific Plan area, with existing infrastructure/facilities in the Specific Plan area.

### **2.2.10.10 Electricity**

The City of Victorville Municipal Utility Services (VMUS) provides electrical services to portions of the Specific Plan Area. VMUS obtains electrical power for distribution in the at the SCLA from a Southern California Edison feed point. Southern California Edison (SCE) provides electrical service to the rest of the Specific Plan area and the majority of the City of Victorville. Pole-mounted electricity lines convey electricity to scattered uses within the northern portion of the Specific Plan area.

High Desert Power Project (HDPP) was completed in 2003, after having been in development since the mid-1990s. The HDPP's electric generating technology is based on clean burning, natural gas-fired combustion turbines operating in a combined-cycle mode. The plant uses Combined-Cycle Gas Turbines, comprising three gas turbines and a steam turbine. At the time it was built, this was the most energy efficient and least environmentally damaging type of fossil fuel power plants of this size. The output is between 720MW and 750MV. Primary water sources for the plant cooling system is recycled water from the Victorville Water District Wastewater Treatment Facility or from the Victor Valley Water Reclamation Authority, or State Project Water, supplied by the Mojave Water Agency.

### **2.2.11 Hazardous Materials and Remediation**

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) also commonly referred to as Superfund, authorizes the U.S. Environmental Protection Agency (EPA) with the authority to clean up contaminated sites. The Superfund also requires parties responsible for contamination to

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<sup>6</sup> 2015 Urban Water Management Plan for the Victorville Water District, prepared for the City of Victorville, June 30, 2016.

either perform cleanups or reimburse the government for EPA-led cleanup work. The Superfund's goals are to:

- Protect human health and the environment by cleaning up polluted sites;
- Make responsible parties pay for cleanup work;
- Involve communities in the Superfund process; and
- Return Superfund sites to productive use.

The former George AFB was established in World War II to support tactical fighter operations and provide training for air crews and maintenance personnel that mandated the use and disposal of hazardous and non-hazardous materials. Past operations included, but were not limited to, former skeet ranges, disposal areas (including explosive ordinance disposal), maintenance areas, and the use of multiple underground storage tanks (USTs).<sup>7</sup> As a result of prior operations at George AFB, contamination has been identified in soil and groundwater. In addition to localized areas of soil contamination, contaminants of concern identified in groundwater include chlorinated solvents, benzene, jet fuel, and various pesticides. After further site characterization sampling activities were completed, George AFB was officially listed as a Superfund site by the US EPA in 1990 and added to the National Priorities List (NPL).

A Federal Facilities Agreement (FFA) was signed by the U.S. Environmental Protection Agency (EPA), State of California, and U.S. Air Force (Air Force) to clean up contamination at the base. George AFB was officially closed in December 1992, consistent with the Base Closure and Realignment Act (BRAC).<sup>8</sup> The Air Force is the lead agency for site cleanup, with EPA and the State of California Lahontan Regional Water Quality Control Board (RWQCB) providing regulatory oversight through FFA Base Closure Team (BCT) procedures. It is acknowledged that the California Department of Toxic Substances Control (DTSC), formerly the California Department of Health Services, was part of the BCT until 1998 when they deferred roles and responsibilities to the RWQCB.

BRAC is the process by which the Department of Defense (DOD) restructures military installations to more efficiently and effectively support the nation's military forces, increase operational readiness and facilitate new ways of doing business. Closure of military installations are considered part of the BRAC process. This process includes consideration of necessary environmental cleanup actions and other environmental issues that may impact property reuse. The BRAC Environmental Process includes three principal phases: base-wide reuse planning, disposal decision making, and parcel-by-parcel decision implementation. The first phase, base-wide reuse planning, includes the Local Redevelopment Authority's (LRA) redevelopment planning process, the Military Department's required environmental impact analysis activities, and extensive environmental cleanup- and compliance-related activities. The second phase, disposal decision making, includes the activities associated with the Military Department's disposal decisions and the LRA's reuse decisions. This phase includes a National Environmental Policy Act (NEPA) analysis and associated documentation. The third phase, parcel-by-parcel decision implementation, consists of the process after remedial actions (or site close-out actions) are complete. This process takes the steps necessary to ensure compliance with the CERCLA. Once the three phases of the BRAC Environmental Process have been completed, the Military Department ensures that all environmental

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<sup>7</sup> Blackstone Consulting LLC, *Phase I Environmental Site Assessment*, September 27, 2017.

<sup>8</sup> U.S. Environmental Protection Agency, *Superfund Site: George Air Force Base Clean Up Progress*, <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.schedule&id=0902737>, accessed April 5, 2018.

actions necessary to protect human health and the environment have been taken before any transfer by deed can take place. This means that all remedial actions necessary for any remaining contamination have been put in place and are operating properly and successfully, to EPA's satisfaction.<sup>9</sup>

As a Superfund site, portions of the Specific Plan area is currently undergoing site investigations and long-term cleanup (or remediation). To better manage site investigations and cleanup, three operable units (OUs) were established for the site. OU-1 is the 600-acre trichloroethylene (TCE) groundwater plume in the Northeast base area and extends off base. OU-3 is the landfills and/or disposal sites with other various soil sites contaminated with volatile organic compounds (VOCs). OU-5 is a TCE soil contamination source, situated over the OU-1 groundwater plume, and also includes three former skeet ranges. OU-2 was pulled out of the Superfund process in 2005 for RWQCB oversight. OU-4 and OU-5 were created and later combined as OU-5. OU-4 was to document completed response actions for miscellaneous sites that dropped out from OU-2.

Numerous groundwater monitoring, groundwater treatment, and abandoned groundwater monitoring wells exist within the Specific Plan area. It should be noted that ongoing remediation has little effect on redevelopment of the base. Additionally, contaminated groundwater at the base does not impact drinking water.<sup>10</sup> Current information regarding contaminant concerns and clean up progress, including those by OU, can be obtained on the Superfund section of the U.S. EPA website.<sup>11</sup>

It is also acknowledged that the RWQCB issued a Notice of Violation letter to the Air Force for Dieldrin pesticide contamination in groundwater. The Air Force is only monitoring the pesticides in groundwater, as the levels are very low, but the plume has not been fully defined because of funding constraints. The Air Force would not consider EPA's request for an evaluation of the contamination extent in soil because the Air Force does not classify it as a CERCLA release to the environment; past general practices mandated the routine application of pesticides for termite control. For the status of remedial oversight activities for the RWQCB, visit the State Water Resource Control Board's GeoTracker online database.<sup>12</sup>

The Superfund Redevelopment Initiative is intended as a process to return Superfund sites to productive uses. Most of the base property is in active reuse.

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<sup>9</sup> U.S. Environmental Protection Agency, *Cleanups at Federal Facilities – Base Reuse Process Overview*, <https://www.epa.gov/fedfac/base-reuse-process-overview#process>, accessed April 12, 2018.

<sup>10</sup> U.S. Air Force Civil Engineer Center, *Cleanup Effort Continues at Former George Air Force Base*, <http://www.afcec.af.mil/Home/BRAC/George/Cleanup.aspx>, accessed April 12, 2018.

<sup>11</sup> U.S. Environmental Protection Agency, *Superfund Site: George Air Force Base, Victorville, CA*, <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0902737>, accessed April 13, 2018.

<sup>12</sup> State Water Resources Control Board, *GeoTracker*, [https://geotracker.waterboards.ca.gov/map/?global\\_id=DOD100223100](https://geotracker.waterboards.ca.gov/map/?global_id=DOD100223100), accessed April 13, 2018.

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Section 3

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PLAN ELEMENTS

## 3.0 PLAN ELEMENTS

### 3.1 Purpose and Intent

This Chapter contains a discussion of the various plan elements for the Specific Plan, including the following:

- Land Use Plan
- Circulation Plan
- Infrastructure Plan

### 3.2 Land Use Plan

The intent of this section is to provide for the provision of development of the Southern California Logistics Airport, with a logistic airport able to accommodate aviation and aviation related facilities, and compatible industrial, commercial and limited public recreational uses. The principal land use designations of the Specific Plan are provided in the following sections.

#### 3.2.1 Airport and Support Facilities (ASF)

This land use designation is reserved for the main airport operations area and aviation-exclusive uses, including airport logistics terminals, hangars, and aviation support-related industrial uses. Some non-aviation support related industrial and commercial uses may be conditionally approved in this land use designation.

#### 3.2.2 Runway Protection Zone (RPZ)

This land use designation has been identified for areas restricted for the protection of current airfield and flight operations, safety and navigation.

#### 3.2.3 Business Park (BP)

This land use designation is intended to provide a range of business-oriented land uses, including industrial uses, office uses, and limited commercial uses that support the primary industrial and office uses.

#### 3.2.4 Industrial (I)

This land use designation is intended for development of a broad range of industrial uses.

#### 3.2.5 Public Open Space (POS)

This land use designation is intended for existing and future recreational areas and facilities currently maintained or to be established within the Specific Plan area including ballfields, gymnasium and other facilities.

#### 3.2.6 Public Institutional (PI)

This land use designation is intended for existing Public Institutional uses to be maintained by the federal government within the Specific Plan area including the United States Penitentiary Victorville, Federal Correctional Institution Medium I and Federal Correctional Institution Medium II.

#### 3.2.7 Site Utilization

The following [Table 3.1](#) outlines the acreage allocation of land use designations within the Specific Plan.

**Table 3.1**  
**Land Use Area Acreage**

<b>Land Use Designations:</b>	<b>Specific Plan (Acres)</b>
Airport and Support Facilities (ASF)	2,525
Runway Protection Zone (RPZ)	210
Business Park (BP)	1,125
Industrial (I)	3,767
Public Open Space (POS)	44
Public Institutional (PI)	940
<b>Total Plan Area</b>	<b>8,611</b>

### 3.3 Development Districts

Portions of the Specific Plan have been identified with Development District names based on their geographical position within the Specific Plan area for purposes of differentiating between major portions of the Specific Plan. See [Exhibit 3.1, \*Development Districts\*](#), for a depiction of the identified areas.

#### 3.3.1 Airport

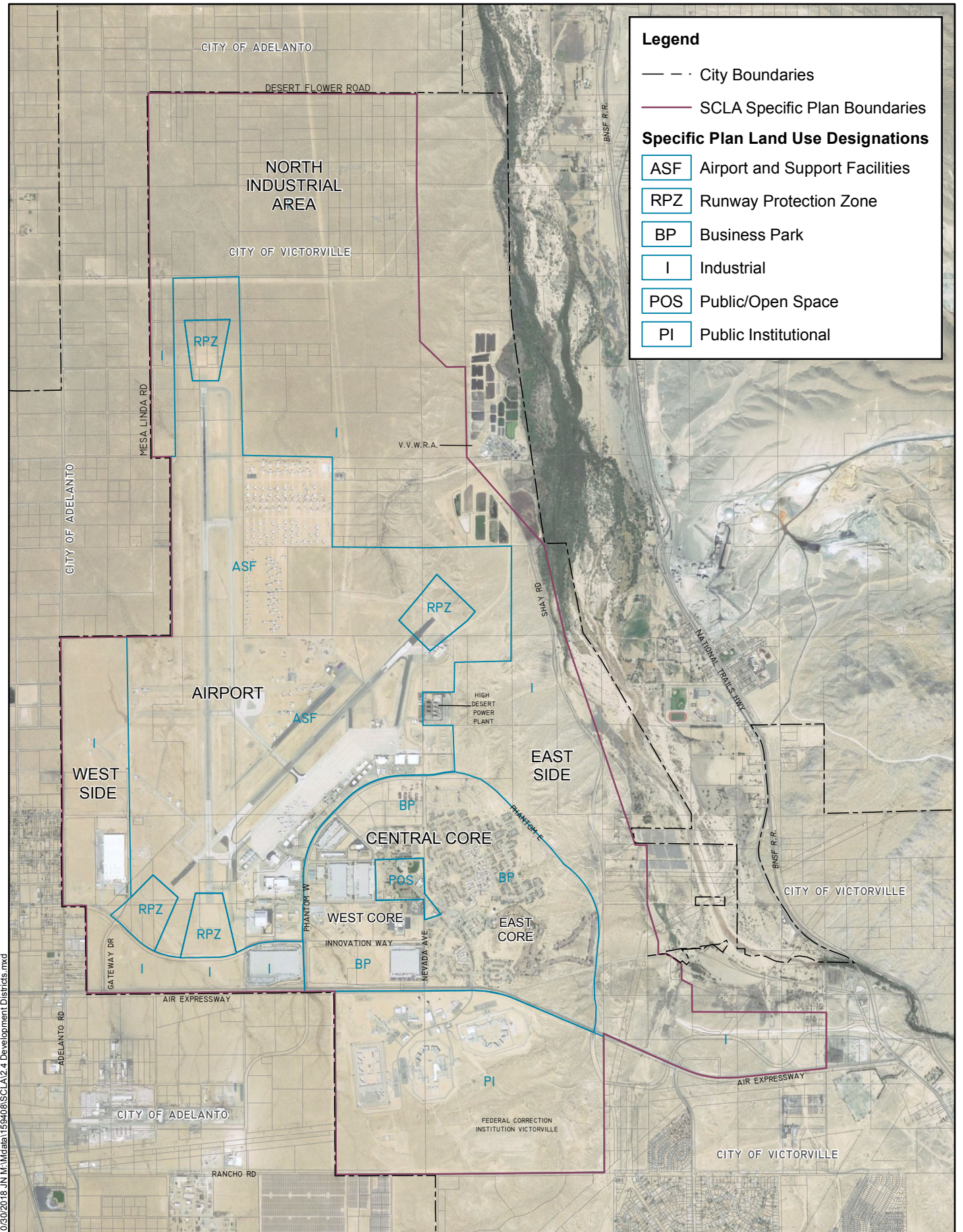
The Airport District area includes all areas designated with both the Airport and Support Facility (ASF) and Runway Protection Zone (RPZ) land use designations. This includes what is commonly referred to as the Airport area and is located within the area protected by perimeter fencing. Existing uses include runways, taxiways, airfield lighting, navigational aids, airplane parking and storage, airplane hangars, airport related operations and administration buildings, and airport related businesses. The existing runway configuration includes two intersecting runways: Runway 17-35, oriented in a north-south direction is the primary runway at 15,050 feet long; and Runway 3-21 oriented northeast-southwest direction is the crosswind runway at 9,138 feet long. There are currently twelve taxiways, and an apron area of 115 acres.

#### 3.3.2 Central Core District

The Central Core District area is located southeast of the Airport area and consists of what was the main part of the former airbase. The Central Core is located north of Air Expressway and south of, and within, the Phantom East and Phantom West loop. The Central Core area is designated with a Business Park (BP) land use designation with some limited areas also designated as Public Open Space (POS). Two sub-districts have been identified within the Central Core area as divided by Nevada Street, into the West Core and the East Core described below.

##### 3.3.2.1 West Core

The West Core area is located west of Nevada Street and is closest to the airport area. The West Core area has experienced recent redevelopment in some areas in the form of new construction of industrial and warehousing structures, including infrastructure improvements. This area also includes vacant cleared land and areas with existing former based buildings. Existing recreational facilities are located in the central portion of the West Core that are now owned and operated by the City of Victorville for public use. The recreational use areas have been designated with the POS land use designation.



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**Legend**

- City Boundaries
- SCLA Specific Plan Boundaries

**Specific Plan Land Use Designations**

ASF	Airport and Support Facilities
RPZ	Runway Protection Zone
BP	Business Park
I	Industrial
POS	Public/Open Space
PI	Public Institutional

### 3.3.2.2 *East Core*

The East Core area is located east of Nevada Street. This area has no current active uses but includes vacant former base housing that is slated for removal and an abandoned former base golf course located on Westwind Road. This area is designated with the BP land use designation.

### 3.3.3 West Side District

The West Side area is located immediately north of Air Expressway, west of Phantom West and south of the southernmost end of the main SCLA runway. The West Side area also includes the area outside the Airport area on the southwest side, extending over to Adelanto Road. This area experienced recent development in the form of new construction of two industrial and warehousing structures, including infrastructure improvements, and structures on Innovation Drive and Gateway Drive. The majority of the area is vacant land. The West Side area is designated as Industrial (I) land use.

### 3.3.4 East Side District

The East Side area is located north of Air Expressway, east of Phantom East and the Central Core, and on the east side of the Airport area extending to the east side of the Specific Plan area. This area is largely vacant, except for the existing High Desert Power Plant located adjacent to the Airport area and reclamation ponds used by the SCLA Wastewater Treatment Plant (owned by the Victor Valley Wastewater Reclamation Authority). The East Side area is designated as Industrial (I) land use.

### 3.3.5 North Industrial Area

The North Industrial area is located north of the Airport and the north end of the main runway, extending to the north edge of the Specific Plan area and the Victorville city limits (Desert Flower Road). This area is largely vacant and undeveloped, with some scattered and isolated single-family residences. This area is made up of numerous parcels in the 5-200 acres size range in both public agency holdings and numerous private property holdings. The North Industrial area has a Specific Plan land use designation of Industrial (I). The High Desert Solar Project proposes a PV solar field in the North Industrial area, located northeast of the SCLA airport and west of the Victor Valley Reclamation Authority and Mojave River. This project is currently undergoing environmental review with the City of Victorville. Construction is anticipated to begin in 2019, and start-up commissioning is anticipated to begin in 2021.

### 3.3.6 Federal Correctional Complex

The Federal Correctional Complex, Victorville (FCC Victorville) is a federal prison complex located on the southern portion of the Specific Plan area on what was former airbase land. The prison complex is operated by the Federal Bureau of Prisons, a division of the United States Department of Justice. FCC Victorville as described includes three campuses, described below.

Federal Correctional Institute (FCI) Victorville Medium I is a medium security federal correction institution for male offenders, with a current population of approximately 1,138 inmates.<sup>13</sup> FCI Victorville Medium II is a medium security federal correction institution with an adjacent minimum-security satellite camp. The facility houses both male and female offenders, with a current population of approximately 1,387

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<sup>13</sup> Federal Bureau of Prisons, FCI Victorville Medium I, <https://www.bop.gov/locations/institutions/vim/>, accessed February 5, 2018.

inmates.<sup>14</sup> United States Penitentiary (USP) Victorville is a high security federal prison for male offenders, with a current population of approximately 1,137 inmates.<sup>15</sup>

The Federal Correctional Complex is designated as Public Institutional (PI) land use designation.

### 3.4 Circulation Planning

The Specific Plan build-out will result in a combination of business, industrial, and airport uses. Anticipated traffic levels and current City standards will necessitate improvements on certain existing and future roads. The timing at which these improvements will occur is based upon current and future proposed specific development projects and their impact on the circulation system. Any proposed projects that meet the threshold contained within the adopted San Bernardino County Congestion Management Program (CMP) shall be required to prepare a Traffic Impact Analysis (TIA) consistent with Appendix A of that document.

The general alignment of most former base roads will remain in place and would be improved and upgraded as necessary. Certain former roads such as George Boulevard between Sabre Boulevard and Air Expressway will be eliminated as will be most local residential roads serving the old base housing located east on Nevada Avenue. Additional roads will be constructed to accommodate future growth. Additionally, the Specific Plan intends to accommodate for the preferred alignment plans for the High Desert Corridor as proposed in 2018. The existing and proposed Specific Plan roadways and roadway designations have been added to the City's General Plan Circulation Element to ensure future consistency between the Specific Plan and the General Plan.

The Draft SCLA Traffic Assessment for the Specific Plan, including a draft roadway system planning study, prepared in 2020 incorporating updates to this Specific Plan. The assessment examined the logical phasing of the circulation network improvements that coincide with anticipated development. Focused traffic studies for individual parcels, as development is proposed, will confirm and refine the conceptual phasing plan for on-site roadway improvements.

This study determined the general sizing of the internal roadways that would serve the project at build out of the current project area involving the Central Core, West Side, and the Airport development districts in the southern part of the Specific Plan. The updated roadway classifications outlined below is based on this study.

#### 3.4.1 Roadway Classifications

The southern portion of the Specific Plan area was previously developed during its status as a military installation and existing infrastructure, in some instances, has been further improved providing significant transportation backbone roadways. Any use proposed within these existing facilities should be able to be established without any modifications to the major components to this infrastructure. Therefore, new infrastructure system requirements are limited and required only for added new development and uses. Lane requirements on the circulation system are intended to provide general consistency with the City of Victorville General Plan Circulation Element roadway capacities.

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<sup>14</sup> Federal Bureau of Prisons, FCI Victorville Medium II, <https://www.bop.gov/locations/institutions/vvm/>, accessed February 5, 2018

<sup>15</sup> Federal Bureau of Prisons, USP Victorville, <https://www.bop.gov/locations/institutions/vip/>, accessed February 5, 2018.

The proposed circulation configuration is shown in Exhibits 3.3A & B, *Circulation Plan*. The following new roads are identified to complete the Specific Plan area circulation roadway network:

- The gap completion of Innovation Way between Gateway Drive and Phantom West;
- The easterly extension of Innovation Way to Phantom East;
- The full easterly extension of Sabre Boulevard to Phantom East;
- The northerly extension of Gateway Drive from Air Expressway; and,
- The easterly extension of Chamberlaine Way at Gateway Drive/new Momentum Road.

Additionally, select roads intersecting within the inside of Phantom East and West roadways to the rest of the Specific Plan area will be upgraded to arterials or collectors including: Innovation Way Sabre Boulevard, and Nevada Street. Refer to Exhibits 3.2A & B, *Circulation Plan*. Circulation system improvements would occur in a phased approach and is dependent on the type and scale of proposed development. Specific roadway and intersection improvements are identified and analyzed in further detail in the Traffic Impact Analysis for Southern California Logistics Airport Specific Plan (April 2020).

The south end segment of Phantom West between the proposed High Desert Corridor freeway interchange (see the Exhibit 3.2B alternative) and Innovation way is proposed as a six-lane super arterial for just this segment. Due to the short length of this segment and the inclusion of necessary turn lanes, the right of way requirements for this segment will vary. A typical roadway section for this segment does not exist but concept designs for this segment have been prepared and the necessary rights of way has been reserved.

Based on the current land use plan within the Specific Plan, the 2020 traffic study, previously discussed, determined that many of the previously defined 6-lane super arterial roadways proposed in the City's General Plan Circulation Element can be reduced to 4-lane Major Arterials that are consistent with many of the existing principal roadways on-site. The recommended circulation system for the Specific Plan includes existing streets and street alignments with some new roadway alignments. Additional study is expected on the on-site roadway improvement phasing needs that will address additional locations where the City may have some concerns.

Because many of the roads in the southern portion of the Specific Plan area already exist, there may be a need to modify these facilities to their designated classification. The City's General Plan Circulation Element provides examples of possible retrofit street sections for the various classifications. The roadways are designed by their primary function and level of mobility. The typical roadway cross-sections illustrated in Exhibit 3.3, *Typical Roadway Cross Sections*, are general standards and in certain cases, where implementation of the standard street width may not be possible due to various constraints (such as rights of way, existing development, etc.) these may be modified, subject to the approval of the City Engineer. Where unavoidable constraints exist, medians, shoulders, lanes and other features may be modified to the non-desired widths, with the approval of the City Engineer, as long as the proposed design provides the functionality and safety as determined by the City's construction standards, prevailing standards of practice, and the judgement of the City Engineer.

As mentioned previously, street improvement timing will be based upon specific development projects and their impact on the circulation system. If necessary, changes will be made to the circulation plan depending on future development needs, as future proposals occur, with the approval of the Zoning Administrator and City Engineer. Street improvements will consist of asphaltic concrete pavement with

aggregate base material (as necessary), concrete sidewalk, curb and gutter, median curb, street lights, street signs, and striping; refer to [Exhibit 3.3](#).

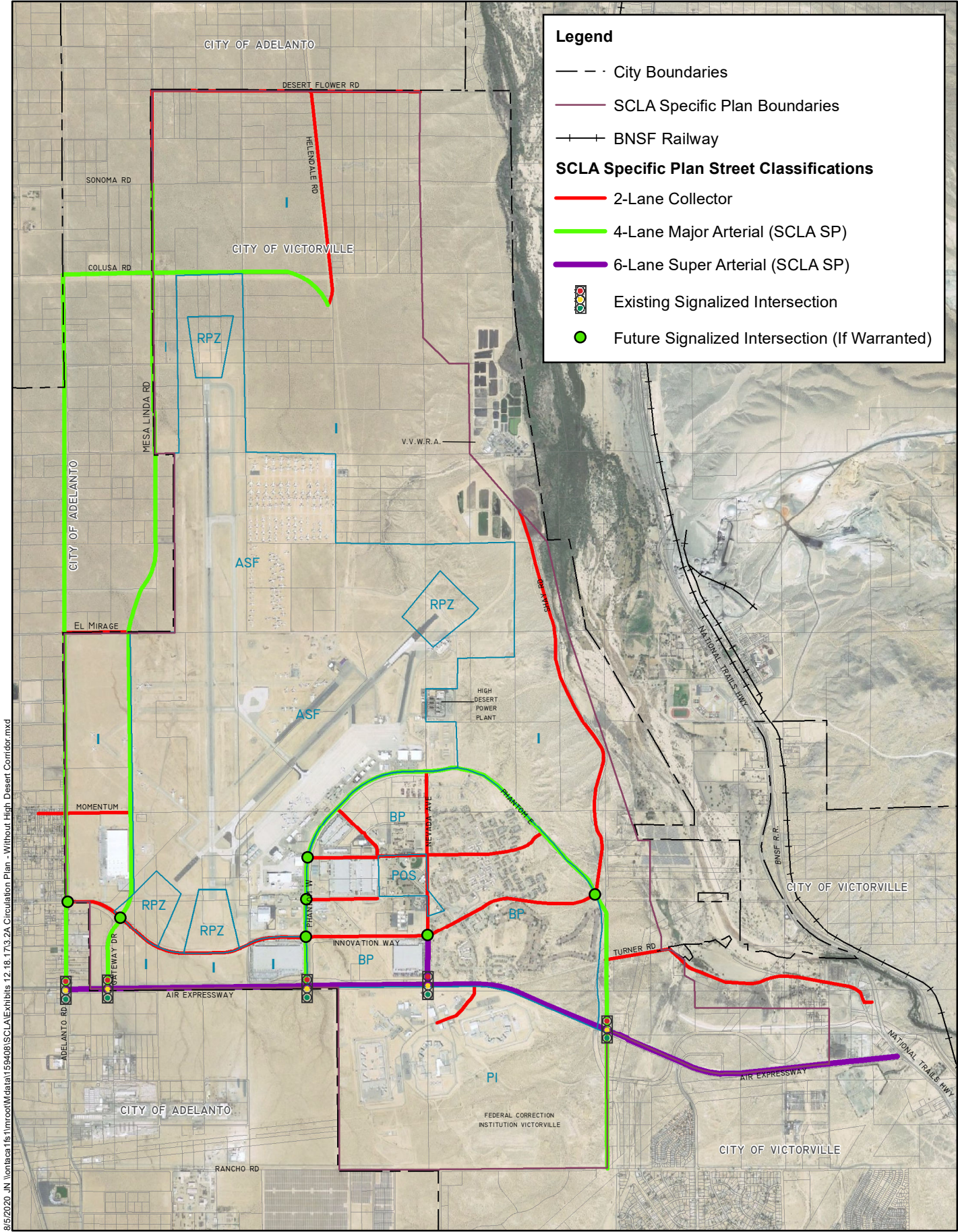
The proposed High Desert Corridor, if funded, and constructed as described in [Section 2.3.7](#), could have significant impacts on the southern portion of the Specific Plan circulation network along Air Expressway. The 2018 proposed High Desert Corridor alignment would be adjacent to and replace portions of Air Expressway on the south end of the Specific Plan area. From I-15 to US-395, the new facility would be a six-lane freeway with grade separated interchanges at Phantom East, Phantom West and US-395. Specific Plan roadway configurations would be different without and with the High Desert Corridor along Air Expressway. For this reason, the Specific Plan Circulation Plan has two alternatives, [Exhibit 3.2A](#), without the High Desert Corridor, and [Exhibit 3.2B](#), with the High Desert Corridor. These two exhibits depict what the differences in the circulation network could be without and with the High Desert Corridor.

The SCLA Specific Plan Circulation Plan should be re-evaluated and updated when the programming and funding of the High Desert Corridor is finalized. Based on future analysis, the SCLA circulation network could be refined along with the roadway network phasing plan for the remaining development phases. The Specific Plan is intended to accommodate for the preferred plan for the High Desert Corridor, as proposed in 2018. A description of the 2018 status of the High Desert Corridor is provided in [Section 2.3.7](#) of this Specific Plan. A future update of the Specific Plan should also include proposed phasing of the circulation network based on perceived land use development phasing at that time.

### **3.5 Infrastructure Planning**

Large portions of the Specific Plan area's infrastructure was developed during its previous use as a military installation. Significant infrastructure in the Central Core and Airport Districts of the Specific Plan already exist, are operational, and currently serves existing facilities.

New storm drain, water and sewer service master plans will continue to be assessed, planned and constructed to address service to the existing and undeveloped areas of the Specific Plan as future development is proposed. Coordination will occur as future development is proposed, to ensure adequate capacity is provided for all new and existing development. Further, this Specific Plan requires all new development proposals and proposals for modifications and/or expansions of existing development be subject to review and approval of the Zoning Administrator through the Site Plan Review process; refer to [Section 6](#) for details regarding the Site Plan approval process. The impacts from future growth on the infrastructure system shall be evaluated by the City and referred to the affected utility providers for review and comment on the adequacy of the existing systems and their ability to serve the project(s). Infrastructure planning specific to certain facilities and utilities are discussed in the following sections.





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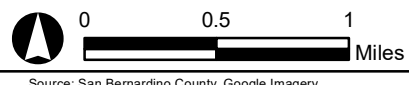
- City Boundaries
- SCLA Specific Plan Boundaries
- BNSF Railway

**SCLA Specific Plan Street Classifications**

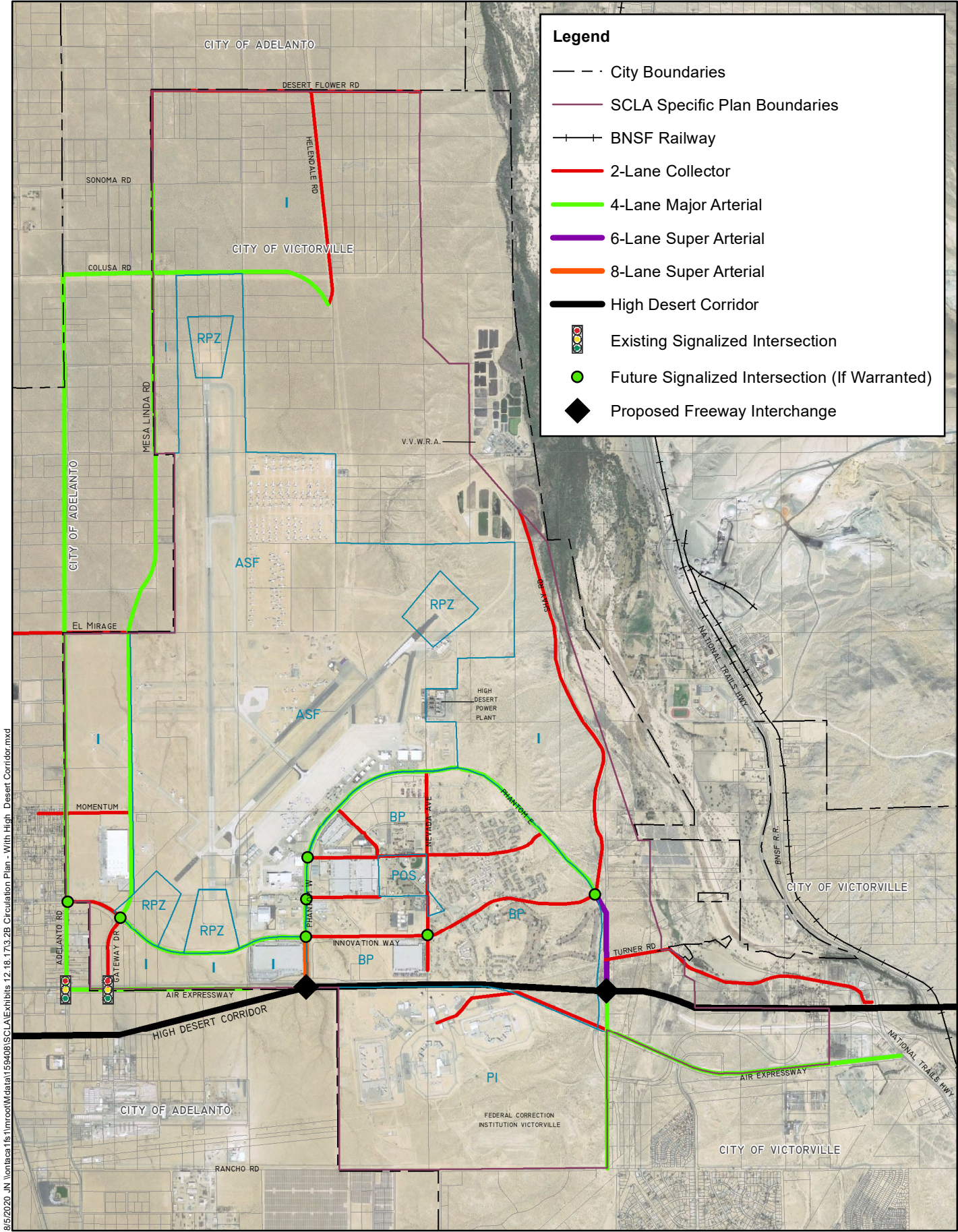
- 2-Lane Collector
- 4-Lane Major Arterial (SCLA SP)
- 6-Lane Super Arterial (SCLA SP)

 Existing Signalized Intersection  
 Future Signalized Intersection (If Warranted)

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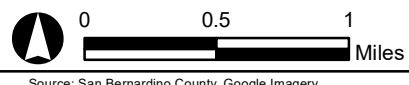
**SCLA SPECIFIC PLAN**  
CITY OF VICTORVILLE  
**Circulation Plan - Without High Desert Corridor**



**Legend**

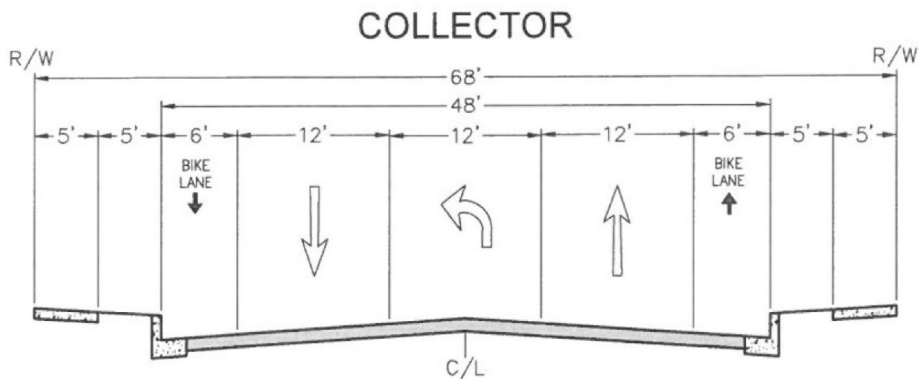
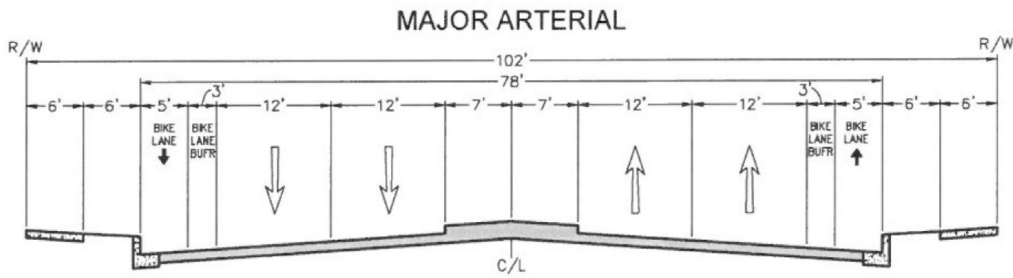
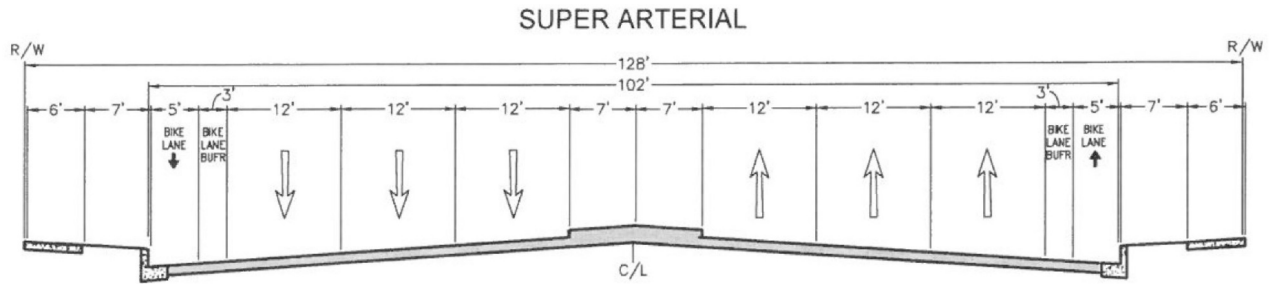
- City Boundaries
- SCLA Specific Plan Boundaries
- BNSF Railway
- 2-Lane Collector
- 4-Lane Major Arterial
- 6-Lane Super Arterial
- 8-Lane Super Arterial
- High Desert Corridor
- 🚦 Existing Signalized Intersection
- Future Signalized Intersection (If Warranted)
- ◆ Proposed Freeway Interchange

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**SCLA SPECIFIC PLAN**  
CITY OF VICTORVILLE

**Circulation Plan - With High Desert Corridor**



\*The south end of Phantom West between the proposed High Desert Corridor freeway interchange (see the Exhibit 3.2B alternative) and Innovation way is projected to be an eight-lane super arterial for just this segment. Due to the short length of this segment of Phantom West and the inclusion of necessary turn lanes, the right-of-way requirements for this segment will vary. A typical roadway section for this segment does not exist, but concept plan layouts for this segment have been prepared and the necessary right-of-way has been reserved.

### 3.5.1 Stormwater and Drainage

#### 3.5.1.1 *Regional Drainage*

The Mojave River abuts the property on the east, and traverses the area from the southeast to northwest, and provides the greatest potential flood threat to the area. The San Bernardino County Flood Control District has general jurisdiction over the Mojave River and is obligated to maintain a floodway free of encroachment as a commitment to the US Army Corps of Engineers (USACE) for constructing the Mojave Forks Site Dam, located at the mouth of the river. Minimal improvements have been made in the area to confine the river which consists of minor diking and levee arrangements designed to direct flows towards the main flow path. Federal and local criteria require flood protection from 100-year flood events and is the base flood used in the preparation of Federal Insurance Administration Flood Area Maps. The Specific Plan area is generally subject to sheet flow storm runoff from rainfall occurring both on-site and adjoining lands. This sheet flow condition changes to occasional minor watercourses during heavy storms and flows to the Mojave River.

#### 3.5.1.2 *Backbone Drainage System Concept*

The backbone drainage system is intended to provide a framework of general criteria and guidelines to assist in long-term runoff quantity and quality objectives. Overland flows from tributary off-site areas will be collected in a network of surface street flow trapezoidal concrete channels, with limited use of underground conduits.

Within the Specific Plan area to the east and southeast, there would be a major culvert crossing along Shay Road and Phantom East. This facility would provide 100-year flood protection and remove or minimize any flood hazards. In addition, energy dissipaters, detention basins and riprap pads are designed to be located at the downstream end of the watershed to reduce scouring. The drainage plan follows methods and procedures outlined in the San Bernardino County Hydrology Manual, and have been designed to collect, concentrate, and transport runoff of the site in a manner that provides both 100-year flood protection and follows existing drainage patterns.

Grading will be necessary to construct roadways and building sites within the Specific Plan area and would be accomplished incrementally as development is proposed. Individual parcels will require further grading to accommodate specific development proposals. All grading shall require the submission and approval of a grading plan pursuant to the Victorville Municipal Code Section 16-5.02.

#### 3.5.1.3 *Water Quality Management*

Water quality detention ponds are basins that temporarily hold the “first flush” of stormwater for an extended period of time. These basins rely on detention time to allow physical settling of particulates to improve outflow water quality. The drainage master plan accommodates the Specific Plan area water quality detention basins that are strategically placed downstream. The detention basins border the eastern edge of the Specific Plan area (parallel to the Mojave River), and because stormwater would be detained for a period of time and then allowed to be conveyed over a longer period of time, these facilities allow for the required size of downstream conveyance facilities to be reduced in size. The detention basins are designed to be effective for controlling peak storm water discharges which reduces downstream bank erosion and flooding. The basins are sized on storm precipitation patterns and runoff characteristics for the watershed area.

### 3.5.2 Water System

The City of Victorville and its subsidiary district the Victorville Water District (VWD) maintain the water facilities for the Specific Plan area. Additional information regarding the roles of the Mojave Water Agency and VWA can be found in [Section 2.2.10.7](#) of this Specific Plan. The primary existing potable water facilities within the Specific Plan area serving existing uses are located in the Central Core area, south Airport operations area, West Side area, and the Public Institutional area of the Specific Plan. No water distribution system exists in the northern portion of the Specific Plan area. The VWD 2015 Urban Water Management Plan concludes that VWD has adequate supplies to meet demands during average, single dry and multiple dry years throughout the 25-year horizon of the Specific Plan and proposed build-out. VWD indicates they will continue aggressive water conservation efforts, increased use of recycled water to offset potable water demand, and participation in new water supply projects with Mojave Water Agency to ensure that supplies continue to meet current and projected demands.<sup>16</sup>

The Master Developer will consult with VWD when developments are proposed, to ensure adequate capacity for the anticipated water demand and to confirm fire flow requirements are met. This consultation must ensure the end user of VWD water minimizes adverse impacts on local systems. The ultimate source of water and amount anticipated for use in the Specific Plan Area must be confirmed through the preparation of a Water Feasibility Study. End users of VWD water are required to cooperate with utility providers to minimize adverse impacts on local systems.

Currently, the High Desert Power Plant (HDPP) is a user of recycled water for a portion of their cooling water. Cooling water for HDPP can be supplied from a combination of sources including VWD's Victorville Wastewater Treatment Facility (VWTF), Victor Valley Water Reclamation Authority's (VWVRA) Wastewater Treatment Plant (WWTP), located on the northeast side of the Specific Plan area, and imported State Water Project supplies via a connection with the Mojave Water Agency's Mojave River Pipeline. By 2019, HDPP's goal is to utilize 100% recycled water for the cooling water, or 2,900 acre feet per year (AFY). VWD recently expanded their recycled water distribution system within the Specific Plan area to serve additional customers including Schmidt Park and nearby ball fields. VWD also installed recycled water fill stations at SCLA that can be used to fill water trucks for dust control near SCLA runways or other construction projects. Pursuant to the VWD 2015 Urban Water Management Plan, it is assumed that VWD's recycled water demands will be met by recycled water supplies from the Victorville Wastewater Treatment Facility and the VWVRA WWTP.

New development that can make use of recycled water for either irrigation or other approved uses will be required to install recycled water lines (purple pipe) on-site that can be switched over to use with recycled water when such water is made available to the site.

### 3.5.3 Sewer System

The wastewater/sewer that is generated within the service boundary of Victorville Water District (VWD), including the Specific Plan area, is collected via a gravity sewer system owned and operated by the City of Victorville. A portion of the city collection system conveys wastewater to the VWTF that is owned and operated by VWD. A portion of the collection system discharges to a regional interceptor which conveys the wastewater flows to a regional wastewater treatment plant (WWTP) that is owned and operated by the VWVRA. See [Section 2.2.10.8](#) for further information on wastewater collection and treatment.

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<sup>16</sup> 2015 Urban Water Management Plan for the Victorville Water District, prepared for the City of Victorville, June 30, 2016.

As noted in [Section 2.2.10.8](#), the VWTF, located in SCLA, has an existing capacity of 2.5 MGD. Pursuant to the City of Victorville 2016 Sewer Master Plan, total average flows to the VWTF in 2015 were 1.39 MGD. The 2016 Sewer Master plan projected that 0.73 MGD of additional flows from the Specific Plan area will be generated by the year 2040.<sup>17</sup>

The existing collection system in the Specific Plan area will continue to be evaluated for compliance with Victorville standards, in consultation with VWD, and new systems would be installed as necessary where identified through the capital improvement and as future proposed development is evaluated. Additional development within the Specific Plan area requires additional sewer main lines to connect with the existing system. Flow monitoring facilities must be utilized to monitor capacity of certain facilities at various stages of development to determine capacity and gauge when updates become necessary.

All discharges utilizing the VWD system must comply with all ordinances and regulations of the VWD and the City of Victorville with respect to discharge quantity and quality, sewer connection, and payment of all applicable City and VWD fees and charges. Certain types of industrial dischargers could be required to pretreat their discharges, determined on a case by case basis by the VWD, in order to comply with such ordinances and regulations.

### 3.5.4 Utilities

Utilities in this section report to have sufficient capacity to meet the immediate demands of the Specific Plan area and capacity will be expanded as needed to accommodate the Specific Plan's proposed build-out in the longer-term. Easements for all new utilities will be provided in the roadway system, including rights of way, or other appropriate locations within the Specific Plan area acceptable to the respective utility companies. The following additional public utilities provide service to the Specific Plan area:

#### 3.5.4.1 *Electricity*

The City of Victorville Municipal Utility Services (VMUS) currently provides electrical service within the southern portion of the Specific Plan area and would expand electrical service for future commercial and industrial customers as needed. The VMUS rate schedule includes small/medium/large options for commercial and industrial uses, along with specific rates for street lighting, traffic control facilities and general water/sewer pumping. See [Section 2.2.10.10](#) for further information on the provision of electrical services in the City and Specific Plan area.

All connections to the VMUS system must comply with applicable ordinances, electric service rules, regulations, and rate schedules of VMUS and the City of Victorville and payment of all applicable fees and charges.<sup>18</sup>

#### 3.5.4.2 *Natural Gas*

The Victorville Municipal Utilities Services (VMUS) currently provides natural gas service within the southern portion of the Specific Plan area and operates and maintains gas facilities up to and including the service regulator and gas meter. VMUS would expand natural gas service for future commercial and industrial customers as needed. The VMUS rate schedule includes commercial and industrial rates.

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<sup>17</sup> Tables 2-5 and 2-8 from the City of Victorville Sewer Master Plan, December 2016.

<sup>18</sup> City of Victorville Resolution No. 17-040 Appendix A to Attachment 1 of the Victorville Municipal Utility Services, *Electric Service Rules, Regulations, and Rate Schedules*, effective August 1, 2017.

All connections to the VMUS system must comply with all applicable ordinances, regulations, and rate schedules of VMUS and the City of Victorville and payment of all applicable fees and charges.<sup>19</sup>

#### **3.5.4.3 Solid Waste**

The City of Victorville Solid Waste Division of the Public Works Department provides for all refuse and recycling collection services for the City, including the Specific Plan area, through the City's franchised hauler Burrtec Waste. Non-hazardous waste would be deposited in the Victorville Landfill operated by the County's contractor Athens Services. Victorville Disposal Company can also provide on-site recycling service for commingled recyclables. The City now processes non-hazardous recyclable waste at the MRF in an effort to reduce the amount of solid waste requiring disposal at the landfill.

#### **3.5.4.4 Communications**

Consistent with other utilities, a telecommunications system currently exists on-site within portions of the former air base and is served by Frontier Communications. Upgrades and new backbone systems will be necessary to serve new development within the Specific Plan area. New development will be required to negotiate services with Frontier Communications.

### **3.5.5 Public Services**

#### **3.5.5.1 Police**

The San Bernardino County Sheriff's Department is under contract to the City of Victorville to provide police protection and public safety services. Services include traffic and neighborhood police control, emergency calls, and crime prevention. The County Sheriff station that would respond to the Specific Plan area is located at 14200 Amargosa Road, Victorville.

#### **3.5.5.2 Fire**

The SCLA Fire Department staffs the Aircraft Rescue Fire Fighting units at all times within the Specific Plan area at Station 319 (18550 Readiness Street). Outside of the SCLA Airport and Support Facilities area, the City of Victorville provides fire and paramedic services. The closest station to the Specific Plan area is Station 312, on El Evado Road near Mojave Drive.

#### **3.5.5.3 Health Services**

The Specific Plan area is served by three hospitals in the City of Victorville: Victor Valley Global Medical Center (15248 11<sup>th</sup> Street), St. Mary Medical Center (18300 California 18), and Desert Valley Hospital (16850 Bear Valley Road).

### **3.5.6 Phasing**

Development phasing in the Specific Plan area will be subject to market demand, including meeting the needs of the City of Victorville and the High Desert region as they develop, and will be subject to ongoing development of transportation facilities, public and private facilities, and infrastructure. Due to the amount of area included in the Specific Plan, development is expected to occur over a very long period including the next 50 years and longer. Table 3.2, SCLA Phasing Projections, projects an estimate of the potential amount of building construction for predominantly industrial, manufacturing, warehousing, distribution, business/office, and airport use that may develop in the southern portions of the Specific Plan area, including the airport area, over the next 25 years (from 2019). This development is divided into

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<sup>19</sup> <sup>19</sup> City of Victorville Resolution No. 17-041 Appendix A to Attachment 1 of the Victorville Municipal Utility Services, *Natural Gas Service Rules, Regulations, and Rate Schedules*, effective August 1, 2017.

five phases based on 5-year increments. A sixth phase is also projected in this table for the large vacant areas located in the Specific Plan area east and north of the airport, designated with an Industrial (I) land use. The areas in the sixth phase are not projected to develop in any significant amount over the next 25 years; therefore, due to difficulties forecasting market demands and needs this far in advance, no estimations of future build projections are provided at this time for these areas.

The ultimate pace and phasing of the Specific Plan area's development is dependent on a number of internal and external factors. As growth occurs in the region, and market demands and needs develop and progress, various adjustments and revisions to the projected project phasing may occur. Revisions to the phasing plan shall be reviewed by the City's Development Department and the Public Works Department and approved administratively so long as the proposed revisions meet the intent of the Specific Plan and adequately provide for the infrastructure and facility needs of the area. Any revision to the phasing deemed consistent with the Specific Plan shall not require a specific plan amendment.

**Table 3.2**  
**SCLA Phasing Projections**

<b>Phases</b>	<b>Building Area (Square Feet)</b>	<b>Gross Acres</b>
Existing Development - 2019	3,750,000 <sup>1</sup>	216 <sup>2</sup>
Phase 1 – 1 to 5 years	2,654,000 <sup>1</sup>	125 <sup>2</sup>
Phase 2 – 5 to 10 years	5,115,000 <sup>3</sup>	226 <sup>2</sup>
Phase 3 – 10 to 15 years	5,570,000 <sup>4</sup>	252 <sup>2</sup>
Phase 4 – 15 to 20 years	5,297,000 <sup>5</sup>	235 <sup>2</sup>
Phase 5 – 20 to 25 years	7,337,000 <sup>1</sup>	423 <sup>2</sup>
Phase 6 – 25 to 50+ years	TBD	3,275 <sup>2</sup>
Airport Area	see above for building projections in all phases	2,735
Public Open Space	N/A	44
Public Institutional	N/A	940
Existing Roadways and Other	N/A	140
<b>Totals</b>	<b>29,723,000</b>	<b>8,611</b>
<b>Definitions</b>		
<u>Existing Development – 2019</u> : does not including earlier constructed buildings prior to 2004 or existing former base buildings		
<u>Phase 6</u> : Specific Plan areas in Phase 6 include the remainder of the East Side area and the North Industrial Area, north of the airport. Development in these areas is not expected in the next 25 years and is still to be quantified.		
<u>Airport Area</u> : Includes ASF and RPZ areas within the Specific Plan. Proposed new airport buildings are included in the Phases 1-5 above		
<u>Public Open Space</u> : Existing park area, i.e. Schmidt Park, Westwinds Activity Centers		
<u>Public Institutional</u> : Existing Federal Correctional Institution		
<b>Notes</b>		
1. Does not include any airport buildings		
2. Does not include any airport acreage		
3. Phase 2 includes 920,000 square feet of projected new airport building area		
4. Phase 3 includes 770,000 square feet of projected new airport building area		
5. Phase 4 includes 1,060,000 square feet of projected new airport building area		

Demolition of existing structures within the Specific Plan area will occur in coordination with new proposed development. Many remnant structures of the historical George AFB remain within the Specific Plan area, many of which are no longer in active use. As the market drives demand for additional development, it is likely these existing structures will be demolished to make way for new structures and

uses. It is highly unlikely demolition will occur without a planned reuse for the parcels. Thus, demolition will be phased in a similar fashion to construction and development. Effects of demolition will be evaluated during the individual site permitting process, and any potential negative impacts would be mitigated through conditions of approval. If a specific development proposal requires demolition of an existing structure or structures, a demolition plan will be prepared. Demolition plans will consider potential on-site hazardous materials, including proper investigations and remediations if necessary. All demolition activities would comply with local, state and federal standards to ensure health and human safety during both construction and long-term operations.

### **3.5.7 Financing**

Public infrastructure improvements necessitated by this Specific Plan shall be financed through a variety of public and private financing methods, the exact mix of which will be determined as needed. Such financing methods may include financing secured through assessments levied pursuant to the provisions of the Municipal Improvement Act of 1913; California Streets and Highways Code Section 1000 et seq.; special taxes pursuant to the Mello-Roos Facilities Act of 1982, being Chapter 2.5 of Division 2 of Title V of the California Government Code, commencing at Section 53311 thereof; Industrial Development and Mortgage Revenue Bonds; Economic Development Administration (EDA) funding; Federal Aviation Administration Grants; and other available methods of financing public infrastructure improvements. It is the intent that adequate public services and improvements are financed in the most cost-effective manner, with emphasis placed on spreading the cost of improvements to the areas of benefits.

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Section 4

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DEVELOPMENT STANDARDS

## 4.0 DEVELOPMENT STANDARDS

### 4.1 Purpose

The purpose of this section is to establish the specific development standards, which guide the development of the Specific Plan area. The development standards contained herein are meant to ensure quality design and coordinated development of the Specific Plan area.

### 4.2 General Provisions

Construction and development in the Specific Plan area previously occurred under the direction of United States government as a military installation. Numerous buildings still exist on the site from this previous use. Since 1993, new construction and development in the Specific Plan area is subject to the Specific Plan, as adopted, and administered by the City of Victorville. One exception to this is the federal correction complex in the southern portion of the site, which opened in 2004 and is operated and administered by the Federal Bureau of Prisons and is exempt from local zoning controls. The current Specific Plan includes required development standards to ensure consistency with the intent of the Specific Plan and applicable codes when new construction, expansion or modification is proposed. Except as otherwise specified in this Section, development proposals administered by this Specific Plan shall be subject to review and approval by the Victorville Zoning Administrator and SCLA management team. The standards of this section shall apply to all development proposals submitted within the jurisdiction of this Specific Plan.

It is noted that The Global Access Business Association (GABA) Covenants, Conditions and Restrictions (CC&Rs) have been established in certain areas within the Specific Plan Area. GABA and its Board are required to establish and maintain Architectural Review Committee, Planning and Design Guidelines, and an Association review and approval process. In addition to the Site Plan Review Process ([Section 6.5](#)) or Conditional Use Permit Review Process ([Section 6.6](#)), approval shall be required in accordance with the GABA CC&Rs.

### 4.3 Land Use Districts Development Standards

The following section specifies uses allowed in the Specific Plan area and standards to guide development, consistent with [Exhibit 3.1, \*Land Use Plan\*](#) and [Table 4.1, \*Permitted and Conditional Uses\*](#). Development must also be consistent with the SCLA Airport land use compatibility requirements in the CLUP. In addition, in any land use designation below, limited-term military activities can be conducted with administrative approval by the Zoning Administrator.

The adopted principal Land Use Designations in the Specific Plan, as established by [Section 3.2](#), are as follows:

- Airport and Support Facilities – ASF
- Runway Protection Zone – RPZ
- Business Park – BP
- Industrial -- I
- Public Open Space – POS
- Public Institutional – PI

#### 4.3.1 Permitted Uses – All Designations

[Table 4.1](#) establishes uses that are permitted, conditionally permitted and not permitted within each Land Use Designation. The designation "P" means that the use is permitted in the Land Use Designation

specified as long as all other land use criteria requirements are met. The designation "C" means that a Conditional Use Permit must first be granted by the Zoning Administrator or Planning Commission before the use is allowed in a specified land use designation. Those uses designated with a dash (-) are not permitted within that land use designation. Those primary uses not listed are prohibited unless a determination is made by the Zoning Administrator that the use is substantially similar to one of the uses permitted or allowed by Conditional Use Permit listed within a subject land use designation. Any use which violates any applicable local, state or federal law is also prohibited.

No use shall be permitted that is not consistent with the objectives, policies, general land uses and programs specified in the Specific Plan and the City of Victorville General Plan. A use is consistent with the Specific Plan and General Plan if, considering all aspects, it is found to further the objectives and policies of the Specific Plan and General Plan.

**Table 4.1**  
**Permitted and Conditional Uses**

Use	ASF	RPZ	BP	I	POS	PI
Aircraft Fuel Facility	P	-	-	-	-	-
Aircraft Repair Facility	P	-	-	-	-	-
Aircraft Sales and Rentals	P	-	-	-	-	-
Aircraft Storage Facility	P	-	-	-	-	-
Alcoholic beverage sales for consumption on or off the premises (See Sec. 16-3.07.020; Alcohol Sales).	-	-	C	-	-	-
Ambulance Service	C	-	C	C	-	-
Animal Hospital/Veterinarian	-	-	C	-	-	-
Assembly Plant	-	-	P	P	-	-
Automotive Rental	C	-	P	P	-	-
Automotive Repair	C	-	P	P	-	-
Building Materials (Storage Yard)	-	-	-	P	-	-
Bus/Railroad Passenger Terminal	-	-	-	C	C	-
Car Wash	-	-	C	C	-	-
Catering Business	-	-	P	P	-	-
Commercial Airport and required facilities, including other related incidental to the operation of a commercial airport.	P	-	-	-	-	-
Community Recreation Center or Clubhouse	-	-	-	-	P	-
Construction Trailer & Incidental Construction Uses	P	-	P	P	P	P
Convenience Market (without alcohol sales)	C	-	P	P	-	-
Convenience Market (with alcohol sales)	C	-	C	C	-	-
Correctional Facility	-	-	-	-	-	P
Day Nursery and Day Care Facility	-	-	C	-	-	-

**Table 4.1 (continued)**  
**Permitted and Conditional Uses**

Use	ASF	RPZ	BP	I	POS	PI
Designated areas (RPZs) at either end of airstrip runways, reserved as safety areas for only vacant land with navigation aids, service roads, and similar non-inhabitable areas necessary for the operations of the airfield that do not conflict with the runway activities.	-	P	-	-	-	-
Distribution Center	C	-	P	P	-	-
Electric Transmission Lines	C	-	-	C	P	P
Equipment Sales & Rental	C	-	P	P	-	-
Facility and/or Maintenance Yard	P	-	P	P	-	-
Financial Institutions	-	-	P	-	-	-
Gas/Service Station, Fuel Yard	C	-	C	C	-	-
Glass Installation	-	-	P	P	-	-
Health Club and Sport Centers	-	-	P	P	P	-
Heavy Processing Facilities	-	-	C	P	-	-
Helipad	P	-	-	C	-	-
Home Repair	-	-	P	P	-	-
Hospital, Clinics, Health Facilities	-	-	C	C	-	-
Hotel and Lodging	-	-	C		-	-
Impound/Junk Yard	-	-	-	C	-	-
Large Manned Collection Facilities	-	-	-	C	-	-
Light Processing Facilities	-	-	P	P	-	-
Lumberyard or Contractor Storage Yard	-	-	C	P	-	-
Manufacturing - Heavy	P	-	C	P	-	-
Manufacturing – Light	P	-	P	P	-	-
Mechanical Equipment Repair (Heavy equipment and small appliances)	C	-	P	P	-	-
Mobile Food Trucks at a Stationary Location	-	-	C	C	-	-
Office Building, Business, Professional, Administrative Uses as a primary use	P	-	P	P	-	-
Off-site Parking and/or Parking Structure	P	-	P	P	-	-
Outdoor Recreation	-	-	-	-	P	-
Parcel Delivery Terminal	P	-	P	P	-	-
Park	-	-	-	-	P	-
Petroleum Refining, Storage, Wholesale	P	-	C	P	-	-
Photography Studio	-	-	P	P-	-	-
Photovoltaic Solar Power Generation (Primary Use)	P	-	P	P	-	P

**Table 4.1 (continued)**  
**Permitted and Conditional Uses**

<b>Use</b>	<b>ASF</b>	<b>RPZ</b>	<b>BP</b>	<b>I</b>	<b>POS</b>	<b>PI</b>
Photovoltaic Solar Power Generation (Secondary Use)	P	-	P	P	-	P
Plumbing	-	-	P	P	-	-
Power or Power Generating Plant	C	-	C	C	-	-
Printing/Publishing	-	-	P	P	-	-
Public Auction	-	-	C	C	-	-
Public Service Such As: Government Office, Utility Office and Facility, Fire and Police Station, Emergency Service Dispatching Facility, Social Services and/or Maintenance Yard.	P	-	P	P	P	P
Publications Company	-	-	P	P	-	-
Rail Freight Terminal	C	-	-	P	-	-
Recycling – Automated reverse vending machines	-	-	P	P	P	-
Recycling Center	-	-	P	P	-	-
Rental and/or Supply Business	-	-	P	P	-	-
Research Service & Laboratory	P	-	P	P	-	-
Research, Medical, and Dental Laboratory	-	-	P	P	-	-
Restaurant with or without drive thru (without alcohol service)	C	-	P	P	C	-
Restaurant with or without drive thru (with alcohol service)	C	-	C	C	C	-
Self-Service Storage Facility	-	-	P	P	-	-
Sign Making	-	-	P	P	-	--
Trade School	C	-	C	C	-	-
Transportation Facilities	P	-	P	P	-	-
Truck Stop & Terminal	-	-	-	C	-	-
Vehicle Storage Yard	C	-	C	C	-	-
Warehouse, Indoor Storage (including Cold Storage) and/or Wholesale	P	-	P	P	-	-
Wind Power Generators (minimum one-acre site)	C	-	C	C	C	C
Wireless Communication Facility, Transmission Lines, and Accessory Equipment	C	-	C	C	C	-
P – permitted uses C – conditional uses -- prohibited						

**Table 4.1 (continued)**  
**Permitted and Conditional Uses**

**Definitions:**

**Building Materials (Storage Yard):** An open place where building materials are stored for an indefinite period until needed.

**Facility and/or Maintenance Yard:** An outdoor area where vehicles, equipment, merchandise, raw materials, or other items are accumulated for an indefinite period until needed. Facility/Maintenance yards can be used in conjunction with warehouse or other storage buildings.

**Impound/Junk Yard:** An open place where impounded items are stored for a definite period until reclaimed or discarded. Junk is defined in the Victorville Municipal Code Section 16-1.03.010.

#### **4.3.1.1 Accessory Uses**

The following accessory uses are allowed in the Business Park (BP) and Industrial (I) land use designations only in conjunction with a permitted primary use or incidental to the permitted primary use on the same property. Unless otherwise provided, all accessory uses are subject to the same regulations as the primary use. Accessory uses shall be defined as incidental to and do not alter the permitted primary use or character of a parcel. In addition, each land use identified below shall to include accessory uses which are necessarily and customarily associated with and are incidental/ subordinate to the primary designated land use. The Zoning Administrator shall determine if a proposed accessory use meets the criteria set forth in this chapter.

- a. Administrative office in the Industrial (I) designation where the administrative offices do not exceed 20 percent of the total floor area.
- b. Cafeteria, café and kitchen where these facilities do not exceed 10 percent of the total floor area.
- c. Open Storage, subject to the standards set forth in Section 4.4.2, *Open Storage*.

#### **4.3.2 Airport and Support Facilities (ASF) Designation**

The ASF designation is intended to allow for the primary use of this area as a commercial airport and related uses. The ASF designation includes the existing airfield facilities, including runways, taxiways, airfield structures, navigational aids and related facilities. This designation was assigned to land designated as existing airfield property.

As there are existing structures and vacant land that are not utilized for the airport or support facilities, airport related transitional industrial activities can use ASF designation properties so long as the establishment does not interfere with the operations of the airport. All development within the ASF designation must be found not to interfere with the operations of the airport as determined by the City of Victorville and the Airport Director.

##### **4.3.2.1 Permitted Uses**

Refer to Table 4.1, *Permitted and Conditional Uses*, for a list of permitted uses within the ASF designation. Generally, permitted uses in the ASF designation are limited to aviation related uses or other uses related to the operations of a commercial airport. All uses within the ASF designation must be found to support and not interfere with the operations of the airport as determined by the Airport Director.

##### **4.3.2.2 Development Standards**

Development Standards for this land use designation must be specialized to accommodate and avoid interference with airport and flight operations. Most of the ASF designated property is owned by the SCLAA, but some portions are owned by the U.S. Air Force and are under lease to SCLAA. The SCLAA operates and manages all property within the ASF. The City of Victorville and SCLA management team

have the responsibility of reviewing all plans for improvements and new development within the ASF designation. SCLA management will review all plans based on aeronautical compatibility with existing and future airport operations, while also providing acceptability with overall airport plans.

**Table 4.2**  
**Airport and Support Facilities (ASF) Designation Development Standards**

Maximum Lot Coverage	80%
Minimum Net Lot Area	N/A
Minimum Lot Dimensions	N/A
Maximum Building Height <sup>1</sup>	Highest point less than 3035 feet msl (mean sea level)
Minimum Building Setbacks:	80 feet
From Local or Collector Street	10 feet
Interior Setbacks	N/A
Rear of Building	10 feet
Side of Building	10 feet
Minimum Parking Setbacks	10 feet
From Arterial Street	20 feet
Employee/Visitor Parking Areas Adjacent to Interior Property Lines	5.5 feet
1. Subject to 14 CFR Part 77 clearance requirements. If height is less than 3,035 feet msl, a 7460-1, Notice of Proposed Construction or Alteration, may still be required.	

### 4.3.3 Runway Protection Zone (RPZ) Designation

The RPZ designation is established at the end of each runway that serves to enhance the protection of people and property on the ground in the event an aircraft lands or crashes beyond the runway end. This designation will be preserved as vacant land with navigation aids, service roads, and similar non-inhabitable structures necessary for proper airport and flight operations.

#### 4.3.3.1 Permitted Uses

The only uses permitted in the RPZ designation are such uses as navigation aids, service roads, and similar non-inhabitable structures necessary for the operations of the airfield that do not conflict with the runway activities as indicated in [Table 4.1](#) above.

#### 4.3.3.2 Development Standards

There are no specific RPZ development standards provided in this Specific Plan. The RPZ designated areas are entirely within the airport operations property which is owned and managed by the SCLA. The City and the SCLA management team has the responsibility of reviewing all plans carefully for improvements and new development within the RPZ designation for acceptability with all overall airport plans and the goals and objectives of airport operations as well as for safety measures.

### 4.3.4 Business Park (BP) Designation

The Business Park designation is intended as an area providing a variety of uses including industrial and light manufacturing, office, research and development, and limited commercial intended to serve the needs of on-site industrial, airport, support facilities, and prison developments, including the employee population.

#### 4.3.4.1 Permitted Uses

Refer to [Table 4.1, \*Permitted and Conditional Uses\*](#), for a list of permitted uses (P) within the BP Designation.

#### 4.3.4.2 Conditional Uses

Refer to [Table 4.1, \*Permitted and Conditional Uses\*](#), for a list of conditional uses (C) in the BP designation. Conditional uses are subject to review for determination of restrictions and mitigation consistent with the established goals and purpose of the Specific Plan, along with safety requirements. Other uses similar to the conditional uses listed in [Table 4.1](#) for the BP designation may be considered if approved by the Zoning Administrator. Refer to [Section 6.0, \*Administrative Procedures\*](#), for the Conditional Use Permit approval process.

Additionally, uses in the BP designation where outdoor activities are the primary use are considered conditional. Examples of outdoor conditional uses include lumberyard, building materials and conductor storage yards, open air sale, display and storage, including but not limited to: new or used automobiles, boats, campers, mobile homes, motorcycle sales, rentals and the like. Outdoor activities that are incidental to the primary use do not require a Conditional Use Permit and may be approved through the Site Plan approval process.

#### 4.3.4.3 Development Standards

Development standards for the BP designation include the following:

**Table 4.3  
Business Park (BP) Designation Development Standards**

Maximum Lot Coverage	60%
Minimum Net Lot Area	20,000 square feet
Minimum Lot Dimensions	150 feet in width
Maximum Building Height <sup>1</sup>	55 feet
Minimum Building Setbacks: <sup>2,3</sup>	
Front Yard:	
From Local or Collector Street	20 feet
From Arterial Street	30 feet
Interior Setbacks:	
Rear of Building	10 feet
Side of Building	10 feet
Minimum Parking Setbacks: <sup>2,3</sup>	
Front Yard Setbacks:	
From Local or Collector Street	10 feet
From Arterial Street	20 feet
Interior Setbacks:	
Rear of Building	10 feet
Side of Building	10 feet
Employee/visitor parking areas adjacent to interior property lines	5.5 feet
Driving Aisles	
Truck Drive Aisles (Two Way)	40 feet (minimum)

**Table 4.3 (continued)**  
**Business Park (BP) Designation Development Standards**

Vehicle Drive Aisles (One Way)	
Angle of Parking: 0 degrees	12 feet (minimum)
Angle of Parking: 30 degrees	12 feet (minimum)
Angle of Parking: 45 degrees	14 feet (minimum)
Angle of Parking: 60 degrees	18 feet (minimum)
Angle of Parking: 90 degrees	25 feet (minimum)
Vehicle Driveway (Two Way)	
Building Height less than 30 feet	26 feet
Building Height greater than 30 feet	30 feet
Vehicle Driveway (One Way)	12 feet (minimum)
<ol style="list-style-type: none"> <li>1. Certain properties may be subject to 14 CFR Part 77 clearance requirements. If height is less than 3,035 feet msl, a 7460-1, Notice of Proposed Construction or Alteration may still be required. Refer to Appendix B, Grant of Avigation Easement for details regarding height limitations within airport influence areas and other applicable regulations.</li> <li>2. No building, structure, or improvement of any kind, and no part thereof, shall be constructed, installed or maintained, within the minimum setback areas. Subject to approval by the City, the following structures and improvements may be excluded from the setback provision: landscaping, steps and walks, monument signs, lighting facilities, entrance drives and curbs, and utility cabinets.</li> <li>3. On Phantom East and Phantom West, between Air Expressway and Innovation Way, the minimum setbacks shall be increased by 10 feet.</li> </ol>	

#### 4.3.5 Industrial (I) Designation

The Industrial designation is intended for development of a broad range of industrial activities, including larger scale industrial.

##### 4.3.5.1 Permitted Uses

Refer to [Table 4.1, \*Permitted and Conditional Uses\*](#), for a list of permitted uses (P) within the Industrial Designation.

##### 4.3.5.2 Conditional Uses

Refer to [Table 4.1, \*Permitted and Conditional Uses\*](#), for a list of conditional uses (C) in the Industrial designation. Conditional uses are subject to review for determination of restrictions and mitigation consistent with the established goals and purpose of the Specific Plan, along with safety requirements. Other uses similar to the conditional uses listed in [Table 4.1](#) for the I designation may be considered if approved by the Zoning Administrator. Refer to [Section 6.0, \*Administrative Procedures\*](#), for the Conditional Use Permit approval process.

Additionally, uses in the I designation where outdoor activities are the primary use are considered conditional. Examples of conditional outdoor uses include lumberyard, building materials and conductor storage yards, open air sale, display and storage, including but not limited to: new or used automobiles, boats, campers, mobile homes, motorcycle sales, rentals and the like. Outdoor activities incidental to the primary use do not require a Conditional Use permit and may be approved through the Site Plan approval process.

##### 4.3.5.3 Development Standards

Development standards for the Industrial designation include the following:

**Table 4.4  
Industrial (I) Designation Development Standards**

Maximum Lot Coverage	60%
Minimum Net Lot Area	20,000 square feet
Minimum Lot Dimensions	150 feet in width
Maximum Building Height <sup>1</sup>	55 feet
Minimum Building Setbacks: <sup>2, 3</sup>	
Front Yard:	
From Local or Collector Street	20 feet
From Arterial Street	30 feet
Interior Setbacks:	
Rear of Building	10 feet
Side of Building	10 feet
Minimum Parking Setbacks: <sup>2, 3</sup>	
Front Yard Setbacks:	
From Local or Collector Street	10 feet
From Arterial Street	20 feet
Interior Setbacks:	
Rear of Building	10 feet
Side of Building	10 feet
Employee/visitor parking areas adjacent to interior property lines	5.5 feet
<p>1. Certain properties may be subject to 14 CFR Part 77 clearance requirements. If height is less than 3,035 msl, a 7460-1 Notice of Proposed Construction or Alteration may still be required. Refer to Appendix B, Grant of Avigation Easement for details regarding height limitations within airport influence areas and other applicable regulations.</p> <p>2. No building, structure, or improvement of any kind, and no part thereof, shall be constructed, installed or maintained, within the minimum setback areas. Subject to approval by the City, the following structures and improvements may be excluded from the setback provision: landscaping, steps and walks, monument signs, lighting facilities, entrance drives and curbs, and utility cabinets.</p> <p>3. On Phantom East and Phantom West, between Air Expressway and Innovation Way, the minimum setbacks shall be increased by 10 feet.</p>	

#### 4.3.6 Public Open Space (POS) Designation

The POS land use designation is intended for existing recreational areas and facilities to be maintained within the Specific Plan area, including ballfields, gymnasium and other facilities. This land use district is also identified for future recreational facilities. The POS designation currently includes the existing sports fields, recreation center structures and park areas.

##### 4.3.6.1 Permitted Uses

Refer to [Table 4.1, Permitted and Conditional Uses](#), for a list of permitted uses within the POS designation. Generally, permitted uses in the POS designation are limited to recreation centers, community centers, sports centers, parks, sports fields, recreation facilities, and open space.

##### 4.3.6.2 Development Standards

The entire area currently designated POS within the Specific Plan is owned and managed by the City of Victorville. The City has the responsibility of reviewing all plans carefully for improvements and new development within the POS designation for acceptability with Specific Plan goals and objectives. Development Standards for the POS designation include the following:

**Table 4.5  
Public and Open Space (POS) Designation Development Standards**

Maximum Lot Coverage	40%
Maximum Building Height <sup>1</sup>	50 feet
Minimum Building Setbacks: <sup>2,3</sup>	
Front Yard:	20 feet
Side Yard (adjacent to commercial/industrial):	N/A
Side Yard (adjacent to all other zones):	10 feet
Rear Yard (adjacent to commercial/industrial):	N/A
Rear Yard (adjacent to all other zones):	10 feet
1. Certain properties may be subject to 14 CFR Part 77 clearance requirements. If height is less than 3,035 feet msl, a 7460-1 Notice of Proposed Construction or Alteration may still be required. Refer to Appendix B, Grant of Avigation Easement for details regarding height limitations within airport influence areas and other applicable regulations.	

### 4.3.7 Public Institutional (PI)

The PI land use designation is intended for existing Public Institutional uses to be maintained by the federal government within the Specific Plan area, including the United States Penitentiary Victorville, Federal Correctional Institution Medium I and Federal Correctional Institution Medium II. The PI designation currently includes these existing facilities.

#### 4.3.7.1 Permitted Uses

Refer to [Table 4.1, \*Permitted and Conditional Uses\*](#), for a list of permitted uses within the PI designation. Generally, permitted uses in the PI designation are limited to prison facilities and other government buildings.

#### 4.3.7.2 Development Standards

There are no specific PI development standards provided in this Specific Plan. The entire area currently designated PI within the Specific Plan is owned and managed by the Federal Government which is exempt from local zoning and land use control.

## 4.4 General Site Development Criteria

The following general site development criteria shall apply within multiple land use designations as in the Specific Plan area, as indicated.

### 4.4.1 Walls and Fences

Walls and fences shall not exceed a height of eight feet in rear and/or side yards and four feet in the front setback for commercial, industrial and open space land uses within the BP, I and POS land use designations, unless a greater height is approved as part of the Site Plan approval process. Exceptions to this limitation may be allowed if approved by the Zoning Administrator or Planning Commission pursuant to the site plan and/or conditional use permit process.

The following are additional standards for walls and fences:

- A. High quality, durable materials shall be used for fencing and walls. Wrought iron with pilasters, decorative block with a cap or tilt-up concrete fencing is permitted. All fencing shall be maintained in good repair.
- B. The use of chain link, wood or plastic fencing, razor wire or barbed wire within the BP, I or POS areas of the Specific Plan area is not allowed unless specifically reviewed and approved by the

Zoning Administrator or is of a temporary nature (such as during construction). Airport and ASF areas may use chain link topped with security fencing for security purposes. The PI or Federal Correction Complex is exempt from the regulations.

- C. Also see Section 5.0, *Design Guidelines*, of this Specific Plan for further guidelines applicable to wall and fence design in the Specific Plan.

#### 4.4.2 Open Storage

Open storage may be permitted within the Specific Plan area as an accessory use. Screening shall be provided so that materials stored in the open storage area and/or equipment at grade or on the roof are screened from view from all adjacent streets and properties at the same grade. No open storage shall be permitted between a street and the front of the building, except if located in a screened truck court.

The following are additional standards regarding open storage:

- A. No outdoor storage shall be permitted unless adequately screened by an approved screening material as part of the site plan or conditional use permit process.
- B. All vehicles stored on-site must be inside a closed building or within a screened portion of the site, unless allowed through the site plan or conditional use permit process.
- C. Stacked materials shall not extend beyond screening walls.
- D. Also see Section 5.0, *Design Guidelines*, of this Specific Plan for further guidelines applicable to walls and fences including for open storage.

#### 4.4.3 Parking

Regulations for parking are intended to ensure sufficient off-street parking and loading facilities are provided, to prevent traffic congestion and aid in efficient conduct of business. Any use for which a parking standard is not listed within Table 4.5, *Off-Street Parking and Loading Requirements* shall be subject to a standard established by review and determination of the Zoning Administrator. Adequate on-site parking shall be provided to accommodate all parking needs for the site. On-street parking is not permitted within the Specific Plan area.

##### 4.4.3.1 *General Parking Provisions*

- A. Any building or structure constructed or located on any use of land established after the effective date of this Specific Plan and the ordinances of the City of Victorville codified in the Victorville Municipal Code Section 16-3.21, "Off-Street Parking", or any subsequent amendment thereto shall be required to provide and continuously maintain off-street parking facilities in accordance with these provisions. These regulations are intended to provide off-street parking facilities for the use of automobiles of the tenants of the premises and for visitors, clients, customers and employees, and shall be kept accessible for these purposes.
- B. Any property with an existing use (prior to the adoption of this Specific Plan amendment) that does not conform to the off-street parking standards included herein may continue in the same manner. However, the existing use may not enlarge or structurally alter in any manner that creates a further nonconformance with parking requirements without the approval of a Conditional Use Permit.

- C. Nothing in these provisions shall be deemed to prevent the voluntary establishment of off-street parking, loading facilities or landscaped planter areas in excess of those required by these provisions provided, that all regulations and/or development standards pertaining to said facilities and planter areas are adhered to.
- D. The provision for off-street parking facilities shall be a continuing obligation of the property owner so long as the use requiring vehicle parking facilities continues. It is unlawful for any owner of any building to use to discontinue or dispense with the required vehicle parking facilities without providing other parking facilities which meet the requirements of these provisions.
- E. Nothing in this Article shall be deemed to limit the power of the Planning Commission or of the City Council on appeal to require adequate provisions of parking spaces as a condition of a Conditional Use Permit, or of a state plan, when under the circumstances of a particular case a greater number than specified in this Article is found to be necessary.
- F. Whenever existing parking areas are to be restriped, a plot plan showing existing and proposed striping shall be submitted to the Zoning Administrator for review and approval.

**4.4.3.2 Required Number of Off-Street Parking Spaces**

The number of parking spaces required shall be as specified in Table 4.6. When the calculation results in a fractional number, any fraction up to and including one half shall be disregarded and any fraction over one-half shall be adjusted to the next higher number. The required number of parking spaces for any use specifically mentioned or similar to any use enumerated in this Specific Plan shall be determined by the Zoning Administrator after it has ascertained all of the pertinent facts and then by minute action of record sets forth its findings and interpretation. In the event that two or more uses occupy the same building, lot or parcel of land, the total requirements for off-street parking and off-street loading shall be the sum of the requirements of the uses computed separately.

**Table 4.6  
Off-Street Parking and Loading Requirements**

<b>Land Use Type</b>	<b>Parking Requirement</b>	<b>Additional Parking or Credits</b>
Airport Uses (ASF)	Vehicle parking TBD with each use and development proposal	Vehicle parking within the ASF designation must be found not to interfere with the operation of the airport as determined by the SCLAA.
Animal Hospital	1 space per 200 sq. ft.	Credit – exclude utility rooms
Government Buildings – Frequently Visited	1 space per 200 sq. ft.	
Government Buildings – Not Frequently Visited	1 space per 400 sq. ft.	
Medical or Dental Office	1 space per 200 sq. ft.	Credit – exclude utility rooms
Medical Equipment rental	1 space per 450 sq. ft.	
Business or Trade School	1 space per classroom	Determined by the Zoning Administrator (per enrollment)

**Table 4.6 (continued)**  
**Off-Street Parking and Loading Requirements**

Automobile and Machinery – both Sales and Repair Only	1 space per 450 sq. ft.	
Bank, Business and Professional Office	1 space per 200 sq. ft., up to 6,000 sq. ft. per individual user, plus 1 space per 300 sq. ft. above 6000 sq. ft. per individual user	Credit – exclude utility rooms
Day Nursery and Day Care Facility	1 space per 5 children as designed or licensed for	1 space per vehicle used in the operation
Hotel or Motel	1 space per sleeping or living unit	5 Additional Spaces
Open Air Commercial Uses such as Car, Machinery, or Boat Sales and Equipment Rental and Storage Yards	1 space per 1,000 sq. ft. of sales and display area	
Plumbing Repair and Service Shop, Carpet and Upholstery Cleaner, Glass Sales, Installation and Repair Automobile Upholstery and Accessory Sales and Installation, Automotive Repair, Body and Paint Shop and Similar Uses.	1 space per 400 sq. ft. of floor area plus 1 space per 200 sq. ft. of office area	Credit – 1 space per 2 service bay spaces (not resulting in less than 4 spaces)
Restaurant, Café, Cafeteria	1 space per 100 sq. ft.	Credit – 1 space per 20 lineal feet of drive-thru stacking area, with a maximum credit of 2 spaces per drive-thru
Retail Establishments, Markets, or Businesses not Listed	1 space per 200 sq. ft.	Credit – exclude utility rooms
Health Club, Spa, Community Recreation Center, Similar uses	1 space per 175 sq. ft.	
Manufacturing or Industrial Plant, Storage Building or Yard, Industrial Laboratory or Similar	1 space per each employee during the highest shift change	1 space for each 300 sq. ft. of administrative area
Mini-Warehouse	1 space per 300 sq. ft. of office area	2 spaces for an accessory residence
Wholesale and Warehouse Uses including Speculative Buildings, including Distribution Centers	1 space per 1,000 sq. ft. of the first 40,000 sq. ft. and 1 space per 40,000 sq. ft. for the portion over 40,000 sq. ft.	1 space for each 300 sq. ft. of administrative area

#### **4.4.3.3 Provisions for Those with Disabilities**

All parking shall comply with the federal Americans with Disabilities Act (ADA) Standards for Accessible Design. ADA standards are issued by the Department of Justice and Department of Transportation and apply to facilities covered by ADA in new construction and alterations.

#### **4.4.3.4 Size of Parking Facilities**

- A. The size of parking spaces and aisle width for all Specific Plan uses shall conform to the minimum dimension and access requirements as outlined in Figures 21-1, 21-2, and 21-3 of the Victorville Municipal Code Section 16-3.21, "Off-Street Parking". All two-way drive aisles shall be a minimum of twenty-six feet in width and one-way drive aisle shall be a minimum of twelve feet in width unless otherwise noted in the figures. Parking spaces abutting walls along the length of the space shall provide an additional one-foot of width. Compact car parking spaces shall not be included when calculating required off-street parking. Compact car parking spaces are permitted only in excess of required off-street parking. Compact car parking shall be located at the peripheral of the site and shall meet the compact car standards shown in Figure 21.2 of the Victorville Municipal Code Section 16-3.21, "Off-Street Parking". In those instances where a compact car stall is immediately adjacent to a standard car stall, the compact car stall shall be nine feet in width. All compact car spaces shall be designed, located and clearly labeled on the required parking spaces plan. Each compact car stall shall have a stencil reading "COMPACT CAR ONLY" with a required height of eight inches, place at its entrance.
- B. Parking may be provided for motorcycles provided the proposed facility remains in compliance with all applicable development standards for parking facilities. A motorcycle parking area consists of one or more individual stalls. The stall dimensions shall have a length of six feet and width of three feet. Each motorcycle stall shall have a stencil reading "MOTORCYCLE ONLY" with a required height of three inches placed at the stall entrance.

#### **4.4.3.5 Parking Locations:**

The off-street parking facilities required by this Specific Plan shall be located on the same lot of land as the use they are intended to serve; except, in cases of practical difficulties, a substitute location may be approved which meets the following conditions:

- A. Required parking shall be provided on a contiguous site or within three hundred feet of the subject site.
- B. Parking facilities may be permitted across local roadways with a Conditional Use Permit, provided safe and adequate pedestrian facilities from the parking site to the designated building are provided. All proposed pedestrian facilities shall meet applicable standards of this Specific Plan and be approved by the City Engineer and the Zoning Administrator.
- C. The owner participates in a community lot or parking district.

#### **4.4.3.6 Required Parking Improvements**

All required parking areas shall have the following improvements:

- A. All off-street parking areas, vehicle sales, display and storage areas, and any driveway used for access thereto shall be surfaced with Portland cement concrete with a minimum of four inches thickness asphalt concrete over an approved base, as approved by the City Engineer.
- B. All parking areas shall be clearly striped to show all parking spaces. Directional surface arrows shall be provided to differentiate between one-way and two-way traffic and between entrance and exit access points to the street or alley.
- C. All parking areas shall provide landscaping and the maintenance thereof shall be provided in accordance with the provisions of Section 4.4.6, *Landscape*.
- D. Lighting, where provide to illuminate any parking area, sales, and/or display area, shall be arranged so as to reflect downward and away from the airport area and shall be designed not to cause a nuisance either to highway traffic or to the living environment. All LED lighting shall be narrow spectrum amber lighting, due to the proximity of airport night operations (including military).
- E. No off-street parking stall shall be located within 20 feet of the intersection of a public right of way and a drive approach when said drive approach is used as direct access to said off-street parking stall, as measured from the property line.
- F. All required parking shall be located in close proximity to the building entrances.
- G. On-site vehicular circulation shall be clear, direct and efficient. Back out areas shall be provided for parking stalls at the end of an aisle.
- H. Dead end parking aisles should be avoided if possible.
- I. Designated spaces must be provided in convenient locations for handicapped, carpool, motorcycle and bicycle parking. All parking areas, including bicycle and motorcycle areas, are to be designed for orderly, uncluttered parking. Bicycle parking areas are to be designed for orderly, uncluttered parking. Bicycle parking areas are to be provided with racks and locking capabilities.
- J. Parking beneath buildings or in parking structures must be screened by architectural elements and/or landscaping.

#### **4.4.3.7      *Development and Maintenance of Parking Areas***

All private streets, public or private parking areas, including commercial parking lots, vehicle sales area and service stations shall be developed and maintained in good condition in accordance with this Specific Plan. The maintenance thereof many include but shall not be limited to, the repaving, oiling, striping, and sweeping of a parking area and the repair, restoration, and/or replacement of any parking area design features outlined in this Specific Plan when deemed necessary to ensure the health, safety and welfare of the general public.

#### 4.4.3.8 Loading Areas

There will be no on-street loading lanes within the Specific Plan area. All required loading facilities shall be located on the same site as the use requiring the loading facilities, and shall follow the following standards:

- A. Loading areas shall be designed to accommodate complete backing and maneuvering of trucks on-site.
- B. Trucks shall not back onto a public street, nor shall a loading area require the use of public right of way for access to the loading dock.
- C. All loading and storage areas within view from public streets shall be adequately screened by an approved screening material.
- D. Overhead loading bay doors on the side of buildings shall be located on those building sides not directly visible to a public street or should be screened from view to the greatest extent feasible.

#### 4.4.4 Signage

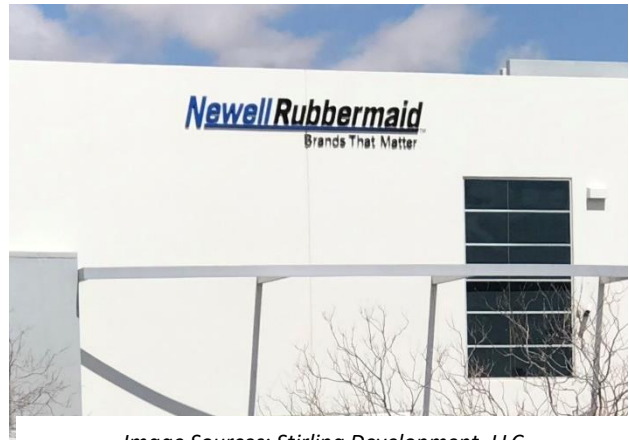
The purpose of this section is to establish uniform sign standards throughout the Specific Plan area. The intent is to permit adequate signing for needed uses and to prevent unnecessary and unsightly signs. The design of identification and directional signs (including the location, materials, colors, copy, type of sign, size and construction) will be approved by the City of Victorville and SCLA management prior to fabrication or installation. Refer to [Table 4.7](#), below for permitted and prohibited signs in within the Specific Plan area. Additionally, signs may be subject to approval by GABA. It is noted that the City is not responsible additional review or enforcement based on CC&Rs. For instances when a sign standard is not established within the following sections, approval shall be subject to review and determination by the Zoning Administrator.

**Table 4.7**  
**Permitted and Prohibited Signs in the Specific Plan Area**

Permitted Signs	Prohibited Signs
Monument Signs	Painted Signs
Ground Permanent Signs	Window Signs
Wall Signs	Pole signs/Free standing signs/roof signs
Canopy Signs/Pedestrian Signs	Animated, flashing, rotating or moving signs
Temporary Signs	Obscene or Illegal signs
Temporary Banners	A-Frame or Portable Signs (unless approved for special events)
Construction/Development Signs	Advertisements on bus benches

Signs shall be used for the purpose of identification and direction. The design of permitted signs shall be architecturally integrated with the building design. Additionally, signs must comply with the following standards:

- A. No sign shall be installed or constructed until it has been approved as being in accordance with the provisions of this Specific Plan.
- B. Logos/identification symbols, color bands or wraps shall be considered signs.
- C. All signs and their supporting structures shall be structurally safe and maintained in good condition.
- D. All freestanding monument signs shall be constructed of cast concrete, masonry, stucco (on concrete or masonry), or metal, and shall not be internally illuminated.
- E. All signs and their supporting structures shall comply with the uniform building and electrical codes as adopted by the City of Victorville.
- F. Identification signs shall be limited to the display of the name and/or symbol of the business or businesses occupying the site.
- G. All detached business identification signs shall be of such materials and design to be compatible with and complimentary to the on-site design concept as well as landscape and physical design features.
- H. Illumination – detached business information signs may be illuminated by continuous and uniform internal illumination, back lighting, or ground lighting. No flashing or moving lights will be permitted. No unprotected lamp providing sign illumination shall be directly visible when viewed at a normal viewing angle from a distance of twenty feet or more. No sign illumination shall cast a glare visible from any street or access drive.
- I. Business or building identification may be mounted to any vertical surface of a building or building associated wall provided such signs appear as an integral part of the overall architectural and site design concept.
- J. Building-mounted business or building identification signs may be illuminated by internal illumination or back-lighting provided that the color and intensity of such lighting appears as an integral part of the overall architectural and sign design concept.



*Image Sources: Stirling Development, LLC*

- K. Permanent sign or signs used to direct pedestrian and/or vehicular traffic shall be allowed subject to review and approval of the Zoning Administrator. Such signs shall be consistent in format throughout Specific Plan area.
- L. Signs are not permitted to obstruct vehicular or pedestrian travel. Signs must also not constitute traffic hazards. No sign shall be displayed that imitates in size, color, lettering or design any MUTCD traffic sign/signal that makes use of the words “STOP”, “LOOK”, “DANGER” or any other words, phrases, symbols or characters in a manner that interferes, misleads or confuses traffic.
- M. Signs cannot be displayed without the permission of the owner or lessee.
- N. No freestanding sign or structure shall be permitted closer than ten (10) feet of the front or back property line, unless the sign is used to direct pedestrian and/or vehicular traffic as outlined in K, above.
- O. An illuminated sign or lighting device shall employ only lights emitting a light of constant intensity and no sign shall be illuminated by or contain flashing, intermittent, rotating or moving lighting. In no event shall an illuminated sign or lighting device be placed or directed as to permit the beams and illumination upon a public street, highway, sidewalk, or adjacent premises so as to cause glare or reflection that may constitute a traffic hazard or nuisance.
- P. Development entrance signs and monument signs must conform to the City’s sight distance requirements.

For the purposes of this section, sign uses are categorized into four separate groups:

- General: The Project
- Planning Area: The Specific Plan area.
- Parcel: A multi-use lot comprised of multiple buildings and/or users within one lot accessed via a joint driveway.
- Building: A single building or user located on one lot.

There may be additional requirements for the coloring, Specific Plan area identification, and master developer references (public/private partnership). Refer to the GABA CC&Rs for further requirements.

Sign maintenance must occur as follows:

- All signs on private property shall be maintained by the owner of the sign in accordance with applicable City regulations and the criteria contained within these standards.
- Street signs, traffic control signs, and pedestrian information signs located within the public rights of way shall be maintained by the City or shall be maintained by the owner and may only be constructed with an encroachment permit granted by the City Engineer.
- Development and community identification signs located within the public rights of way shall be maintained by the project proponent and/or Association. Encroachment permit provisions may be applicable in these instances.

**4.4.4.1 Monument Signs/Ground Permanent Signs**

Tables 4.8 and Table 4.9, below, set forth the permitted size, height and location of monument signs or free-standing ground permanent signs within the Specific Plan area.

**Table 4.8  
Monument Signs/Ground Permanent Sign Placement Standards**

Maximum Sign Height	6 feet
Maximum Sign Width	20 feet
Minimum Setback from Street	10 feet measured from the property line
Building abuts one public street	1 monument sign
Building abuts two or more public streets	1 monument sign per street frontage
<ol style="list-style-type: none"> <li>1. Sign must be supported by a base that is integral to the design.</li> <li>2. Monument signs shall be set back a minimum of three (3) feet from the nearest property line, parking stall or building and shall be setback a minimum of thirty (30) feet from an intersecting driveway or street when located within ten (10) feet of the public right of way;</li> <li>3. Such signs shall be setback a minimum of ten (10) feet from interior property lines of an adjacent parcel not a part of the subject development;</li> <li>4. The sign structure shall be located within a landscaped planter or an enhanced hardscape area;</li> <li>5. Signs shall not be located further than 40 feet from the street frontage;</li> <li>6. Such signs shall not project into the public right of way;</li> <li>7. Directional signs shall not exceed six (6) square feet in size or exceed six (6) feet in height. Directional signs shall not display advertising copy except the name, logo or symbol of the owner or occupant of the lot upon which located.</li> </ol>	

**Table 4.9  
Monument/Ground Permanent Sign Size Standards**

Building Square Footage	Sign Area Allowance
0 – 100,000 square feet	80 square feet
100,001 – 250,000 square feet	100 square feet
Over 250,000 square feet	120 square feet (maximum)
<ol style="list-style-type: none"> <li>1. Border or frame shall not be counted as sign area provided the border/frame does not exceed 25% of the sign area.</li> </ol>	

Additionally, the following standards for Monument/Ground Permanent Signs must be adhered to:

- A. A maximum of two identification ground signs may be permitted at each entrance of the Specific Plan area.
- B. Applications for ground signs shall be accompanied by scale drawings indicating the size, sign, copy, materials, colors, method and intensity of illumination, height, sign area and general location of all signs on the building site.
- C. Signs or bulletin boards customarily incidental to places of worship, libraries, museums, social clubs or societies, cemeteries and other public or non-profit institutions shall not be erected in the public right of way and shall not exceed a total area of twenty-four square feet.

There will be two permitted monument/ground permanent sign locations at major entry areas within the Specific Plan area at the following locations: Phantom West and Innovation Way, and Phantom East and

Innovation Way. Each of these entries will contain two to four monuments and will be designed, constructed and installed by the master developer to identify the overall Specific Plan area.

**4.4.4.2 Wall Signs**

Wall signs must be placed one of the following two ways:

- Flat against the wall with the depth of the sign not exceeding 12-inches; or,
- Suspended from the eaves or a covered walkway with a clearance of eight (8) feet or more.
- Additionally, the top of the sign shall not project above the intersection of the wall and roof or parapet line.

Tables 4.10 and Table 4.11, below, set forth the permitted size, height and location of wall signs within the Specific Plan area.

**Table 4.10  
Wall Sign Placement Standards**

Maximum lines of copy	2 lines
Building abuts 1 public street in excess of 25 feet	1 wall sign
Building abuts 2 or more public streets in excess of 25 feet	1 wall sign per street frontage

**Table 4.11  
Wall Sign Size Standards**

Building Width	Maximum Letter Height	Maximum Signage Length
0 – 50 feet	24 inches	20 feet
50 – 100 feet	30 inches	24 feet
100 – 200 feet	36 inches	28 feet
200 – 300 feet	42 inches	32 feet
Over 300 feet	48 inches	36 feet
1. If a building width is less than 25 feet, one wall sign with a maximum area of 25 square feet is permitted. 2. The allowable letter height shall never be required to be smaller than 12 inches. 3. The maximum letter height and/or sign face height shall be measured as the combination of both lines of copy, including the space between, or the distance between the top of the sign face and the bottom of the sign face.		

- Only individual channel letters, including reverse channels and sculpted cabinet, signs are permitted for all commercial and industrial zones (Signs constructed of sheet metal cabinets with acrylic faces shall not be permitted); and,
- Fabrication methods of wall signs other than those described shall be reviewed for consistency with the building architecture and the adopted design guidelines.

**4.4.4.3 Temporary Signs/Banners**

The tables below set forth the permitted size, height, and location of temporary signs and banners within the Specific Plan area.

**Table 4.12  
Temporary Sign Display Periods**

<i>Single Building</i>	
Maximum Display Days - Banners	45 days annually
Maximum Display Periods	3 separate periods, ranging from 1 to 15 days OR; consecutive 45-day period
<i>Building Complexes</i>	
Maximum Display Days	75 days annually
Display Periods	5 separate periods, ranging from 1 to 15 days OR; Consecutive 75-day period
<i>Construction Development</i>	
Maximum Display Period	1 year
<i>Leasing/For Sale</i>	
Maximum Display Period	1 year

Temporary signs advertising the sale, lease, or rental of the property upon which the sign is located shall not exceed the following limits:

**Table 4.13  
Temporary Sign Size Regulations**

	Maximum Vertical Height	Maximum Horizontal Height	Maximum Square Footage
Development Sign	11 feet	8 feet	88 square feet
Parcel within Development Sign	8 feet	4 feet	32 square feet
Lot Sign	6 feet	3 feet	18 square feet
Architect/Engineer/Contractor Promotional Sign <sup>1</sup>	8 feet	8 feet	64 square feet
Future Construction Promotional Sign <sup>2</sup>	8 feet	8 feet	64 square feet
1. Sign promoting an architect/engineer/contractor construction signs may only be posted for the term of the construction, limited to one (1) year. 2. Sign promoting a future development may only be posted for the term of the construction, limited to one (1) year.			

#### 4.4.4.4 *Other Signs*

The following types of signs proposed require a sign program, to be approved by the City:

- Public Service Sign
- Canopy Sign
- Pedestrian Sign
- Multiple Story Building Signs
- Directory Sign
- Monument Sign/Ground Permanent Signs

Sign Programs for business parks, commercial centers, intra-community directional signs and other similar uses are required to comply with the standards contained herein unless controlled by a separate project specific development Sign Program. A Sign Program which establishes alternative sign regulations for

specific planning areas or parcels must be reviewed and approved by the City of Victorville through a conditional use permit before being implemented. The Sign Program is intended to encourage creativity and latitude to achieve variety and appealing design. The Sign Program shall include the following information:

- Coverage Area: A map drawn to scale, delineating the site to be included in the Sign Program;
- Signs: Design details that include allowed sign copy, size, method/intensity of illumination, height, sign area, and location of all signs; and,
- Details: Regarding materials and finishes.

#### 4.4.5 Utilities and Communication Devices

All new utilities, including electric, telephone, gas and cable services, shall be installed and maintained underground. When new development is proposed, existing utilities should be relocated underground, where feasible. Antennas and other exposed reception devices are required to be screened to prevent visibility from public areas.

#### 4.4.6 Landscape

Regulations for landscaping are intended to provide aesthetically attractive enhancements to development, a softening of the sometimes stark building facades and hardscapes, soil stabilization and erosion control, while conserving of limited water resources. Additionally, refer to [Section 5.3.6, \*Landscape Design and Maintenance Responsibilities\*](#) for responsibilities specific to landscape maintenance and refer to [Sections 6.3](#) and [6.5](#) for general maintenance responsibilities and the development review process.

A. General provisions applicable to all new development and existing lots:

- 1) All landscaping shall be in accord with Section 13.60, Water Efficient Landscaping, of the City of Victorville Development Code and installed with a permanent irrigation system.
- 2) All landscaped areas shall be maintained in a neat, clean, and orderly condition. This includes proper pruning, mowing of lawns, removal of weeds, removal of litter, fertilizing, and replacement of plants where necessary, the regular watering of all plants and the repair of landscape edging/curbing. Property owners shall provide a means to keep decorative rock in-place (i.e. landscape edging, mow curbing, etc.).
- 3) All areas landscaped with decorative rock shall include an unexposed permanent weed barrier or an approved pre-treatment method. The weed barrier shall be opaque, breathable and permeable as well as durable (does not stretch or tear using bare hands). In addition, the minimum rock size shall be three-quarter inch except for areas approved for smaller size rock. Decorative rock shall be contained in place with the use of landscape edging/curbing to prevent scattering onto the sidewalk or driveways. All front yard areas installed with drought tolerant landscaping or those converted from water intensive landscaping to drought tolerant landscaping, must permanently remain drought tolerant. All areas landscaped with decorative rock shall be treated and/or maintained regularly to control weeds.
- 4) Every site on which a building is constructed shall be landscaped and irrigated in accordance with plans and specifications submitted and approved. In addition, each site within the Specific Plan

area must incorporate landscape and irrigation design in accordance with Section 16-3.24.030(d), landscape requirements for nonresidential development, in the Victorville Development Code, as applicable. In addition, landscape design guidelines in Section 5.3 of this Specific Plan and the industrial development landscaping design guidelines in Section 16-3.11.060(b)(7) of the Development Code should be adhered to as applicable.

B. Landscape requirements for development lots and parking areas (nonresidential) are as follows:

- 1) A minimum of 3 percent of parking surface area, exclusive of "Association" frontage setback or parkway planting areas, shall consist of landscaped materials. When development sites or parcels are greater than 50 acres, a reduction in minimum landscaping within surface parking areas may be considered by the Zoning Administrator.
- 2) All development lots which abut a dedicated street shall have a planter strip along the entire property abutting the dedicated street, excluding all driveway approaches. The planter strip shall have a minimum interior width of five feet.
- 3) All parking areas (excluding in ASF areas) requiring four or more parking stalls shall provide the following interior and peripheral landscaping:
  - a. All landscaping areas shall be surrounded by a concrete curb or other approved curbing having a minimum height and width of not less than six inches, including planters that abut the public right of way sidewalk. Landscaped areas without curbing may be substituted upon review and approval of the Zoning Administrator.
  - b. A minimum five-foot interior width landscape planter strip where any parking spaces and/or drive aisles abut an interior lot line or building.
  - c. One twenty-four-inch box tree with approved ground cover for every eight parking spaces within a single row or every 16 spaces in double rows, evenly dispersed throughout the parking area within landscape fingers or tree wells:
    - Landscape fingers and tree wells shall have a minimum interior width of five feet as measured perpendicularly from side curb;
    - Tree wells are only permitted when parking spaces are in double stacked rows; and
    - Double stacked landscape fingers shall have a minimum of two twenty-four-inch box trees.
  - d. A minimum five-foot interior width planter island shall be located at the end of every parking aisle/row.
  - e. All parking spaces abutting landscape areas shall include access and maintenance measures as follows:
    - Landscape areas used as front parking space overhang area shall include two feet additional interior width and be paved in accordance with Figure 21-3 entitled "Concrete Curb/Wheel Stop" in the Victorville Municipal Code Section 16-3.21, or landscaped with durable ground cover that will not damage vehicles; and
    - Landscape areas abutting the side of parking spaces, excluding individual tree wells, shall include one foot additional interior width and be paved to allow for vehicle doors to open freely and not impede passenger access to or from vehicles.
  - f. All landscaped areas shall be provided with a suitable permanent water system.

- g. Required planters shall not exceed a three foot horizontal to one foot vertical slope ratio.
- h. Rock ground cover shall not exceed twenty-five percent of the total for any landscaped area and such structural features as fountains, pools or art works, but such objects alone shall not meet the requirements of this Section.
  - i. The maximum spacing of all plants within the parking area is as follows:
    - Ground cover—four feet on center.
    - One gallon plants—four feet on center.
    - Five gallon plants—ten feet on center.

## 4.5 Sustainable Building Standards

Per the California Energy Code Section 110.10, nonresidential buildings are required to integrate design considerations that affect the feasibility of installing solar energy systems into the original building design. All buildings within the Specific Plan area will meet standards set forth in the California Energy Code at the time of approval.

Individual buildings shall be designed to assist the City of Victorville with achieving their General Plan goals of developing alternative power supplies and reducing energy use. A key component of achieving this goal will be incorporating renewable energy into development projects within the Specific Plan area, where feasible and will thus be applied during the review phase at the time of building permit submittal.

These standards do not apply to solar, wind, or other power plant projects as primary and independent uses. Refer to [Table 4.1](#) for permitted and conditional uses within the Specific Plan area.

### 4.5.1 Solar

Photovoltaic (PV) solar panels shall be incorporated into new development projects as economically and logistically feasible. Rooftop solar systems or car parking canopies are both permitted. Solar panel rooftop incorporation is not intended to be a mandatory requirement for all development within the Specific Plan area, as there are specific uses and users that require rooftop space for industrial or mechanical equipment. Rather, the incorporation shall be equally prioritized with building and user needs. Thus, each project will be evaluated individually for the feasibility of solar incorporation at the time of building permit submittal. Ground mounted systems not incorporated into the building structure or parking infrastructure is discouraged due to the space and aesthetic considerations.

Should an individual project decide to forego solar canopy installation or other on-site electrical generation systems, the project may apply to purchase renewable energy credits through the energy provider, Victorville Municipal Services (VMUS), if available. This alternative may be permissible during the entitlement process, only if the project complies overall with the City's CAP and any associated GHG emission screening tool for the updated 2021 GHG Reduction Plan.

For installation of Photovoltaic (PV) solar panels within the Specific Plan area, coordination shall take place with the Federal Aviation Administration (FAA) to ensure that placement and installation of solar panels will not affect aviation safety. This includes the use of the latest version of the Solar Glare Hazard Analysis Tool (SGHAT) for the glint and glare analysis.

The following process shall be used to determine a feasibility threshold for solar rooftop incorporation.

1. Identify the proposed use for the specific building.

2. Provide a roof top site plan depicting the location of all mechanical and other required equipment specific to the building use, now and in the future; estimate the amount of remaining usable space for solar panels.
  - a. Solar panel rooftop installation shall not be prioritized over rooftop industrial or manufacturing equipment identified as required by the user.
  - b. Buildings will not be required to install PV solar systems with costs that exceed the economic benefit, as determined by a 10-year life cycle cost analysis.
  - c. Individual users shall not be required to build solar systems in excess of their projected power use for the facility.

This evaluation does not preclude a project from other required solar system installation (i.e., parking canopies) or on-site electrical generation to meet the City's CAP requirement. If rooftop solar generation cannot be accommodated, a project shall utilize other installations such as parking canopies. Ground installation shall be discouraged in the Specific Plan area.

#### 4.5.2 Other

Other sources of renewable energy are not easily integrated into an industrial airport environment and thus are discouraged as integrated structures on buildings within the Specific Plan area. This shall not preclude allowable and conditional renewable energy projects within the Specific Plan area as primary uses, nor shall the standards in this section apply to renewable energy projects as an independent and individual use; refer to [Table 4.1](#) for permitted and conditional uses.

Section 5

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DESIGN GUIDELINES

## 5.0 DESIGN GUIDELINES

### 5.1 Purpose and Implementation

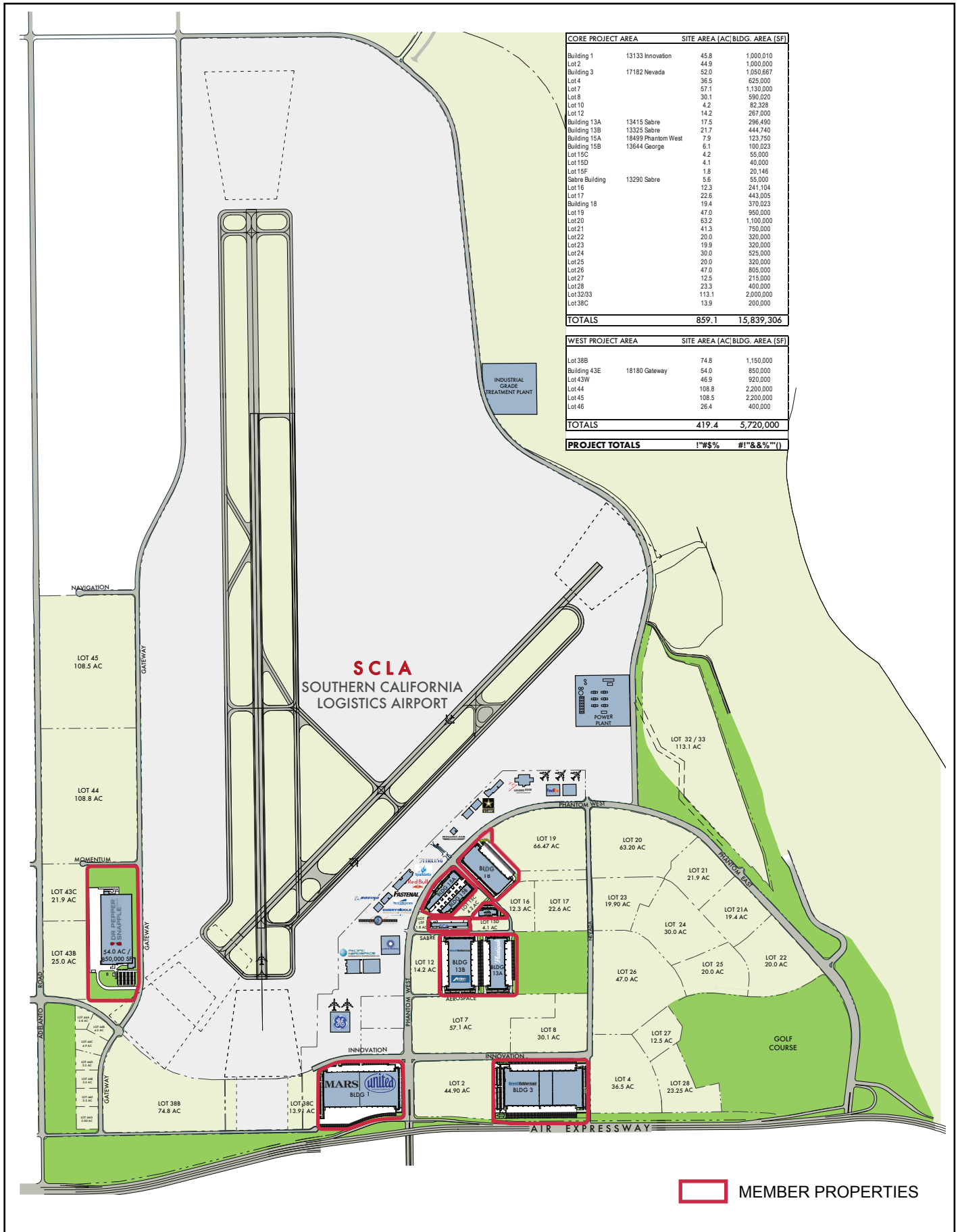
The purpose of the Design Guidelines is to provide direction for site design, landscape design, architecture, signage and lighting. The City of Victorville and any design review committee established for the Specific Plan area will use these criteria in review of submittals to ensure the Specific Plan area has a high-quality appearance and maintain the property for all users. These design guidelines are designed to accomplish high quality development and compatibility with adjacent land uses and the overall character of the Specific Plan area. The guidelines provide for innovative site planning, streetscapes, architectural design and construction for a world-class office and industrial business community, attracting companies of the highest caliber.

Development and improvements in all Business Park (BP) and Industrial (I) land use designation areas are required to comply with the provisions of these Guidelines as applicable to the specific development. Development and improvements in the Public and Open Space (OSP) and Public Institutional (PI) land use designation areas, may benefit from use of these guidelines and therefore the City is encouraged to use these guidelines in POS areas as appropriate, and the appropriate agencies with responsibility over the federal correctional facilities in the PI areas are likewise encouraged to use these Guidelines as may be appropriate. For development and improvements made in the Airport and Support Facilities (ASF) designation areas, following the provisions of the guidelines is recommended where applicable. ASF development standards are listed separately in Section 5.8.

All buildings should be modern and progressive in design and concept, reflecting the technology of today. An emphasis on quality, in design and execution, is strongly encouraged. Facilities should not vie for unnecessary attention. The objective is to create a cohesive, distinctive personality that ties the Specific Plan area together.

All buildings shall appear as an integrated part of an overall site design concept. Building massing should reinforce the design concept. Features such as plazas, special planters and plantings, textured hardscape and other site design features that link outdoors to indoors should be integrated into every development. Building components such as precast or tilt-up concrete, aluminum, stone, architectural concrete, high quality enamel or composite panels are examples of acceptable primary building materials.

The Global Access Covenants, Conditions and Restrictions (CC&R's) have been established in certain areas of the Specific Plan area, which mainly include the BP and I areas in the southern portion of the Specific Plan. The CC&R's called for the establishment of the Global Access Business Association (GABA) with a Board of Directors (Board). GABA and its Board are required to establish and maintain an Architectural Review Committee (Committee), Planning and Design Guidelines, and an Association review and approval process for reviewing all proposed development plans, including signage, architectural, engineering and landscaping in the areas covered by the Association and CC&R's. Properties annexed into the GABA jurisdiction are shown on [Exhibit 5.1, \*Global Access Business Association Member Properties\*](#). Refer to the separate Planning and Design Guidelines prepared for the Association and CC&R's for this separate review and approval process. The following reflects the concepts contained in the Association's Planning and Design Guidelines.



CORE PROJECT AREA		SITE AREA (AC) BLDG. AREA (SF)	
Building 1	13133 Innovation	45.8	1,000,010
Lot 2		44.9	1,000,000
Building 3	17182 Nevada	52.0	1,050,067
Lot 4		36.5	825,000
Lot 7		57.1	1,130,000
Lot 8		30.1	590,020
Lot 10		4.2	82,328
Lot 12		14.2	267,000
Building 13A	13415 Sabre	17.5	296,490
Building 13B	13325 Sabre West	21.7	444,740
Building 15A	18499 Phantom West	7.9	123,750
Building 15B	13644 George	6.1	100,023
Lot 15C		4.2	55,000
Lot 15D		4.1	40,000
Lot 15F		1.8	20,146
Sabre Building	13290 Sabre	5.6	55,000
Lot 16		12.3	241,104
Lot 17		22.6	443,005
Building 18		19.4	370,023
Lot 19		47.0	950,000
Lot 20		63.2	1,100,000
Lot 21		41.3	750,000
Lot 22		20.0	320,000
Lot 23		19.9	320,000
Lot 24		30.0	525,000
Lot 25		20.0	320,000
Lot 26		47.0	805,000
Lot 27		12.5	215,000
Lot 28		23.3	400,000
Lot 32/33		113.1	2,000,000
Lot 38C		13.9	200,000
<b>TOTALS</b>		<b>859.1</b>	<b>15,839,306</b>

WEST PROJECT AREA		SITE AREA (AC) BLDG. AREA (SF)	
Lot 38B		74.8	1,150,000
Building 43E	18180 Gateway	54.0	850,000
Lot 43W		46.9	920,000
Lot 44		108.8	2,200,000
Lot 45		108.5	2,200,000
Lot 46		26.4	400,000
<b>TOTALS</b>		<b>419.4</b>	<b>5,720,000</b>

PROJECT TOTALS		!="#\$% #! "&'()*	
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## 5.2 Site Design Guidelines

See Development Standards contained in [Section 4.0](#) for site design standards and other criteria.

### 5.2.1 Parking Design Guidelines

- A. Uses within the Specific Plan shall be subject to the parking standards and requirements identified within [Section 4.4.3, \*Parking\*](#) and the Victorville Municipal Code Section 16-3.21, “Off-Street Parking” for all applicable uses.
- B. On-site vehicular circulation should be clear, direct and efficient. Back out areas shall be provided for parking stalls at the end of an aisle.
- C. Dead end parking aisles should be avoided if possible.
- D. Designated spaces must be provided in convenient locations for handicapped, carpool, clean energy, motorcycle and bicycle parking. All parking areas, including bicycle and motorcycle areas, are to be designed for orderly, uncluttered parking. Bicycle parking areas are to be designed for orderly, uncluttered parking. Bicycle parking areas are to be provided with racks and locking capabilities.
- E. Parking beneath buildings or in parking structures must be screened by architectural elements and/or landscaping.
- F. Parking spaces shall not be within 20 feet of a driveway entrance drive aisle, as measured from the back of the sidewalk.
- G. Truck drive aisles and car driveways are encouraged to be separate as feasible, for purposes of maximum accessibility and reduction of compatibility issues.
- H. Vehicular parking within truck courts should be avoided, to the maximum extent feasible.
- I. Truck entry driveways are encouraged to use scored concrete.
- J. Vehicular entry driveways are encouraged to use scored concrete or decorative/enhanced concrete.



*Image Source: Stirling Development, LLC*

**5.2.2 Pedestrian Circulation Guidelines**

Safe and clear pedestrian circulation must be provided between buildings, and to parking areas from entries onto site. Pedestrian accessways between building entries and parking areas are encouraged to include enhanced features to facilitate pedestrian circulation. Enhancements may include decorative concrete or painted pathways to properly direct foot traffic. Additionally, pedestrian crossings should not cross truck drive aisles.

**5.2.3 Walls and Fences Design Guidelines**

As noted in Section 4.4.1, walls and fences shall not exceed a height of eight feet in rear and/or side yards and four feet in the front setback for commercial, industrial and open space land uses within the BP, I and POS land use designations.

The following are additional guidelines for walls and fences:

- A. High quality, durable materials are encouraged for fencing and walls. All fencing shall be maintained in good repair at all times.
- B. Fencing and screening treatments must be designated as an integral part of the overall architectural and landscape design.
- C. The use of chain link, wood or plastic fencing, razor wire or barbed wire within the BP, I or POS areas of the Specific Plan area is not allowed unless specifically reviewed and approved or is of a temporary nature subject to a conditional use permit approval.
- D. Screen walls and fences for open storage areas height and breadth to screen material and equipment behind the screening.
- E. Use of opaque walls or screens are acceptable for screening open storage areas when coordinated with architectural materials, colors, and design of building (i.e., solid walls with architectural detailing, pilasters with architectural detailing and opaque metal louver panels).



*Image Source: Stirling Development, LLC*

- F. Upon review and approval, use of open grille work and/or open fencing may be used in conjunction with landscaping or berms for screening open storage areas.
- G. Wrought iron perimeter fences shall have pilaster a minimum of every 100 linear feet.

#### 5.2.4 Environmental Control

Any permitted industrial use shall be carried out within a building or screened area that is designated and constructed so that all operations are enclosed and uses do not cause a nuisance to adjacent sites.

#### 5.2.5 Refuse Collection and Storage

Outdoor refuse enclosures shall be constructed of concrete and include a cover with a painted steel gate to match adjacent wall color to effectively screen all refuse containers from adjacent lots and/or streets. No refuse enclosures shall be permitted between a street and the front of the building, except if located in a truck court. Enclosures shall be designated to City standards and handle all refuse generated onsite and deposited between collections. Refuse should not be visible from outside the enclosure.

#### 5.2.6 Utilities and Communication Devices

- A. Electrical equipment shall be mounted in the interior of a building whenever practical. When interior mounting is not practical, electrical equipment shall be screened with walls, berms, or landscape materials. A concerted effort should be made to locate electrical equipment along the side or rear of a building.
- B. Transformers, visible from a public street, shall be screened with planting or a durable noncombustible wall.
- C. Backflow preventers and fire department detector checks shall not be located in turf areas. Backflow preventers should either be vaulted below grade or grouped with above grade utility connections and screened by landscaping. Fire department detector checks which are above grade shall be painted red.
- D. Private sewer components (manholes, clarifiers, etc.) shall not be located within project entry drives nor within landscape area. The components should be located in the aisles of parking lots or service drives toward the rear of a site.
- E. Utilities may be located within planter areas, however they may not be located within a landscaping finger that displaces a tree.

### 5.3 Landscape Design Guidelines

Landscaping serves an important role in creating community character, identification and image. The landscaping guidelines are intended to encourage an attractive, visually cohesive development with sufficient variety to express the individuality of each user and at the same time be consistent with general character of the Specific Plan area and standards. Landscaping should be used to humanize the scale of buildings and parking lots, to soften building lines, to screen less attractive elements of a project from public view, and to stabilize slopes and open areas. Best practices examples for site specific landscape design are included in Appendix D, Landscaping Guidelines and Best Practices for the Specific Plan Area.

### 5.3.1 General Landscape Guidelines

The following guidelines are in addition to the standards required in [Section 4.4.6](#).

- A. All open areas except for vehicular access ways, parking stalls, and pedestrian walkways shall be landscaped.
- B. No planting areas shall be less than 20 square feet except for raised planter boxes around or near the building.
- C. A landscaped planter shall separate the end of each row of parking stalls from driveways and drive aisles.
- D. All planted areas shall contain a permanent automatic irrigation system and shall be enclosed by a six-inch wide mow curb. Irrigation systems shall be designated to eliminate or limit overthrowing of irrigation water onto walk, common areas or walls.
- E. A 2" layer of mulch shall be placed around groundcover planting area. All other open landscape areas shall use gravel or decomposed granite.



*Image Source: Stirling Development, LLC*

- F. Landscape plans should be prepared by a licensed landscape architect.
- G. Landscaping will be required along the side of all industrial lots and buildings with significant views to the roadways and/or other properties.
- H. Sites that are not improved or built upon shall be maintained in a clean and neat appearance by the property owner. Weeds and brush will be removed quarterly, unless otherwise noticed.
- I. Landscaping should be used to define areas by helping to focus on entrances to buildings, parking lots, and loading areas as well as defining the edges of various land uses, providing transition between neighboring properties (buffering), and providing screening for outdoor storage, loading and equipment areas.

- J. Native, or appropriately related cultivars, and low water use plants shall be used in developing the landscaping palette for a project, refer to Section 13.60, "Water Efficient Landscaping", of the Victorville Municipal Code.
- K. Exposed dirt is prohibited.
- L. Wood chips are prohibited as a permanent form of ground cover.
- M. Decorative rock should be used to cover areas that are not completely covered by plant material.
- N. Landscaping should be in scale with adjacent buildings and be of appropriate size at maturity to accomplish its intended goals.
- O. Use of vines on walls is appropriate in industrial areas because such walls often tend to be large and blank.
- P. Trees should be located throughout the parking lot and not simply at the ends of parking aisles.
- Q. Trees and shrubs should be located and spaced to allow for mature and long-term growth. Trees and shrubs should provide minimal root problems.
- R. Landscaping should occur at the entire base of the building to soften the edge between the parking lot and the structure. Accent planting should be used around entries and key activity hubs.
- S. Planting should be used to screen less desirable areas from public view, i.e., trash enclosures, parking areas, storage areas, loading areas, public utilities, and mechanical equipment.

### 5.3.2 Major Entries and Streetscapes Guidelines

Major entries within the Specific Plan area will provide the initial identification of the Specific Plan area. These entries will incorporate enhanced landscape treatments to provide focus and mark arrival into the Specific Plan area.

1. Irrigation to be fully automatic and combine the use of spray, rotors, bubblers and drip applications.
2. GABA shall maintain all street landscaping and monumentation within their jurisdiction of the Specific Plan area. Landscaping and monumentation for properties not incorporated into GABA will remain the responsibility of the individual landowner or other group as identified in the construction documents.
3. Approved decorative mulch and rock cover include:
  - ¾" California Gold crushed rock (3" deep and laid over filter fabric)
  - 3" – 4" Southwest Brown crushed rock (4" deep and laid over filter fabric)
  - 3" – 4" Lilac crushed rock (3" – 4" deep and laid over filter fabric)
  - 2' – 3' Boulders Southwest Brown (set 1/3 below surface of surrounding gravel)

Plant material guidelines are included in Section 5.3.3, below. Specific trees, shrubs and groundcover recommendations for major entries and streetscapes are outlined below:

- **Trees:** *Acacia greggi* (Catclaw Acacla) 36" box; *Cercidium 'Desert Museum'* (Palo Verde) 24" box or 48" box; *Prosopis chilensis* (Chilean Mesquite) 48" box; *Quervus Ilex* (Holly Oak) 24" box; *Washingtonia filifera* (California Fan Palm) 15' bt or 20' bt
- **Shrubs:** *Arbutus unedo* (Strawberry Tree) 5 gallon; *Artemisia 'Powis Castle'* (Artemisia) 5 gallon; *Elaeagnus pugen* (Silverberry) 5 gallon; *Juniperus c. 'Pfitzeriana'* (Juniperus) 5 gallon; *Mulhenbergia rigens* (Deer Grass) 5 gallon
- **Groundcover:** *Acacia redolens* (Acacia) 1 gallon; *Posmarinus o. 'Prostratus'* (Prostrate Rosemary) 1 gallon; *Agave parryi* (Agave) 5 gallon; *Dasyilirion wheeleri* (Desert Spoon) 15 gallon; *Hesperaloe* (Red Yucca) 15 gallon.

Best practices for landscape design on major entry points and streetscapes are included in Appendix D, Landscaping Guidelines and Best Practices for the Specific Plan Area.

### 5.3.3 Plant Material Guidelines

The plant palette for developments within the Specific Plan area should be selected for appropriateness to climatic and soil conditions, concern for maintenance and water conservation, as well as consideration of architectural style and the overall creation of a corporate setting. Landscaping shall consist of a combination of trees; shrubs, succulents and ground covers with careful consideration given to growth rate, mature size and spread, susceptibility to disease and pests, and durability. The plant palette will encourage native plants, or appropriately related cultivars, where landscape abuts native areas and where irrigation and soil qualities allow.

Plant selection for each development should have similar requirements so that irrigation can be designated to minimize water use and plant material can thrive. Plants shall be consistent with the City of Victorville's Water-Wise Plant List which can be found on the City's website, on the Water District Page, Conservation, Water-Wise Landscaping Resources. In addition, the Drought Tolerant Plants list compatible with Climate Zones 10 and 11 found in the Sunset Western Garden Book can be referenced. In addition, low water demanding vegetation shall be utilized, along with efficient irrigation techniques.

Examples of recently (2019) approved plants for new development in the Specific Plan area are provided in Table 5.1, below.

**Red Yucca - *Hesperaloe parviflora***



**Century Plant - *Agave americana***



**Desert Willow - *Chilopsis linearis***



**Russian Sage - *Perovskia atriplicifolia***



Image Sources: Wikipedia Commons

**Table 5.1**  
**Selected Approved Plants**

<b>Botanical Name</b>	<b>Common Name</b>
<i>Albizia julibrissin</i> 'Rosea'	Hardy Silk Tree
<i>Acacia greggii</i>	Catclaw Acacia
<i>Acacia redolens</i>	Acacia
<i>Prosopis chilensis</i>	Chilean Mesquite
<i>Quercus Ilex</i>	Holly Oak
<i>Washingtonia filifera</i>	California Fan Palm
<i>Arbutus unedo</i>	Strawberry Tree
<i>Artemisia</i> 'Powis Castle'	Artemisia
<i>Elaeagnus pungens</i>	Silverberry
<i>Cercidium</i> x 'Desert Museum'	Thornless Palo Verde
<i>Chilopsis linearis</i> 'Arts Seedless'	Desert Willow
<i>Pinus eldarica</i>	Afghan Pine
<i>Populus fremontii</i>	Fremont Cottonwood
<i>Prosopis chilensis</i>	Chilean Mesquite
<i>Agave americana</i>	Century Plant
<i>Agave havardiana</i>	Havard's Century Plant
<i>Agave weberi</i>	Weber's Agave
<i>Agave parryi</i>	Agave
<i>Dalea capitata</i> 'Sierra Gold'™	Sierra Gold Dalea
<i>Dasyliirion wheeleri</i>	Grey Desert Spoon
<i>Dodonaea viscosa</i> 'Purpurea'	Purple Leafed Hopseed Bush
<i>Hesperaloe parviflora</i> 'Brakelights'™	Brakelights Red Yucca
<i>Hesperaloe parviflora</i>	Yellow/Red Yucca
<i>Juniperus chinensis</i> 'Spartan'	Spartan Juniper
<i>Juniperus c.</i> 'Pfitzeriana'	Juniperus
<i>Larrea tridentata</i>	Creosote Bush
<i>Leucophyllum frutescens</i> 'Compacta'	Compact Texas Ranger
<i>Leucophyllum frutescens</i> 'Green Cloud'™	Green Cloud Texas Ranger
<i>Leucophyllum laevigatum</i>	Chihuahuan Sage
<i>Perovskia atriplicifolia</i> 'Blue Spires'	Russian Sage
<i>Salvia greggii</i> 'Furmans Red'	Furman's Red Salvia
<i>Tagetes lemmonii</i>	Copper Canyon Daisy
<i>Verbena gooddingii</i>	Scented Verbena
<i>Muhlenbergia capillaris</i>	Pink Muhly
<i>Muhlenbergia lindheimeri</i> 'Autumn Glow'™	Lindheimer's Muhly
<i>Pennisetum</i> 'Fairy Tales'	Fairy Tales Fountain Grass
<i>Baccharis</i> x 'Centennial'	Centennial Coyote Brush
<i>Hesperaloe parviflora</i>	Red Yucca
<i>Rosmarinus officinalis</i> 'Huntington Carpet'	Huntington Carpet Rosemary

### 5.3.4 Landscape Design and Maintenance Responsibilities

GABA will maintain all street landscaping and monumentation within their jurisdiction of the Specific Plan area. Landscaping and monumentation for properties not incorporated into GABA will remain the responsibility of the individual landowner or other entity as identified in the landscape construction documents. Typically, this set back area will range 12 to 14 feet, adjacent to a 6 foot sidewalk on a linear roadway unless otherwise specified.

Maintenance of all building perimeter and parking lot landscaping will be the responsibility of the individual property owner. Responsibility delineation must be shown on each development landscape construction document, including areas that are proposed to be maintained by GABA. The owner of each lot shall at all times properly maintain the entire premises in a clean and good state of repair.

### 5.4 Architectural Design Guidelines

The purpose of the architectural criteria is to establish base guidelines for the creative design of facilities. Any building or structure constructed on any site within the Specific Plan area shall conform to these guidelines. Special concern shall be directed toward reducing large-scale visual impact of buildings.

- A. Clustering of small-scale elements such as planter walls around a major form and creating shadow lines and patterns is encouraged.
- B. Colors, materials, and finishes shall be coordinated for all exterior elevations of the buildings to provide overall continuity of the design both within the site and with respect to adjacent development.
- C. Main exterior building walls shall be constructed with high quality materials. Finished concrete tilt-up or steel frame construction with high quality preformed concrete panels are preferred. Exterior walls constructed with other materials shall be evaluated on a case-by-case basis to ensure compatibility and consistency with existing structures.
- D. Color palettes should be predominately light in shade with bolder colors limited to accents. The use of reflective or tinted glass such as blue or green is required and reflected heat should be considered as part of the landscape plan to ensure survivability of plantings.



- E. Mechanical equipment, vents, antennae (except those covered under provisions of FCC OTARD), and other appurtenant items shall be incorporated into the overall design of the site in a visually attractive manner and shall be screened from view adjoining properties and public streets in a manner which has been reviewed and approved in writing.



*Image Source: Stirling Development, LLC*

- F. All roof-mounted equipment shall be screened by building parapet.

- G. Roof downspouts that are adjacent to office and/or employee/visitor parking areas must be installed internally and may not drain into landscape areas.

- H. Roof downspouts that face streets but are not adjacent to office areas or visitor parking areas can be exposed, but must be architecturally incorporated into the building design.



*Image Source: Stirling Development, LLC*

- I. Scuppers that penetrate exterior walls must have a cover preventing "daylighting".

- J. Truck docks are encouraged to face the interior, away from the right of way when feasible.

- K. Properties should be properly fenced with tilt-up concrete walls, decorative masonry walls, or wrought iron fences. Fence height should be a minimum of 8 feet in height.

## 5.5 Lighting Design Guidelines

Exterior lighting is required for all employee and visitor parking areas, walkways, and building entrances and exits. No light fixtures shall exceed a maximum height of 30 feet. Lighting shall be designed and installed to minimize light spill onto adjacent lots and to protect the night sky for the airport. All parking lot lighting shall be narrow spectrum amber LED lighting.

Lighting should be concentrated at the main entries and along major roadways or landscape features. Low intensity energy efficient parking lot lighting should be used. Parking lot lights should be secondary to the illumination of buildings and landscaped features. Low level, direct lighting on pedestrian walkways should be used.

### 5.5.1 General Lighting Design Guidelines

- A. Lighting shall be designed and installed so as not to cast any glare onto adjacent lots, streets, or the airport, nor shall it decrease the ambiance of adjacent areas. It shall also not reduce the safety of pedestrian and vehicular movement nor shall it cast light into the night sky. All parking lot lighting shall be narrow spectrum amber LED lighting.
- B. Building illumination and architectural lighting shall be soft and non-glaring in character. "Wall-washing", overhead down lighting and interior illumination that spills outside is encouraged.
- C. Wall pack type fixtures are permitted where the light is intended for truck court areas.
- D. Parking light fixtures outside of office areas shall be pole mounted only, not building mounted. All lighting visible from adjacent streets shall be indirect and shall incorporate full cut-off shield fixtures.



*Image Source: Stirling Development, LLC*

- E. Low intensity, energy efficient parking lot lighting should be used. Parking lot lights should be secondary to the illumination of buildings and landscape features.
- F. Low level, direct lighting on pedestrian walkways is encouraged.
- G. Service area lighting shall be contained within the service yard boundaries. Shielded light sources shall be required. Lighting fixtures shall be complimentary to building design. Certification that the lighting design presented in substantial conformance to these guidelines shall appear on the working drawings.

### 5.5.2 Parking, Vehicle Circulation, and Truck Court Lighting Design Guidelines

- A. Light sources shall be amber light or approved equal.
- B. All parking areas, vehicular circulation and truck court area lighting fixtures shall be of the circular (disk mounted at a maximum height of thirty feet) type.
- C. Light poles/fixtures shall be painted white.
- D. Lighting should be used to provide illumination for the security and safety of on-site areas such as parking, truck courts, pathways and working areas.
- E. Timers and sensors can be incorporated to avoid unnecessary lighting.

## 5.6 Mailbox Design Guidelines

Outside mail sources may be required for pickup and delivery of U.S. Postal Mail. If required, the location and type of mailbox must receive approval prior to fabrication and installation. The following guidelines must be adhered to:

- Mailboxes must coordinate with the color of the building.
- A single box style must be used for single user tenant.
- A multi-box may be used for multi-tenant users located within one development.
- Mailboxes must be located on the owner's property and must not interfere with the flow of traffic.

The Local Post Office should also be contacted prior to fabrication to determine if there are additional federal, county, or city requirements which must be met.

## 5.7 Sustainable Design

Each project site should be designed to the maximum extent feasible to: reduce water runoff and consumption, to minimize the heat island effect and solar access, to increase natural ventilation, and to incorporate the current building standards for sustainable development practices. Site design and building design considerations are included below:

- To reduce water consumption for landscaping, the use of native vegetation is encouraged (refer to [Section 5.3.5, \*Plant Material Guidelines\*](#)).
- Reduce the amount of impervious surface introduced in development projects to maintain water quality and hydrologic benefits of pervious surfaces.
- The use of recycled water for landscaping purposes is encouraged where feasible.
- To reduce heat island effects, light-colored building materials and colors are encouraged.
- To reduce interior temperatures during summer months, consider building orientation during the site planning process, including the location of windows and entry points. Additionally, sun control and external shading structures are encouraged to further reduce interior temperatures.
- On-site electrical generation (such as solar panels), are required on new structures, where feasible. Careful consideration is required to ensure reflection and glare are avoided, particularly in areas within or adjacent to the ASF district (refer to [Section 4.5](#)).
- Incorporate reuse or recycling in building materials, as feasible.
- Use energy efficient mechanical equipment and appliances where feasible, to reduce energy demand and decrease greenhouse gas emissions. Locate electrical plug-in facilities at strategic locations for landscaping and maintenance equipment use.

## 5.8 ASF Design Guidelines

The overall design of the ASF buildings shall be developed with an aviation themed design for both aesthetics and building functionality. The following criteria is a guide for basic design and function.

- A. Non-aviation buildings shall adhere to the aviation architectural theme and shall include wood frame, concrete frame (CMU, Tilt-Up, etc.), and metal construction. Particular attention should be placed on the front or street side elevation.
- B. Metal building or pre-engineered metal buildings are permitted as long as they meet the design criteria as listed within this section, including architectural relief that resembles painted concrete or a smooth finish stucco, excepting the roof.

- C. Metal buildings may be designed as arched, Quonset Hut, P-framed, A-framed or other approved designs.
- D. The tarmac facing or aircraft entry side of hangar buildings may be constructed without metal finish (as described in item B above) due to the functionality and the typically screened nature of the rear/side entry of the hangar.
- E. Colors, materials, and finishes shall be coordinated to provide overall continuity of the design of the airport as a whole.
- F. Hangars may not be constructed of fabric or similar non-permanent material.
- G. Large mechanical equipment may not be located at the front or street side of a building. Small mechanical equipment may be located at the front or street side if properly screened. Roof mounted mechanical equipment shall be located facing away from the front or street side for proper screening.
- H. Reflective materials shall be avoided due to the proximity to the airport. This includes reflective roofs or window materials

Section 6

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ADMINISTRATIVE PROCEDURES

## **6.0 ADMINISTRATIVE PROCEDURES**

### **6.1 General Provisions**

The City of Victorville shall administer the provisions of the Specific Plan in accordance with the State of California Government Code, the Victorville General Plan, the Victorville Municipal Code, the Subdivision Map Act, and other applicable State and City regulations. The Specific Plan development procedures, regulations, standards and specifications shall supersede the relevant provisions of the City's Municipal Code, as they currently exist or may be amended in the future. Any development regulation and building requirement not addressed in the Specific Plan shall be subject to the City's adopted codes and regulations.

#### **6.1.1 Interpretation**

The Zoning Administrator shall have the responsibility to interpret provisions of this Specific Plan. All interpretations shall be reduced to written form and permanently maintained. Any person aggrieved may appeal an interpretation to the City of Victorville Planning Commission.

#### **6.1.2 Severability**

If any regulation, condition, program or portion of the Specific Plan is held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and the invalidity of such provision shall not affect the validity of the remaining provision.

### **6.2 Enforcement Procedure**

All officials, departments, and employees of the City vested with the authority or duty to issue permits, certificates, or licenses shall comply with the provisions of the Victorville Municipal Code and this Specific Plan and shall issue no permit, certificate, or license which conflicts with the provisions of the Specific Plan and applicable code section. Any permit, certificate, or license issued in conflict with the provisions of the Victorville Municipal Code or Specific Plan shall be null and void.

It is the duty of the Planning Commission to assure the proper administration of the Specific Plan in compliance with the Victorville Municipal Code, and the Commission shall have the power to establish polices, rules, and regulations as are necessary for that purpose. It is the duty of the Zoning Administrator and all other officials of the City concerned with any of the matters regulated by this Specific Plan to enforce its provisions.

### **6.3 Maintenance Responsibilities**

The City of Victorville holds maintenance responsibilities for public streets, public property and public facilities within the Specific Plan area. Private property owners are then responsible for maintenance of private facilities in private areas. Global Access Business Association (GABA) holds maintenance responsibilities for portions of the Specific Plan area identified in the CC&R's. A purpose of GABA as established is for managing the property covered by the SCLA Global Access Covenants, Conditions and Restrictions (CC&Rs) pursuant to provisions of the Association Management Documents. A Board of Directors is established and maintained for the governance of the GABA property, consisting of a minimum of five members initially appointed by Stirling Airports International. GABA has the authority to enforce violations per the CC&Rs. For additional details regarding the maintenance responsibilities of GABA, refer to the CC&Rs and Association Rules and Regulations.

## 6.4 Specific Plan Adjustments and Amendments

Minor adjustments and amendments can be initiated by the master developer, property owner, authorized agent of the real property or the City of Victorville. If the property for which an amendment is proposed contains more than one ownership, all of the property owners or authorized agents shall agree to the initiation of an amendment. A minor adjustment or amendment may also be initiated by the Zoning Administrator for the City or by a resolution of the Planning Commission or by action of the City Council in the form of a request to the Planning Commission that it consider a proposed change. The process for both minor adjustments and amendments are outlined in the sections below.

### 6.4.1 Minor Waivers to the Specific Plan Standards and Guidelines

Minor adjustments to the Specific Plan's, guidelines, and standards may be approved at the discretion of the Zoning Administrator; provided, that such deviations are deemed to be in substantial conformance with this Specific Plan and are not detrimental to the public health, safety and welfare. Modifications to the adopted Specific Plan must be consistent with the purpose and intent of the originally approved Specific Plan. Any decisions made by the Zoning Administrator may be appealed to the Planning Commission. Decisions of the Planning Commission may be appealed to the City Council.

The following modifications constitute "minor adjustments" to the Specific Plan and may be approved without amending the Specific Plan.

- Slight modifications to the Specific Plan area boundaries that respond to more accurate or recent data or actual on-site conditions.
- Minor changes to the circulation plan to accommodate actual conditions on-site or modify ingress and egress locations, or to respond to new information that was not available at the time the Specific Plan was prepared.
- Minor changes to the design of the drive cross-sections, provided that the drives have adequate capacity to handle anticipated traffic volumes and the design changes are deemed acceptable by the City's Traffic Engineer.
- Minor modifications to the water, sewer and/or drainage plan(s).
- Any modifications to project phasing.

Other minor modifications may also be considered on a case-by-case basis.

### 6.4.2 Specific Plan Amendments

Specific Plan amendments are more substantial in nature than minor adjustments and include changing the boundaries of any land use designation or by changing any design guidelines, district regulation, requirement, general provision, exception, procedure, policy or other provision as provided for in this Specific Plan. Specific Plan amendments may be initiated by the master developer, property owner, or other designee at any time and shall follow the procedures as specified in this section. When considering Specific Plan amendments, the Planning Commission shall act only to make recommendations to the City Council. The Council may approve, modify, or disprove of the recommendation of the Planning Commission. All Specific Plan amendments shall be subject to CEQA and any applicable City of Victorville environmental guidelines.

The Zoning Administrator shall make an investigation of the Specific Plan amendment application and prepare a written report for the Planning Commission and make available to the applicant(s) prior to the public hearing. The Zoning Administrator may consult with other City Departments and public agencies in this investigation.

The Planning Commission shall hold at least one public hearing on the Specific Plan Amendment application, with all hearings noticed as required by the State government code. At the public hearing, the Planning Commission shall review the application and supporting materials, the Zoning Administrator's report, and reports from other City Departments or public agencies as applicable. When considering Specific Plan amendments, the Planning Commission shall act only to make recommendations to the City Council. After the Specific Plan amendment hearing concludes, the Planning Commission shall submit specific information regarding the Specific Plan amendment, including minutes of the Planning Commission meeting, to the City Council for consideration.

Upon receipt of the Planning Commission report, the Council shall hold a public hearing on the Specific Plan amendment, with the hearing noticed as required by the State government code. The City Council may approve, modify, or disapprove the Planning Commission's recommendation. If the City Council proposes any modification to the Specific Plan amendment, the modification shall be referred to the Planning Commission for report and recommendation. The Planning Commission shall not be required to hold a public hearing while addressing modifications. Failure of the Planning Commission to respond within forty days after the reference (or other time period specified by the Council), shall be deemed an approval of the proposed modification. The approval of an amendment shall become effective 30 days following the date upon which the approval was granted.

Following the denial by the Planning Commission or Council of an application for an amendment, no new application for the same or substantially the same change shall be filed within one year after the date of denial of the application. When both the Planning Commission and City Council reject an application, the one-year period shall run from the later date of denial.

If there is any requirement or regulation that the Specific plan refers to in Title 16, Victorville Development Code, or is reflective in Title 16, that if Title 16 is amended, then the SCLA SP is amended as well.

## 6.5 Site Plan Review Process

New developments, or minor modifications/expansions of existing developments, in conformance with the regulations and guidelines outlined in this Specific Plan, shall be subject to Site Plan Review and approval by the Victorville Zoning Administrator. The regulations in the Specific Plan shall be used as a benchmark to evaluate the proposal during the Site Plan Review process, or as stipulated by the Development Agreement between the City of Victorville and Stirling Development.

The purpose of a Site Plan review process is to:

- Ensure that new development or expansions of existing uses or structures occurs in a manner consistent with the overall goals and objectives of the Specific Plan.
- Ensure that all new development is consistent with the development standards contained in the Specific Plan.
- Ensure that the proposed architectural treatment of new buildings and structures, including landscaping, open space and signs, is consistent with the design guidelines contained in the Specific Plan.

- Allow City departments the opportunity to review new development proposals and place reasonable conditions to ensure that the public health, safety and welfare is maintained.

Two types of Site Plan Review shall be utilized for projects that meet the regulations and guidelines set forth in the Specific Plan: Minor Site Plan Review and Major Site Plan Review. Each process is outlined below.

#### **Minor Site Plan Review**

The following projects are subject to Minor Site Plan Review:

- Proposals for new permitted uses within an existing development;
- Minor expansion of an existing building or structure with a permitted use, equal to 10 percent or less of the existing structure;
- Other projects, which in the opinion of the Zoning Administrator, warrants a level of review at the minor site plan review level prior to issuance of a building permit.

#### **Major Site Plan Review**

The following projects are subject to Major Site Plan Review:

- New developments for a permitted use within the Specific Plan area that are in conformance with all regulations and guidelines set forth in the Specific Plan;
- Substantial expansions of an existing building or structure with a permitted use, greater than 10 percent in size of the existing structure;
- Other projects, which in the opinion of the Zoning Administrator, require a such a level of review prior to permit issuance.

Where Site Plan Review is required for a use or a structure, the following aspects of the project are to be reviewed by the Zoning Administrator:

- The location of the site in relation to location of buildings on adjoining sites and the Specific Plan area, with particular attention to privacy, views, any physical constraint identified on the site and the characteristics of the area in which the site is located;
- The degree to which the proposed development will complement and/or improve upon the quality of existing development in the vicinity of the proposed project and the extent to which adverse impacts to surrounded properties will be minimized;
- The effect of the proposed project on surrounding uses, including ensuring minimum disruption to such uses;
- Whether the development standards set forth in the Specific Plan have been satisfied;
- Whether the design guidelines set forth in the Specific Plan have been substantially met;

An application for Site Plan Review shall be filed with the Zoning Administrator on the prescribed application form and shall be accompanied by the following:

- A completed Environmental Information Form describing existing environmental conditions, the proposed project and identifying potential environmental impacts of the project;
- Maps, drawings, site plans, building elevations, proposed colors and building materials, summary tabulations, and other documents and information required on the standard City application form to describe the project adequately; and,

- Required fees.

The Zoning Administrator shall have the power and duty to review and make decisions on developments or improvements that occur on existing developed sites. Pre-application meetings are recommended with appropriate City staff to share information and discuss possible solutions to the challenges unique to the project. The application shall be assessed the appropriate fees set forth by the City of Victorville Planning Division fee schedule. The Zoning Administrator shall then review for the approval or the denial of the application. Additionally, the Zoning Administrator shall have the discretion to refer an application to the Planning Commission due to its complexity, size, intensity, impacts, location, or for any other reason deemed necessary. All environmental notification shall be conducted in accordance with state and federal regulations.

In the case of appeals, an applicant aggrieved by a decision of the Zoning Administrator may appeal such decision to the Planning Commission. An applicant aggrieved by a decision of the Planning Commission may appeal such decision to the City Council.

An approved Site Plan Review shall be void unless the use is established, or plans have been submitted and accepted for building permit processing within thirty-six (36) months of the date of the final action of approval. Building permits shall remain active or the entitlement will lapse. Following the denial of any Major or Minor Site Plan Review application, no application for the same or substantially the same project shall be filed within one year after the date of denial.

The Global Access Covenants, Conditions and Restrictions (CC&Rs) have been established in certain areas of the Specific Plan area, which mainly include the BP and I areas in the southern portion of the Specific Plan. The CC&R's called for the establishment of the Global Access Business Association (GABA) with a Board of Directors (Board). GABA and its Board are required to establish and maintain an Architectural Review Committee (Committee), Planning and Design Guidelines, and an Association review and approval process for reviewing all proposed development plans, including signage, architectural, engineering and landscaping in the areas covered by the Association and CC&R's. Refer to the separate Planning and Design Guidelines prepared for the Association and CC&R's for this separate review and approval process.

## 6.6 Conditional Use Permit Review Process

Development proposals for uses designated conditional within the Specific Plan area (as outlined in [Table 4.1](#)) shall be subject to the Conditional Use Permit Review process. Conditional Use Permits are subject to discretionary review by either the Zoning Administrator or Planning Commission, as outlined below. The regulations in the Specific Plan shall be used as a benchmark to evaluate the proposal during the Conditional Use Permit review process, or as stipulated by the Development Agreement between the City of Victorville and Stirling Development.

The purpose of the Conditional Use Permit review process is to:

- Determine if the use is necessary or desirable, and will be properly related to other uses;
- Determine if transportation and service facilities in the vicinity are sufficient;
- Determine if the use would adversely affect the health or safety of persons living or working in the vicinity, or if the use would be materially detrimental to the public welfare.

Two types of Conditional Use Permit Review processes shall be utilized for projects proposing conditional uses in the Specific Plan area: Minor Conditional Use and Major Conditional Use. Each process is outlined below.

### **Minor Conditional Use**

The following projects are subject to Minor Conditional Use review:

- Proposals for minor modifications to established conditional uses, that are largely within the same character and intent of the original conditional use;
- Minor expansion of an existing building or structure with a conditional use, equal to 10 percent or less of the existing structures;
- Other projects, which in the opinion of the Zoning Administrator, warrants a level of review at the minor conditional use review level prior to issuance of a building permit

Where a Minor Conditional Use Permit is required for a use or structure, the following aspects of the project are to be reviewed by the Zoning Administrator:

- The location of the site in relation to location of buildings on adjoining sites and the Specific Plan area, with particular attention to privacy, views, any physical constraint identified on the site and the characteristics of the area in which the site is located with a particular focus on the conditional use;
- The degree to which the proposed development will complement and/or improve upon the quality of existing development in the vicinity of the proposed project and the extent to which adverse impacts from the conditional use to surrounded properties will be minimized;
- The effect of the proposed project's conditional use on surrounding uses, including ensuring minimum disruption to such uses;
- Whether the development standards set forth in the Specific Plan have been satisfied; and,
- Whether the design guidelines set forth in the Specific Plan have been satisfied.

An application for a Minor Conditional Use Permit review shall be filed with the Zoning Administrator on the prescribed application form and shall be accompanied by the following:

- A completed Environmental Information Form describing existing environmental conditions, the proposed project and identifying potential environmental impacts of the project;
- Maps, drawings, site plans, building elevations, proposed colors and building materials, summary tabulations, and other documents and information required on the standard City application form to describe the project adequately; and,
- Required fees.

The Zoning Administrator shall have the power and duty to review and make decisions on Minor Conditional Use Permits. Pre-application meetings are recommended with appropriate City staff to share information and discuss possible solutions to the challenges unique to the project. The application shall be assessed the appropriate fees set forth by the City of Victorville Planning Division Fee Schedule. Upon receipt of a Minor Conditional Use Permit application filed pursuant to this Specific Plan, the Zoning Administrator shall set the date for a public hearing. The applicant shall be notified in writing of the time

and place of the hearing. The City shall give public notice of the time and place of the hearing by at least one publication in a newspaper of general circulation. The Zoning Administrator has authority to host the public hearing for the Minor Conditional Use Permit review, with discretionary review power to approve or deny the application. The Zoning Administrator also shall have the discretion to refer an application to the Planning Commission due to its complexity, size, intensity, impacts, location, or for any other reason deemed necessary.

In the case of appeals, an applicant aggrieved by a decision of the Zoning Administrator may appeal such decision to the Planning Commission. An applicant aggrieved by a decision of the Planning Commission may appeal such a decision to the City Council.

### **Major Conditional Use**

The following projects are subject to Major Conditional Use review:

- New developments with uses designated as conditional in Table 4.1 within the Specific Plan area;
- Use change proposals from an existing permitted use to a conditional use;
- Substantial expansions of an existing building or structure with a conditional use, greater than 10 percent in size of the existing structure;
- Other projects, which in the opinion of the Zoning Administrator, warrants a level of review at the major conditional use review level prior to issuance of a building permit.
- 

Where a Major Conditional Use Permit is required for a structure, the following aspects of the project are to be reviewed by the Planning Commission:

- The location of the site in relation to location of buildings on adjoining sites and the Specific Plan area, with particular attention to privacy, views, any physical constraint identified on the site and the characteristics of the area in which the site is located with a particular focus on the conditional use;
- The degree to which the proposed development will complement and/or improve upon the quality of existing development in the vicinity of the proposed project and the extent to which adverse impacts from the conditional use to surrounded properties will be minimized;
- The effect of the proposed project's conditional use on surrounding uses, including ensuring minimum disruption to such uses;
- Whether the development standards set forth in the Specific Plan have been satisfied; and,
- Whether the design guidelines set forth in the Specific Plan have been satisfied.

An application for a Major Conditional Use Permit shall be filed with the Planning Commission on the prescribed application form and shall be accompanied by the following:

- A completed Environmental Information Form describing existing environmental conditions, the proposed project and identifying potential environmental impacts of the project;
- Maps, drawings, site plans, building elevations, proposed colors and building materials, summary tabulations, and other documents and information required on the standard City application form to describe the project adequately; and,
- Required fees.

The Planning Commission shall have the discretionary power and duty to review and make decisions on Major Conditional Use Permits. Pre-application meetings are recommended with appropriate City staff to share information and discuss possible solutions to the challenges unique to the project. The application shall be assessed by the appropriate fees set forth by the City of Victorville Planning Division Fee Schedule. Upon receipt of a Major Conditional Use Permit application filed pursuant to this Specific Plan, the Zoning Administrator shall set the date for a public hearing. The applicant shall be notified in writing of the time and place of the hearing. The City shall give notice of the time and place of the hearing by at least one publication in a newspaper of general circulation. The Planning Commission has the authority to host the public hearing for the Major Conditional Use Permit review, as the governing entity with the authority to approve or deny the application.

In the case of appeals, an applicant aggrieved by a decision of the Planning Commission may appeal such decision to the City Council.

**Guidelines Applicable to all Conditional Use Permits**

An approved Conditional Use Permit shall be void unless the use is established, or plans have been submitted and accepted for building permit processing within thirty-six (36) months of the date of the final action of approval. Building permits shall remain active or the entitlement will lapse. Following the denial of any Conditional Use Permit application, no application for the same substantially same project shall be filed within one year after the date of denial.

The Global Access Covenants, Conditions and Restrictions (CC&Rs) have been established in certain areas of the Specific Plan area, which mainly include BP and I areas in the southern portion of the Specific Plan. The CC&R's called for establishment of the Global Access Business Association (GABA) with a Board of Directors (Board). GABA and its Board are required to establish and maintain an Architectural Review Committee (Committee), Planning and Design Guidelines, and an Association review and approval process for reviewing all proposed development plans, including signage, architectural, engineering and landscaping in the areas covered by the Association and CC&R's. Refer to the separate Planning and Design Guidelines prepared for the Association and CC&R's for this separate review and approval process.

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Section 7

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REFERENCES

## 7.0 REFERENCES

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Michael Baker International, *Southern California Logistics Airport (SCLA) Lot 18 Project Biological Resources Report*, prepared for Stirling Development, July 2016.

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**Section 8**  
**APPENDIX**

## 8.0 APPENDIX

A. Specific Plan Amendments (SPA)

B. Grant of Avigation Easement

C. SCLA Airport Influence Area Map

D. Landscaping Guidelines and Best Practices for the Specific Plan Area

Appendix A

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SPECIFIC PLAN AMENDMENTS (SPA)

Appendix B

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GRANT OF AVIGATION EASEMENT

WHEN RECORDED MAIL TO:

Recording Requested by:

And when recorded, mail to the above and:  
Southern California Logistics Airport  
18374 Phantom West  
Victorville, California 92394

---

(Space Above For Use By Recorder)

Exempt from recording fees pursuant to Government Code Section 27383

**GRANT OF AVIGATION EASEMENT**

**KNOW ALL MEN BY THESE PRESENTS:**

That \_\_\_\_\_

In the County of San Bernardino, State of California, for its heirs, executors, administrators, successors and assigns (hereinafter referred to as "Grantor"), for reasonable consideration, receipt and sufficiency are hereby confessed and acknowledged, hereby grants and conveys unto the Southern California Logistics Airport (hereinafter referred to as "Grantee"), a joint powers authority organized and existing under the laws of the State of California, its successors and assigns forever, a perpetual public-use avigation and flight easement and right-of-way for the free and unobstructed passage and flight of aircraft, of the class, size and category operationally compatible with a certified public airport pursuant to 14 CFR Part-139 as set forth by the Federal Aviation Administration ("FAA") with respect to Southern California Logistics Airport (the "Airport"), in, through, over and across the air space within the Airport Influence Area, as more specifically described in that certain Airport Influence Area Boundary Map (the "Map") on file with Grantee as said Map exists as of the date of this Grant Easement (Avigation) for Southern California Logistics Airport (the "Airspace") of the following described parcel of real property (the "Parcel"), lying, being, and situated in the County of San Bernardino, State of California, to wit:

*Insert Parcel Description]*

The aforesaid easement and right-of-way described in the preceding paragraph includes but is not limited to:

1. For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons or aircraft, of the class, size and category as is now or hereinafter may be operationally compatible and commensurate with the requirements for Southern California Logistics Airport, a certified public airport pursuant to 14 CFR Part-139, in, through, across or about any portion of the Airspace hereinabove described; and

2. The easement and right to cause or create, or permit or allow to be caused or created within the Airspace, such noise, dust, turbulence, vibration, illumination, air currents, fumes, fuel consumption, exhaust, smoke and all other effects as may be inherent in the proper operation of aircraft, now known or hereafter used for navigation of or flight in air; and

3. The continuing and perpetual right to clear and keep clear the Airspace of any portions of building, structures, or improvements of any and all kinds, and of trees, vegetation or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees or any other objects which extend to a height in excess of forty (40) feet into said Airspace and the right to cut to the ground level and remove any trees which extent into the to a height in excess of forty (40) feet into said Airspace as of the Effective Date of this Grant Easement and continuing thereafter; and

4. The right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects now upon which extend to a height in excess of forty (40) feet, or that in the future may be upon, said Parcel, and which extend to a height in excess of forty (40) feet into the Airspace; and

5. The right of ingress to, passage within and egress from said Parcel, solely for the above stated purposes; reserving, however, to the Grantor, during the term of said easement such use, rights and privileges in said land or real property as may be exercised and enjoyed without interference with or abridgment of the rights hereby granted.

6. In the event that the Grantor proposed a building modification and/or remodel, construction of any new building or buildings, improvements, appurtenances, infrastructure, telecommunications equipment and/or facilities on property within the Airport Influence Area of Southern California Logistics Airport which exceed forty (40) feet in height, the Grantor shall be responsible for the preparation and submittal of such architectural plans, specifications and scaled engineering drawings and associated submittals (the "Proposed Plans") as required by Southern California Logistics Airport, the State of California and the FAA. Such Proposed Plans shall be submitted to the Grantee together with an executed copy of this Grant Easement. In the event that additional design reviews and/or technical studies are required in order to obtain reviews and/or approvals as applicable from the State of California and/or the FAA, such costs shall be borne by the Grantor. Upon receipt, the Grantee shall submit such information to all applicable regulatory agencies for review and/or approval or disapproval. In the event that such approvals by the applicable regulatory agencies are granted, the Grantee shall submit this Grant Easement document, executed by the Grantor and together with all applicable supporting documentation, plans and applicable regulatory approvals to the Grantee for acceptance and execution.

The Grantor together with its successors in interest and assigns, hereby waives its rights to legal action against the Grantee, its successors, or assigns for monetary damages or other redress due to impact, as described in the above Paragraphs 1-6, inclusive, of the granted rights of easement, associated with aircraft operations in the air or on the ground at the Airport, including future increases in the volume or changes in location of said operations. Furthermore, the Grantor, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of Airport facilities or establishment or modification of aircraft operational procedures or restrictions. This grant of avigation or flight easement (hereafter, "Avigation

Easement”) shall not operate to deprive the Grantor, his successor or assigns, of any rights which it may from time to time have against any individual or private operator for negligent or unlawful operation of aircraft. For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the Southern California Logistics Airport as the Grantee, for the direct benefit of the real property constituting the Southern California Logistics Airport, that neither the Grantor nor its successors in interest or assign will construct, install or erect any permanent structure, (e.g., buildings, infrastructure, radio, telecommunications equipment or TV antennae tower) which extends into or above a height in excess of 40 feet into the air space within the Airport Influence Area of Southern California Logistics Airport, subject to the conditions of Paragraph 6 above, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the flight easements and rights-of-way herein granted. Furthermore, the Grantor, its successors and assigns, will not hereafter use or permit the use of said Parcel in such a manner as to create electrical or electronic interference with radio communication or radar operation between any installation upon Southern California Logistics Airport and any aircraft.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of the real property described as Southern California Logistics Airport, and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easements or rights-of-way in landing at, taking off from or operating such aircraft in or about the said Southern California Logistics Airport.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and for the purpose of this instrument, the real property first herein above described as the Parcel is the servient tenement and said Southern California Logistics Airport is the dominant tenement.

## **GENERAL PROVISIONS**

1. **Attorneys’ Fees.** Should Grantor and Grantee or any of their respective successors or assigns retain counsel to enforce any of the provisions herein or protect their interests in any matter arising under this Avigation Easement, or to recover damages by reason of any alleged breach of any provision of this Avigation Easement, the losing party in any action pursued in a court of competent jurisdiction shall pay to the prevailing party all costs, damages, and expenses incurred by the prevailing party, including, but not limited to, attorneys’ fees and costs incurred in connection therewith.

2. **Waiver.** No violation or breach of any provision of this Avigation Easement may be waived unless in writing. Waiver of any one violation or breach of any provision of this Avigation Easement shall not be deemed to be a waiver of any other violation or breach of the same or any other provision of this Avigation Easement.

3. **Severability.** In the event that any one or more covenant, condition, right or other provision contained in this Avigation Easement is held to be invalid, void or illegal by any court of competent jurisdiction, the same shall be deemed severable from the remainder of this Avigation Easement and shall in no way affect, impair or invalidate any other covenant, condition, right or other provision contained in this Avigation Easement.

4. **Additional Documents.** In addition to the documents and instruments to be delivered as provided in this Avigation Easement, Grantor or its successors and assigns, as the case may be, shall, from time to time at the request of Grantee, execute and deliver to Grantee such other documents and shall take such other action as may be reasonably required to carry out more effectively the terms of this Avigation Easement.

5. **Governing Law.** This Avigation Easement has been negotiated and entered into in the State of California, and shall be governed by, construed and enforced in accordance with the statutory, administrative and judicial laws of the State of California.

6. **Integration.** This Avigation Easement, including any exhibits, constitutes the final, complete and exclusive statement of the parties relative to the subject matter hereof and there are no oral or parol agreements existing between Grantor and Grantee relative to the subject matter hereof which are not expressly set forth herein and covered hereby. This is an integrated agreement.

**IN WITNESS WHEREOF**, Grantor has hereunto set its hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

GRANTOR

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

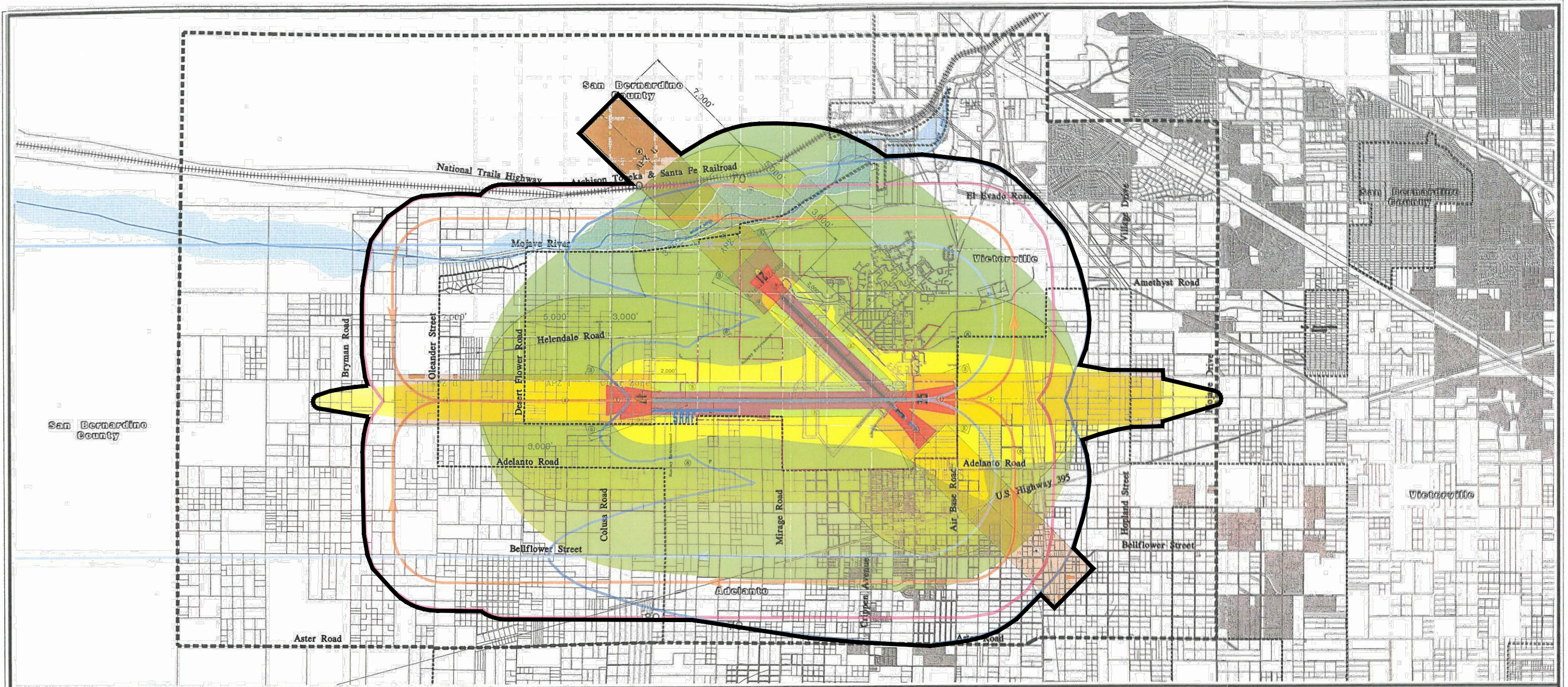
**[Notary Public Attachment for Grantee must accompany this instrument.]**

(Seal)

Appendix C

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SCLA AIRPORT INFLUENCE AREA MAP



**LEGEND**

- Detailed Land Use Planning Area
- Municipal Boundary
- Airport Property
- +++++ Railroad Tracks
- Short Austere Airfield (SAAF)/ Runway Extension

- ① Runway Protection Zone
- ② Inner Approach/Departure Zone
- ③ Inner Turning Zone
- ④ Outer Approach/Departure Zone
- ⑤ Sideline Safety Zone
- ⑥ Traffic Pattern Zone

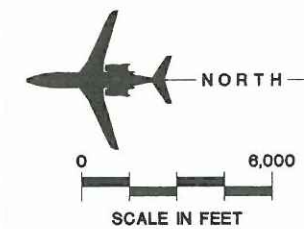
**LEGEND**

- Municipal Boundary
- Airport Property
- +++++ Railroad Tracks
- Short Austere Airfield (SAAF)/ Runway Extension
- Compatibility Review Area 1
- Compatibility Review Area 2
- Compatibility Review Area 3
- Compatibility Review Area 4 (Airport Planning Area)
- Water

- 747 LMax 70 CNEL Noise Exposure Contour
- 747 LMax Departure Track
- C17 LMax 80 CNEL Noise Exposure Contour
- C17 LMax Touch-and-Go Track
- AIRPORT INFLUENCE AREA

Source: Safety Zones:  
California Airport Land Use Planning  
handbook, Prepared by Shutt Moen  
Associates, in association with  
Brown-Buntin Associates and Gatzke,  
Dillon & Ballance, (January 2002)

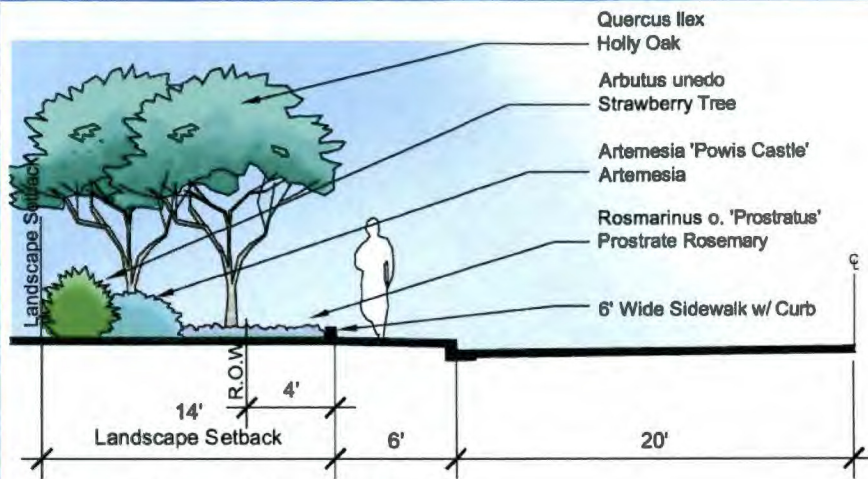
Noise Contours:  
Coffman Associates Analysis.



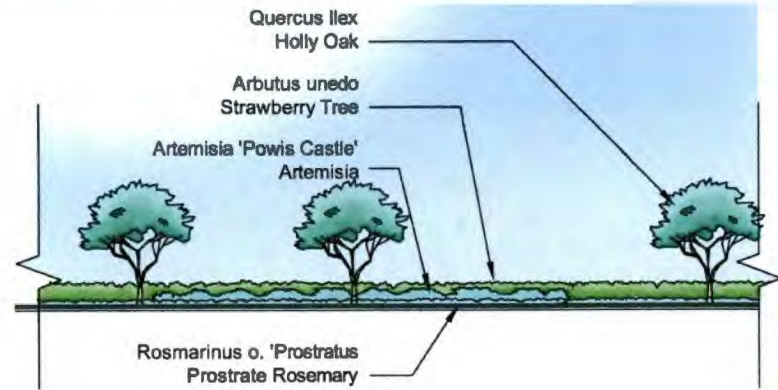
Appendix D

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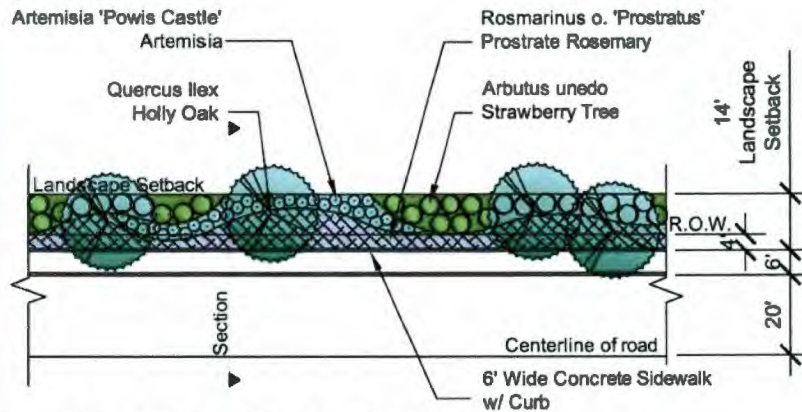
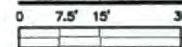
LANDSCAPING GUIDELINES AND BEST PRACTICES  
FOR THE SPECIFIC PLAN AREA



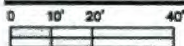
2 Lane - Local Street - Section



2 Lane - Local Street - Elevation

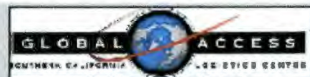


2 Lane - Local Street - Plan View



Notes

1. Design and installation shall be per the City of Victorville Landscape Guidelines.
2. Irrigation to be fully automatic and combine the use of spray, rotors, bubblers and drip applications.
3. Global Access Business Association shall maintain all street landscaping and monumentation.
4. Where the roadway is built with 44' from curb to curb (Truck Route) the Right of Way remains at 60' and the landscape area decreases to 12' wide, adjust groundcover accordingly.



Victorville, California

Street Plans and Elevations

10.20.06



HUNTER LANDSCAPE  
1715 E. 15th Street  
P.O. Box 1000  
Victorville, CA 92388

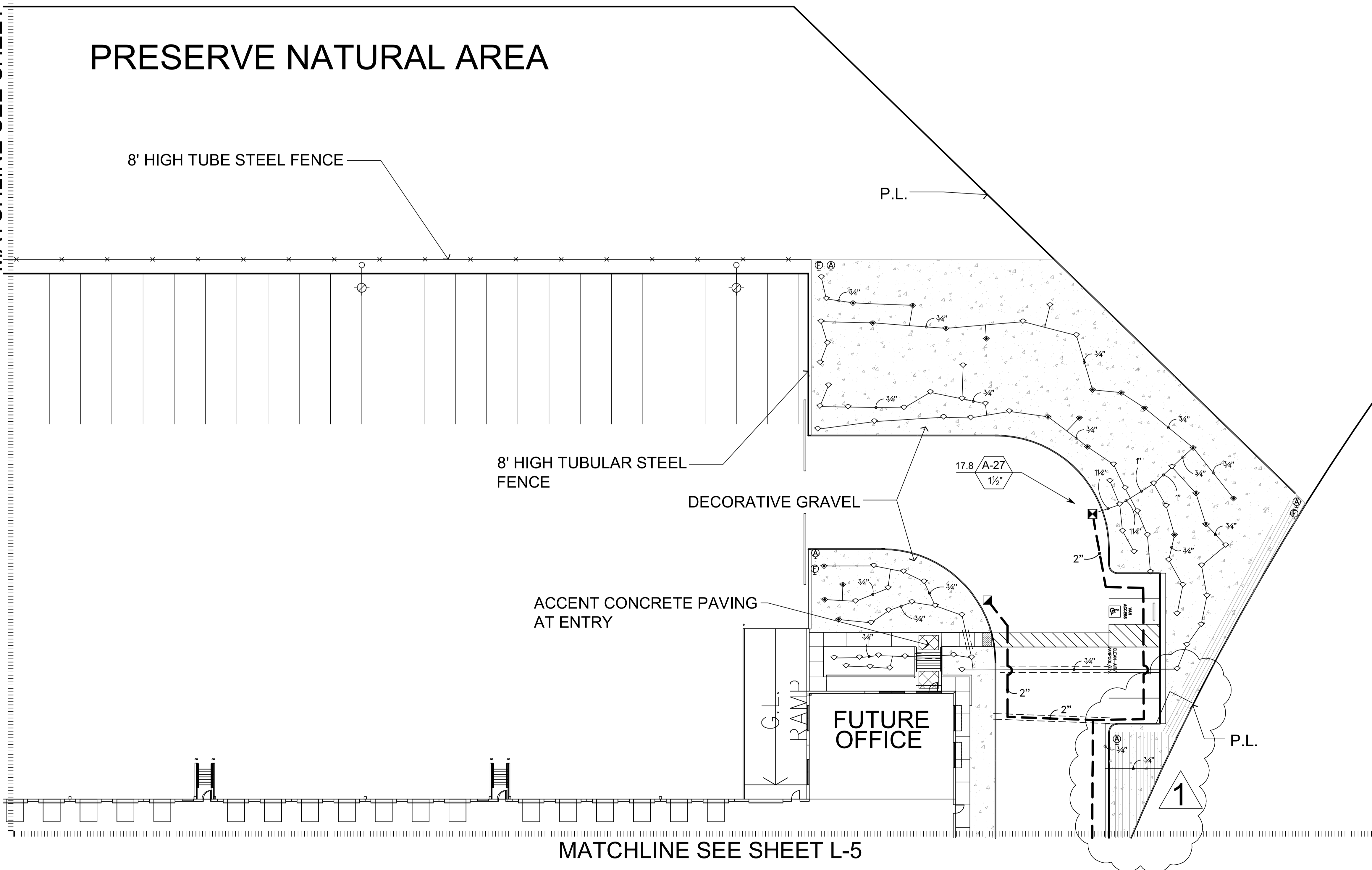
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MATCHLINE SEE SHEET L-2



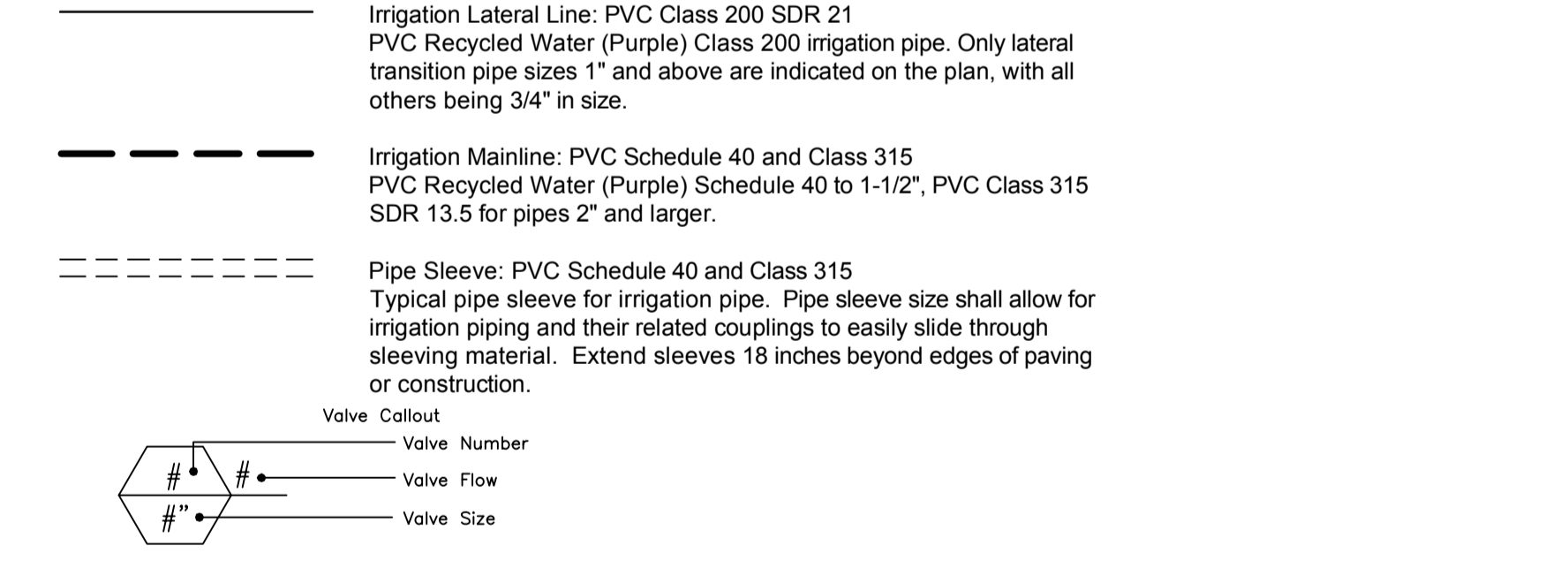
MATCHLINE SEE SHEET L-5

**IRRIGATION SCHEDULE**

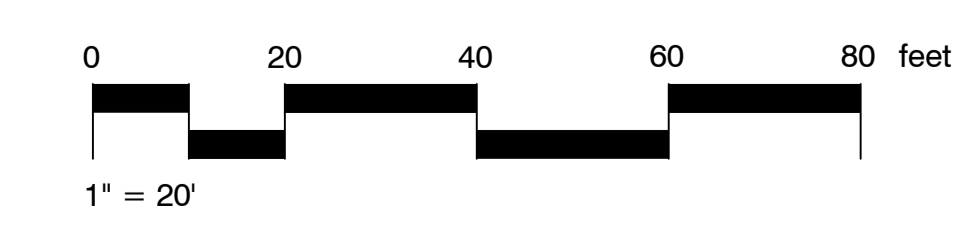
SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
○	Rain Bird R-VAN-1318 RD-1812-SAM-P45-NP	31	Adj	45		18'
○	Rain Bird R-VAN-1724 RD-1812-SAM-P45-NP	62	Adj	45		24'
○	Rain Bird R-1318 RD-1812-SAM-P45-NP	3	360	45	1.96	18'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊠	Rain Bird XCZ-150-COM High flow control zone kit with 1-1/2" PESB valve, two 1" filters and two 40 psi pressure regulators located in a Recycled Water Purple Valve Box.
⊕	Toro T-FCH-4-FIPT Flush Valve in a 6" round purple valve box, plumbed to flush manifold at low point.
⊕	Rain Bird ARV075 3/4" Air Relief Valve, made of quality rust-proof materials, with a 6.0" drip purple valve box. Use with installation below soil. The valve will allow air to escape the pipeline, thus preventing water hammer or blockage.
⊕	Rain Bird 1804 SAM-NP with SXB-1032 Thread Adapter Drip bubbler "Frog Up with Drip Stream Bubbler: SXB Stream available in Half Circle (5 streams) or Full Circle (8 streams). With 10-32 Self-Tapping Threaded Inlet Used with XBA-1800 Adapter. Adjust nozzle as required for planting.
▨	Area to Receive Dripline Rain Bird XFS-P-09-18 (18) XFS Sub-Surface Pressure Compensating Landscape Dripline w/Copper Shield Technology @ 9GPH emitters at 18" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. Purple Tubing for Non-Potable Water.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊕	Rain Bird PEB Electric Remote Control Valve located in a purple recycled water NDS Pro Series Plus 14"x19" (#314PBCBR) or equal valve box. Size as noted on plan.
⊕	Rain Bird 33-DNP 3/4" Non-potable Quick Coupler Valve, two piece body located in a purple recycled water round valve box.
⊕	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box.
⊕	Griswold 2000LR-2" 2" 2" Solenoid, Normally Closed Master Valve. Purple Handle for Recycled Water. Cast Iron and Bronze Material. NPT End Connection. Locate in a Recycled Water Purple Valve Box.
⊕	Wilkins Model 500 YSBR Pressure Regulator Line Siz Pressure limited to 71.15 PSI Pressure Regulator line size in a purple recycled water valve box. Set Regulator at 75 PSI
⊕	Febco 825Y 1-1/2" Reduced Pressure Backflow Preventer. Note this is only temporary and is not necessary for the recycled water system. Contractor must remove when recycled water becomes available.
⊕	Rain Bird ESPBLXMEF with (02) ESPLXMSM12 32 Station Commercial Controller with IQ-NCC 3G Cellular Cartridge and Smart Flow Module. Mount on outside of electrical room
⊕	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter.
⊕	Creative Sensor Technology FSI-T20-001 2" (50mm) PVC tee type flow sensor w/socket ends, custom mounting tee and ultra-lightweight impeller enhances low flow measurement. 2 wire digital output compatible w/all irrigation controllers. Flow range 2.8-170 GPM.
⊕	Barrett Engineered Booster Pump 3 HP Booster Pump Model #BPCCO-3-2-2.5VDF-F. Power provided to be 480V/3 Phase. Booster Pump available through Green Products Sales. Contact Daryl Green at (949) 584-7311. Power to be provided by Mammoth Electrical (714) 446-8880 Contact - David Polette - See detail on Sheet L-16
⊕	Hayward Basket Strainer - Line Size Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box
⊕	Water Meter 1-1/2" Recycled Water Static Pressure = 50 PSI - Information provided by Victor Fajardo of Victorville Water Department (760) 955-2318
—	Irrigation Lateral Line: PVC Class 200 SDR 21 PVC Recycled Water (Purple) Class 200 irrigation pipe. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.
---	Irrigation Mainline: PVC Schedule 40 and Class 315 PVC Recycled Water (Purple) Schedule 40 to 1-1/2", PVC Class 315 SDR 13.5 for pipes 2" and larger.
---	Pipe Sleeve: PVC Schedule 40 and Class 315 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.



- NOTE:
- CONTRACTOR TO INSTALL SPRINKLERS 24" AWAY FROM NON-PERMEABLE PAVING
  - CONTRACTOR TO INSTALL KBI INLINE CHECK VALVES TO PREVENT LOW HEAD DRAINAGE AT ALL SLOPE CONDITIONS.
- SUBSURFACE DRIPLINE NOTES:
- SUBSURFACE DRIP SYMBOL (HATCH) IS DIAGRAMATIC AND DOES NOT REFLECT ACTUAL QUANTITY OF TUBING. REFER TO SUBSURFACE DRIPLINE DETAILS ON SHEET L-17
  - ALL TREES IN DRIP AREAS TO RECEIVE ADDITIONAL TUBING IN A CIRCULAR LAYOUT PER DETAIL 2 SHEET L-17
  - ALL 15 GAL. AND SMALLER SHRUBS / GROUND COVER TO RECEIVE DRIPLINE ON EACH SIDE OF ROOTBALL WITH A MAXIMUM SPACING BETWEEN LINES OF 18". ALL DRIP LINE TO BE BURIED 4"-6" BELOW GRADE AND 7"-9" BELOW TOP OF MULCH
  - ON SLOPES DRIPLINE LATERAL ROW SPACING SHOULD BE NORMAL (18") FOR THE TOP TWO-THIRDS OF THE SLOPE AND 22" O.C. FOR THE BOTTOM THIRD.
  - CONTRACTOR TO INSTALL THE FOLLOWING EQUIPMENT WITH SUBSURFACE DRIPLINE:  
 RAINBIRD DRIP FLUSH CAP IN A ROUND VALVE BOX - LOCATE AT BOTH ENDS OF THE SYSTEM  
 CONTRACTOR TO INSTALL (1) RAINBIRD AIRVACUUM RELIEF VALVE IN A ROUND VALVE BOX AT THE HIGHEST ELEVATION OF EACH PLANTER IN EACH VALVE SYSTEM WHERE SUBSURFACE DRIP LINE IS USED  
 WHEN A SUBSURFACE DRIP VALVE SERVICES SEPARATE PLANTERS, EACH MUST HAVE ITS OWN RELIEF VALVE.



REVISIONS

NO.	DATE	DESCRIPTION
1	10/21/18	ISSUED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16
2	10/21/18	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
3	10/21/18	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
4	10/21/18	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
5	10/21/18	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17

**Environ**  
 LANDSCAPE ARCHITECTURE  
 Creating Sustainable & Water Conserving Solutions  
 1746 N. Bridgeway Avenue • Carlsbad, CA 92011  
 Tel: (760) 439-6666 • Fax: (760) 439-6666

**STIRLING**  
 27422 PORTOLA PARKWAY, SUITE 900  
 FOOT HILL RANCH, CA 92510  
 TEL: (949) 462-0609

DEVELOPED BY:  
 SHEET TITLE: IRRIGATION PLAN  
 PROPOSED DEVELOPMENT:  
 BUILDING 18  
 SOUTHERN CALIFORNIA LOGISTICS CENTRE  
 VICTORVILLE, CA

DRAWN BY	DATE
BFK	10/14/16
JOB NO.	RGAA0072
SHEET NO.	L-4
4 OF 19 SHEETS	

MATCHLINE SEE SHEET L-4

WATERING SCHEDULE

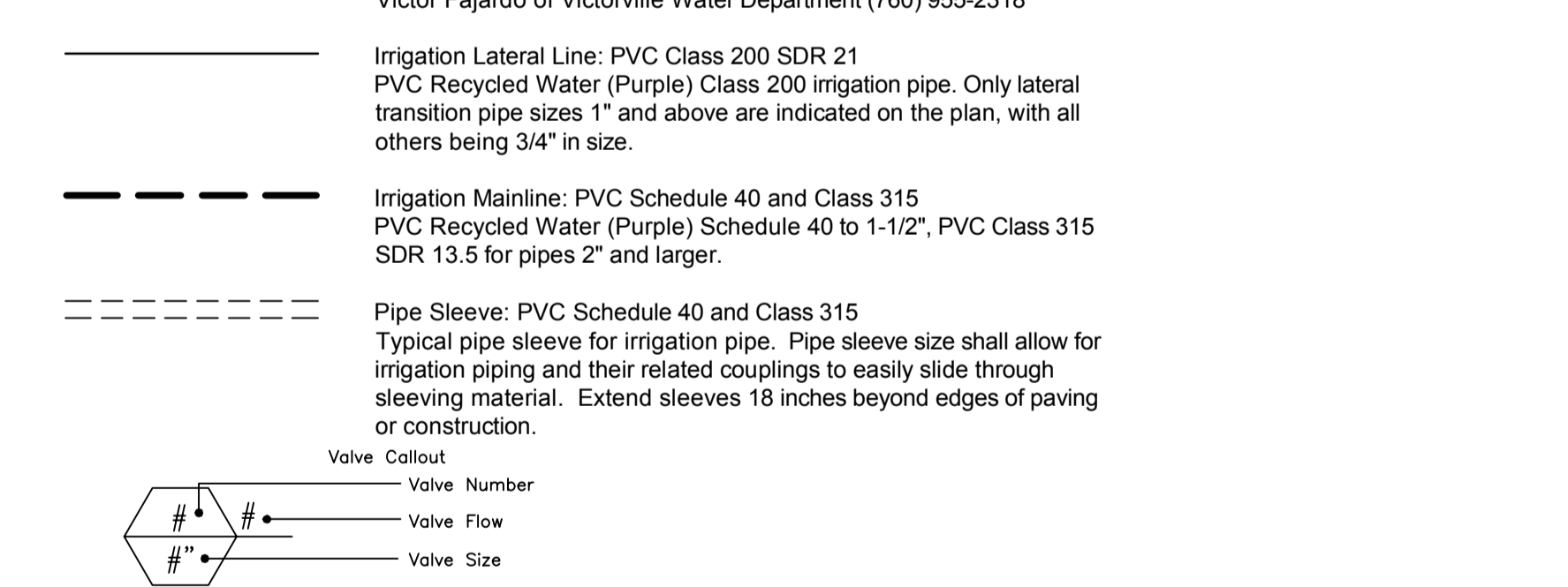
NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
A-1	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	1,924	641.2	
A-2	Rain Bird PEB	Shrub Rotary	0.48 in/h	32 min	32 min	32 min	32 min	32 min	32 min	1.25	157	4,221	844.3	
A-3	Rain Bird PEB	Shrub Rotary	0.33 in/h	45 min	45 min	45 min	45 min	45 min	45 min	1.25	225	7,046	1,409	
A-4	Rain Bird PEB	Drip Emmitter	2.90 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	42	400.5	133.5	
A-5	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	1,854	551.3	
A-6	Rain Bird PEB	Shrub Rotary	0.43 in/h	35 min	35 min	35 min	35 min	35 min	35 min	1.25	175	4,732	946.4	
A-7	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	2,162	720.8	
A-8	Rain Bird PEB	Shrub Rotary	0.37 in/h	42 min	42 min	42 min	42 min	42 min	42 min	1.25	206	6,942	1,388	
A-9	Rain Bird PEB	Shrub Rotary	0.53 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1.25	142	3,975	795.1	
A-10	Rain Bird PEB	Drip Emmitter	3.26 in/h	13 min	13 min	13 min	13 min	13 min	13 min	2	37	1,106	368.8	
A-11	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	2,159	719.8	
A-12	Rain Bird PEB	Drip Emmitter	3.01 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	40	485.4	161.8	
A-13	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	2,100	700.1	
A-14	Rain Bird PEB	Drip Emmitter	2.94 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	41	915.1	305.0	
A-15	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	3,026	1,009	
A-16	Rain Bird PEB	Drip Emmitter	3.18 in/h	13 min	13 min	13 min	13 min	13 min	13 min	2	38	988.2	329.4	
A-17	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	3,184	1,061	
A-18	Rain Bird PEB	Drip Emmitter	2.94 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	41	1,146	382.0	
A-19	Rain Bird PEB	Drip Emmitter	2.89 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	42	1,065	355.0	
A-20	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	3,276	1,092	
A-21	Rain Bird PEB	Drip Emmitter	2.89 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	42	1,092	364.1	
A-22	Rain Bird PEB	Drip Emmitter	2.96 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	41	1,057	352.4	
A-23	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	2,867	955.6	
A-24	Rain Bird PEB	Drip Emmitter	3.39 in/h	12 min	12 min	12 min	12 min	12 min	12 min	2	36	795.7	265.2	
A-25	Rain Bird XCZ-150-COM	Area for Dripline	0.69 in/h	29 min	29 min	29 min	29 min	29 min	29 min	1	87	2,048	682.5	
A-26	Rain Bird PEB	Drip Emmitter	2.90 in/h	14 min	14 min	14 min	14 min	14 min	14 min	2	42	746.3	248.8	
TOTALS:				623	183	623	183	623	623		2,217	61,115	16,783	

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	PSI	GPM	RADIUS
○	Rain Bird R-VAN-1318 RD-1812-SAM-P45-NP	31	Adj	45	18"	
⊙	Rain Bird R-VAN-1724 RD-1812-SAM-P45-NP	62	Adj	45	24"	
⊗	Rain Bird R-1318 RD-1812-SAM-P45-NP	3	360	45	1.96	18"

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊠	Rain Bird XCZ-150-COM High flow control zone kit with 1-1/2" PESB valve, two 1" filters and two 40 psi pressure regulators. located in a Recycled Water Purple Valve Box.
⊕	Toro T-FCH-H-FIPT Flush Valve in a 6" round purple valve box, plumbed to flush manifold at low point.
⊖	Rain Bird ARV075 3/4" Air Relief Valve, made of quality rust-proof materials, with a 6.0" drip purple valve box. Use with installation below soil. The valve will allow air to escape the pipeline, thus preventing water hammer or blockage.
⊗	Rain Bird 1804 SAM-NP with SXB-1032 Thread Adapter Drip bubbler 1/2" Up with Drip Stream Bubbler. SXB Stream available in Half Circle (5 streams) or Full Circle (8 streams). With 1/2" Self-Tapping Threaded Inlet Used with XBA-1800 Adapter. Adjust nozzle as required for planting.
⊞	Area to Receive Dripline Rain Bird XFS-09-18 (18) XFS Sub-Surface Pressure Compensating Landscape Dripline w/Copper Shield Technology. 0.9GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. Purple Tubing for Non-Potable Water.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
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⊗	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box.
⊖	Grswold 2000LR-2" 2" 2" Solenoid, Normally Closed Master Valve. Purple Handle for Recycled Water. Cast Iron and Bronze Material. NPT End Connection. Locate in a Recycled Water Purple Valve Box.
⊠	Wilkins Model 500 YSBR Pressure Regulator Line Siz Pressure limited to 71.15 PSI Pressure Regulator line size in a purple recycled water valve box. Set Regulator at 75 PSI
⊞	Febco 825Y 1-1/2" Reduced Pressure Backflow Preventer. Note this is only temporary and is not necessary for the recycled water system. Contractor must remove when recycled water becomes available.
⊞	Rain Bird ESPBLXMEF with (02) ESPLXMSM12 32 Station Commercial Controller with IQ-NCC 3G Cellular Cartridge and Smart Flow Module. Mount on outside of electrical room
⊞	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter.
⊞	Creative Sensor Technology FSI-T20-001 2" (50mm) PVC tee type flow sensor w/sensor ends, custom mounting tee and ultra-lightweight impeller enhances low flow measurement. 2 wire digital output compatible w/all irrigation controllers. Flow range 2.8-170 GPM.
⊞	Barrett Engineered Booster Pump 3 HP Booster Pump Model #BPCCO-3-2.2.5VFD-F. Power provided to be 480V/3 Phase. Booster Pump available through Green Products Sales. Contact Danyl Green at (949) 984-7311. Power to be provided by Mammoth Electrical (714) 446-8880 Contact - David Poitris - See detail on Sheet L-16
⊞	Hayward Basket Strainer - Line Size Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box
⊞	Water Meter 1-1/2" Recycled Water Static Pressure = 50 PSI - Information provided by Victor Fajardo of Victorville Water Department (760) 955-2318
⊞	Irrigation Lateral Line: PVC Class 200 SDR 21 PVC Recycled Water (Purple) Class 200 irrigation pipe. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.
⊞	Irrigation Mainline: PVC Schedule 40 and Class 315 PVC Recycled Water (Purple) Schedule 40 to 1-1/2". PVC Class 315 SDR 13.5 for pipes 2" and larger.
⊞	Pipe Sleeve: PVC Schedule 40 and Class 315 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeve material. Extend sleeves 18 inches beyond edges of paving or construction.



- NOTE:
- CONTRACTOR TO INSTALL SPRINKLERS 24" AWAY FROM NON-PERMEABLE PAVING
  - CONTRACTOR TO INSTALL KBI INLINE CHECK VALVES TO PREVENT LOW HEAD DRAINAGE AT ALL SLOPE CONDITIONS.
- SUBSURFACE DRIPLINE NOTES:
- SUBSURFACE DRIPLINE SYMBOL (HATCH) IS DIAGRAMATIC AND DOES NOT REFLECT ACTUAL QUANTITY OF TUBING. REFER TO SUBSURFACE DRIPLINE DETAILS ON SHEET L-17
  - ALL TREES IN DRIP AREAS TO RECEIVE ADDITIONAL TUBING IN A CIRCULAR LAYOUT PER DETAIL 2 SHEET L- 17
  - ALL 15 GAL. AND SMALLER SHRUBS / GROUND COVER TO RECEIVE DRIPLINE ON EACH SIDE OF ROOTBALL WITH A MAXIMUM SPACING BETWEEN LINES OF 18". ALL DRIP LINE TO BE BURIED 4"-6" BELOW GRADE AND 7"-9" BELOW TOP OF MULCH
  - ON SLOPES DRIPLINE LATERAL ROW SPACING SHOULD BE NORMAL (18") FOR THE TOP TWO-THIRDS OF THE SLOPE AND 22" O.C. FOR THE BOTTOM THIRD.
  - CONTRACTOR TO INSTALL THE FOLLOWING EQUIPMENT WITH SUBSURFACE DRIPLINE:  
 RAINBIRD DRIP FLUSH CAP IN A ROUND VALVE BOX - LOCATE AT BOTH ENDS OF THE SYSTEM  
 CONTRACTOR TO INSTALL (1) RAINBIRD AIR/VACUUM RELIEF VALVE IN A ROUND VALVE BOX AT THE HIGHEST ELEVATION OF EACH PLANTER. IN EACH VALVE SYSTEM WHERE SUBSURFACE DRIPLINE IS USED. WHEN A SUBSURFACE DRIPLINE SERVES SEPARATE PLANTERS, EACH MUST HAVE ITS OWN RELIEF VALVE.

CRITICAL ANALYSIS

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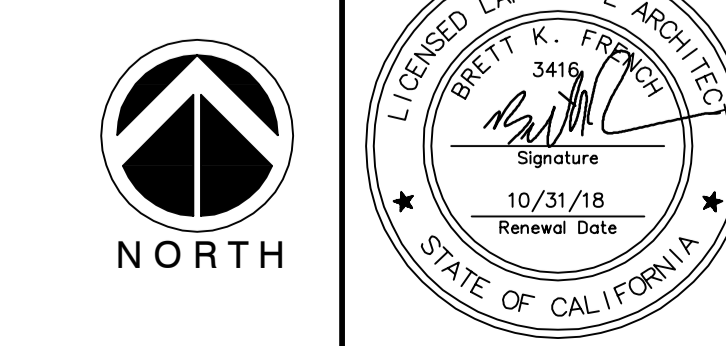
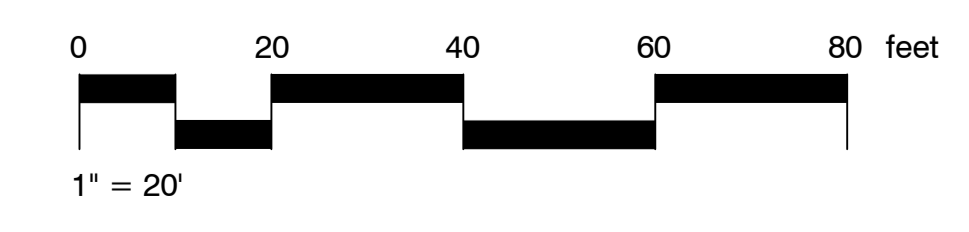
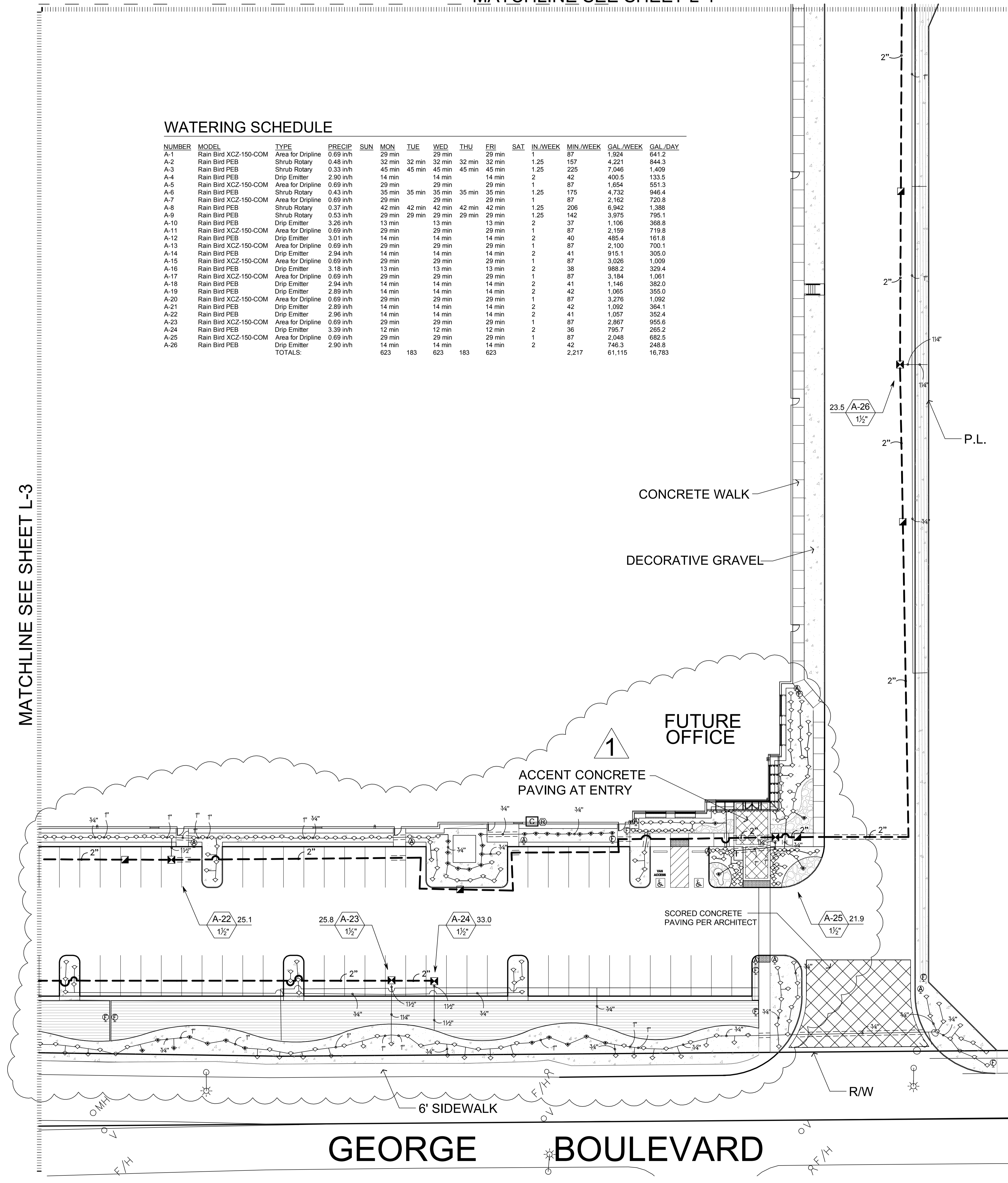
FLOW AVAILABLE  
 Water Meter Size: 1-1/2"  
 Flow Available: 70.55 gpm

PRESSURE AVAILABLE  
 Static Pressure at POC: 50.00 psi  
 Elevation Change: 5.00 ft  
 Service Line Size: 2"  
 Length of Service Line: 20.00 ft  
 Booster Pump pressure provided: 37.00 psi  
 Pressure Available: 84.00 psi

DESIGN ANALYSIS  
 Maximum Station Flow: 37.66 gpm  
 Flow Available at POC: 70.55 gpm  
 Residual Flow Available: 32.89 gpm

Critical Station:  
 Design Pressure: A-8  
 Design Station: 45.00 psi  
 Elevation Loss: 0.00 psi  
 Friction Loss: 5.10 psi  
 Loss through Valve: 0.51 psi  
 Loss for POC to Valve Elevation: 0.00 psi  
 Loss for Backflow: 0.00 psi  
 Loss for Master Valve: 1.60 psi  
 Loss for Water Meter: 2.39 psi  
 Critical Station Pressure at POC: 64.21 psi  
 Pressure Available: 84.00 psi  
 Residual Pressure Available: 19.79 psi

MATCHLINE SEE SHEET L-3



REVISIONS

ENVIRONS LANDSCAPE ARCHITECTURE  
 Creating Sustainable & Water Conserving Solutions  
 17171  
 Ph: (951) 626-4663 • Fax: (951) 626-9446

DEVELOPED BY: STIRLING  
 27422 BOBOLA PARKWAY, SUITE 300  
 FOOTBALL RANCH, CA 92610  
 TEL: (949) 482-9909

SHEET TITLE: IRRIGATION PLAN  
 PROPOSED DEVELOPMENT: BUILDING 18 SOUTHERN CALIFORNIA LOGISTICS CENTRE VICTORVILLE, CA

DRAWN BY: DATE  
 BFK 10/14/16

JOB NO.  
 RGA0072

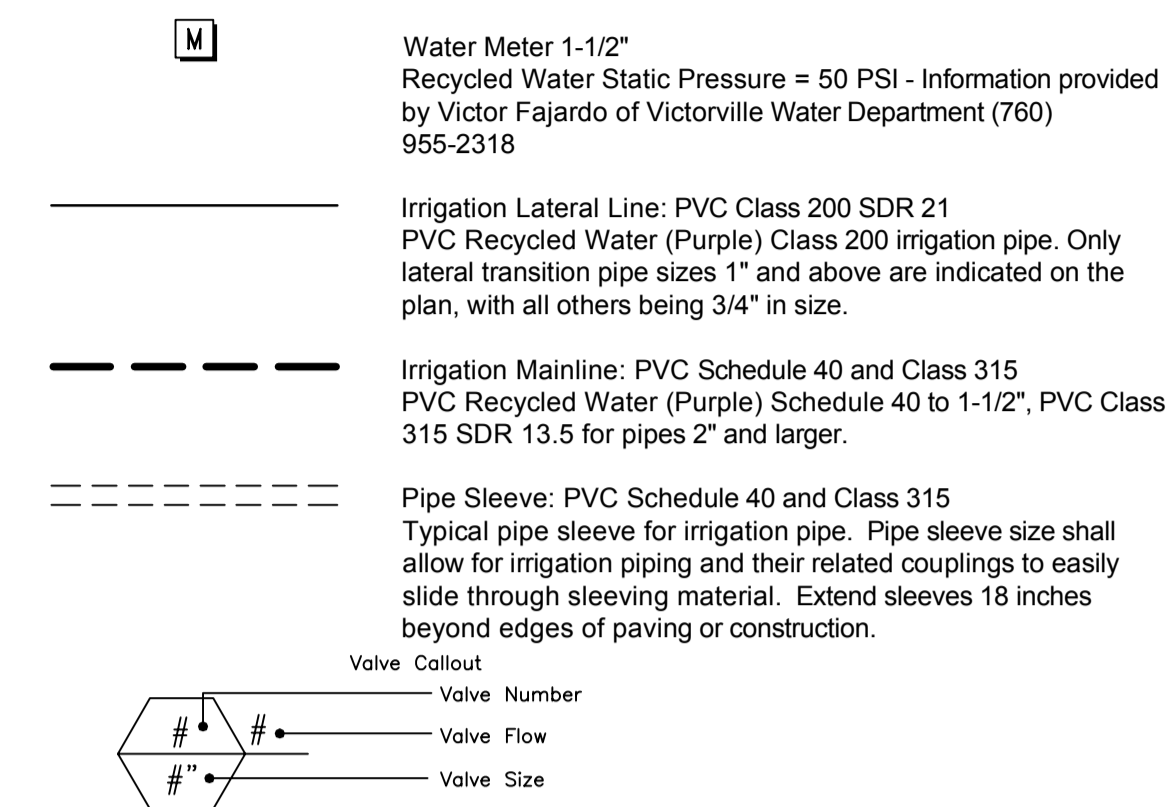
SHEET NO.  
 L-5  
 5 OF 19 SHEETS.



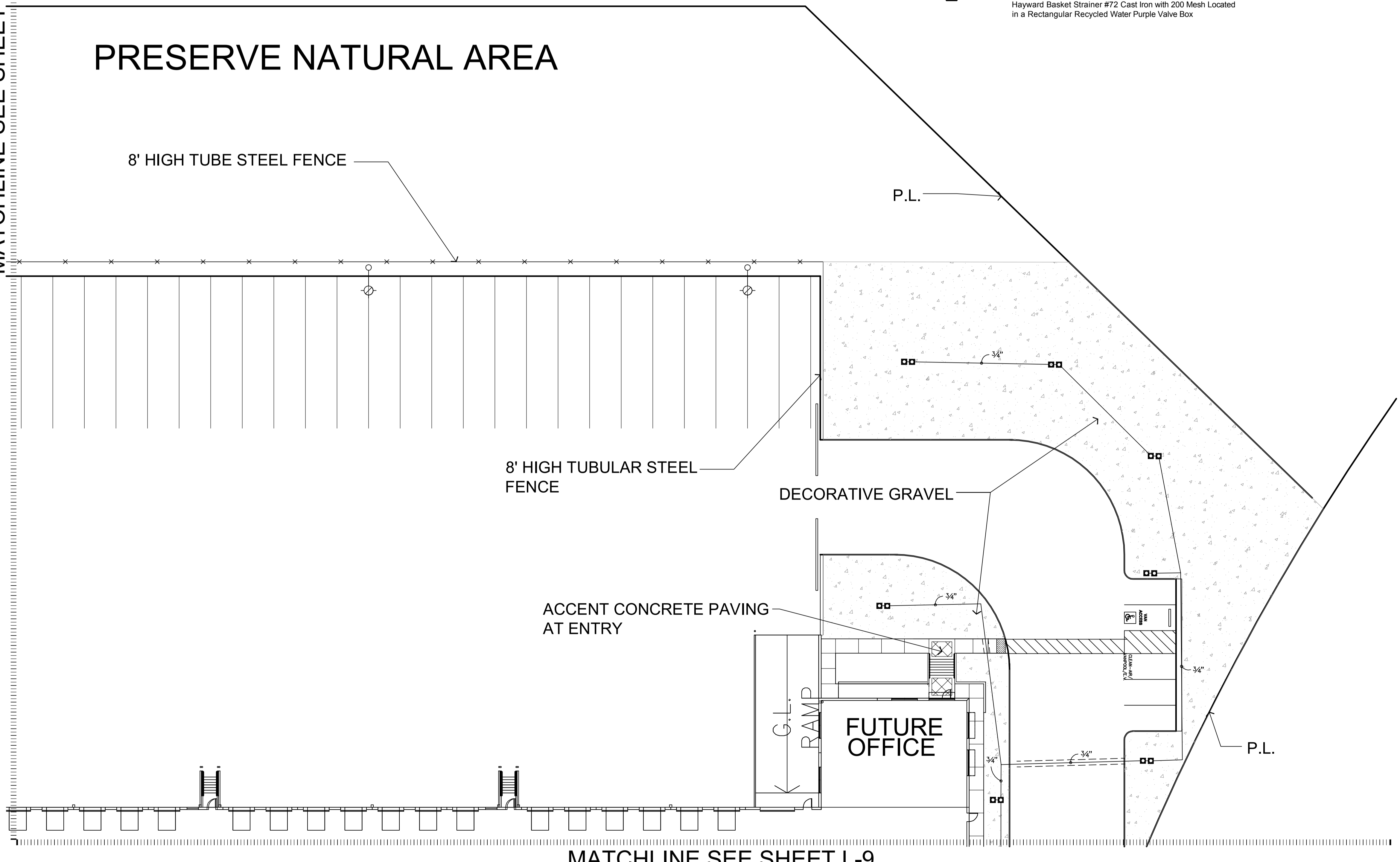


### IRRIGATION SCHEDULE

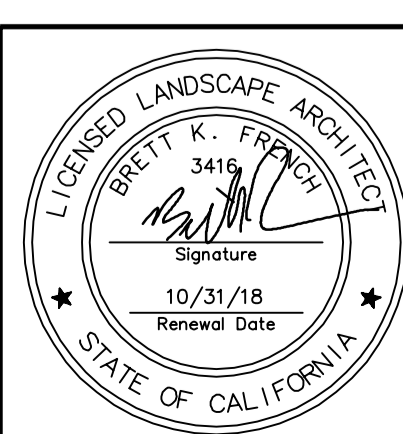
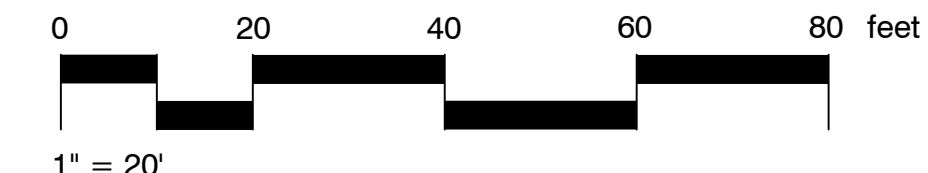
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
⊙ 20 2H 2F 4Q 4H 4F	Rain Bird RD-06-S SQ Series 6.0" Pop-Up w/ check valve.	30
▲ 1482 1488 ▲ 1481 1484	Rain Bird 1804-SAM-1400 Flood Flood Bubbler 4.0" popup with check valve and Recycled Water Purple Cap	30
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
⊙	Rain Bird PEB Electric Remote Control Valve located in a purple recycled water NDS Pro Series Plus 14"x19" (#314PBCBR) or equal valve box. Size as noted on plan	
⊗	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box	
⊕	Griswold 2000LR-2" 2" 2" Solenoid, Normally Closed Master Valve. Purple Handle for Recycled Water. Cast Iron and Bronze Material. NPT End Connection. Locate in a Recycled Water Purple Valve Box.	
⚠	Wilkins Model 500 YSBR Pressure Regulator Line Siz Pressure limited to 71.15 PSI Pressure Regulator line size in a purple recycled water valve box. Set Regulator at 75 PSI	
⊖	Febco 825V 1-1/2" Reduced Pressure Backflow Preventer. Note this is only temporary and is not necessary for the recycled water system. Contractor must remove when recycled water becomes available.	
⊕	Creative Sensor Technology FS1-T20-001 2" (50mm) PVC tee type flow sensor w/socket ends, custom mounting tee and ultra-lightweight impeller enhances low flow measurement. 2 wire digital output compatible with irrigation controllers. Flow range 2.8-170 GPM.	
⊕	Barnett Engineered Booster Pump 3 HP Booster Pump Model #BPCO-3-2-2.5VFD-F. Power provided to be 480V/3 Phase. Booster Pump available through Green Products Sales. Contact Daryl Green at (949) 584-7311- Power to be provided by Mammoth Electrical (714) 446-8880 Contact - David Polite - See detail on Sheet L-16	
⊕	Hayward Basket Strainer - Line Size Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box	



MATCHLINE SEE SHEET L-6



MATCHLINE SEE SHEET L-9



BID SET - 10-21-16

NO.	DATE	DESCRIPTION
1	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16
2	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
3	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
4	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
5	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
6	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
7	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
8	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
9	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
10	10/21/16	ISSUED, LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17

**Environs**  
LANDSCAPE ARCHITECTURE  
Creating Sustainable & Water Conserving Solutions  
1746 N. Bridgeway Avenue • Claremont, CA 91711  
Tel: (909) 626-1666 • Fax: (909) 626-8416

**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOTHILL RANCH, CA 92610  
TEL: (949) 462-0909

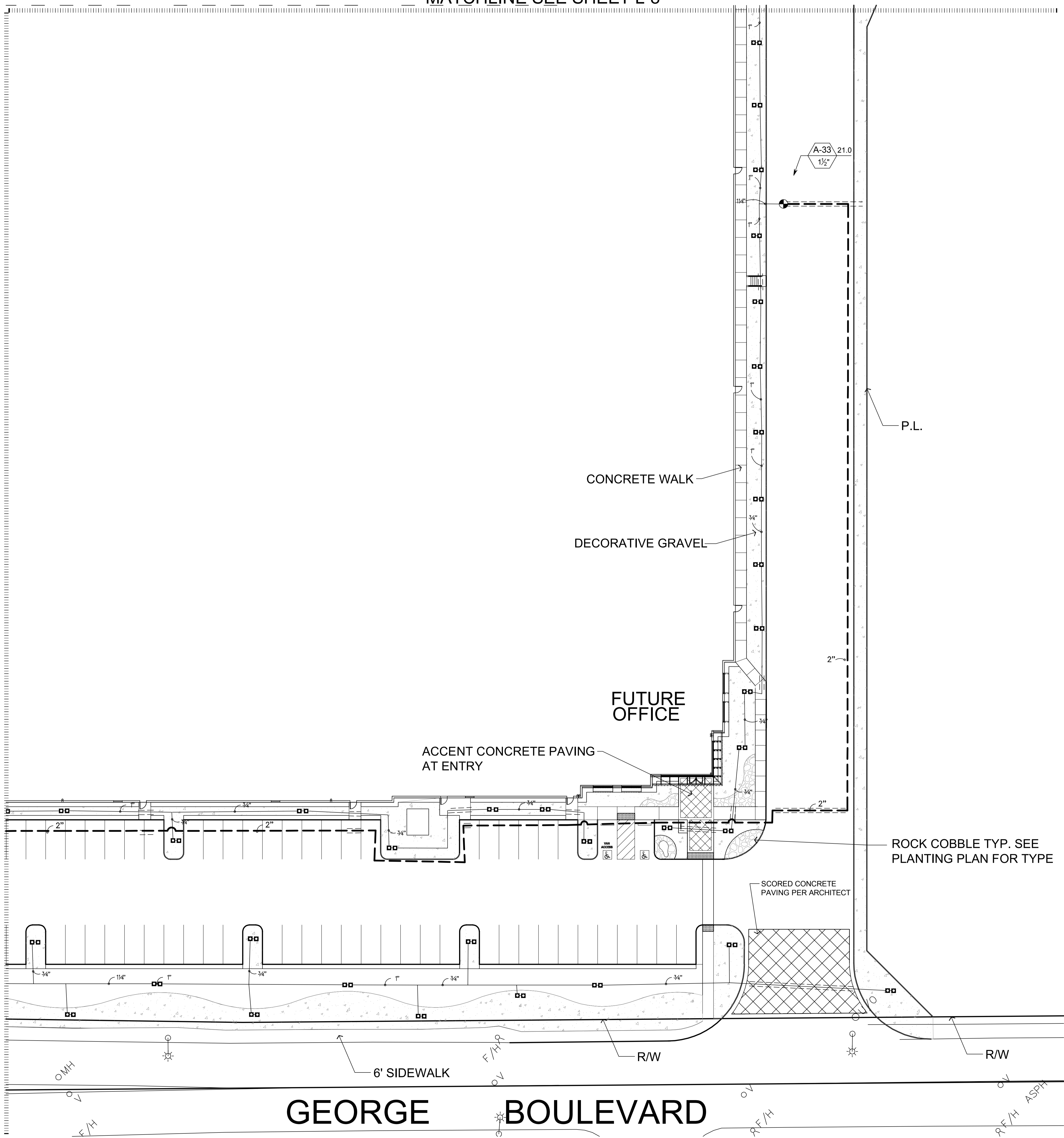
DEVELOPED BY:

SHEET TITLE: TREE BUBBLER PLAN  
PROPOSED DEVELOPMENT:  
BUILDING 18  
SOUTHERN CALIFORNIA LOGISTICS CENTRE  
VICTORVILLE, CA

DRAWN BY	DATE
BFK	10/14/16
JOB NO.	RGAA0072
SHEET NO.	L-8
8 OF	19 SHTS.

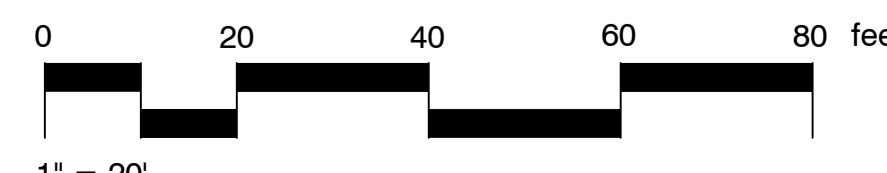
MATCHLINE SEE SHEET L-8

MATCHLINE SEE SHEET L-7



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
	Rain Bird RD-06-S SQ Series 6.0" Pop-Up w/ check valve.	30
	Rain Bird 1804-SAM-1400 Flood Flood Bubblers 4.0" pop-up with check valve and Recycled Water Purple Cap	30
	Rain Bird PEB Electric Remote Control Valve located in a purple recycled water NDS Pro Series Plus 14"x19" (#314PBCBR) or equal valve box. Size as noted on plan	
	Nico T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box	
	Grissold 2000LR-2" 2" 2" Solenoid, Normally Closed Master Valve. Purple Handle for Recycled Water. Cast Iron and Bronze Material. NPT End Connection. Locate in a Recycled Water Purple Valve Box.	
	Wilkins Model 500 YSBR Pressure Regulator Line Size Pressure limited to 71.15 PSI Pressure Regulator line size in a purple recycled water valve box. Set Regulator at 75 PSI	
	Febco 825Y-1-1/2" Reduced Pressure Backflow Preventer. Note this is only temporary and is not necessary for the recycled water system. Contractor must remove when recycled water becomes available.	
	Creative Sensor Technology FSI-T20-001 2" (50mm) PVC tee type flow sensor w/socket ends, custom mounting tee and ultra-lightweight impeller enhances low flow measurement. 2 wire digital output compatible wall irrigation controllers. Flow range 2.8-170 GPM.	
	Barrett Engineered Booster Pump 3 HP Booster Pump Model #BPCO-3-2-2.5/VFD-F. Power provided to be 480V/3 Phase. Booster Pump available through Green Products Sales. Contact Daryl Green at (949) 584-7311. Power to be provided by Mammoth Electrical (714) 446-8880 Contact - David Poitite - See detail on Sheet L-16	
	Hayward Basket Strainer - Line Size Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box	
	Water Meter 1-1/2" Recycled Water Static Pressure = 50 PSI - Information provided by Victor Fajardo of Victorville Water Department (760) 955-2318	
	Irrigation Lateral Line: PVC Class 200 SDR 21 PVC Recycled Water (Purple) Class 200 irrigation pipe. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.	
	Irrigation Mainline: PVC Schedule 40 and Class 315 PVC Recycled Water (Purple) Schedule 40 to 1-1/2", PVC Class 315 SDR 13.5 for pipes 2" and larger.	
	Pipe Sleeve: PVC Schedule 40 and Class 315 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 16 inches beyond edges of paving or construction.	
	Valve Callout: # - Valve Number # - Valve Flow # - Valve Size	



BD SET - 10-21-16

REVISIONS	REVISIONS
1	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16
2	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
3	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
4	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17
5	REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17

**Environ**  
LANDSCAPE ARCHITECTURE  
Creating Sustainable & Water Conserving Solutions  
1740 S. MICHIGAN AVE. SUITE 111  
VICTORVILLE, CA 92409  
TEL: (949) 626-4663 • Fax: (949) 626-0146

**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOT HILL, CA 92341  
TEL: (949) 462-0839

DEVELOPED BY:

SHEET TITLE: TREE BUBBLER PLAN  
PROPOSED DEVELOPMENT:  
BUILDING 18  
SOUTHERN CALIFORNIA LOGISTICS CENTRE  
VICTORVILLE, CA

DRAWN BY	DATE
BFK	10/14/16
JOB NO.	RGA0072
SHEET NO.	L-9
9 OF 19 SHTS.	

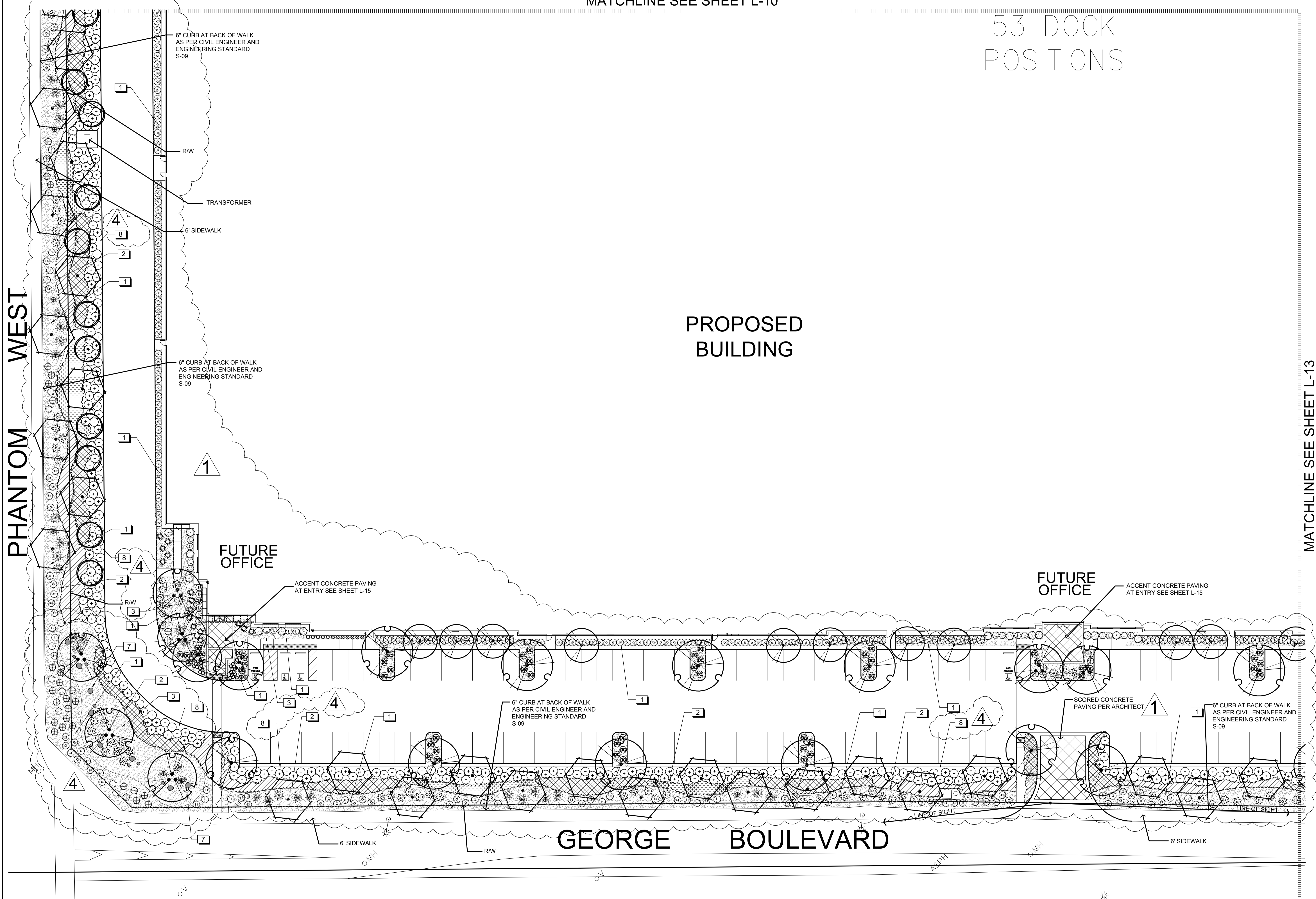


53 DOCK  
POSITIONS

PHANTOM WEST

PROPOSED  
BUILDING

MATCHLINE SEE SHEET L-13

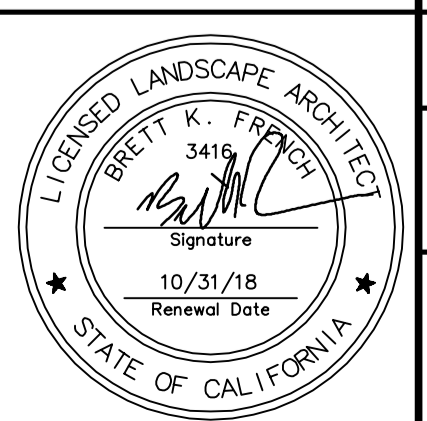
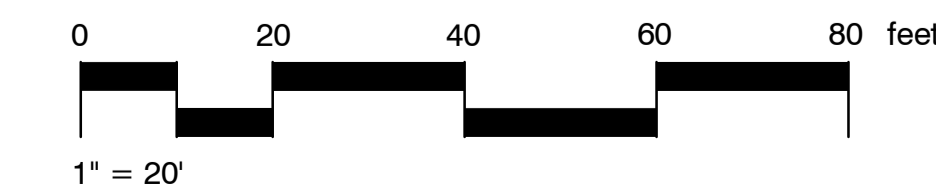


GEORGE BOULEVARD

FOR PLANTING LEGEND AND NOTES SEE SHEET L-12

CITY NOTE

ANY DISCREPANCY BETWEEN THE MAXIMUM SPACING CRITERIA AND THE NUMBER OF PLANTS SHOWN ON THE LANDSCAPE PLAN SHALL RESULT IN THE SPACING CRITERIA SUPERSEDING ANY OTHER INFORMATION ON THE LANDSCAPE PLAN.



REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16  
 REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17  
 REVISIONS

**Environs**  
 LANDSCAPE ARCHITECTURE  
 Creating Sustainable & Water Conserving Solutions  
 1711  
 Ph. (949) 626-4663 • Fax (949) 626-5416

**STIRLING**  
 27422 BORTOLA PARKWAY, SUITE 300  
 FOOTHILL RANCH, CA 92310  
 TEL: (949) 462-0809

DEVELOPED BY:

SHEET TITLE: **PLANTING PLAN**  
 PROPOSED DEVELOPMENT:  
**BUILDING 18**  
**SOUTHERN CALIFORNIA LOGISTICS CENTRE**  
**VICTORVILLE, CA**

DRAWN BY: **BFK** DATE: **10/14/16**  
 JOB NO.: **RGAA0072**  
 SHEET NO.: **L-11**  
 11 OF 19 SHTS.

# TREE AND PLANTING LEGEND

TREES	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	QTY	
	Albizia julibrissin 'Rosea' / Hardy Silk Tree	24"box	Low	27	
	Cercidium x 'Desert Museum' / Thornless Palo Verde	24"box	Low	46	
	Cercidium x 'Desert Museum' / Thornless Palo Verde	24"box	Low	19	
	Chilopsis linearis 'Arts Seedless' / Desert Willow	15 gal		12	
	Pinus eldarica / Afghan Pine SIZE - 24" BOX - WATER USE - WUCOL - LOW	24"box	Low	15	
	Populus fremontii / Fremont Cottonwood	15 gal	Med	22	
	Prosopis chilensis / Chilean Mesquite	24"box	Low	19	
SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	QTY	
	Agave americana / Century Plant - Space 6' o.c.	5 gal	LOW	93	
	Agave havardiana / Havard's Century Plant	5 gal	LOW	17	
	Agave weberi / Weber's Agave	5 gal	LOW	3	
	Dalea capitata 'Sierra Gold' TM / Sierra Gold Dalea	5 gal	LOW	133	
	Dasyliion wheeleri / Grey Desert Spoon - Space 5' o.c.	5 gal	LOW	86	
	Dodonaea viscosa 'Purpurea' / Purple Leafed Hopseed Bush Space 5' o.c.	5 gal	LOW	182	
	Hesperaloe parviflora 'Brakelights' TM / Brakelights Red Yucca	1 gal	LOW	109	
	Hesperaloe parviflora 'Yellow' / Yellow Yucca	5 gal	LOW	15	
	Juniperus chinensis 'Spartan' / Spartan Juniper	5 gal		34	
	Larrea tridentata / Creosote Bush	5 gal	Low	217	
	Leucophyllum frutescens 'Compacti' / Compact Texas Ranger	5 gal	Low	59	
	Leucophyllum frutescens 'Green Cloud' TM / Green Cloud Texas Ranger	5 gal	Low	144	
	Leucophyllum laevigatum / Chihuahuan Sage	5 gal	LOW	507	
	Perovskia atriplicifolia 'Blue Spires' / Russian Sage	5 gal	Low	46	
	Salvia greggii 'Furmans Red' / Furman's Red Salvia	5 gal	Low	117	
	Tagetes lemmonii / Copper Canyon Daisy	5 gal	Low	11	
	Verbena goodingii / Scented Verbena	5 gal	Low	139	
SHRUB AREAS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	SPACING	QTY
	Muhlenbergia capillaris / Pink Muhly	1 gal		48" o.c.	154
	Muhlenbergia lindheimeri 'Autumn Glow' TM / Lindheimer's Muhly	1 gal		48" o.c.	139
	Pennisetum 'Fairy Tales' / Fairy Tales Fountain Grass	1 gal		48" o.c.	129
GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	SPACING	QTY
	Baccharis x 'Centennial' / Centennial Coyote Brush	1 gal	Low	36" o.c.	779
	Hesperaloe parviflora / Red Yucca	1 gal	Low	36" o.c.	533
	Rosmarinus officinalis 'Huntington Carpet' / Huntington Carpet Rosemary - Space 3' o.c.	1 gal	LOW	36" o.c.	608

## BASIN HYDROSEED

WQMP - BASIN / BIOSWALE HYDROSEED MIX  
Hydroseeded Slurry Component for slopes from 3:1 to 2:1  
Product - Application Rate  
Comwed 1,000 Wood Fiber Mulch - 2,000 lbs / acre  
Ecology Controls M-Binder / Tack - 200 lbs / acre  
Biosol Mix 7-2-3 Organic fertilizer - 800 lbs / acre  
AM 120 Mycorrhizal inoculum - 60 lbs / acre  
Elymus trachycaulis / B Lbs / Acre  
Elymus trichoides / 5 Lbs / Acre  
Echinochloa caryoptosa / 1 Lbs/Acre  
Festuca rubra 'Molate' / 20 Lbs/Acre  
Hordeum brachyantherum californicum / 6 Lbs / Acre  
Hordeum depressum / 3 Lbs/Acre  
Muhlenbergia macrosperma / Littleseed Muhly  
Stipa cernua / 3 Lbs / Acre

## REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
	3" THICK 3/4" DECORATIVE CRUSHED ROCK GRAVEL - DESERT GOLD OVER WEED BARRIER (GRAVEL AVAILABLE FROM SOUTHWEST BOULDER - (877) 792-7625)
	6"x6" CONCRETE MOW CURB TO SEPARATE SHRUB AREAS FROM ROCK
	LARGE CRUSHED ROCK 4"-8" COLOR COPPER CANYON OVER WEED BARRIER. AVAILABLE FROM SOTHWEST BOULDER SUPPLY
	3" THICK 3/4" NATURAL COLORED CRUSHED ROCK OVER WEED BARRIER
	6"-12" RIVER ROCK COBBLE AVAILABLE FROM SOUTHWEST BOULDER
	6" THICK STABILIZED D.G. - MOJAVE GOLD OR EQUAL OVER WEED BARRIER - SEE CIVIL PLANS.
	3'-4' BOULDERS TYPICAL - DESERT GOLD - AVAILABLE FROM SOUTHWEST BOULDER & STONE (877) 792-7625
	3" THICK SHREDDED MULCH SEE NOTE ON PLANS.

## NOTES

- ALL TREES WITHIN 6' OF HARDSCAPE SHALL BE IN A SHAWTOWN LINEAR (WRAP AROUND NOT ALLOWED) ROOT BARRIER 24" HIGH LINEAR ROOT BARRIER SHALL BE CENTERED ON TREE AND EXTEND 5' IN BOTH DIRECTIONS FOR A TOTAL OF 10'
- NOTE: QUANTITIES AND AREA CALCULATIONS SHOWN IN LEGEND ARE FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE FOR ALL QUANTITY TAKE-OFFS AND AREA CALCULATIONS FOR DETERMINING COST AND DELIVERY OF MATERIALS TO SITE.
- THE LANDSCAPING PLAN SHALL INCLUDE THE MAXIMUM SPACING OF ALL PLANTS AS FOLLOWS:  
A) GROUND COVER - EIGHTEEN INCHES ON CENTER  
B) ONE GALLON PLANTS - THREE FEET ON CENTER  
C) FIVE GALLON PLANTS - FIVE FEET ON CENTER

## CITY NOTE

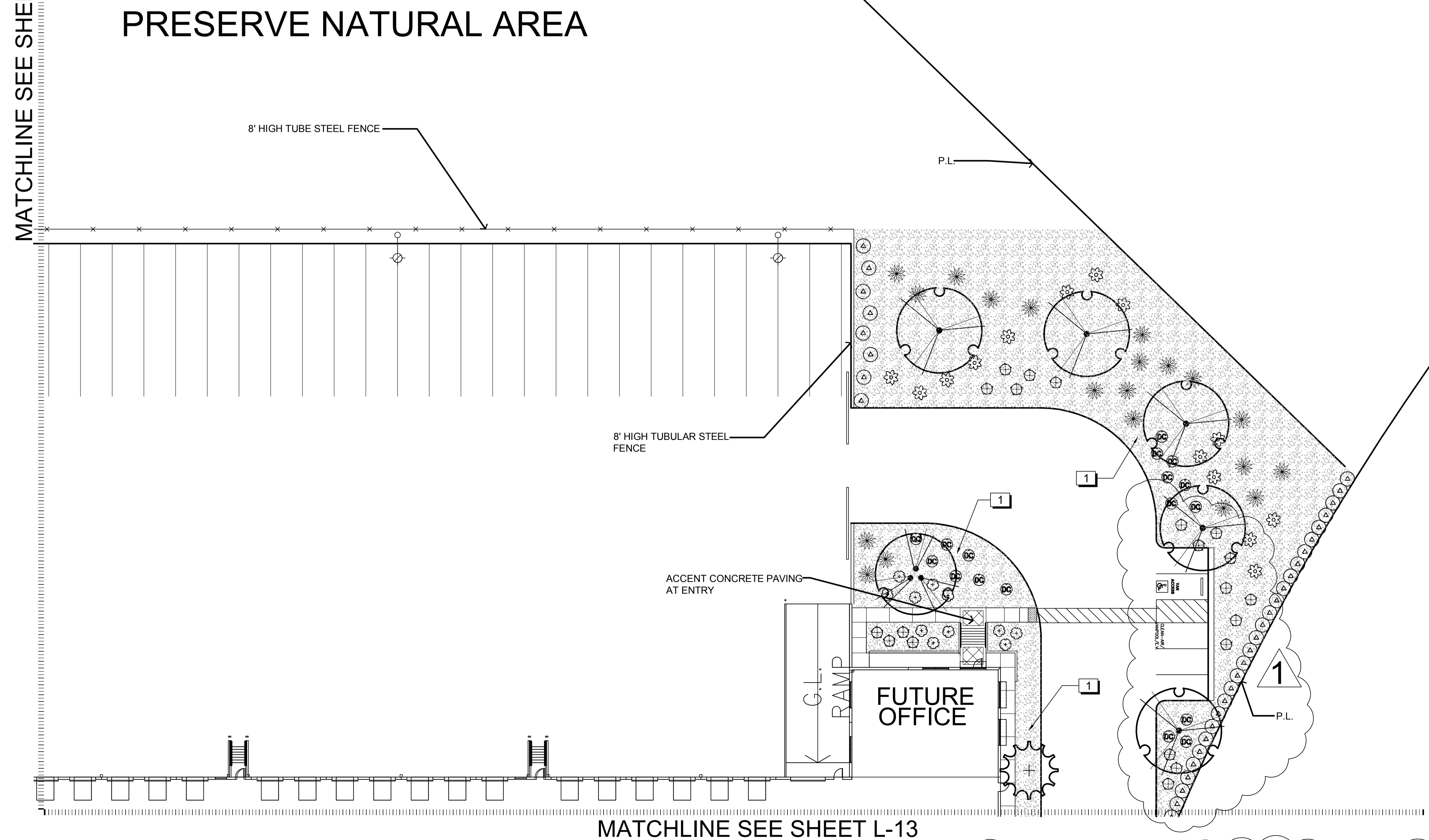
ANY DISCREPANCY BETWEEN THE MAXIMUM SPACING CRITERIA AND THE NUMBER OF PLANTS SHOWN ON THE LANDSCAPE PLAN SHALL RESULT IN THE SPACING CRITERIA SUPERSEDING ANY OTHER INFORMATION ON THE LANDSCAPE PLAN.

## SHREDDED MULCH NOTE

PLANTER AREAS WHERE NOTED TO RECEIVE A 3" LAYER OF SHREDDED COVER MULCH AVAILABLE FROM EARTHWORKS (951)782-0260 OR APPROVED EQUAL. CONTRACTOR TO PROVIDE SAMPLE PRIOR TO INSTALLATION

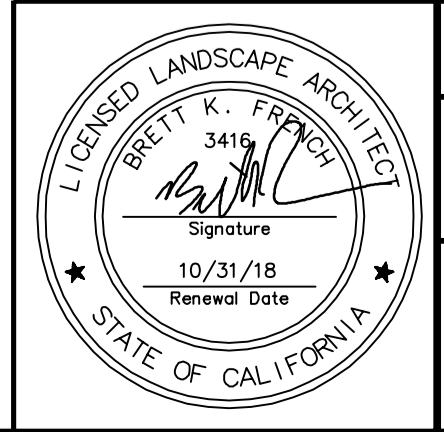
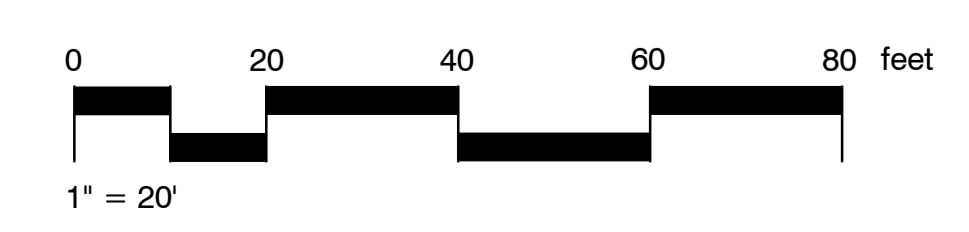
## GRAVEL MULCH NOTE

ALL PLANTER AREAS TO RECEIVE A 3" LAYER OF 3/4" CRUSHED DECORATIVE GRAVEL COLOR DESERT GOLD OVER WEED BARRIER UNLESS OTHERWISE NOTED ON PLAN.



MATCHLINE SEE SHEET L-10

MATCHLINE SEE SHEET L-13



REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-29-16  
REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17

NO.	DATE	DESCRIPTION
1	10/31/18	REVISIONS



**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOTHILL RANCH, CA 92610  
TEL: (949) 462-0909

DEVELOPED BY:

SHEET TITLE: PLANTING PLAN  
PROPOSED DEVELOPMENT:  
BUILDING 18  
SOUTHERN CALIFORNIA LOGISTICS CENTRE  
VICTORVILLE, CA

DRAWN BY	DATE
BFK	10/14/16
JOB NO.	RG0072
SHEET NO.	L-12
12 OF 19 SHTS.	

MATCHLINE SEE SHEET L-12

# TREE AND PLANTING LEGEND

TREES	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	QTY	
	Albizia julibrissin 'Rosea' / Hardy Silk Tree	24"box	Low	27	
	Cercidium x 'Desert Museum' / Thornless Palo Verde	24"box	Low	46	
	Cercidium x 'Desert Museum' / Thornless Palo Verde	24"box	Low	19	
	Chilopsis linearis 'Arts Seedless' / Desert Willow	15 gal		12	
	Pinus edularica / Afghan Pine SIZE - 24" BOX - WATER USE - WULCOL - LOW	24"box	Low	15	
	Populus fremontii / Fremont Cottonwood	15 gal	Med	22	
	Prosopis chilensis / Chilean Mesquite	24"box	Low	19	
SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	QTY	
	Agave americana / Century Plant - Space 6' o.c.	5 gal	LOW	93	
	Agave havardiana / Havard's Century Plant	5 gal	LOW	17	
	Agave weberi / Weber's Agave	5 gal	LOW	3	
	Dalea capitata 'Sierra Gold' TM / Sierra Gold Dalea	5 gal	LOW	133	
	Dasyliroon wheeleri / Grey Desert Spoon - Space 5' o.c.	5 gal	LOW	86	
	Dodonaea viscosa 'Purpurea' / Purple Leafed Hopseed Bush Space 5' o.c.	5 gal	LOW	182	
	Hesperaloe parviflora 'Brakelights' TM / Brakelights Red Yucca	1 gal	LOW	109	
	Hesperaloe parviflora 'Yellow' / Yellow Yucca	5 gal	LOW	15	
	Juniperus chinensis 'Spartan' / Spartan Juniper	5 gal		34	
	Larrea tridentata / Creosote Bush	5 gal	Low	217	
	Leucophyllum frutescens 'Compacta' / Compact Texas Ranger	5 gal	Low	59	
	Leucophyllum frutescens 'Green Cloud' TM / Green Cloud Texas Ranger	5 gal	Low	144	
	Leucophyllum laevigatum / Chihuahuan Sage	5 gal	LOW	507	
	Perovskia atriplicifolia 'Blue Spires' / Russian Sage	5 gal	Low	46	
	Salvia greggii 'Furmans Red' / Furman's Red Salvia	5 gal	Low	117	
	Tagetes lemmonii / Copper Canyon Daisy	5 gal	Low	11	
	Verbena gooddingii / Scented Verbena	5 gal	Low	139	
SHRUB AREAS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	SPACING	QTY
	Muhlenbergia capillaris / Pink Muhly	1 gal		48" o.c.	154
	Muhlenbergia lindheimeri 'Autumn Glow' TM / Lindheimer's Muhly	1 gal		48" o.c.	139
	Pennisetum 'Fairy Tales' / Fairy Tales Fountain Grass	1 gal		48" o.c.	129
GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS	SPACING	QTY
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	Hesperaloe parviflora / Red Yucca	1 gal	Low	36" o.c.	533
	Rosmarinus officinalis 'Huntington Carpet' / Huntington Carpet Rosemary - Space 3' o.c.	1 gal	LOW	36" o.c.	608

## BASIN HYDROSEED

WQMP - BASIN / BIOSWALE HYDROSEED MIX  
Hydroseed Slurry Component for slopes from 3:1 to 2:1  
Product - Application Rate  
Comweed 1,000 Wood Fiber Mulch - 2,000 lbs / acre  
Ecology Controls M-Binder / Tack - 200 lbs / acre  
Bio Soil Mix 7-2-3 Organic fertilizer - 800 lbs / acre  
Ami 120 Mycorrhizal inoculum - 60 lbs / acre  
Elymus trichocaulis / 5 Lbs / Acre  
Elymus triticoides / 5 Lbs / Acre  
Elymus trichocaulis / 5 Lbs / Acre  
Elymus triticoides / 5 Lbs / Acre  
Festuca rubra 'Molate' / 20 Lbs/Acre  
Hordeum brachyantherum-californicum / 6 Lbs / Acre  
Hordeum depressum / 3 Lbs/Acre  
Muhlenbergia microsperma / Littleseed Muhly  
Stipa capensis / 3 Lbs / Acre

## REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
	3" THICK 3/4" DECORATIVE CRUSHED ROCK GRAVEL - DESERT GOLD OVER WEED BARRIER (GRAVEL AVAILABLE FROM SOUTHWEST BOULDER - (877) 792-7625)
	6"X6" CONCRETE MOW CURB TO SEPARATE SHRUB AREAS FROM ROCK
	LARGE CRUSHED ROCK 4"-8" COLOR COPPER CANYON OVER WEED BARRIER. AVAILABLE FROM SOUTHWEST BOULDER SUPPLY
	3" THICK 3/4" NATURAL COLORED CRUSHED ROCK OVER WEED BARRIER
	6"-12" RIVER ROCK COBBLE AVAILABLE FROM SOUTHWEST BOULDER
	6" THICK STABILIZED D.G. - MOJAVE GOLD OR EQUAL OVER WEED BARRIER - SEE CIVIL PLANS.
	3'-4' BOULDERS TYPICAL - DESERT GOLD - AVAILABLE FROM SOUTHWEST BOULDER & STONE (877) 792-7625
	3" THICK SHREDDED MULCH SEE NOTE ON PLANS.

## NOTES

- ALL TREES WITHIN 6' OF HARDSCAPE SHALL BE IN A SHAWTOWN LINEAR (WRAP AROUND NOT ALLOWED) ROOT BARRIER 24" HIGH LINEAR ROOT BARRIER SHALL BE CENTERED ON TREE AND EXTEND 5' IN BOTH DIRECTIONS FOR A TOTAL OF 10'
- NOTE: QUANTITIES AND AREA CALCULATIONS SHOWN IN LEGEND ARE FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE FOR ALL QUANTITY TAKE-OFFS AND AREA CALCULATIONS FOR DETERMINING COST AND DELIVERY OF MATERIALS TO SITE.
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A) GROUND COVER - EIGHTEEN INCHES ON CENTER  
B) ONE GALLON PLANTS - THREE FEET ON CENTER  
C) FIVE GALLON PLANTS - FIVE FEET ON CENTER

MATCHLINE SEE SHEET L-11

## SHREDDED MULCH NOTE

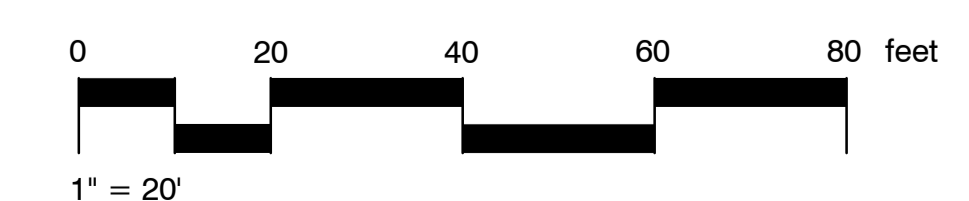
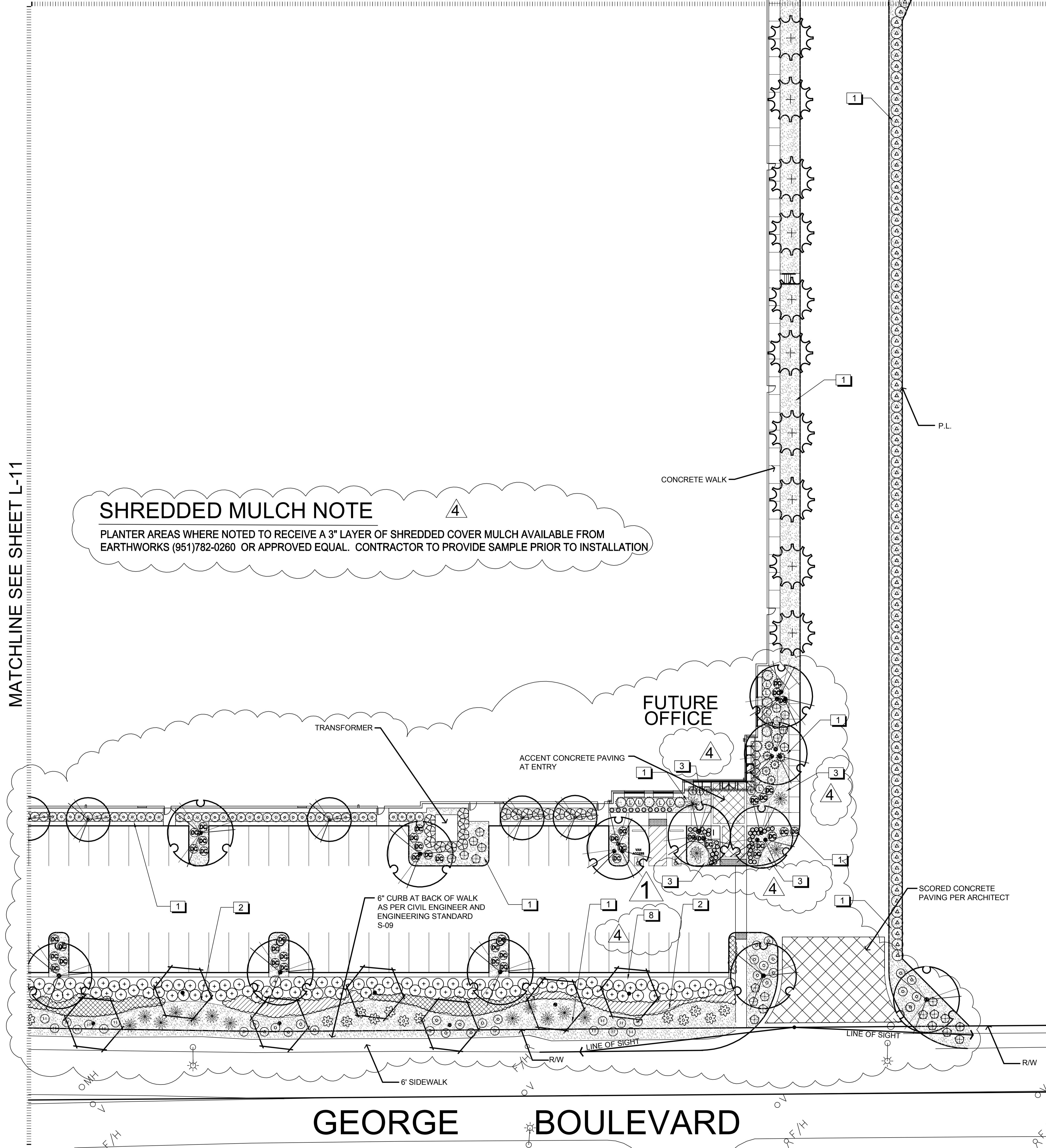
PLANTER AREAS WHERE NOTED TO RECEIVE A 3" LAYER OF SHREDDED COVER MULCH AVAILABLE FROM EARTHWORKS (951)782-0260 OR APPROVED EQUAL. CONTRACTOR TO PROVIDE SAMPLE PRIOR TO INSTALLATION

## GRAVEL MULCH NOTE

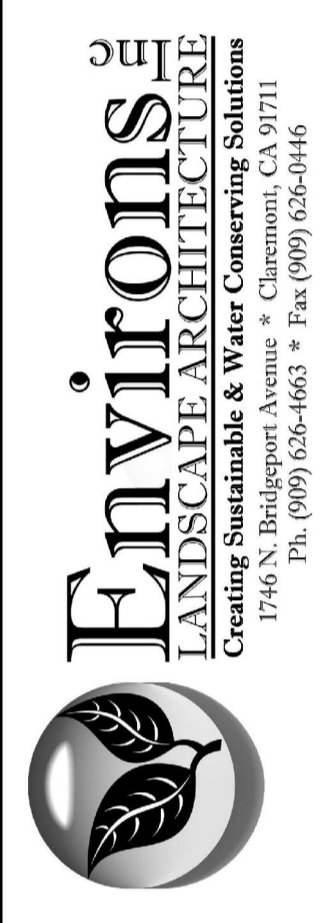
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## CITY NOTE

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REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16  
 REVISIONS

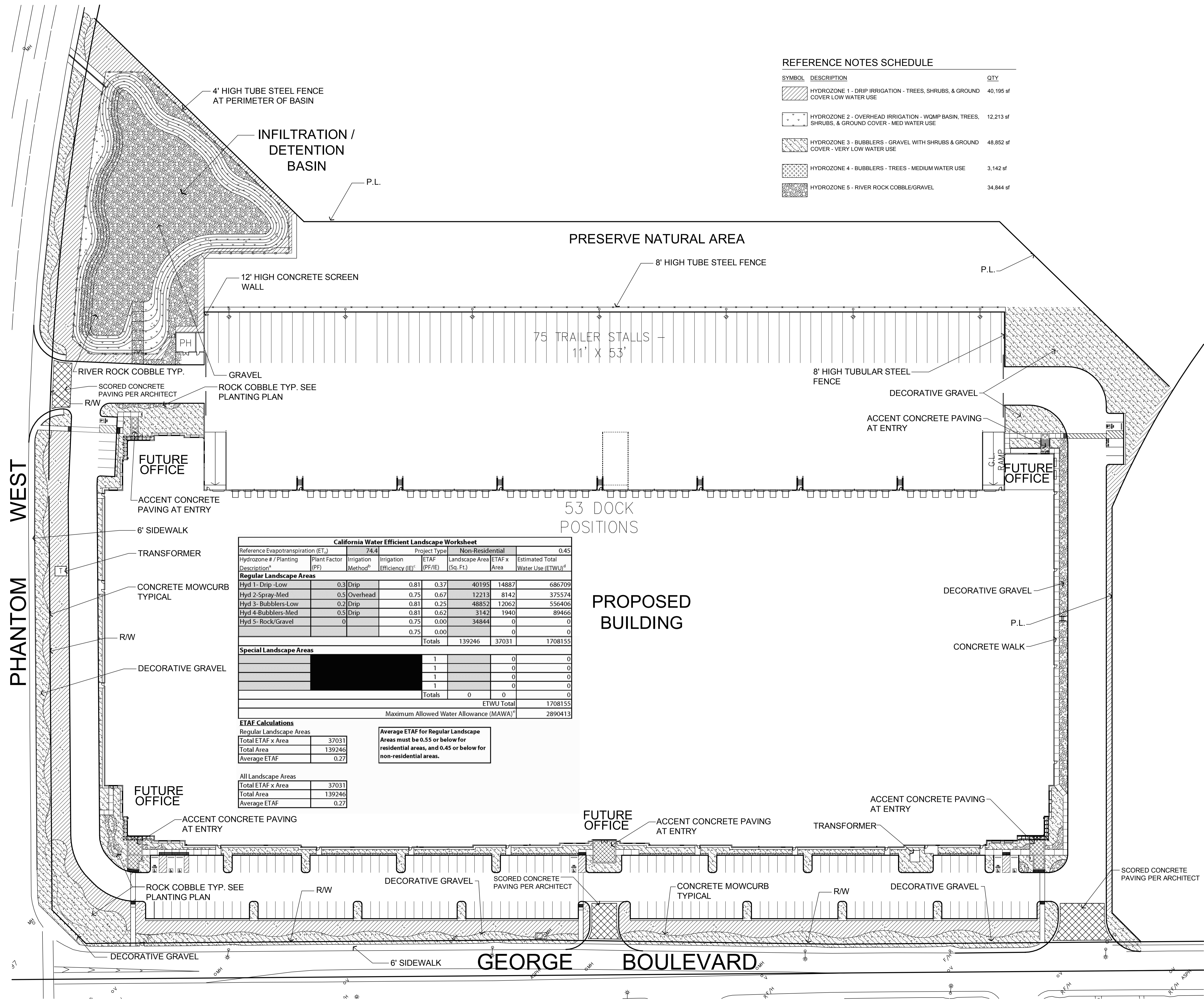


**STIRLING**  
 27423 PORTOLA PARKWAY, SUITE 300  
 FOOT HILL RANCH, CA 92610  
 TEL: (949) 462-0909

DEVELOPED BY:

SHEET TITLE: **PLANTING PLAN**  
 PROPOSED DEVELOPMENT: **BUILDING 18 SOUTHERN CALIFORNIA LOGISTICS CENTRE VICTORVILLE, CA**

DRAWN BY: **BFK** DATE: **10/14/16**  
 JOB NO.: **RGAA0072**  
 SHEET NO.: **L-13**  
 13 OF 19 SHEETS



**REFERENCE NOTES SCHEDULE**

SYMBOL	DESCRIPTION	QTY
[Symbol]	HYDROZONE 1 - DRIP IRRIGATION - TREES, SHRUBS, & GROUND COVER - LOW WATER USE	40,195 sf
[Symbol]	HYDROZONE 2 - OVERHEAD IRRIGATION - WQMP BASIN, TREES, SHRUBS, & GROUND COVER - MED WATER USE	12,213 sf
[Symbol]	HYDROZONE 3 - BUBBLERS - GRAVEL WITH SHRUBS & GROUND COVER - VERY LOW WATER USE	48,852 sf
[Symbol]	HYDROZONE 4 - BUBBLERS - TREES - MEDIUM WATER USE	3,142 sf
[Symbol]	HYDROZONE 5 - RIVER ROCK COBBLE/GRAVEL	34,844 sf

**California Water Efficient Landscape Worksheet**

Reference Evapotranspiration (ET <sub>r</sub> )	74.4	Project Type	Non-Residential	0.45			
Hydrozone # / Planting Description <sup>a</sup>	Plant Factor (PF)	Irrigation Method <sup>b</sup>	Irrigation Efficiency (IE) <sup>c</sup>	ETAF (PF/IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU) <sup>d</sup>
<b>Regular Landscape Areas</b>							
Hyd 1- Drip -Low	0.3	Drip	0.81	0.37	40195	14887	686709
Hyd 2-Spray-Med	0.5	Overhead	0.75	0.67	12213	8142	375574
Hyd 3- Bubblers-Low	0.2	Drip	0.81	0.25	48852	12062	556406
Hyd 4-Bubblers-Med	0.5	Drip	0.81	0.62	3142	1940	89466
Hyd 5- Rock/Gravel	0		0.75	0.00	34844	0	0
			0.75	0.00		0	0
<b>Totals</b>					139246	37031	1708155
<b>Special Landscape Areas</b>							
					1	0	0
					1	0	0
					1	0	0
					1	0	0
<b>Totals</b>					0	0	0
						<b>ETWU Total</b>	1708155
						<b>Maximum Allowed Water Allowance (MAWA)<sup>e</sup></b>	2890413

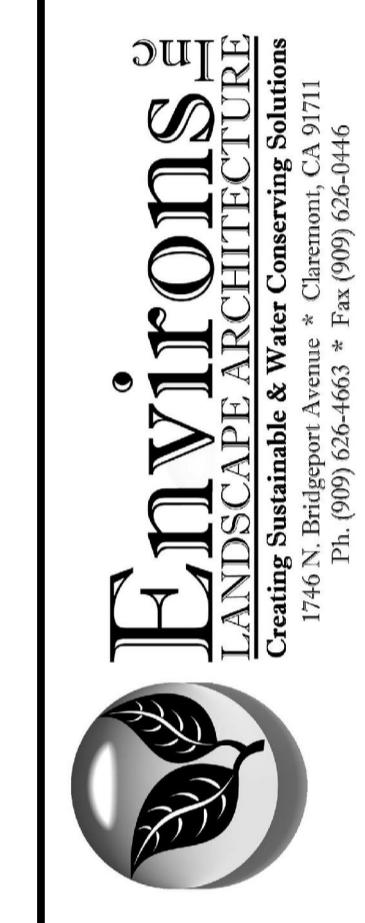
**ETAF Calculations**

Regular Landscape Areas		
Total ETAF x Area	37031	
Total Area	139246	
Average ETAF	0.27	

**Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.**

All Landscape Areas		
Total ETAF x Area	37031	
Total Area	139246	
Average ETAF	0.27	

REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16  
 REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 3-3-17  
 REVISIONS

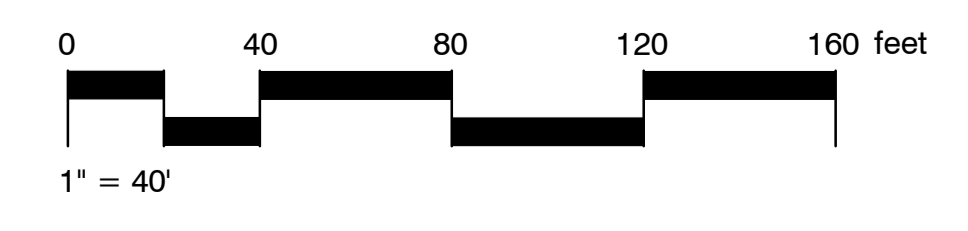
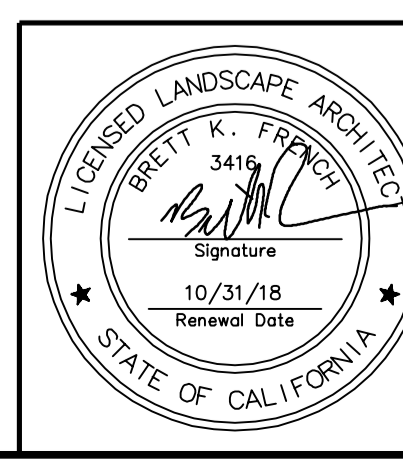


**STIRLING**  
 27423 PORTOLA PARKWAY, SUITE 300  
 FOOT HILL RANCH, CA 92310  
 TEL: (949) 462-0809

DEVELOPED BY:  
 HYDROZONE MAP & WATER USE CALCS

PROPOSED DEVELOPMENT:  
 BUILDING 18  
 SOUTHERN CALIFORNIA LOGISTICS CENTRE  
 VICTORVILLE, CA

DRAWN BY DATE  
 BFK 10/14/16  
 JOB NO.  
 RGA0072  
 SHEET NO.  
 L-14  
 14 OF 19 SHETS.



# CONCRETE SPECIFICATIONS

## 1. SCOPE

Furnish and install all concrete work complete as indicated on the drawings and specified including:

- Furnish and set all reinforcing steel, bolts and anchors.
- Install all items required by other trades which are to be cast into concrete.
- Concrete mow strips, footings for walls, fencing, benches, etc., where applicable.

## 2. GENERAL

All requirements of subsection 3.31, standard specifications for Public Works construction, shall apply except as specified herein.

## 3. MATERIALS

- Portland cement shall conform to ASTM-C150, Type I or Type II.
- Concrete aggregate shall conform to ASTM-C33.
- Water shall be clean, free from strong acids, alkali, oil or organic matter.
- Admixture for all formed concrete shall be Sika Chemical Corp's "Plastiment", or approved equal, applied in strict accordance with manufacturer's directions.
- Reinforcement: reinforcing steel ASTM-A15 and ASTM-A305.  
Wire fabric: ASTM-A185.

## F. Forms

- Lumber shall be "construction grade" Douglas fir.
- Plywood for forming of concrete which is exposed shall be Plyform. All plywood used for forming shall be at least 5/8" thick, and edge sealed.

G. Expansion joint filler shall conform with ASTM-D1751 (premade).

## 4. CONCRETE

### A. Quality

- Contractor assumes responsibility for the design mix and guarantees the specified ultimate strength as indicated or specified herein.
- Concrete, minimum 28-day ultimate strength shall be 3000 psi.
- Ready-mixed concrete shall conform to ASTM-C94.

### B. Proportions and Consistency

- The proportions of aggregate to cement shall provide a dense mixture which will readily work into all corners of the forms and around all reinforcements without any segregation of the materials, cause excess free water to collect on the surface or cause excessive bleeding of the forms.

### C. Control

The concrete quality, proportions, consistency, etc., is subject to the approval of Owner, and no changes shall be made without his prior written approval.

## 5. FORMWORK

A. Forms for concrete work shall be either metal or wood. Forms that are warped or that do not have a smooth straight upper edge shall not be used. Forms shall be set with the upper edge of the board true to line and grade and shall be staked rigidly in place with stakes set not more than four feet (4') apart so as to remain immovable throughout the construction. All forms shall be approved by Owner within a tolerance of one percent (1%). All materials shall be accurately and separately weighted and mixing shall continue until the distribution of material is uniform and the mass of concrete is homogeneous.

B. Two and one-half (2 1/2) gallons of water per cubic yard, shall be withheld from the mix of the plant, and all or a portion may be added to the mix at the job site as directed by the Inspector. The concrete shall be mixed at least 5 minutes after such water is added and not less than 3 minutes of this time shall be immediately prior to the discharge of the batch. Total mixing time after adding original water shall be at least 15 minutes.

C. Concrete which is not placed within 90 minutes after the introduction of cement and water, and concrete which has stood for 30 minutes after leaving the mixer, shall not be used.

## 6. CONVEYING AND PLACING

A. Before pouring, all forms shall be thoroughly cleaned and made tight. The bottoms of trenches shall be wet down before pouring footings; earth shall not be muddy at the time of pouring. Concrete shall not be placed until reinforcements, rough hardware, and forms are approved by the Owner.

B. Before depositing new concrete against old concrete, all laitance shall be removed, and the surfaces roughened to expose the embedded aggregate. The surfaces shall then be covered with cement grout, using the specified mix with 1/2 of the coarse aggregate omitted, 1-1/2 inches thick.

C. Conveying and placing of concrete shall be done so as to prevent separation of ingredients, and in no case shall the free fall exceed 6 feet. Tremies shall be used as required. Surfaces of concrete shall be kept reasonably level, with a minimum amount of concrete being allowed to flow after being placed. Placing shall be performed as a continuous operation until each section is completed.

D. Concrete shall be spaded and vibrated with mechanical vibrators to a maximum subsidence, without separation of ingredients. The moving of concrete by vibration will not be permitted.

## 7. GROUT

A. Grout shall be composed of one part Portland Cement and two parts of fine aggregate by volume. Materials shall be mixed dry and water added just sufficient to make the mixture flow under its own weight.

B. For dry lamp cement grout, a minimum of water shall be added to the mix so that when wet sample is squeezed hard in the hand, surface moisture, but no free water, shall appear on the sample. Do not mix more than can be used in 30 minutes.

## 8. CURING AND PROTECTION

A. All exposed surfaces of concrete shall be protected from damage due to temperature, elements, and construction operations.

### B. Curing

- All exposed surfaces of concrete shall be protected from premature drying and freshly placed concrete shall be kept wet for a period of ten days after placing. In order that curing water may reach both surfaces of walls, the forms shall be loosened and water shall be poured over the tops of the walls and allowed to run down between the concrete and the forms.

- All liquid curing compounds shall be used in accordance with the manufacturer's recommendations and shall not be used on surfaces receiving concrete hardener.

## 9. DEFECTIVE CONCRETE

A. Concrete which is not in accordance with these specifications, out of line, level or plumb; showing structural cracks, rock pockets, voids, spalls, honeycombing, exposed reinforcing or other damaged surfaces shall be considered as defective.

B. All fins and irregularities shall be removed from exposed concrete surfaces while the concrete is still green. Where patching is required, all loose and uniform concrete shall be removed prior to patching. Minor rock pockets and honeycombing shall be patched with dry pack concrete.

## 10. CONCRETE FINISHES

A. Flat surfaces shall be screeded to the required levels and slopes and then any excess water and laitance removed. Concrete shall be compacted with a grid tamper and then floated to a true and level surface within the tolerance of 1/8 inch along a 10 inch straight edge. See plans for concrete finish in landscape areas.

## 11. EXPANSION JOINTS

Placement of expansion joints shall be as directed and determined by layouts of slab markings noted e.j. on Drawings. Expansion joint materials shall be Quick Joint, or approved equal, or as noted in Plans.

## 12. PROTECTION

All finished concrete work shall be barricaded to pedestrian traffic for three (3) days. Barricades shall be placed immediately after concrete finishing. The Contractor shall furnish, place and remove all of his own barricades. The Contractor shall be responsible for any damage to new construction and replacement or repair of the work shall be made without added cost to the Owner.

## 13. PATCHING

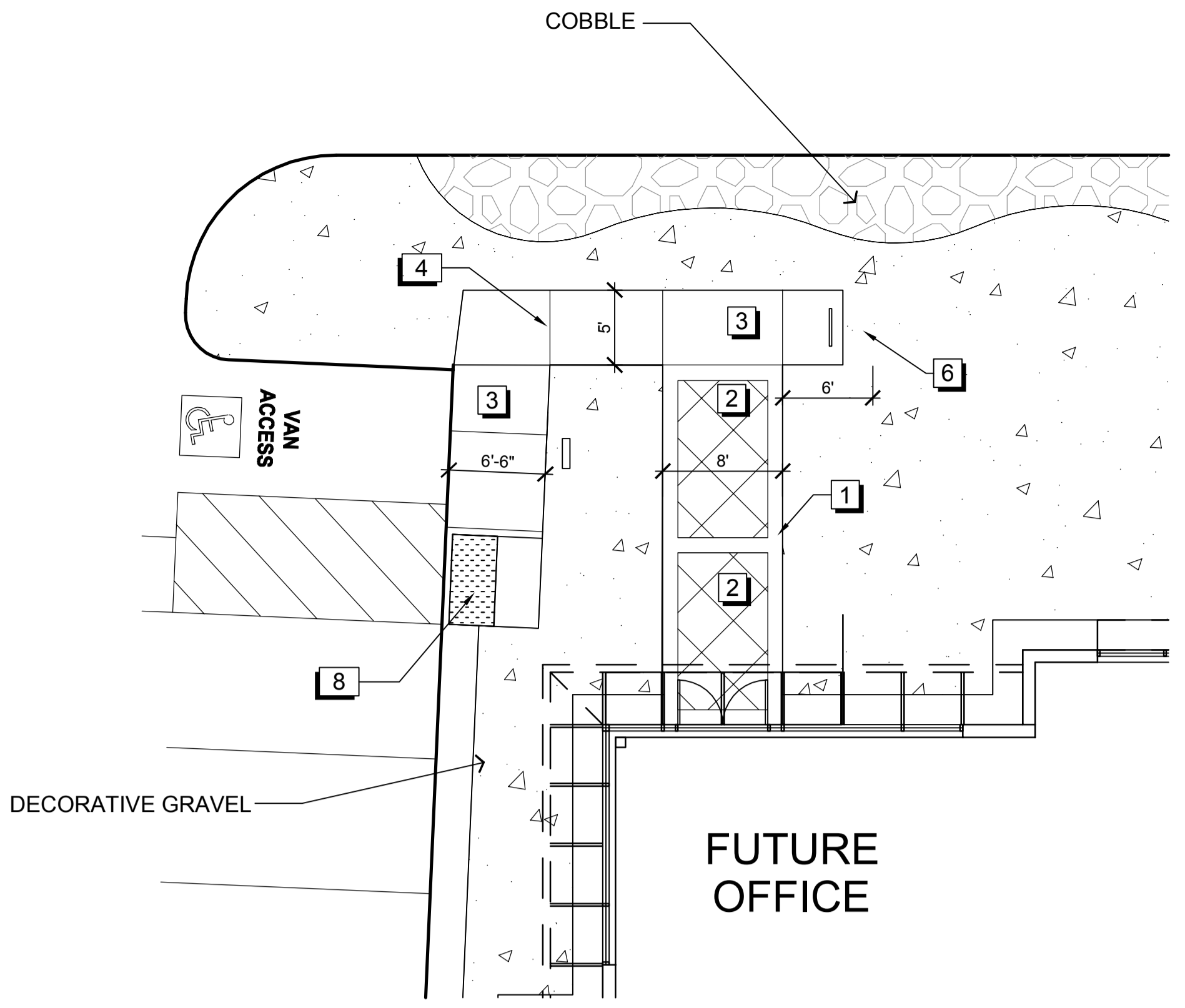
If patching is necessary and permissible, a bonding agent such as Weld-Crete, or equal, shall be used.

## 14. CONCRETE CURBS

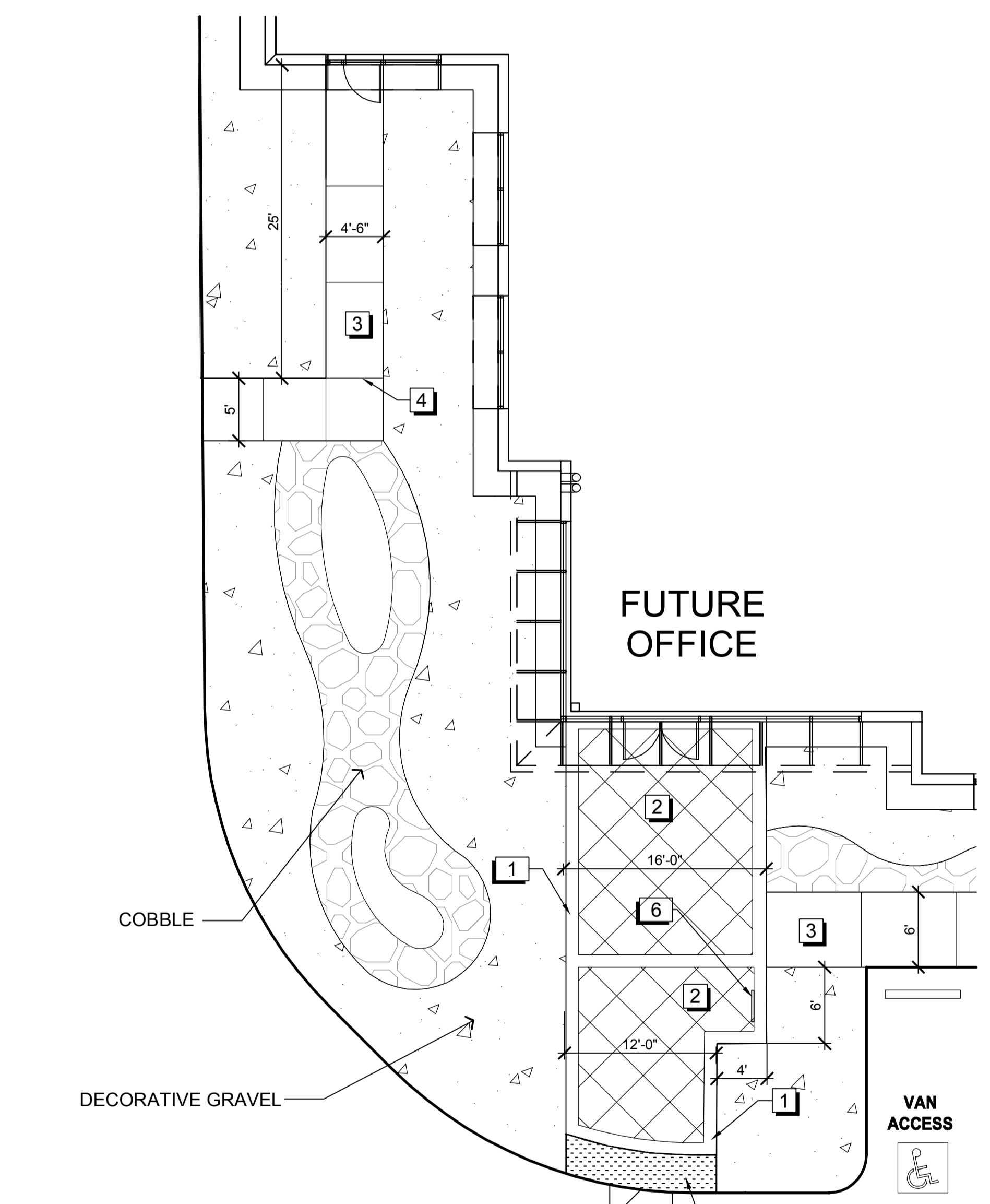
Construct concrete curbs at locations shown on Plans as detailed, true to line and grade, as approved by the local County or City. Use natural grey Portland Cement Concrete, 2000 psi compressive strength. Locate expansion joints as detailed or shown, and as directed - at intervals not to exceed fifteen feet (15'). Finish with steel trowel, then brush with bristle brush parallel to face or edge.

## 15. CLEAN UP

Upon completion of all concrete work and before final acceptance, the Contractor shall remove all tools, surplus materials, apparatus, debris, etc., from the site and the site shall be left in a clean, neat condition acceptable to the Owner.



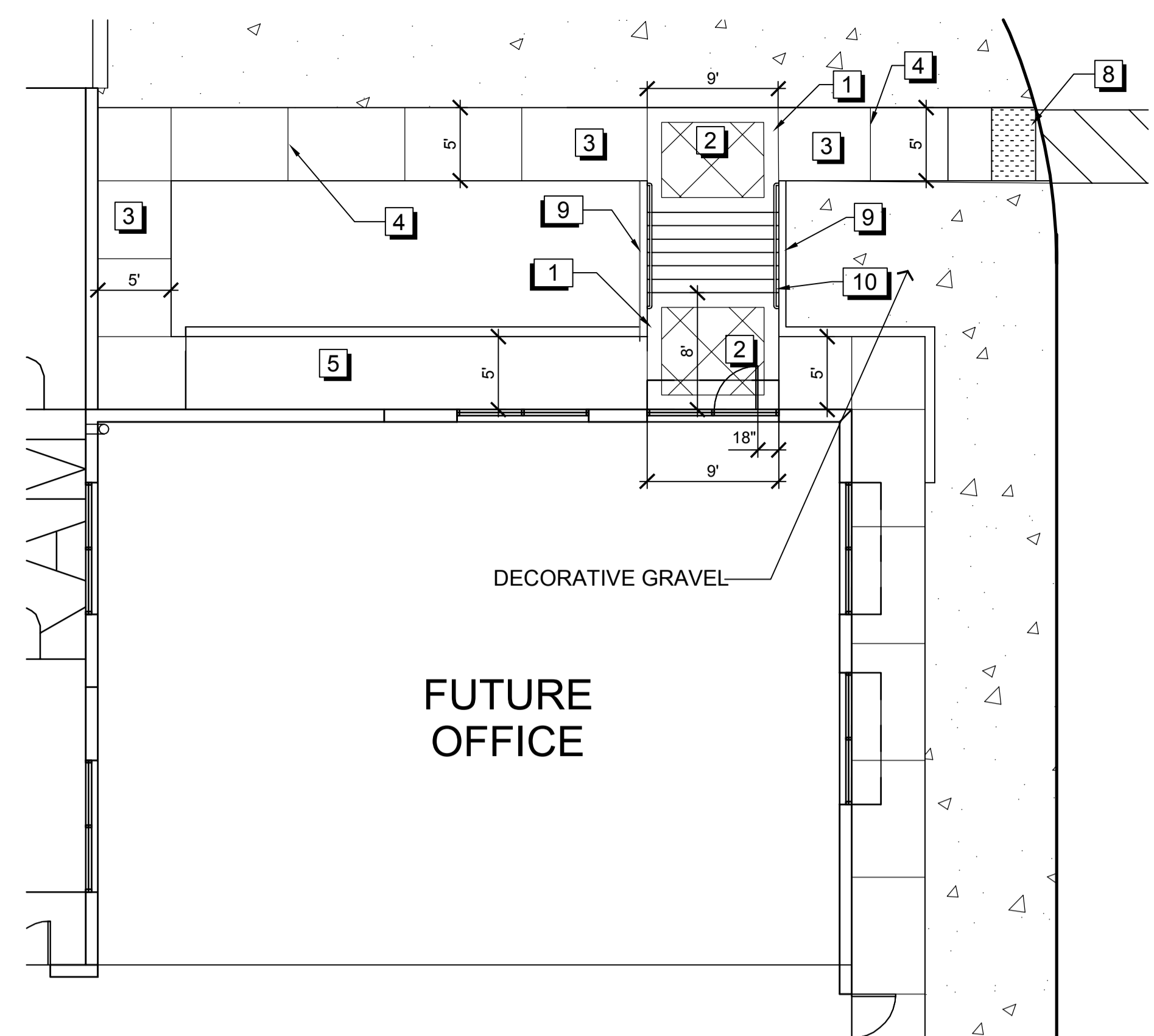
**NORTH WEST ENTRY**  
(SCALE: 1/8" = 1'-0")



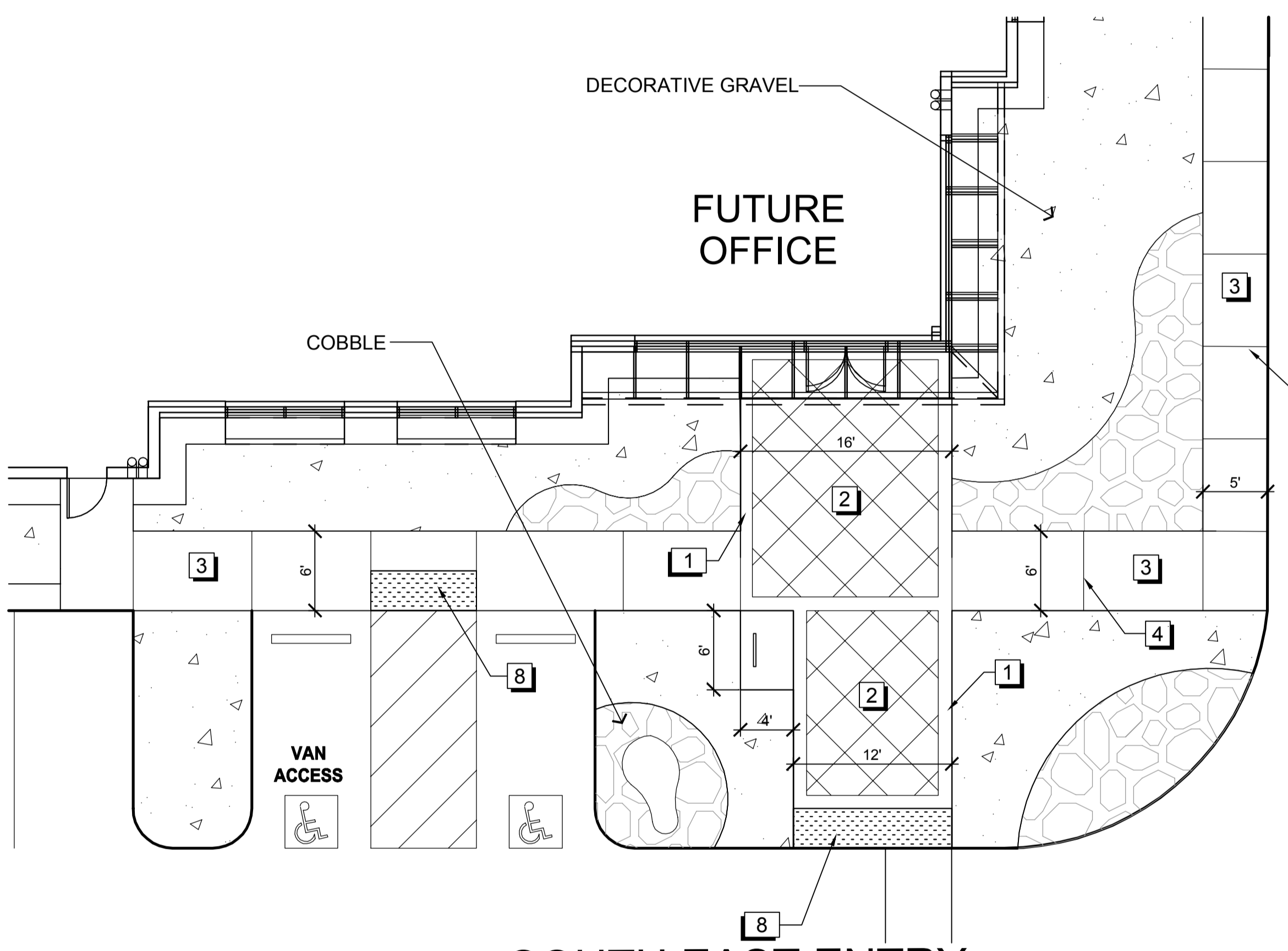
**SOUTH WEST ENTRY**  
(SCALE: 1/8" = 1'-0")

### REFERENCE NOTES SCHEDULE

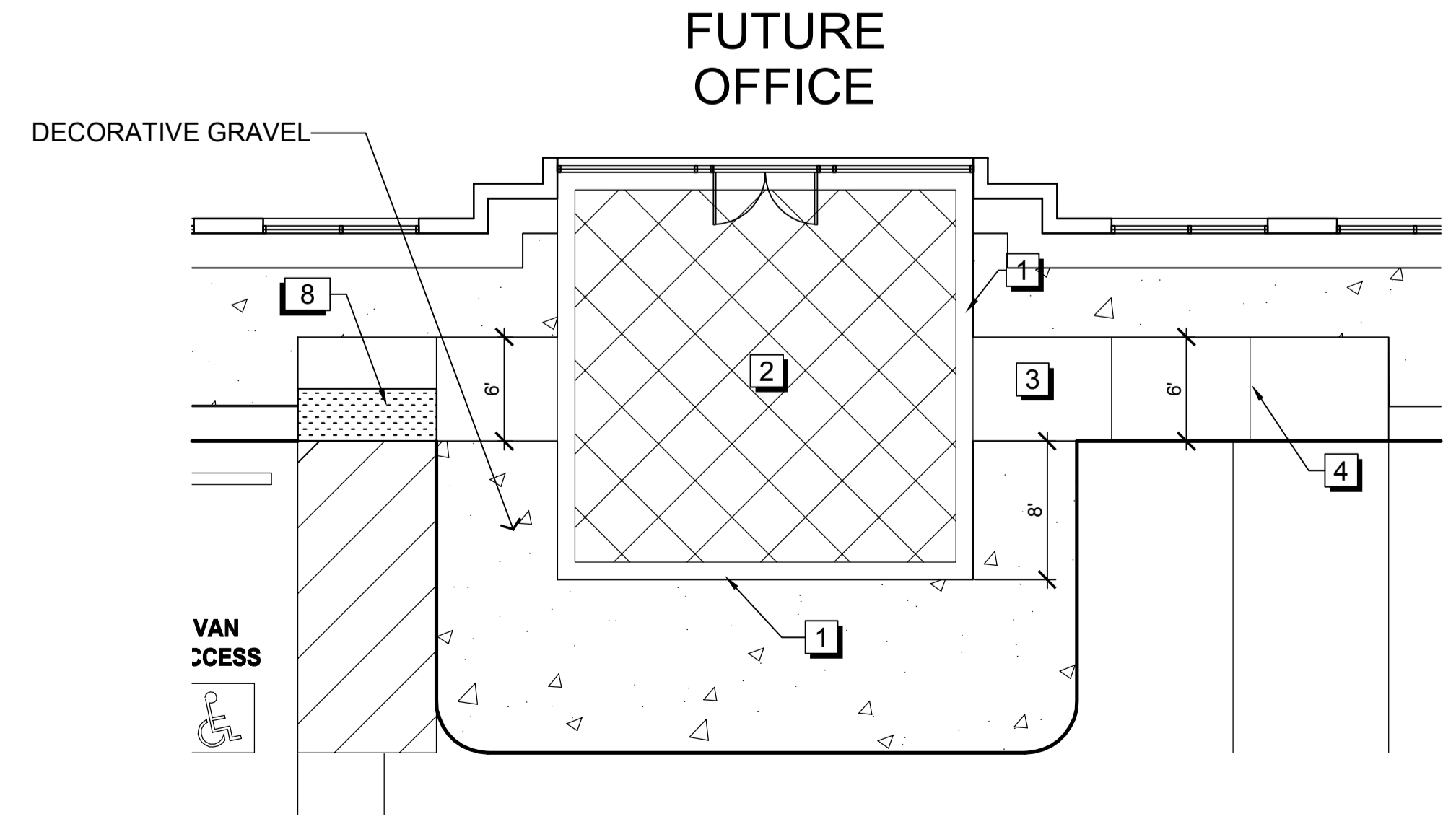
SYMBOL	DESCRIPTION
1	12" WIDE NATURAL COLORED CONCRETE BAND WITH LIGHT BROOM FINISH. SEE DETAIL 1 ON THIS SHEET.
2	NATURAL COLORED CONCRETE W/ MEDIUM SANDBLAST FINISH AND SAWCUT SCORELINES 24" O.C. SEE DETAIL 1 & 3 THIS SHEET
3	NATURAL COLORED CONCRETE PAVING WITH BROOM FINISH SEE DETAIL 2 & 3 ON THIS SHEET
4	SCORELINE TYPICAL SEE DETAIL 3 THIS SHEET
5	ADA RAMP PER CIVIL ENGINEER - SEE ARCHITECT'S AND ENGINEER'S PLANS
6	PW ATHLETIC CO. ROLLER COASTER BIKE RACK MODEL #1802-05 COLOR GALVANIZED STEEL. AVAILABLE FROM: DAVE BAND ASSOC. (800) 669-2585 WIDTH OF RACK IS 38" AND WILL HOLD 5 BIKES.
8	ADA DOMES - SEE ARCHITECTS PLANS
9	CONCRETE RETAINING WALL - SEE CIVIL AND ARCHITECTS PLANS
10	HANDRAIL - SEE ARCHITECTS PLANS



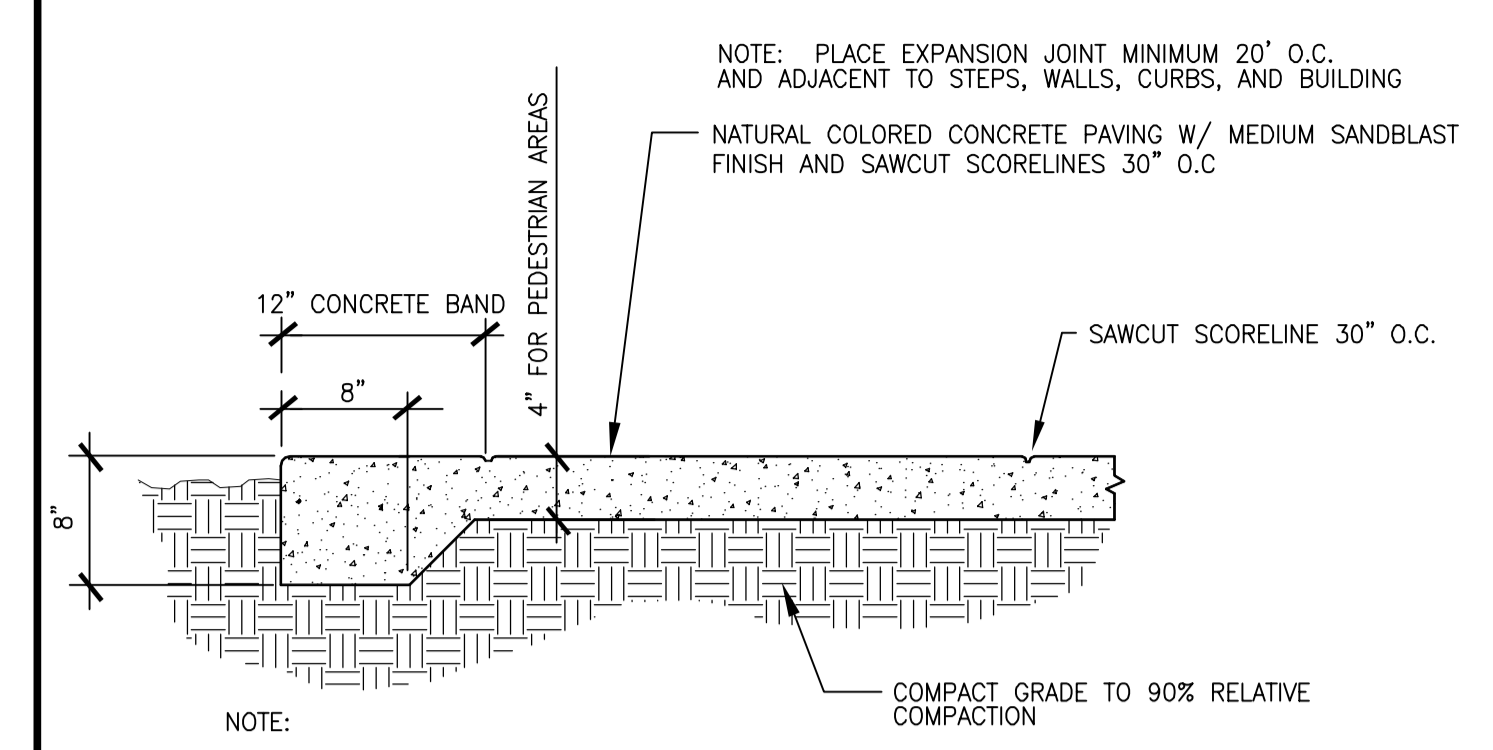
**NORTH EAST ENTRY**  
(SCALE: 1/8" = 1'-0")



**SOUTH EAST ENTRY**  
(SCALE: 1/8" = 1'-0")

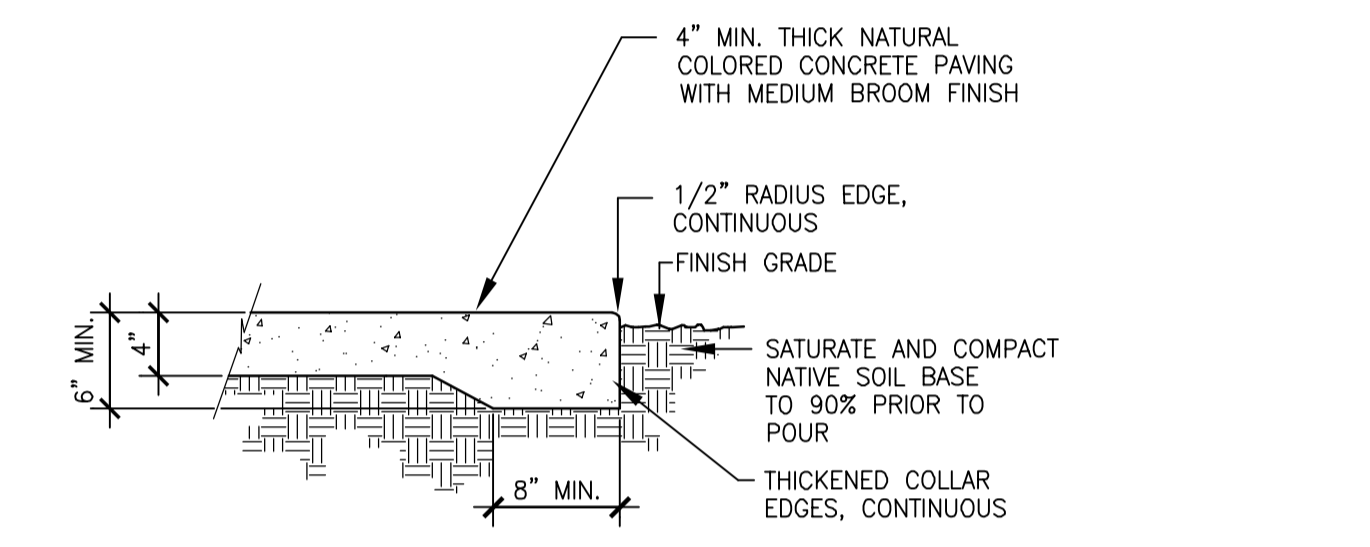


**SOUTH MIDDLE ENTRY**  
(SCALE: 1/8" = 1'-0")



- NOTE:
- CONTRACTOR SHALL PREPARE A FINISHED SAMPLE TO BE REVIEWED AND APPROVED BY L.A. & ARCHITECT PRIOR TO JOB COMMENCEMENT.
  - REINFORCEMENT PER STRUCTURAL & SOIL ENGINEER
  - THICKNESS OF CONCRETE AND BASE MATERIAL FOR ENTRY DRIVES PER SOILS AND STRUCTURAL ENGINEERS RECOMMENDATIONS

**ACCENT CONCRETE PAVING** 1



- NOTES:
- EXPANSION JOINTS EVERY 20'-0" O.C. SEE DETAIL #3 THIS SHEET
  - PAVING MUST HAVE 1/2" MIN. CROSS SLOPE FOR DRAINAGE
  - SCORELINES MIN. 8" O.C. SEE DETAIL 6 THIS SHEET
  - REINFORCEMENT PER STRUCTURAL & SOIL ENGINEERS

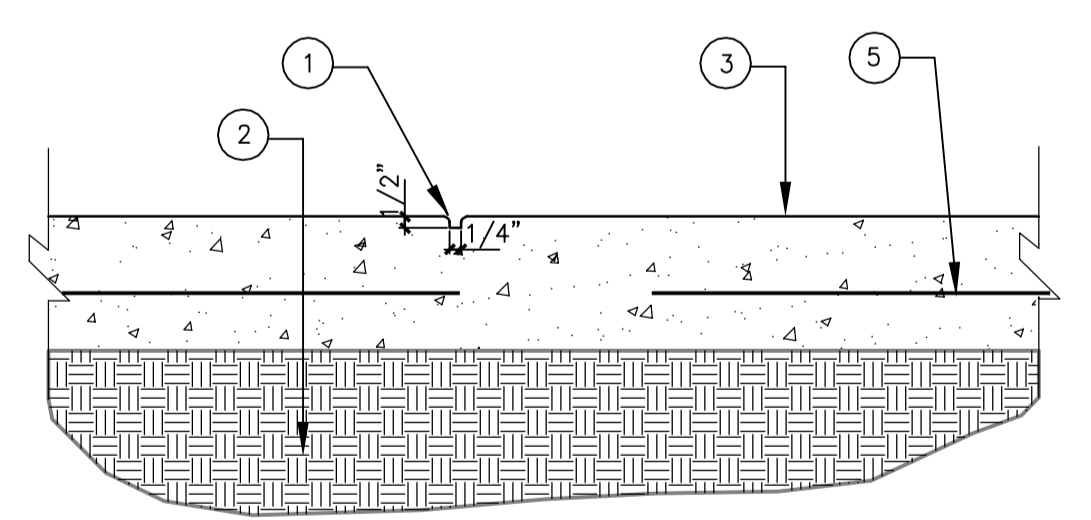
**CONCRETE WALKS** 2

NOTE:  
THICKNESS OF CONCRETE PAVING IN PEDESTRIAN AREAS SHALL BE 4" THICK

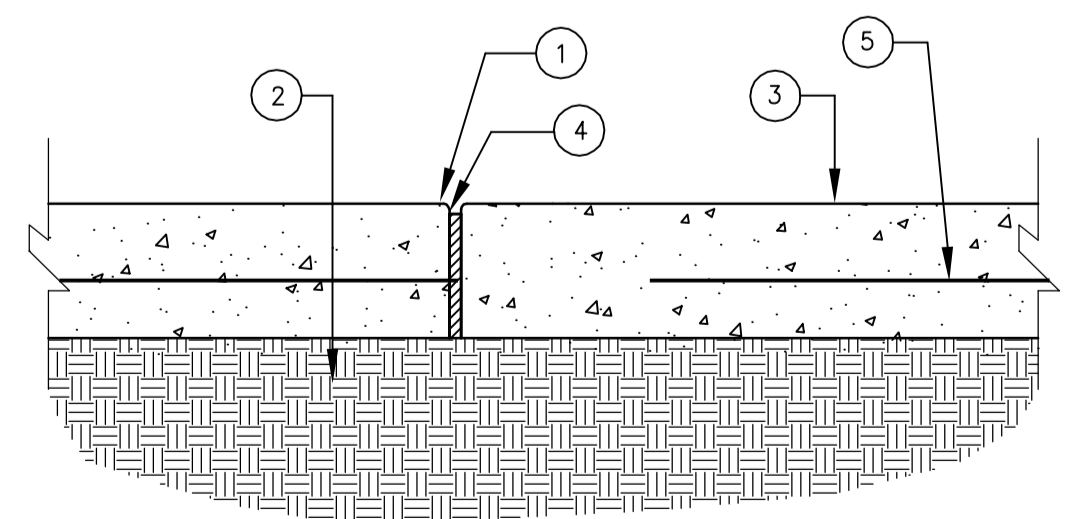
ENTRY DRIVE THICKNESS PER SOIL AND STRUCTURAL ENGINEER

REINFORCEMENT PER SOIL AND STRUCTURAL ENGINEER

- LEGEND:
- SCORELINE 8' O.C. MAX. WITH 1/4" RADIUS EDGE
  - 90% COMPACTED SUBGRADE
  - FINISH SURFACE SEE EDGE OF CONCRETE DETAIL FOR COLOR AND FINISH
  - POLY FELT EXPANSION JOINT W/ MASTIC BEAD (HARDNESS TO BE SHORE 40) COVERED W/ SILICA SAND COLOR TO MATCH PAVING 24" O.C.
  - REINFORCEMENT PER SOIL AND STRUCTURAL ENGINEER



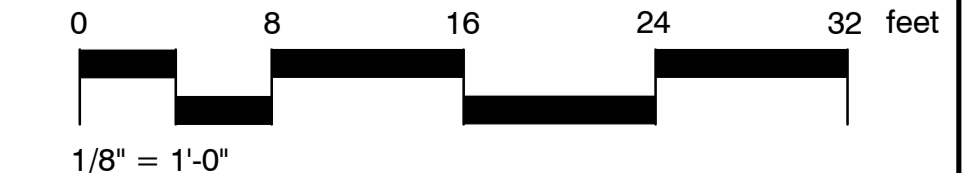
TYPICAL SCORE LINE



TYPICAL EXPANSION JOINT

**TYPICAL SCORELINE & EXPANSION JOINT** 3

**NOTE: GRADES, ADA RAMPS, AND SLOPE PERCENT OF HARDSCAPE PER CIVIL ENGINEERS PLANS**



DEVELOPED BY:  
**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOTHILL RANCH, CA 92610  
TEL: (949) 462-0899

PROPOSED DEVELOPMENT:  
**BUILDING 18**  
SOUTHERN CALIFORNIA LOGISTICS CENTRE  
VICTORVILLE, CA

DRAWN BY DATE  
BFK 10/14/16  
JOB NO.  
RGA0072  
SHEET NO.  
**L-15**  
15 OF 19 SHEETS.

STATE OF CALIFORNIA  
LICENSED LANDSCAPE ARCHITECT  
3419  
10/31/18  
Renewed Date

**RECYCLED WATER NOTES**

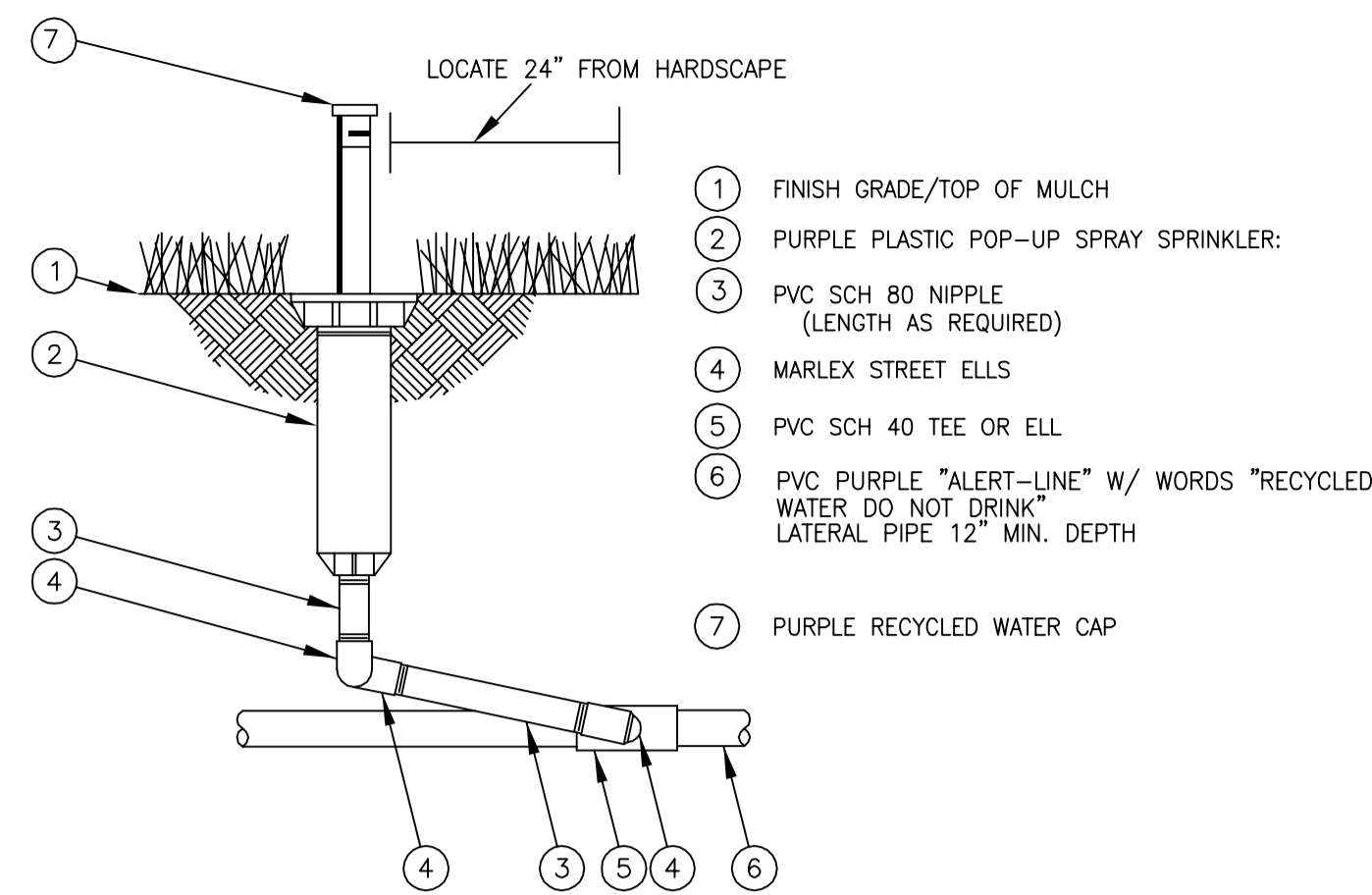
- ALL VALVE BOXES SHALL BE PURPLE PLASTIC WITH THE WORDS "RECYCLED WATER" CAST INTO THE PLASTIC LID.
- ALL CONTROL VALVES MUST HAVE A PLASTIC LABEL ATTACHED WITH A NYLON TIE WRAP WITH THE WORDS "RECYCLED WATER - DO NOT DRINK" IN ENGLISH AND SPANISH.
- ALL ABOVE-GROUND RISERS SHALL BE LABELED WITH A SELF-ADHESIVE LABEL WITH THE SAME WARNING AS THE LABEL FOR CONTROL VALVES.
- ALL FLUSH, POP-UP SPRINKLER HEADS MUST BE MADE OF PURPLE PLASTIC.
- ALL BELOW GRADE PIPING MUST BE PURPLE PIPE WITH THE WORDS "RECYCLED WATER - DO NOT DRINK" THIS APPLIES TO BOTH PERMANENT AND INTERMITTENT PRESSURE PIPE. THIS REQUIREMENT DOES NOT APPLY TO FITTINGS AND RISERS.
- NO HOSE BIBS ARE ALLOWED ON RECYCLED WATER SYSTEMS.
- QUICK COUPLERS ARE ALLOWED, BUT MUST BE MADE FOR RECYCLED WATER SYSTEMS. QUICK COUPLERS MUST ALSO BE PLACED IN PURPLE PLASTIC VALVE BOXES.
- NO ON-SITE BACKFLOW PREVENTION ASSEMBLY SHALL BE ALLOWED ON ANY RECYCLED WATER SYSTEM SERVING LANDSCAPE, TURF, OR CROP IRRIGATION.
- SIGNS INDICATING THE USE OF RECYCLED WATER ARE REQUIRED AND WILL BE PLACED AT THE DISCRETION OF THE DISTRICT INSPECTOR.
- PRIOR TO PRESSURE TESTING, POTABLE WATER WITH AN APPROVED REDUCED PRESSURE PRINCIPLE DEVICE MAY BE TEMPORARILY USED TO ESTABLISH PLANTING. THE SYSTEM MUST BE CHECKED FOR CROSS-CONNECTIONS BEFORE CONVERTING TO RECYCLED WATER.
- ALL REQUIRED PERMITS TO BE COMPLETED AND SIGNED BEFORE ACTIVATION OF RECYCLED WATER.

REQUIRED CLEARANCE BETWEEN POTABLE WATER LINE AND RECYCLED WATER LINE IS 10 FEET HORIZONTALLY AND 1 FOOT VERTICALLY (WITH POTABLE WATER LINE CROSSING PERPENDICULARLY OVER RECYCLED WATER LINE). IF A RECYCLED WATER LINE CROSSES OVER A POTABLE WATER LINE, THE RECYCLED WATER LINE SHALL BE INSTALLED INSIDE A SLEEVE WITH THE SLEEVE CENTERED OVER THE POTABLE WATER LINE AND EXTENDED AT LEAST 10 FEET ON BOTH SIDES.

NOTIFY WATER DISTRICT AT FOR INSPECTIONS: 1) INSPECT PIPE PRIOR TO BACKFILL; 2) INITIAL PRESSURE TEST; AND 3) ABOVE GROUND INSPECTION-2 DAY NOTIFICATION.

**IRRIGATION NOTES**

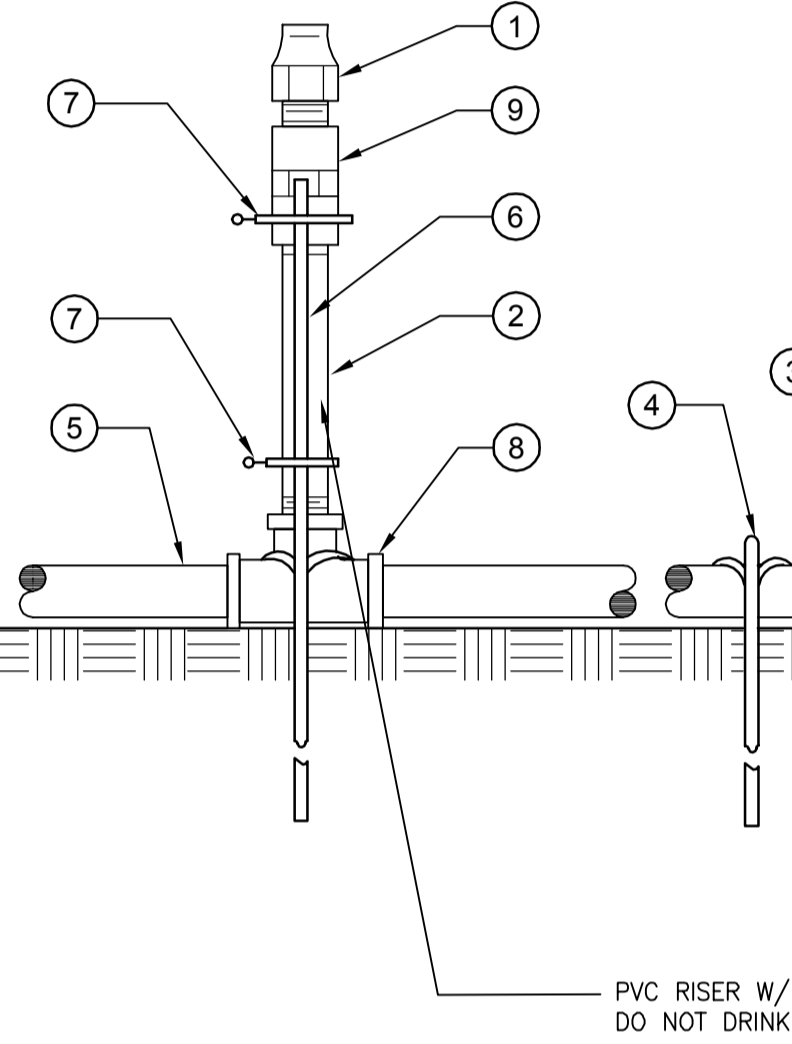
- IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM GIVING FULL COVERAGE AND READY FOR USE BY THE OWNER. THE DRAWINGS ARE BASED ON LANDSCAPE AND GRADING DRAWINGS IN EFFECT AT THE TIME THESE DRAWINGS WERE MADE. ANY DISCREPANCIES, OMISSIONS, ERRORS, ETC. ON THESE DRAWINGS OR ON SITE CHANGES, DO NOT AND SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE A COMPLETE SYSTEM AS SHOWN. IF NECESSARY, THE CONTRACTOR MAY, WHERE CHANGES OCCUR, ADD OR DELETE SPRINKLERS, REROUTE PIPE, ETC. TO ASSURE ADEQUATE AND FULL COVERAGE.
- IRRIGATION CONTRACTOR SHALL VERIFY ALL PRESSURES ON SITE PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL INSTALL CHECK VALVES IN ALL HEADS IN WHICH LOW HEAD DRAINAGE OCCURS.
- LOCATE ALL VALVES IN PLANTING AREAS.
- IRRIGATION SYSTEM IS STRICTLY DIAGRAMMATIC, THEREFORE, CONTRACTOR MUST MAKE ADJUSTMENTS IN THE FIELD TO INSURE ADEQUATE COVERAGE.
- IRRIGATION SYSTEM SHALL CONFORM TO STATE AND LOCAL CODES.
- ALL SHRUB-TYPE HEADS ADJACENT TO WALKS SHALL BE INSTALLED AS LOW AS NECESSARY TO PREVENT ANY DAMAGE TO IRRIGATION SYSTEM.
- THE SYSTEM SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR. ANY DEFECTIVE MATERIAL OR POOR WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY THE IRRIGATION CONTRACTOR AT NO COST TO THE OWNER.
- 120 VOLT ELECTRICAL POWER OUTLET FOR CONTROLLERS SHALL BE PROVIDED AS NOTED. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HOOK-UP FROM OUTLET TO CONTROLLER.
- ALL WIRE FROM CONTROLLER TO ELECTRIC CONTROL VALVES SHALL BE COPPER UF 14 DIRECT BURIAL. USE BLACK FOR PILOT, WHITE FOR COMMON. INSTALL IN COMMON TRENCH WITH MAIN LINE PIPING WHERE POSSIBLE.
- PROVIDE MINIMUM 18" COVER OVER ALL PRESSURE MAIN LINE PIPING, AND 12" OVER ALL NON-PRESSURE LATERAL LINE PIPING. ALL PIPE UNDER PAVED AREAS IS TO BE INSTALLED IN A PVC SCH. 40 SLEEVE WITH 3/4" MIN. COVER. SLEEVE LOCATIONS TO BE AS SHOWN ON PLANS. CITY DEPTH REQUIREMENTS FOR PIPE SUPERCEDE ALL THE ABOVE DIMENSIONS.
- IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE AND TO PREVENT OVERSPRAY AS MUCH AS POSSIBLE.
- DO NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING THE DESIGN PROCESS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE; OTHERWISE, THE IRRIGATION CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR ANY AND ALL NECESSARY REVISIONS.
- FINAL LOCATION OF AUTOMATIC CONTROLLER AND THE BACKFLOW PREVENTER SHALL BE DETERMINED BY OWNER'S AUTHORIZED REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
- FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS AND WALLS/FENCES AS MUCH AS POSSIBLE.
- POLYETHYLENE PIPE TO BE BURIED NO DEEPER THAN 4" BELOW SURFACE.
- LOCATION OF P.O.C. IS ONLY DIAGRAMMATIC. LOCATION MUST BE VERIFIED IN FIELD.
- IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS PRIOR TO PAVING UPON APPROVAL OF THE OWNER'S REPRESENTATIVE, IF REQUIRED TO AVOID SYSTEMS.
- MAINLINE FEEDER BETWEEN POINT OF CONNECTION, METER AND BACKFLOW PREVENTER TO BE OF MATERIAL AS REQUIRED BY CURRENT WATER DISTRICT.



**POP UP BUBBLER**

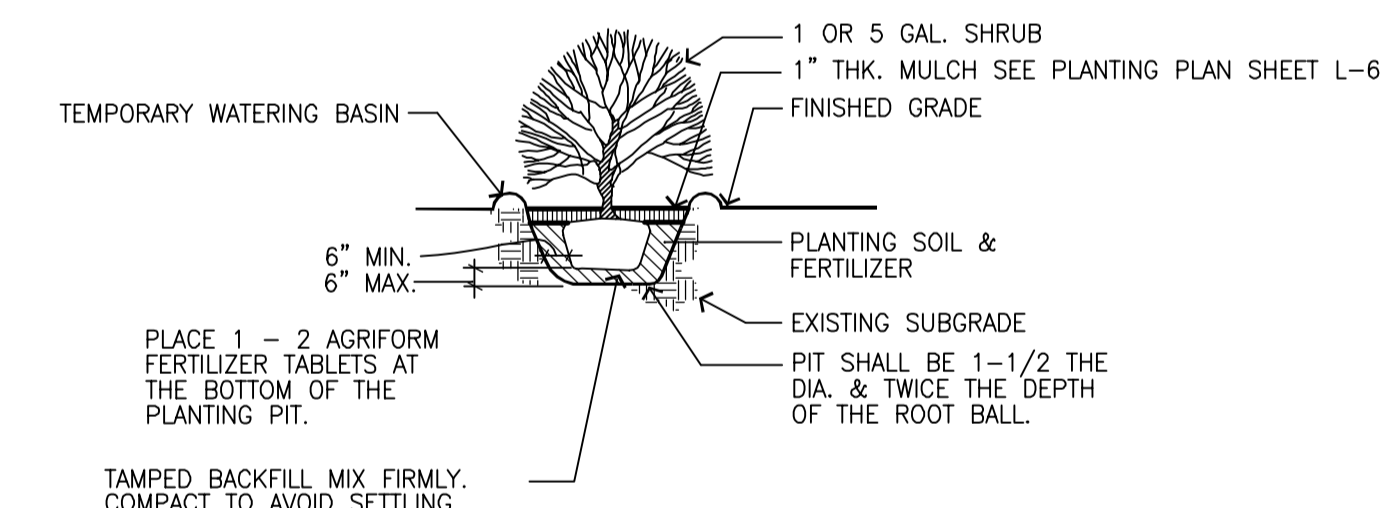
12

- SHRUB SPRAY OR ROTOR HEAD W/ RECYCLED WATER CAP
- PVC SCHEDULE 80 NIPPLE, 9" LENGTH.
- FINISHED GRADE.
- V.I.T. PRODUCTS PS-18 #4X18" REBAR ROD W/ DOUBLE "J" HOOKED RADIUS AT ONE END TO HOLD PIPE SECURELY IN PLACE, INSTALL 10 FT. O.C.
- "URV-PVC" LATERAL LINE PIPE INSTALLED ON GRADE.
- V.I.T. PRODUCTS SS-24 #4X24" REBAR ROD WITH DOUBLE "J" HOOKED RADIUS AT ONE END TO HOLD PIPE SECURELY IN PLACE, INSTALL AT EVERY SPRINKLER.
- ST-9 V.I.T. PRODUCTS STAINLESS STEEL SPRINKLER TIE, TWO (2) REQUIRED.
- "URV-PVC" SCHEDULE 40 TEE OR ELL.
- HUNTER HCV CHECK VALVE LINE SIZE, USE AS NECESSARY TO PREVENT LOW HEAD DRAINAGE.



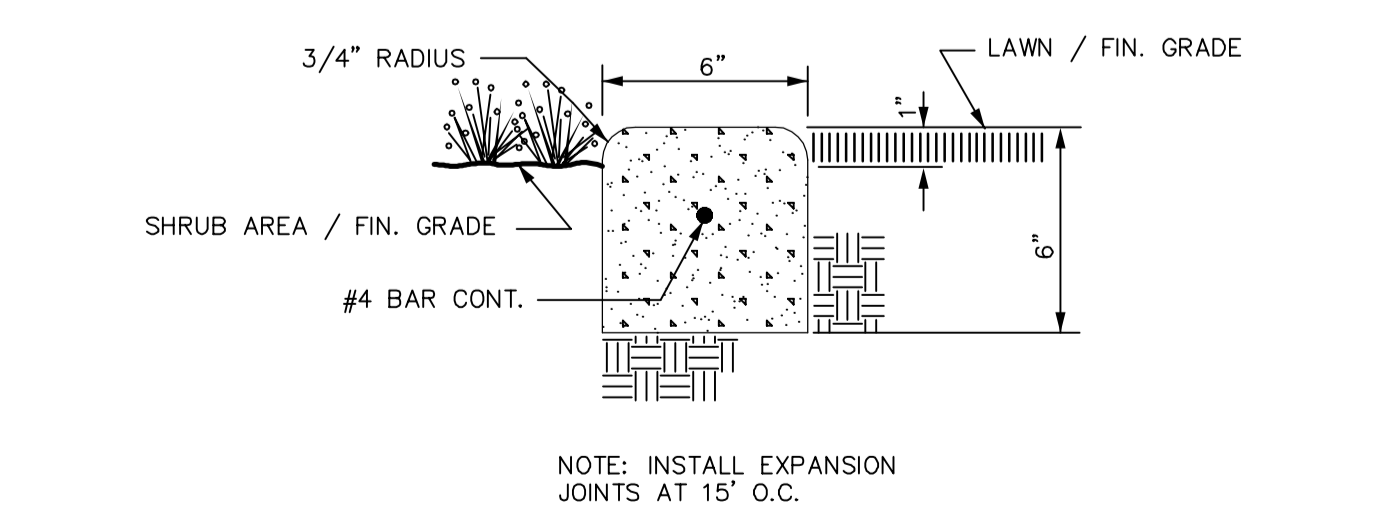
**SHRUB SPRAY / ROTOR ON GRADE**

13



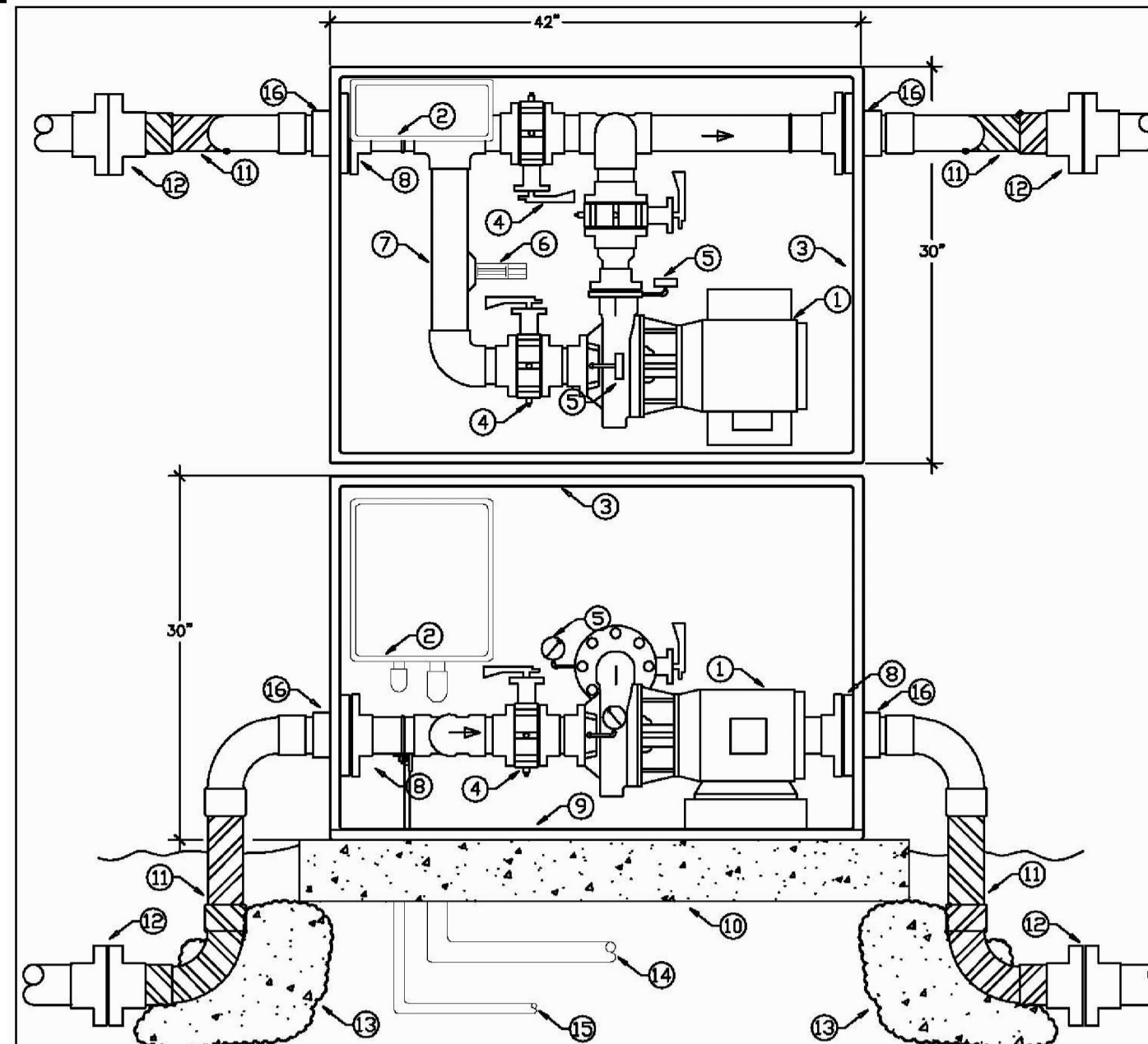
**SHRUB PLANTING DETAIL**

14



**CONCRETE MOW CURB**

15

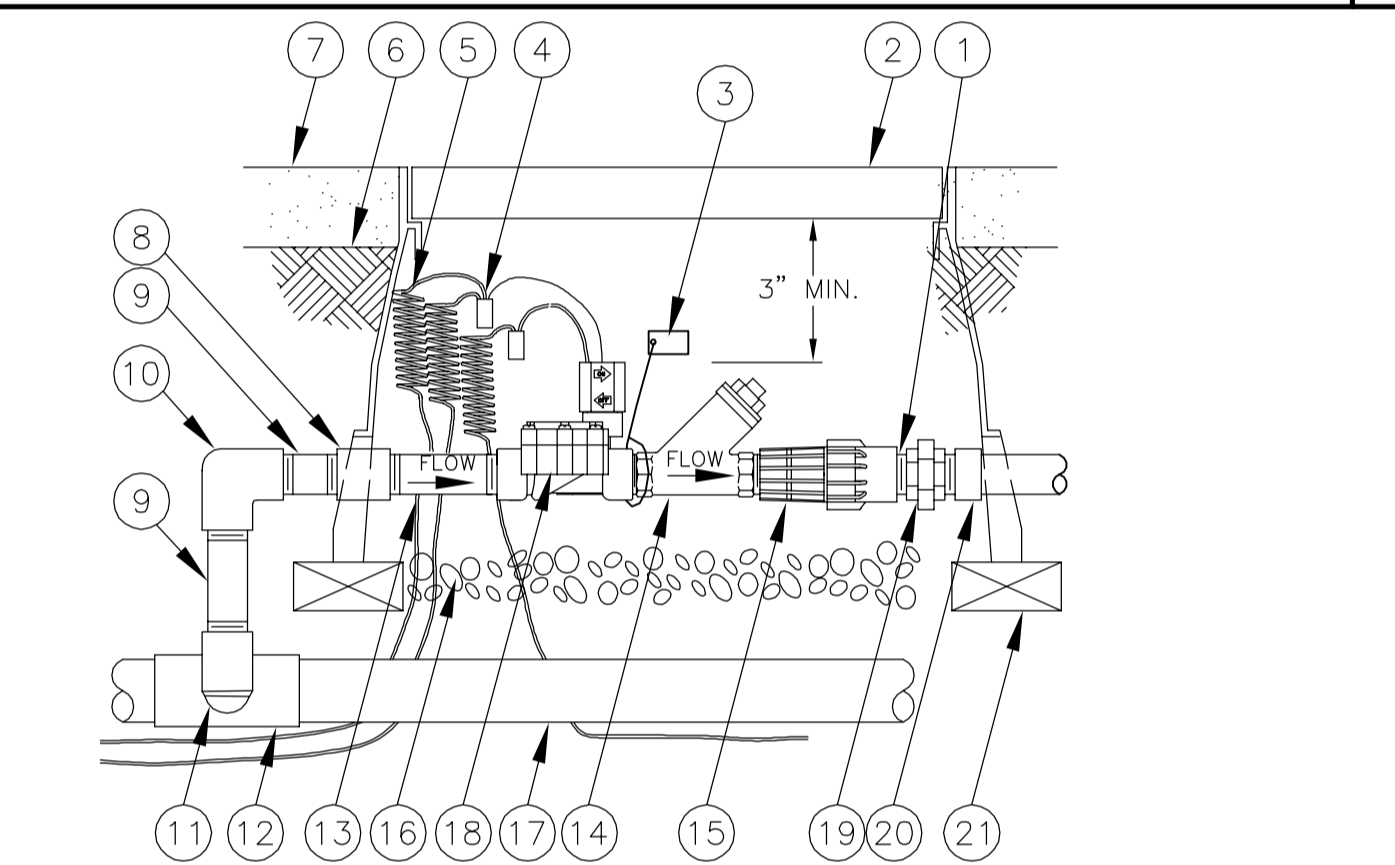


- CLOSE-COUPLED END SUCTION CENTRIFUGAL PUMP, CAST IRON BRONZE FITTED, BACK PULLOUT DESIGN, MECHANICAL SEAL, ODP MOTOR
- NEMA 4 ENCLOSED CONTROL PANEL WITH CIRCUIT BREAKER, MAGNETIC STARTER, HOA SWITCH, AND COMPONENTS FOR AUTOMATIC BOOSTER PUMP CONTROL.
- MARINE GRADE ALUMINUM ENCLOSURE, TOP HINGED DESIGN WITH VENTING.
- CAST IRON ELASTOMER LINED FULL LOG WIPER STYLE BUTTERFLY VALVE.
- PRESSURE GAUGE, 2 1/2" DIA., LIQUID FILLED, STAINLESS CASE, 0-200 PSI
- FLOW SWITCH, THERMAL DISPERSION, 150 PSI RATED.
- TYPE 304 STAINLESS STEEL, 2 1/2 INCH
- 150# ANSI RATED STAINLESS OUTPUT FLANGE
- FABRICATED STRUCTURAL ALUMINUM BASE PLATE
- 4-6 INCH CONCRETE PAD, ASTM C94, ACI STD. 318-83 DESIGN MIX, 2000 PSI RATED. PAD DIMENSIONS SHALL BE 42" X 54"
- DISCHARGE PIPE (BY OTHERS)
- COMPANION FLANGE CONNECTION.
- CONCRETE THRUST BLOCK, 12" CU. FT. MINIMUM
- MAIN POWER CONDUIT
- IRRIGATION CONTROLLER SIGNAL CONDUIT.
- CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL INLET AND OUTLET PIPING.

**BARRETT ENGINEERED PUMPS**

**BOOSTER PUMP**

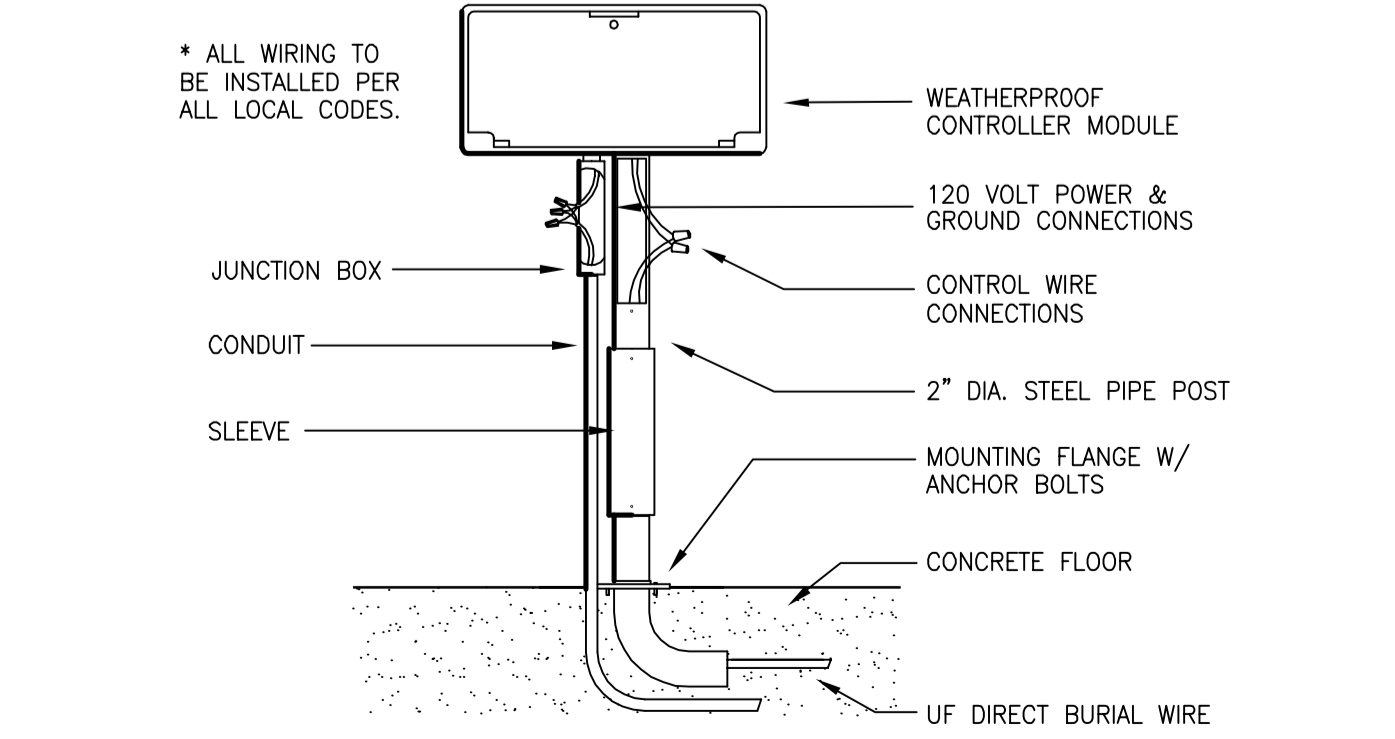
9



- PVC SCH 80 NIPPLE
- PLASTIC VALVE BOX & LID (PURPLE) BRANDED W/ "RECYCLED WATER". SEE PLAN FOR LOCATION OF PROPOSED EQUIPMENT.
- PLASTIC LABEL ATTACHED W/ NYLON TIE. LABEL TO READ: "RECYCLED WATER - DO NOT DRINK" IN ENGLISH & SPANISH.
- WATER PROOF CONNECTION (1 OF 2)
- 30-INCH LINEAR LENGTH OF WIRE, COILED
- FINISH GRADE
- TOP OF MULCH OR GRAVEL
- PVC SCH 40 COUPLING
- PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- PVC SCH 40 ELL
- PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- SCH. 80 PVC NIPPLE
- INLINE Y FILTER: RAIN BIRD MODEL SC 150 030 SS (30 MESH)
- SENNER 50 PSI
- 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- MAINLINE - PVC SCH. 40 (PURPLE) W/ WORDS "RECYCLED WATER - DO NOT DRINK" SIZE AS NOTED ON PLAN
- REMOTE CONTROL VALVE: SEE PLAN FOR TYPE
- PVC SCH 80 UNION FOR SERVICING ASSEMBLY
- PVC SCH 40 MALE ADAPTER
- BRICK (1 OF 4)

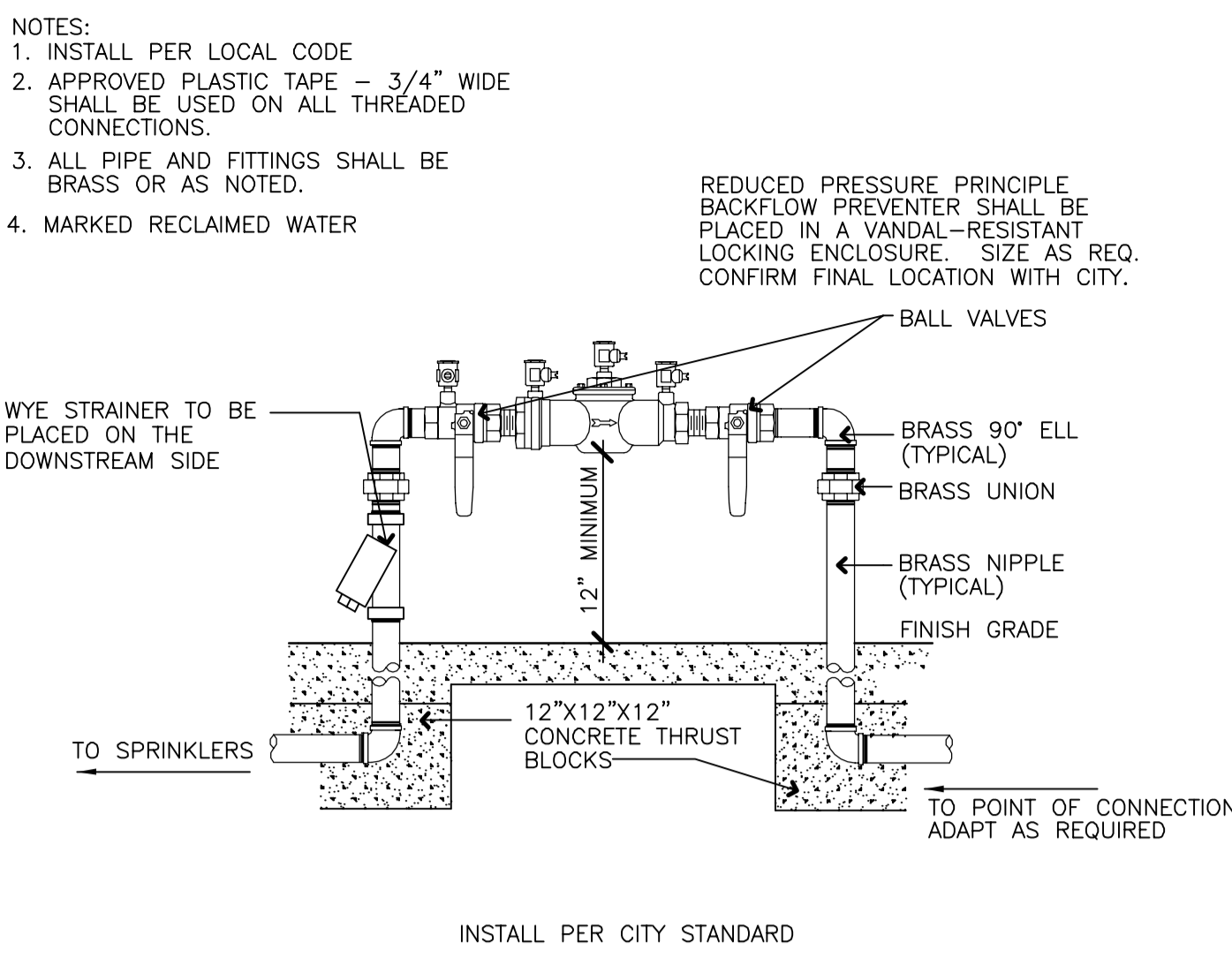
**RC DRIP IRRIGATION VALVE ASSEMBLY**

10



**IRRIGATION CONTROLLER**

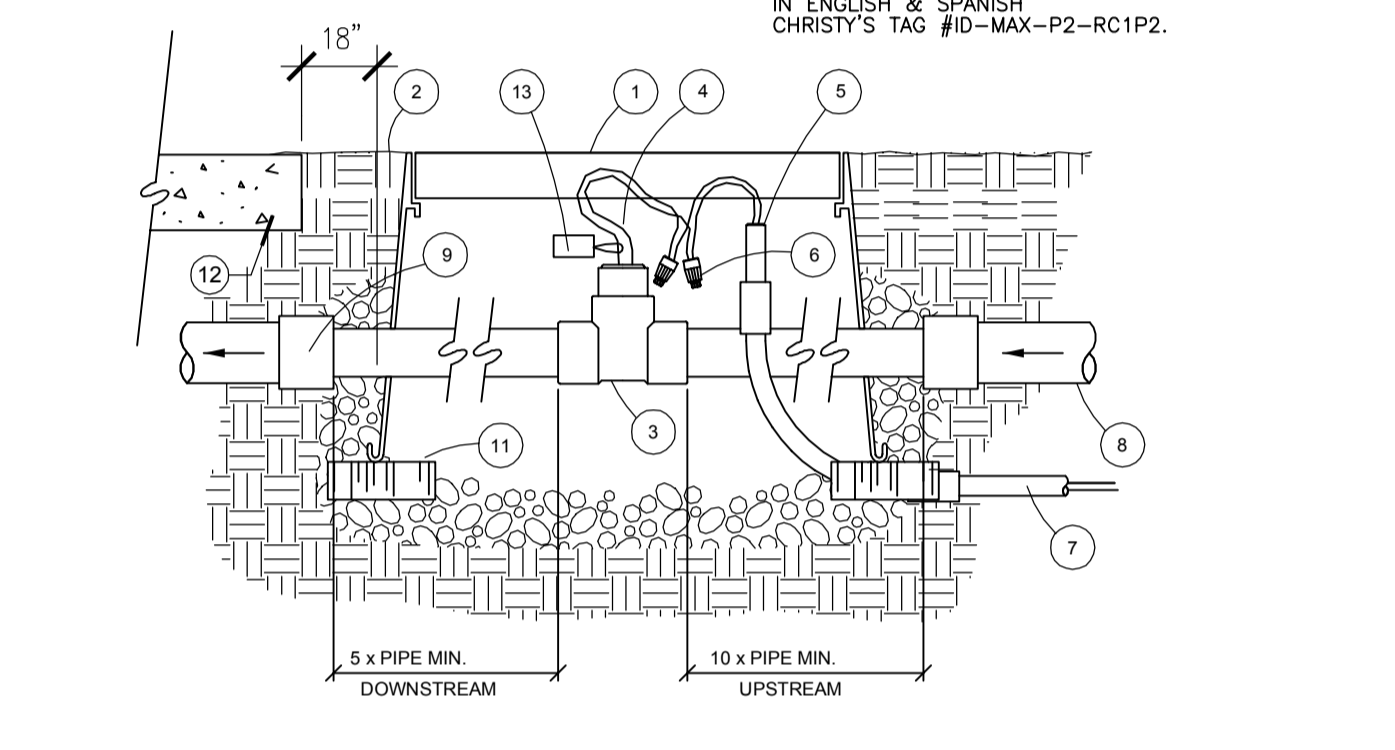
11



**R.P. BACKFLOW DEVICE**

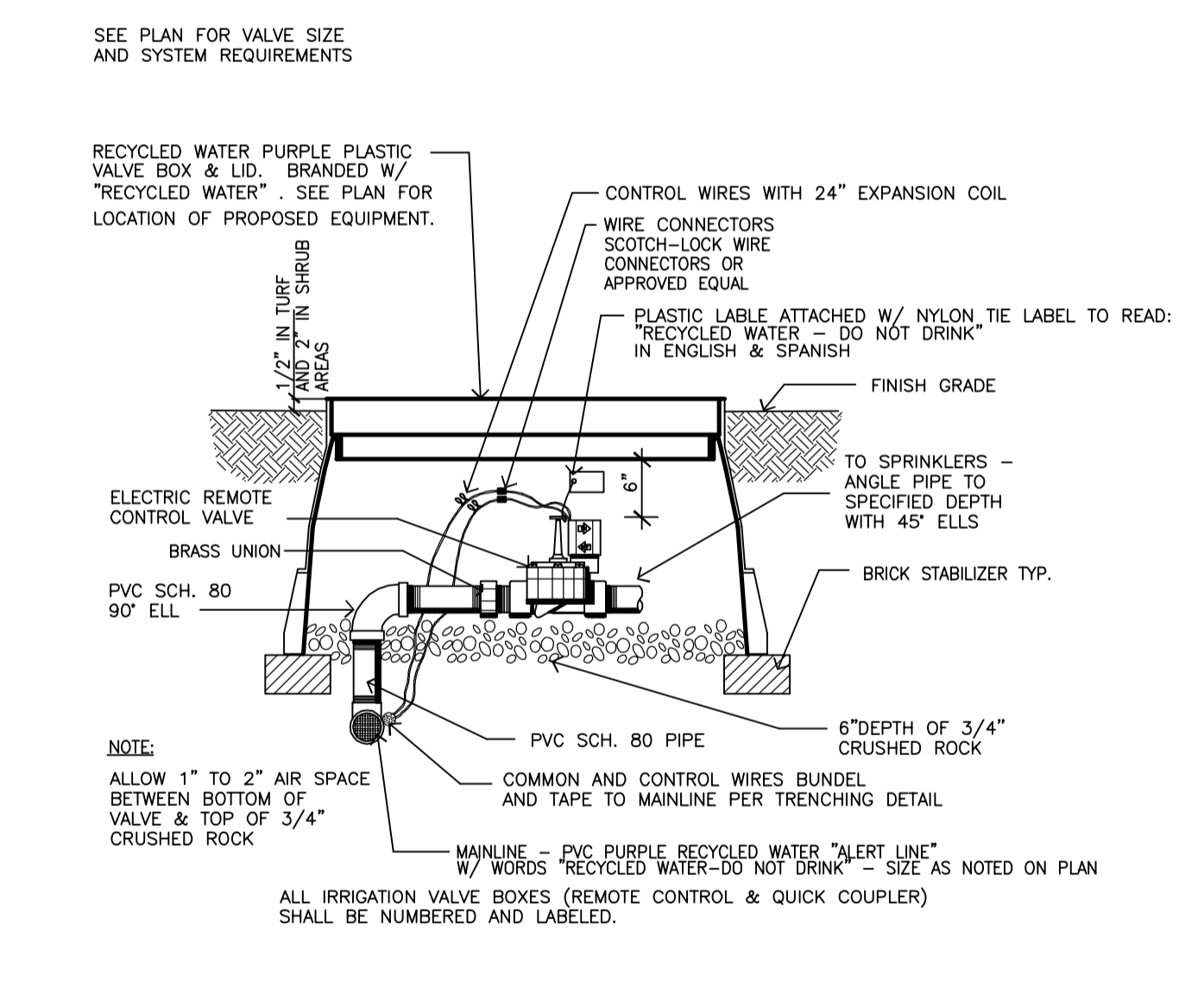
5

- PURPLE RECTANGULAR PLASTIC VALVE BOX BRANDED W/ RECYCLED WATER
- FINISH GRADE
- FLOW SENSOR
- FLOW SENSOR CABLE P-7162D
- CONDUIT BUSHING
- WATERPROOF DRY SPRUCE CONNECTOR
- 1.1/4" ELECTRICAL CONDUIT AND SWEEP ELBOW
- IRRIGATION MAINLINE (PURPLE PVC W/ WORDS "RECYCLED WATER - DO NOT DRINK" FROM MASTER VALVE)
- MAINLINE TO THE RCV'S
- OMT
- QUANTITY OF (4) BRICK FOR STABILIZATION
- EDGE OF PAVING, HEADER OR BUILDING WALL
- PLASTIC LABEL ATTACHED W/ NYLON TIE LABEL TO READ: "RECYCLED WATER - DO NOT DRINK" IN ENGLISH & SPANISH. CHRISTY'S TAG #80-MA-P2-RC1P2.



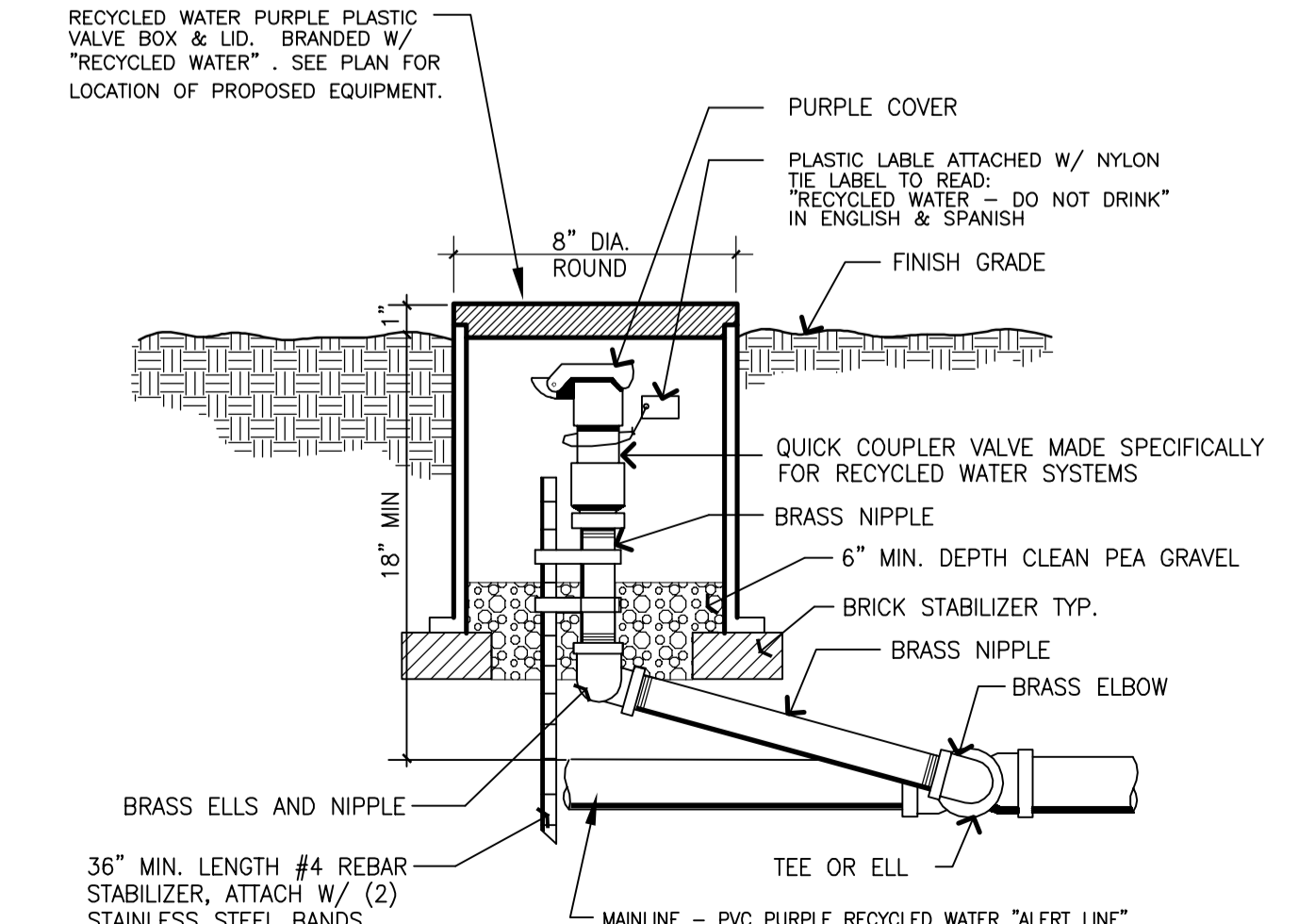
**FLOW SENSOR**

6



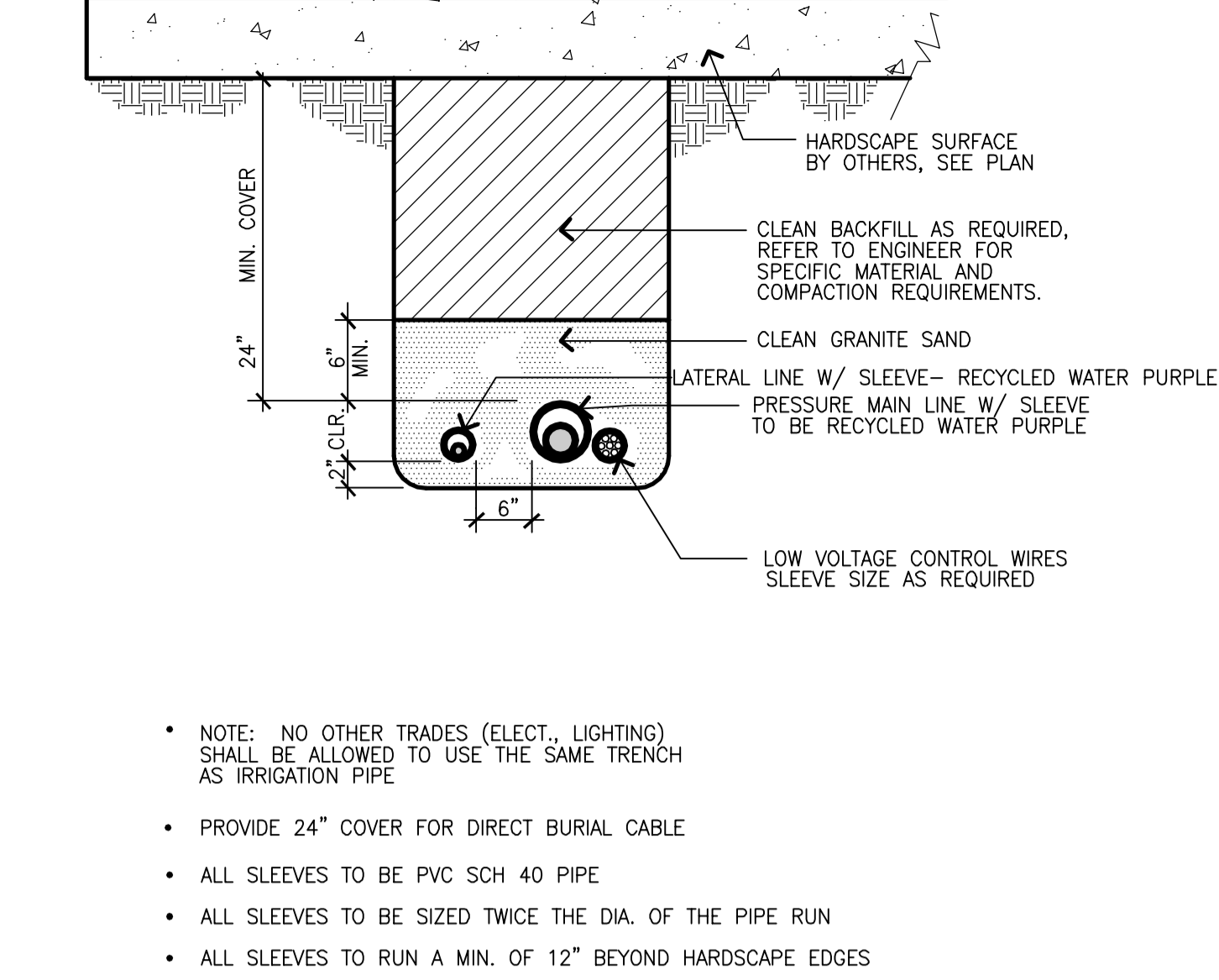
**REMOTE CONTROL VALVE**

7



**QUICK COUPLER DETAIL**

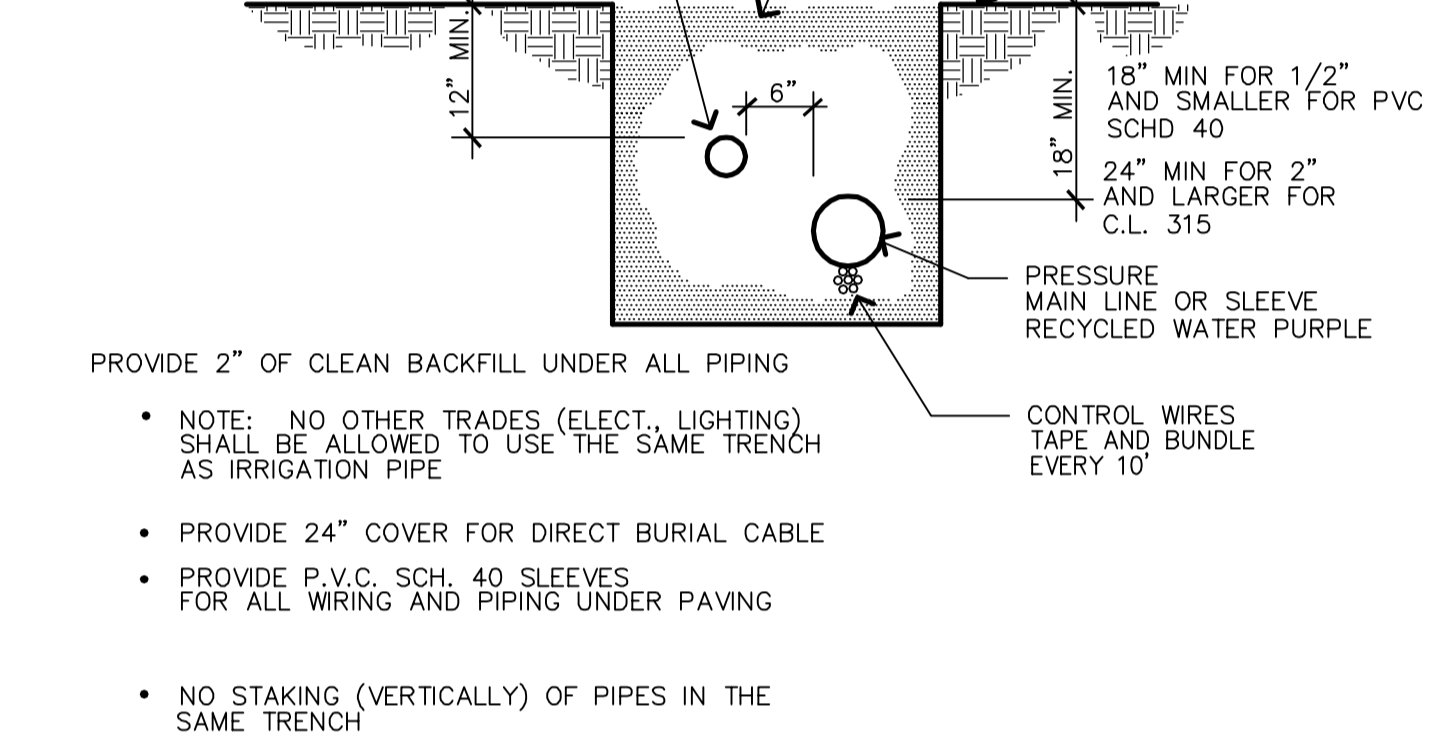
8



**IRRIGATION SLEEVE DETAIL**

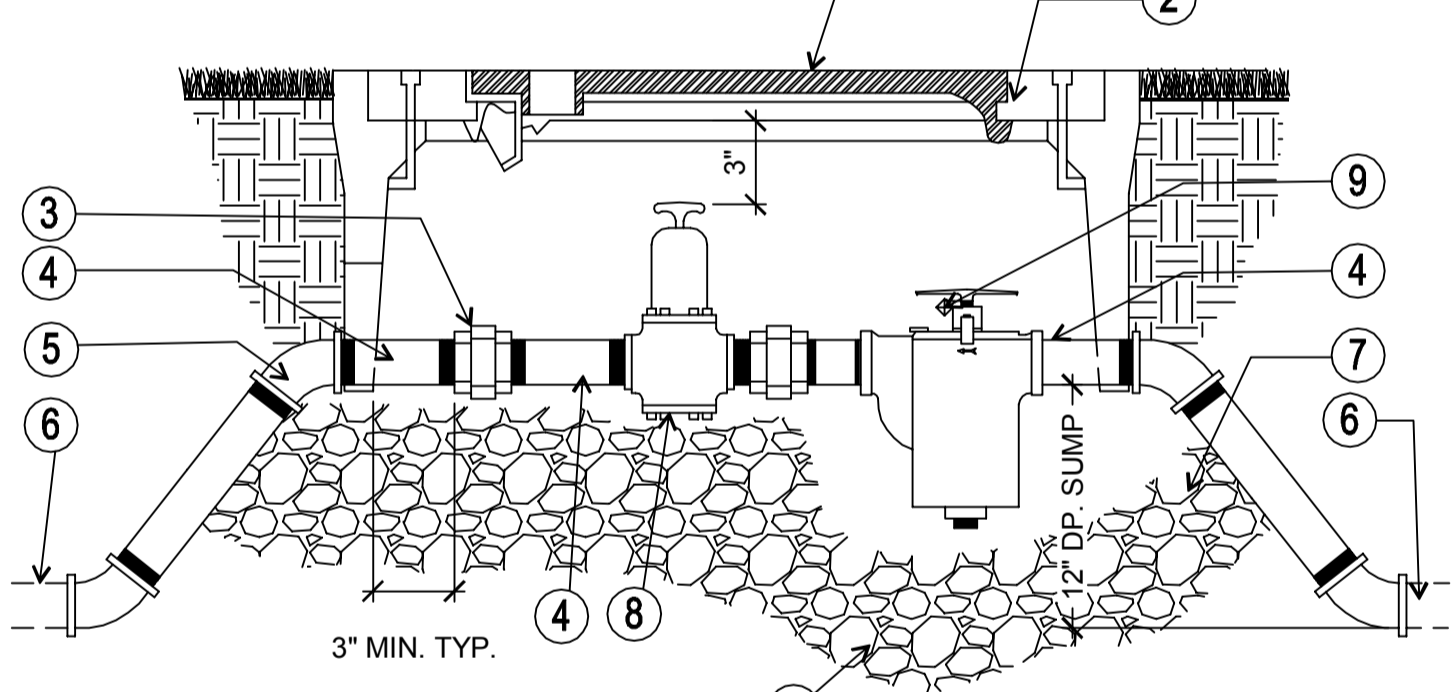
1

- NOTE: NO OTHER TRADES (ELECT., LIGHTING) SHALL BE ALLOWED TO USE THE SAME TRENCH AS IRRIGATION PIPE
- PROVIDE 24" COVER FOR DIRECT BURIAL CABLE
- ALL SLEEVES TO BE PVC SCH 40 PIPE
- ALL SLEEVES TO BE SIZED TWICE THE DIA. OF THE PIPE RUN
- ALL SLEEVES TO RUN A MIN. OF 12" BEYOND HARDSCAPE EDGES



**IRRIGATION TRENCHING DETAIL**

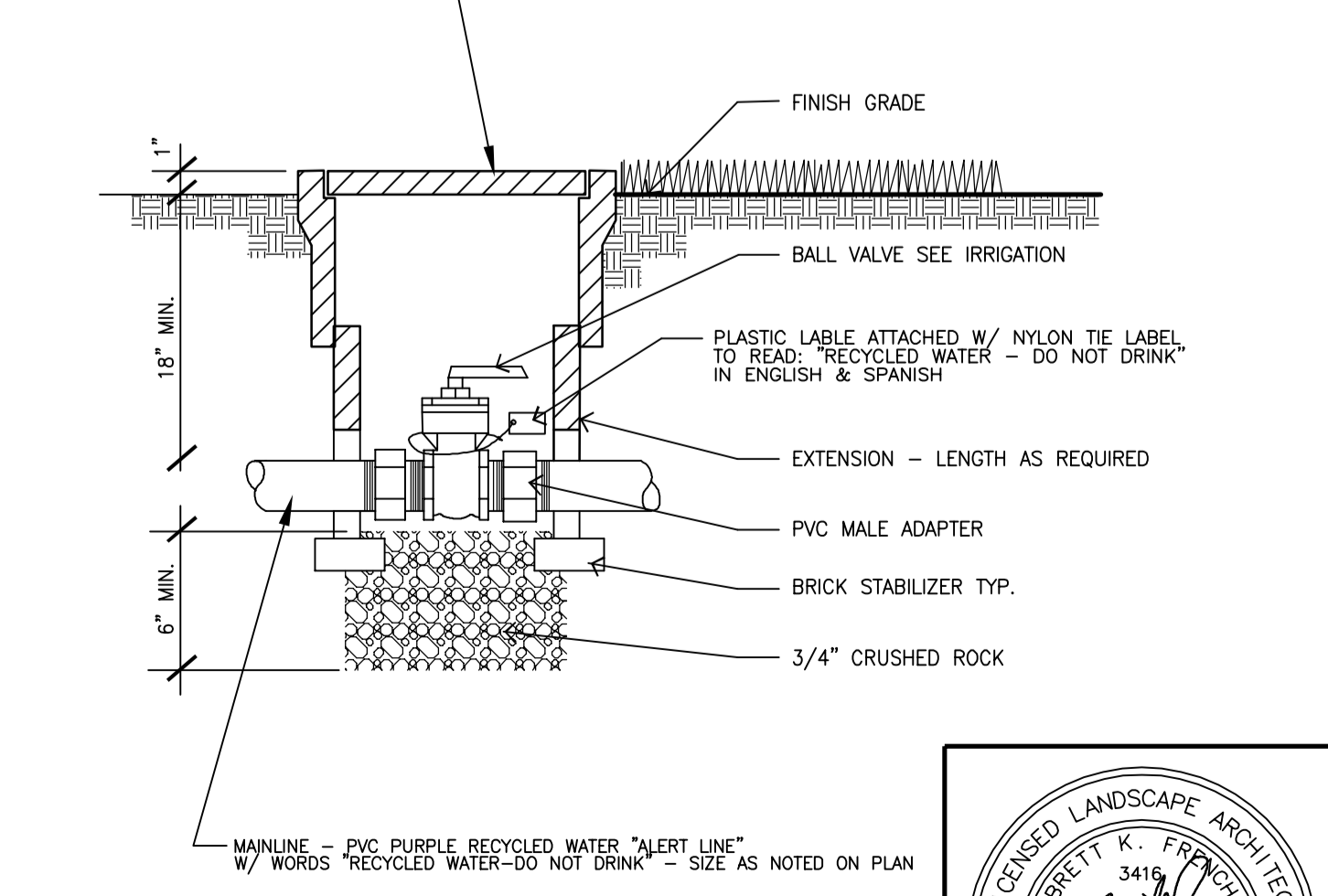
2



- LEGEND:**
- Approved (Purple) rectangular plastic valve box with locking cover.
  - Finish grade
  - PVC Schd 40 union
  - PVC Schd 40 nipple
  - PVC Schd 40 45' (TYP)
  - Mainline - pvc purple recycled water "alert line"
  - Pea gravel
  - Pressure regulator
  - Christy ID Tag as required
  - Gravel Sump
- NOTES:**
- Pressure setting shall be as specified on plans.
  - Valve box shall be of sufficient size to accommodate Pressure Regulator Assembly.
  - Pressure Regulator shall be installed horizontally so adjustment nut, and main cap on Pressure Regulator are accessible.
  - All piping and fittings shall be pvc schd 40 unless noted otherwise.
  - Close nipples shall not be used.
  - Wrap below grade brass piping w/UPC 10 mil. black pipe wrap (as req'd).
  - Attach purple reclaimed water identification tags as directed on reclaimed systems.
  - Plastic valve box & lid (purple) branded w/ "recycled water". see plan for location

**BASKET STRAINER WITH PRESSURE REGULATOR**

3



**BALL VALVE**

4

REVISIONS

REVISED LANDSCAPE PLANS PER PLAN CHECK COMMENTS 11-22-16

REVISED 10-21-16

**Enviroins**  
LANDSCAPE ARCHITECTURE  
Creating Sustainable & Water Conserving Solutions  
1746 N. Bridgeway Avenue • Claremont, CA 91711  
Ph: (951) 654-5650 • Fax: (951) 654-5656

**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOTHILL RANCH, CA 92610  
TEL: (649) 462-0509

DEVELOPED BY:

SHEET TITLE: **PLANTING & IRRIGATION DETAILS**

PROPOSED DEVELOPMENT: **BUILDING 18 SOUTHERN CALIFORNIA LOGISTICS CENTRE VICTORVILLE, CA**

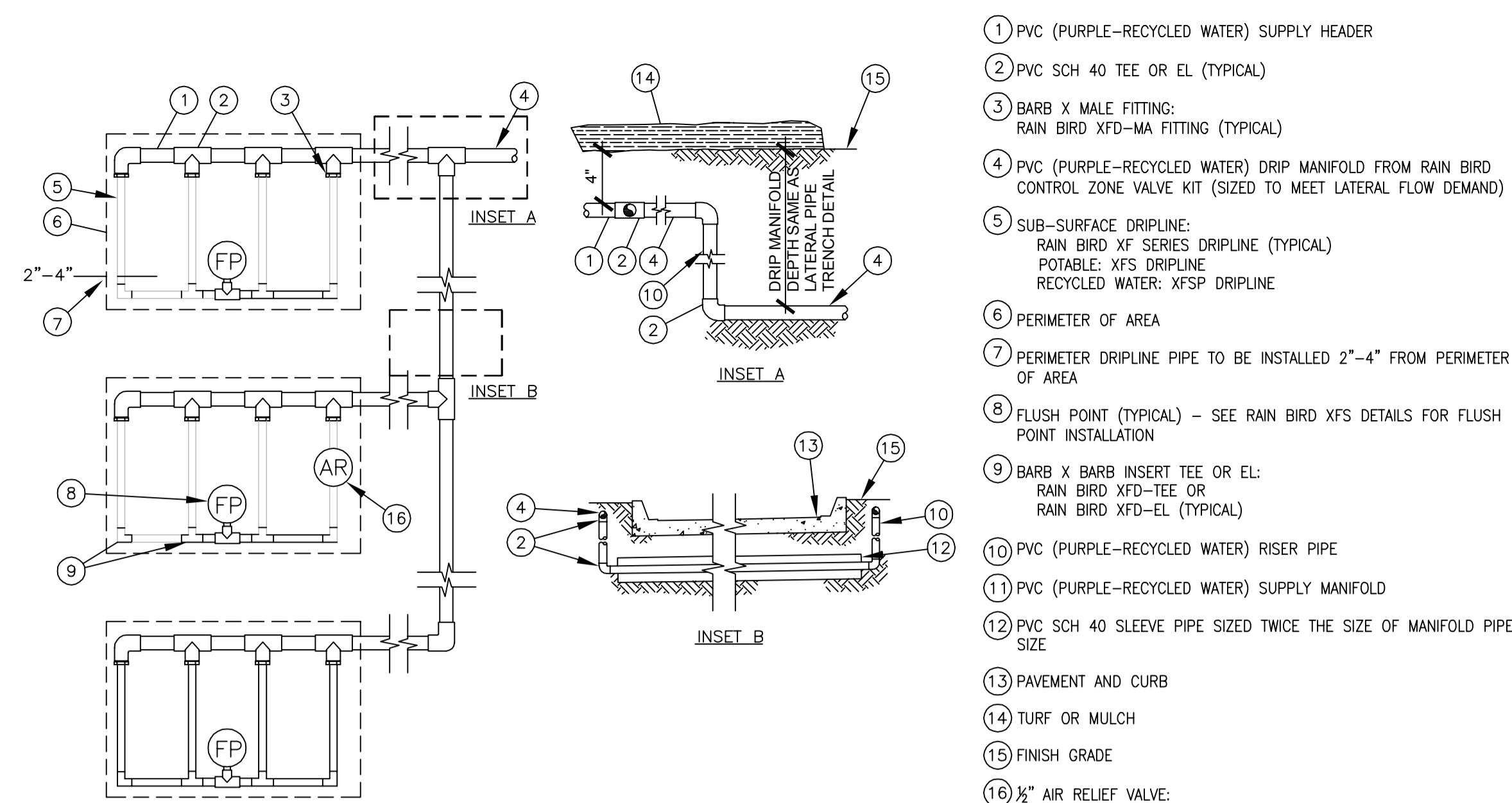
DRAWN BY: **BFK** DATE: **10/14/16**

JOB NO.: **RGA0072**

SHEET NO.: **L-16**

16 OF 19 SHETS.

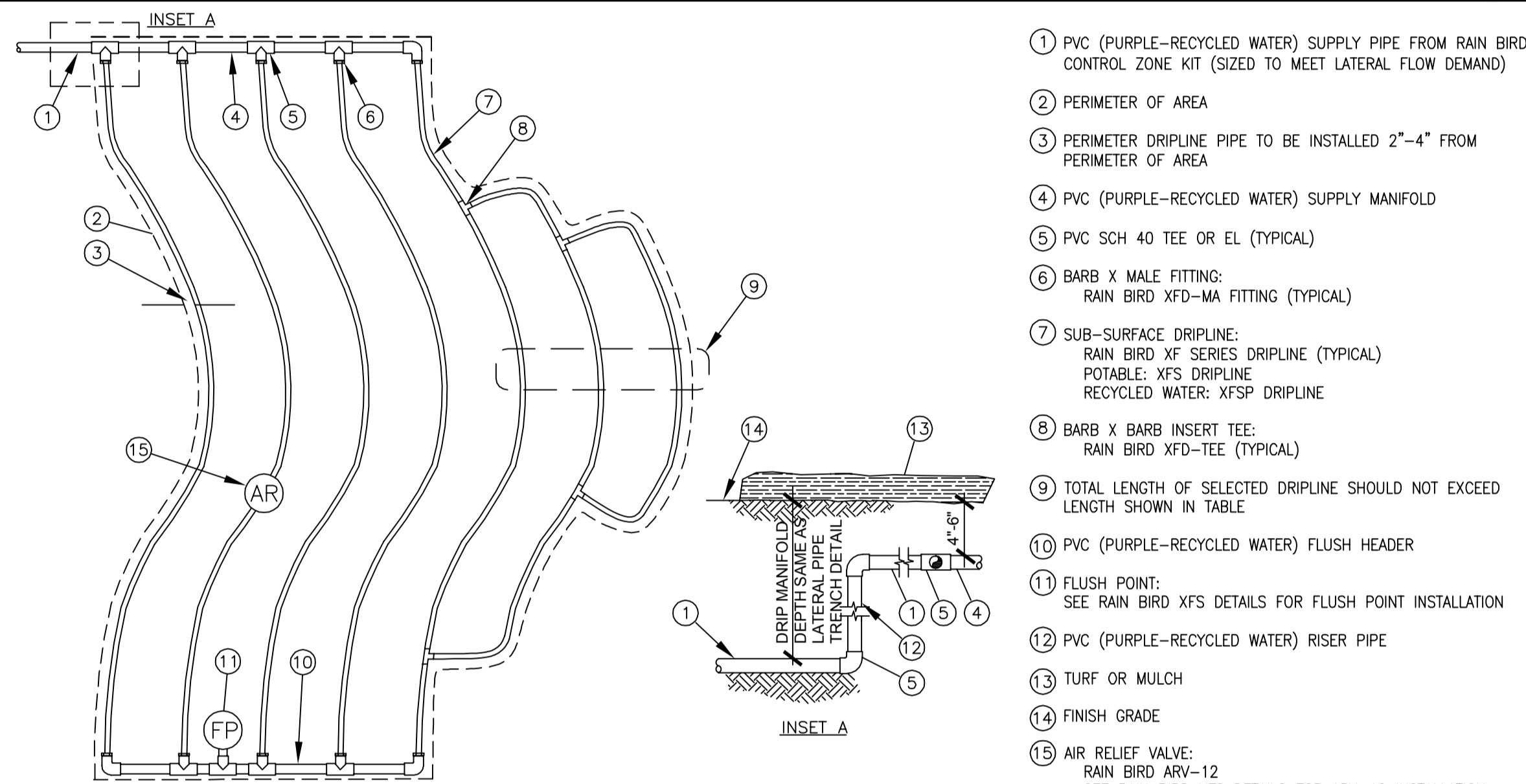
10/31/18  
Sealed Date  
STATE OF CALIFORNIA  
LICENSED LANDSCAPE ARCHITECT  
BRETT K. PERRY



- NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
  - LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
  - INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.

WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

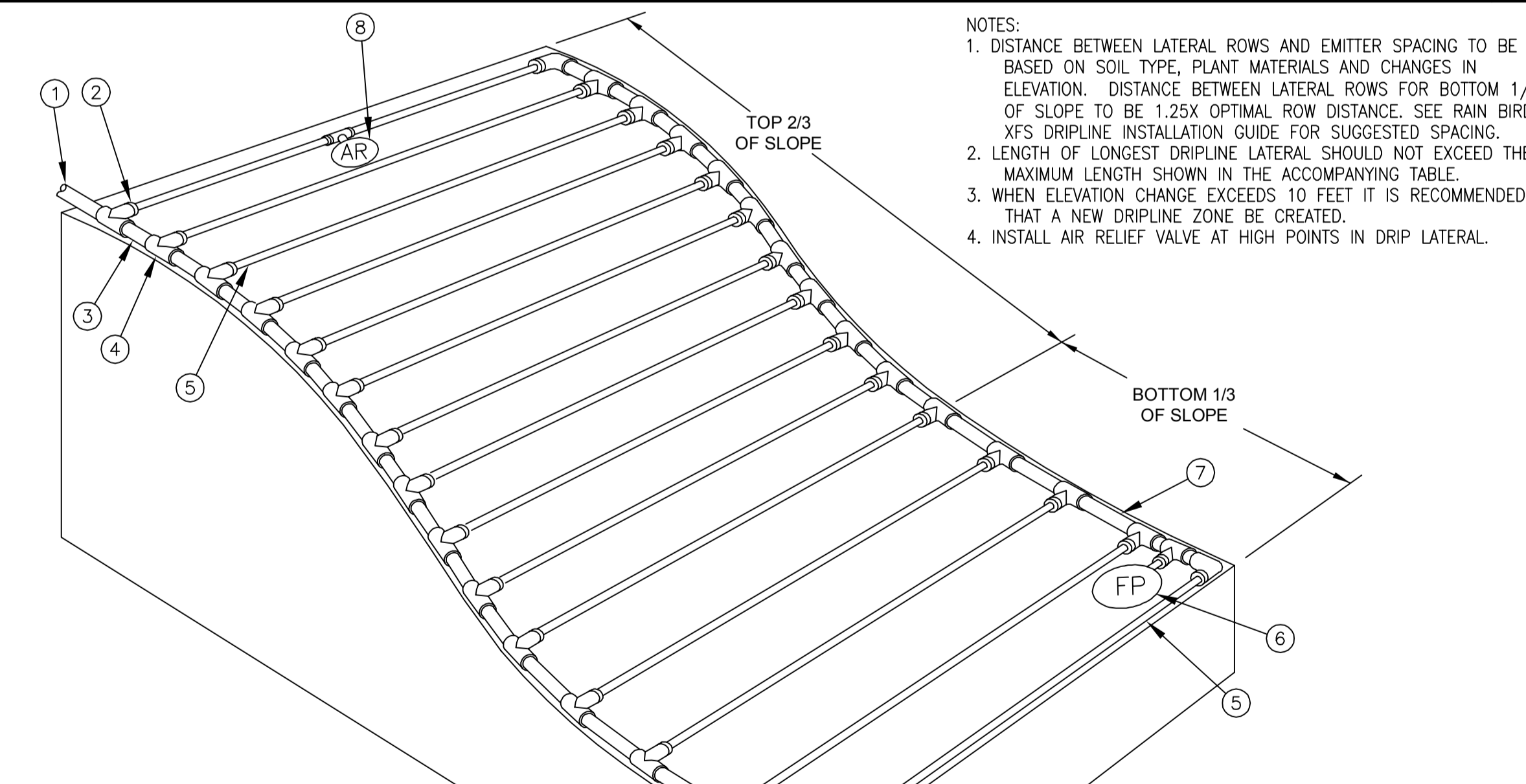
**SUB SURFACE INLINE DRIP LINE DIAGRAMTIC MULTIPLE ISLAND LAYOUT 8**



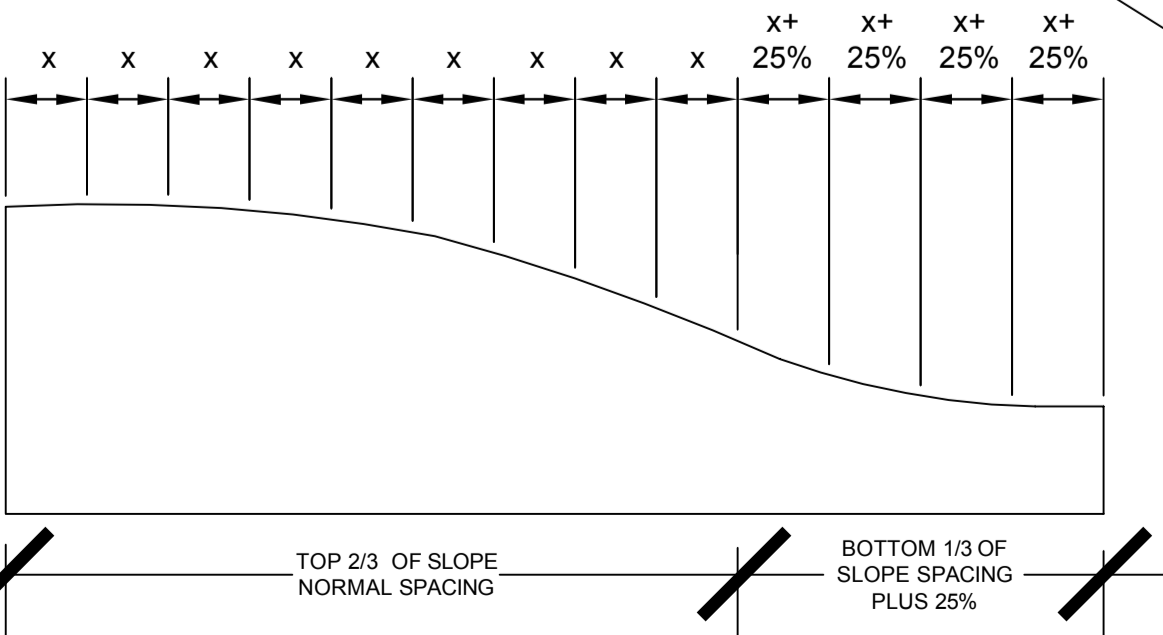
- NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
  - LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
  - INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.

WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

**SUB SURFACE INLINE DRIP LINE CURVED PLANTER LAYOUT 9**

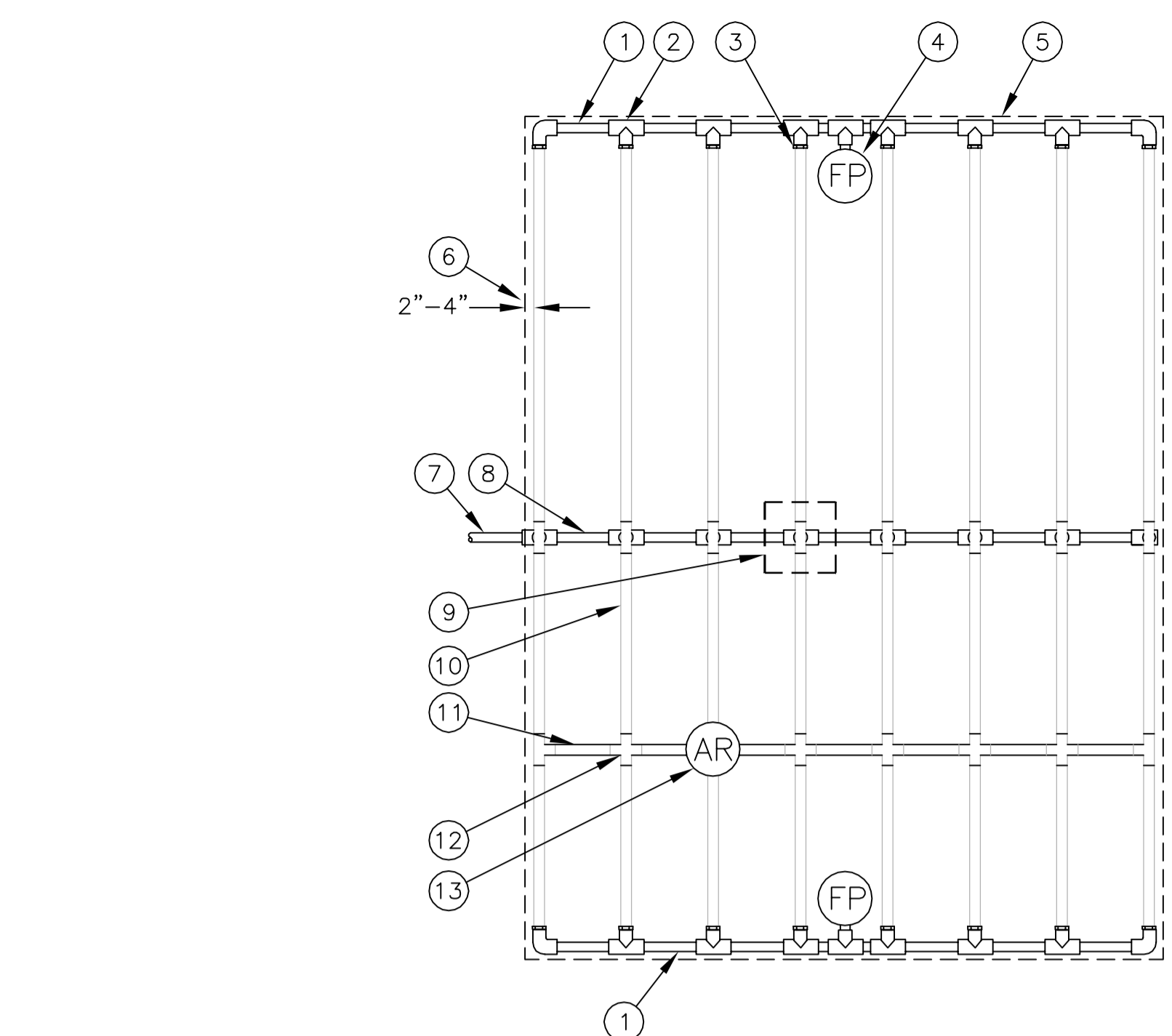


**CHECK VALVE NOTE:**  
NOTE: CONTRACTOR TO INSTALL KBI SWING CHECK VALVES ON DRIP LATERALS WHERE SLOPES OCCUR MINIMUM EVERY 5' OF ELEVATION CHANGE.



X = DISTANCE BETWEEN ROWS OF DRIP LATERALS AS DETERMINED BY PLANT AND SOIL TYPE. SEE NOTE 1.

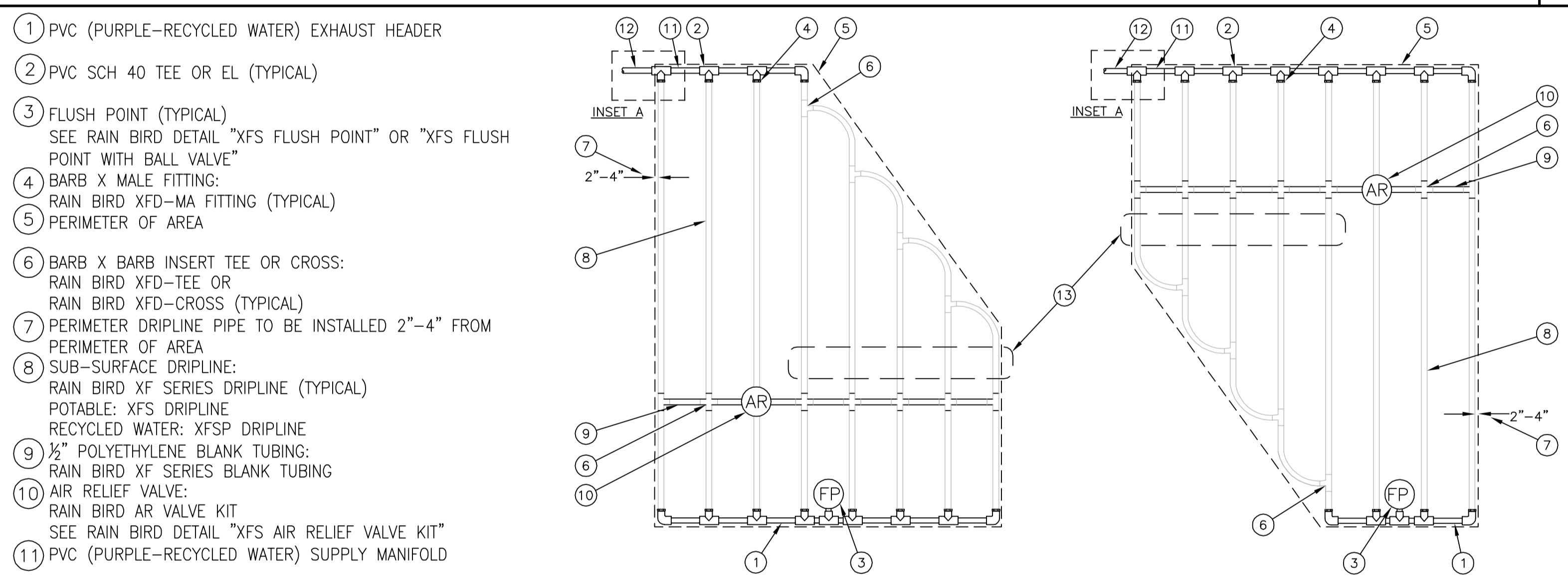
**SUB SURFACE INLINE DRIP LINE SLOPE LAYOUT 10**



- NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XF-SDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
  - LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
  - AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF EACH PLANTER AREA.
  - IN TURF AREA INSTALL 6" BELOW GRADE AND 4" BELOW IN SHRUB AREAS.

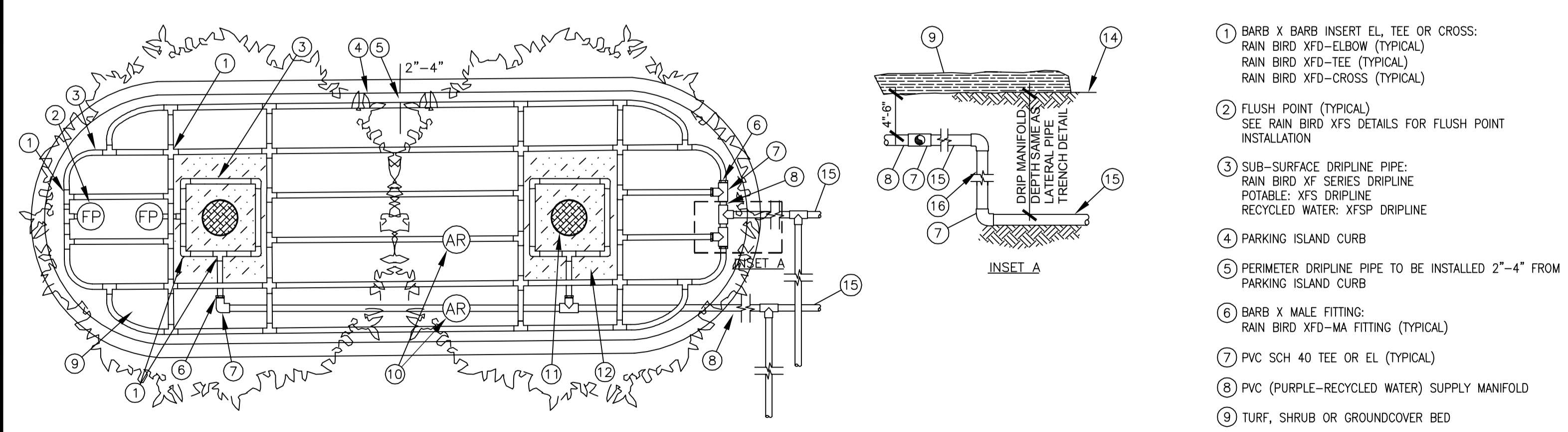
Inlet Pressure	12" Spacing			18" Spacing			24" Spacing		
	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)	Nominal Flow (GPH)
psi	0.6	0.9	0.6	0.9	0.6	0.9	0.6	0.9	0.9
15	255	194	357	273	448	343			
20	291	220	408	313	514	394			
30	350	266	494	378	622	478			
40	396	302	560	428	705	541			
50	434	333	614	470	775	594			

**SUB SURFACE INLINE DRIP LINE TYPICAL LAYOUT 5**



- NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFSDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
  - LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
  - AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.

**SUB SURFACE INLINE DRIP LINE IRREGULAR LAYOUT 6**



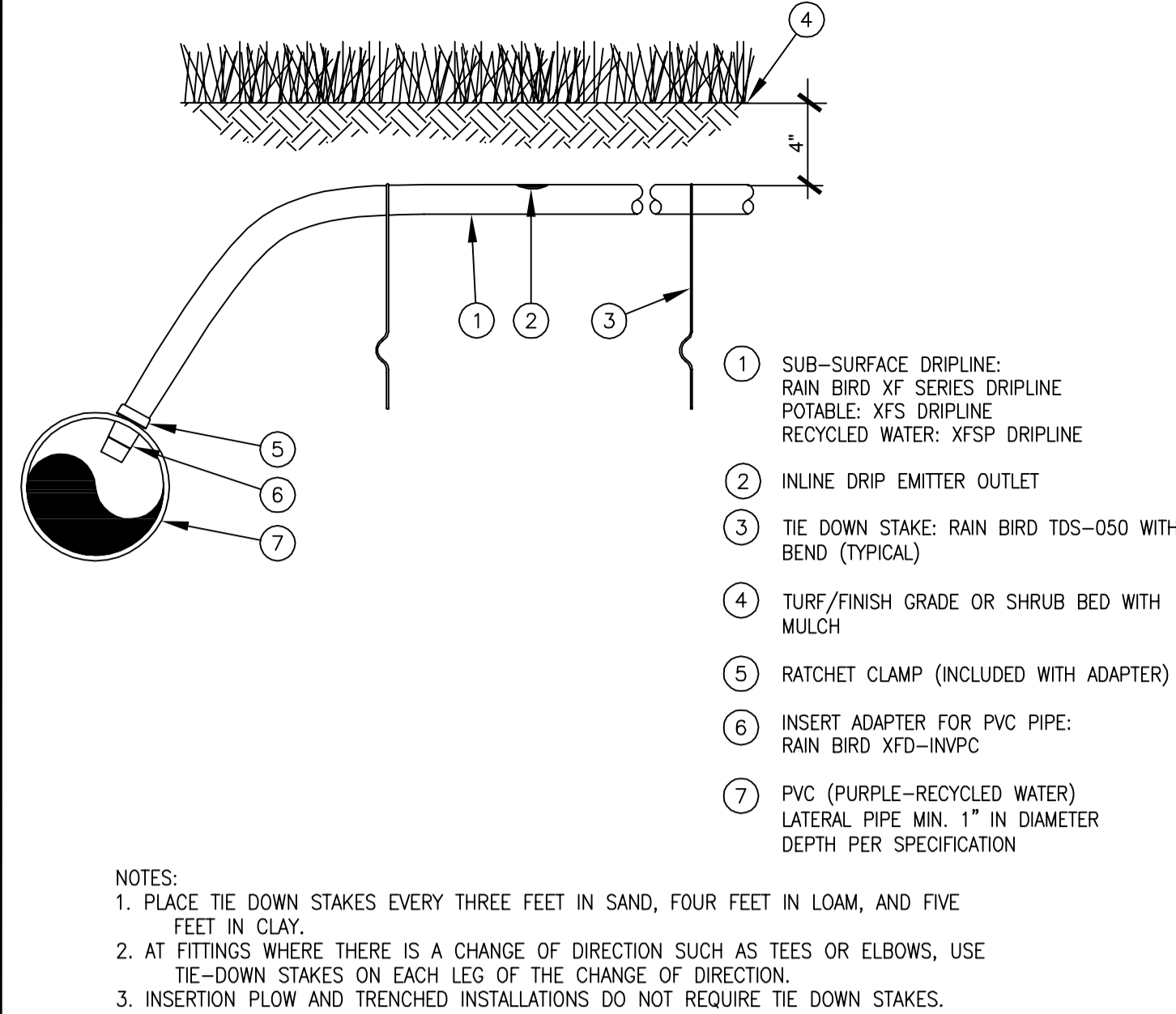
- NOTES:
- DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
  - LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
  - INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP ZONE.

PSI	12" Spacing		18" Spacing		24" Spacing	
	0.6 GPH	0.9 GPH	0.6 GPH	0.9 GPH	0.6 GPH	0.9 GPH
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	512

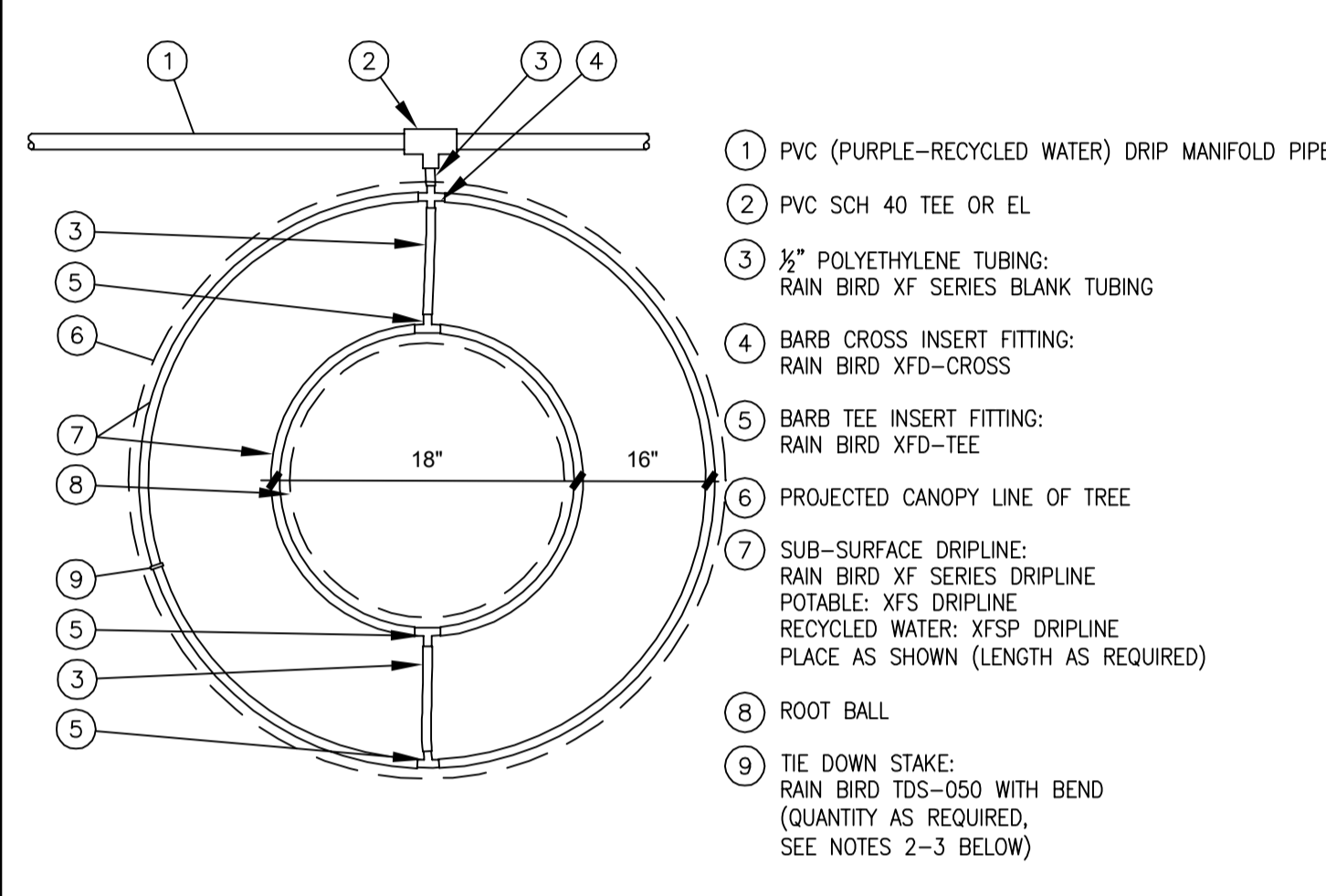
WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE AREAS IN GOOD CONDITION SO AS TO PRESENT A HEALTHY, NEAT, AND ORDERLY LANDSCAPE AREA.

**SUB SURFACE DRIP LINE TYPICAL ISLAND LAYOUT WITH TREES 7**

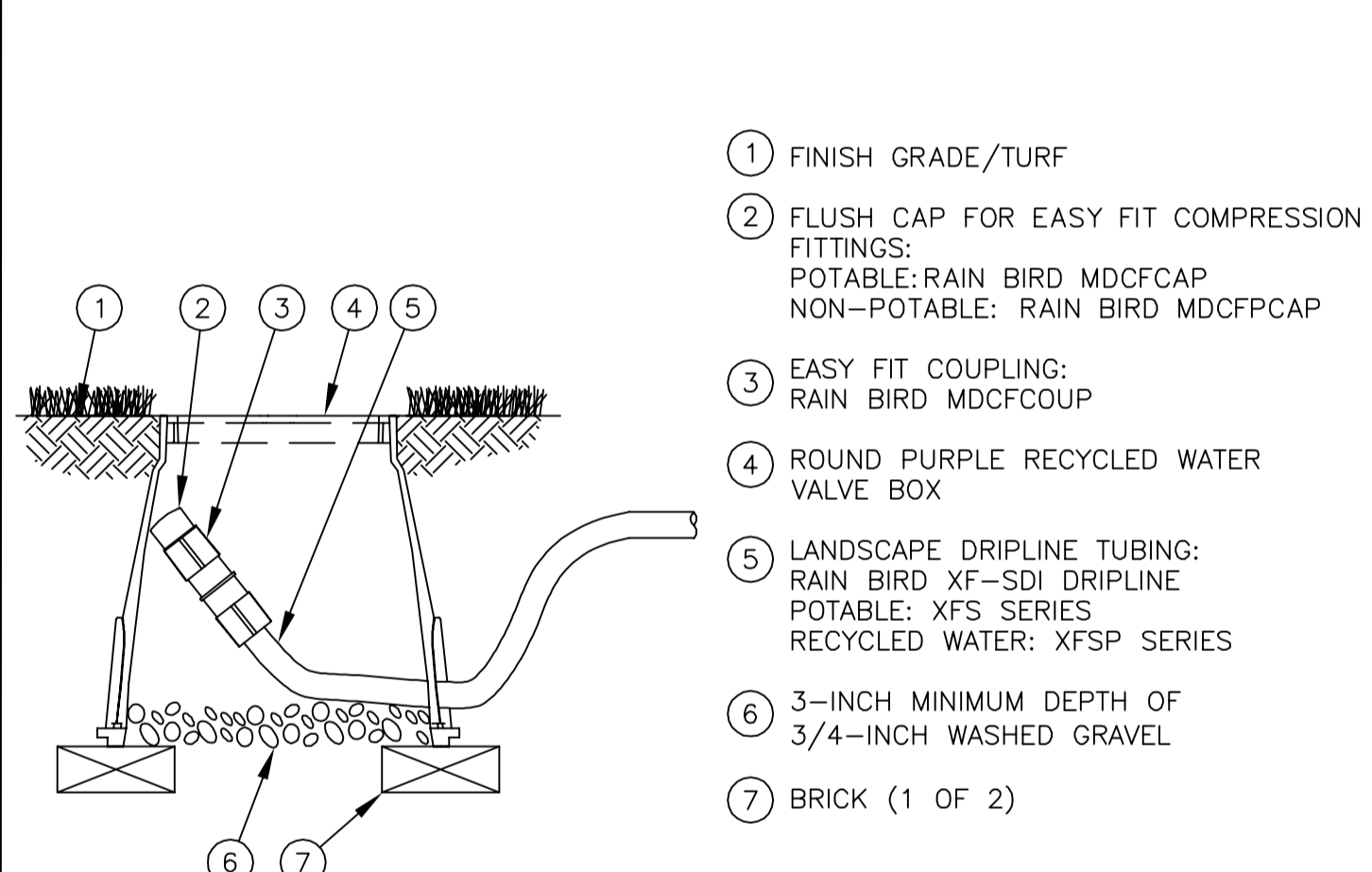


**DRIP LINE INSERT ADAPTER FOR PVC 1" OR LARGER 1**



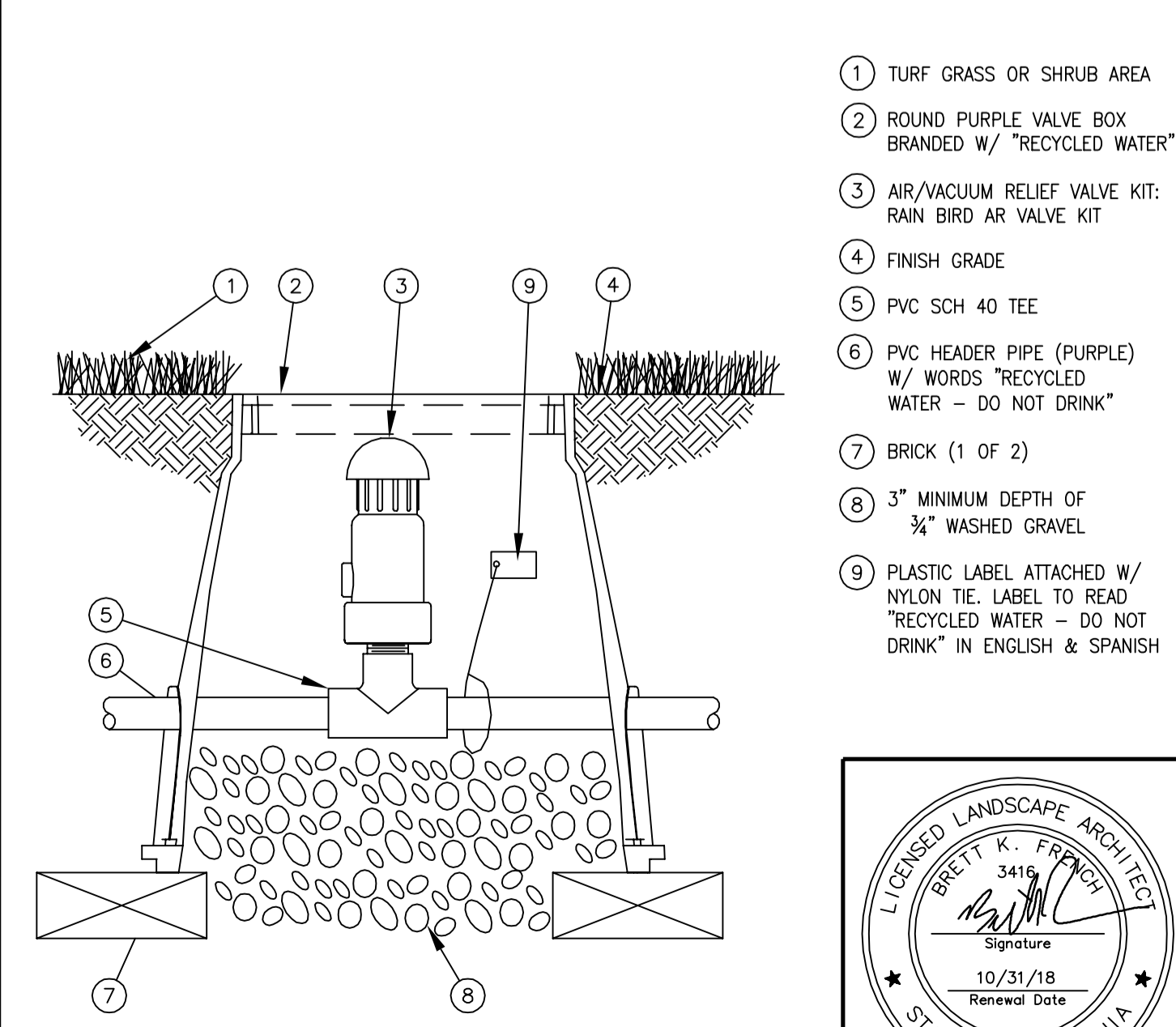
- NOTES:
- DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE RAIN BIRD XF-SDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
  - PLACE THE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
  - AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

**TYPICAL DRIP LINE AROUND TREE 2**



- NOTE:
- ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

**DRIP FLUSH VALVE 3**



**DRIP AIR/VACUUM RELIEF 4**

REVISIONS

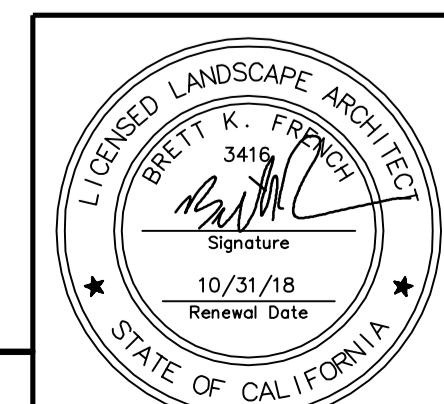
**Environ**  
LANDSCAPE ARCHITECTURE  
Creating Sustainable & Water Conserving Solutions  
1746 N. Badgerport Avenue • Channahon, IL 61011  
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**STIRLING**  
27422 PORTOLA PARKWAY, SUITE 300  
FOOTHILL RANCH, CA 92610  
TEL: (949) 462-0909

DEVELOPED BY:

SHEET TITLE: DRIP IRRIGATION DETAILS  
PROPOSED DEVELOPMENT:  
BUILDING 18  
SOUTHERN CALIFORNIA LOGISTICS CENTRE  
VICTORVILLE, CA

DRAWN BY: DATE  
BKF 10/14/16  
JOB NO.  
RGA0072  
SHEET NO.  
L-17  
17 OF 19 SHETS.



# LANDSCAPE CONSTRUCTION

## 1. SCOPE

The work of this section includes all labor, materials and equipment required to complete work indicated on the drawings. The work shall be performed in accordance with the best standards of practice relating to the various trades and under the continuous supervision of a competent foreman, capable of interpreting the drawings and these specifications. The work included in this section is as follows: Finish Grading for Planting; Soil Preparation; Fertilization; Planting, including lawn; Maintenance; Inspection and Certifications; Guarantees; Clean-up; Staking, Guying and Espaliering; Miscellaneous Allowances.

## 2. APPROVALS

- A. All sprinkler work shall be inspected and approved prior to the start of any planting.
- B. Prior to excavation for planting or placing of stakes, locate all utilities, electric cables, conduits, sprinkler lines, heads, valves and valve control wires, and all utility lines so that proper precautions may be taken not to damage such improvements. In the event of a conflict between such lines and plant locations, promptly notify Landscape Architect (L.A.) who shall arrange for relocation for one or the other. Failure to follow this procedure places upon Contractor the responsibility for, at his own expense, making any and all repairs for damages resulting from work hereunder.

## 3. QUANTITIES AND TYPES

Plant materials shall be furnished in the quantities and/or spacing as shown or noted for each location, and shall be of the species, kinds, sizes, etc., as symbolized and/or described in the "Plant Material Legend", as indicated on the drawings. The L.A. has prepared this list only as a convenience to Contractor and assumes no responsibility for its accuracy. The Landscape Contractor is to verify all sizes and quantities.

## 4. VERIFICATION OF DIMENSIONS AND QUANTITIES

Dimensions are approximate. Before proceeding with any work, Contractor shall verify all dimensions and quantities and shall immediately inform L.A. and Owner of any discrepancy between the drawings and/or specifications and actual conditions. No work shall be done in any area where there is such a discrepancy until approval for same has been given by L.A. and Owner.

## 5. INSPECTION

- A. All inspections shall be made by L.A. and Owner. Contractor shall request inspection at least two (2) days in advance of the time inspection is required.
- B. Inspection will be required for the following parts of the work:
  - (1) During finish grading and soil preparation
  - (2) Plants, after delivery to site and prior to planting.
  - (3) When vines, shrubs and trees are spotted for planting, but planting holes are not excavated.
  - (4) Specimen trees at source, before delivery.
  - (5) Lawn areas prior to planting.
  - (6) Planting areas prior to planting.
  - (7) All landscape construction items, prior to the start of the calendar day maintenance period ("Final Inspection").
  - (8) At completion of calendar day maintenance period ("Final Maintenance Inspection").
  - (9) Inspection reports shall be made for each inspection by the L.A. and one copy shall be submitted to Owner and Contractor.

## 6. CERTIFICATION

Prior to job acceptance written certifications shall be submitted to the L.A. for the following:

- A. Quantity and Quality of Commercial Fertilizer and Organic Fertilizer.
- B. Quantity and Quality of all Soil Amendments called for by Plans and Specifications.

## 7. MATERIALS

Plant materials indicated on the drawings and herein specified shall conform to the following:

- A. **Nomenclature** - Plant names indicated on the drawings conform to "Standard Plant Names" established by the American Joint Committee on Horticulture. Except for names covered therein, the established custom of the nursery is followed.
- B. **Condition** - Plants shall be symmetrical, typical for variety and species, sound, healthy, vigorous, free from plant disease, insect pests, or their eggs, and shall have healthy, normal root systems, well filling their containers, but not to the point of being root bound. Plants shall not be pruned prior to delivery, except as authorized by L.A. or his representative. In no case shall trees be topped before delivery.
- C. **Dimensions** - The height and spread of all plant material shall be measured with branches in their normal position, and shall be as indicated on the drawings. The caliper of all trees shall be measured 4"-0" above the surface of the ground. Where caliper or other dimensions of any plant materials are omitted from the "Plant Legend", it shall be understood that these plant materials shall be normal stock for type listed.
- D. **Inspection** - All plant materials must have been previously inspected at the nursery by the County Horticulture Department, and shall be subject to the inspection and approval of the L.A. before planting.
- E. **Plant List** - Is indicated on drawings.
- F. **Sizes of Plants** - Shall be as stated on the Plan. Container stock (1-gallon, 5-gallon and 15-gallon), shall have been grown in containers for at least one (1) year, but not over two years.
- G. **Substitutions** - Substitutions for the indicated plant materials will be permitted provided the substitute materials are approved in advance by the L.A. and the substitutions are made at no additional cost to Owner. Except for authorized variations, all substitute plant materials shall conform to the requirements of these specifications. If the accepted substitute materials are of a less value than those indicated or specified, the Contract price will be adjusted in accordance with the provisions of the Contract.
- H. **Plants Not Approved** - Plants not approved are to be removed from site immediately and replaced with suitable plants. The L.A. and/or Owner reserves the right to reject entire lots of plants represented by defective samples.

## 8. FERTILIZERS AND SOIL CONDITIONERS

- A. Samples of all soil amendments, sod and plants shall be submitted for inspection and stored on the site until furnishing of materials is completed. Delivery may begin upon approval of samples or as directed by L.A. and the Owner.
- B. Organic fertilizer shall be processed sewage sludge with a minimum content of 1% Nitrogen and 2% Phosphoric Acid similar to "Nitrohumus". Method of processing shall not destroy normal bacterial content. Note: sewage sludge should not have a normal bacterial count (Note this is part of Grow Power's Specifications)
- C. Nitrogen stabilized sawdust shall be bulk, with the following nitrogen content based on dry weight:
  - 0.5% for Redwood Sawdust
  - 0.7% for Fir Sawdust
  - 1.0% for Bark or Pine Bark or Mulch
- D. **Salinity** - the saturation extract conductivity shall not exceed 3.5 millimhos /cm at 25

## 9. STAKING MATERIALS

- A. Tree-staking shall be as per plan. Note no wire ties to be used on street trees
- B. Ties for holding trees shall be as per plan. Note no wire ties to be used on street trees

## 10. GRADING AND SOIL PREPARATION

- A. Contractor is to finish grade to within 1/10th of a foot or 1" below paving where paving exists.
- B. **Moisture Content** - The soils shall not be worked when the moisture content is so great that excessive compaction will occur; and not when it is so dry that dust will form in the air or that clods will not break readily. Water shall be applied if necessary to provide ideal moisture content for tilling and for planting.
- C. **Preliminary Grading** - Preliminary Grading shall be done in such a manner as to anticipate the finish grading. Excess soils shall be removed or redistributed before application of fertilizer and mulch. Where soil is to be replaced by plants and mulch, allowance shall be made so that when finish grading has begun, there shall be no deficiency in the specified depth of mulched planting beds.
- D. **Weeding** - Before and during preliminary and finish grading, all weeds and grasses shall be dug out by the roots and disposed of off site (except those weeds and grasses not of the perennial type, less than 2-1/2" high and not bearing seeds, which may be turned under). Data more than 2-1/2" high and not bearing seeds may be turned under. Perennial weeds and grasses to be removed include, but are not limited to, the following: Nut Grass, Puncture Vine, Dallas Grass, Mustard Plant, St. Augustine, Alfalfa, Johnson Grass, Wire Weed, Morning Glory.

- E. All Planting areas shall be scarified to a depth of 12 inches below grade with the spacing of the ripper teeth no greater than 12 inches on center prior to placing conditions and fertilizers. All rock and debris more than 2" in diameter shall be removed from the site.
- F. **Trenches** - If irrigation system is installed after grading and fertilizing is completed, the upper portion of the backfill shall be retiled and fertilized to the depth specified for the area required, to conform to the specifications.

## 11. SOIL CONDITIONERS (To be revised per soils report) NOTE: CONTRACTOR TO PROVIDE REPORT PRIOR TO PLANTING

- A. **Turf, Ground Cover & Shrub Area:** The areas to be landscaped should be cross-rippled or otherwise tilled to a depth of 9-12 inches. For turf and ground cover planting, the following amendment should be uniformly broadcast and thoroughly incorporated to a depth of 6 inches by means of rototiller or equal; AMT PER 1,000 SQUARE FEET 5 cu. yds. nitrogen stabilized organic amendment derived from redwood sawdust, fir sawdust or cedar sawdust 12 lbs. 16-20-0 ammonium phosphate (to be incorporated to the 6" depth following leaching). Following amending and prior to planting, including trees and shrubs, leaching irrigations should be made in a manner that will pass the minimum of 12 inches of water through the surface soil zone. When the leaching program has been completed, additional samples should be collected for soil fertility analyses only.
- B. **Slopes:**
  - 300 lbs./acre 16-20-0 ammonium phosphate
  - 300 lbs./acre urea formaldehyde
  - Mulch Silva Fiber Plus, 2,000 lbs./acre
  - Binding agent (per Contractor's accepted procedure)

While the urea formaldehyde is a slow-release nitrogen fertilizer, it will probably be necessary to make dry supplemental fertilizer applications, particularly during the establishment period. If this is the case, the 16-20-0 should be uniformly broadcast over dry slope areas at the rate of 6 pounds per 1,000 square feet and followed with a normal irrigation at each fertilizing period.

- C. **Planting Pits - Tree & Shrub.** All areas including slopes: Planting pits shall be excavated twice the diameter and twice the depth of the rootball. Backfill shall then be added as specified.

- (1) A chemically suitable sandy textured import soil meeting the following specifications should be used for backfill to the depth of the rootball. For trees, shrubs and vines (other than azaleas, ferns and palms).

Silt plus clay content of the import soil shall not exceed 30 % by weight with a minimum  $\phi$ SS passing the 2.0 millimeter sieve. The sodium absorption ratio (SAR) shall not exceed 6 and the electrical conductivity (ECe) shall not exceed 3.0 millimhos per centimeter at 25 degrees centigrade. The boron content shall be no greater than 1 ppm as measured on the saturation extract. In order to insure conformance, samples of the import soil should be submitted to the laboratory for analysis prior to and following backfilling. The backfill mix for use around the rootball should be prepared as follows:

- 6 parts by volume sandy-textured import soil
- 4 parts by volume nitrogen stabilized wood residual
- 1 lb. 16-20-0 per cu. yd. of mix
- 2 lbs. iron sulfate per cu. yd. of mix

The above materials should be thoroughly blended prior to use for backfill purposes. Also, the iron sulfate should not contact cement surfaces since severe staining could occur. Apply planting labels as per manufacturer's recommendations. If the 16-20 is incorporated preplant as recommended, the post plant maintenance can consist primarily of a nitrogen-only fertilizer program. Beginning approximately 30 days after planting, ammonium sulfate should be applied at the rate of 5 lbs./1,000 sq. ft. or ammonium nitrate at the rate of 3 lbs./1,000 sq. ft. on a monthly basis. However, in order to ensure adequate soil phosphorus and potassium nutrition, Best Fertilizer Company's 16-8-8 or equal should be substituted for the nitrogen materials twice a year at the rate of 6 pounds per 1,000 square feet. Also, when plants have become well established, the frequency of fertilizer applications can be decreased.

- D. The prepared soil shall be uniformly blended in an area adjacent to the planting work and shall be accurately proportioned using a suitable measuring container. Unused excavated soil shall be removed from site. Protect the mix from water until it has been placed in backfill around plants.

## 12. FINISH GRADING

When preliminary grading, including weeding and fertilizing, has been completed and the soil has dried sufficiently to be readily worked, all lawn and planting areas shall be graded to the elevations indicated on the drawings. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given. Minor adjustments of finish grades shall be made at the direction of the L.A., if required.

Finish grade shall be a smooth, even and uniform plane without abrupt change of surface. Soil areas adjacent to buildings shall allow a natural run-off of water, and surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural "run-off" of water. Low spots and pockets shall be one inch below grade of adjacent pavement of any kind. Grading shall be done when soil is at optimum moisture content for working.

## 13. METHOD OF PLANTING AND WORK PROCEDURE

- A. No planting shall be done until all operations in conjunction with the installation of the irrigation system have been completed, final grades have been established, the planting areas have been properly graded and prepared as specified, and the work approved by the L.A.
- B. The relative position of all trees and plants is subject to approval by L.A. and Owner, and they shall, if necessary, be relocated as directed as part of the Contract.
- C. All plants shall be removed from their container and set so that, when settled, they bear the same relation to the required grade that they bore to the natural grade before being transplanted. Each plant shall be planted in the center of the pit and backfilled unless otherwise specified, with the prepared soil. No soil in muddy condition shall be used for backfilling. No filling will be permitted around trunks or stems. All broken or frayed roots shall be properly cut off.
- D. L.A. and/or Owner shall supervise the placing and planting of all plants.
- E. In the event that underground construction work or obstructions are encountered in the planting operation, alternate locations for plant material will be selected by L.A. and Owner; operation will be done at no extra cost to Owner.

## 14. PLANTING OF TREES

- A. Position plants in plant locations indicated on drawings and secure approval before excavating pits, making necessary adjustments as indicated.
- B. All pits for trees shall be dug square with bottoms level, the length of sides equal to 2 1/2 times the diameter of the tree ball. Compacted soils at sides and bottoms shall be loosened by scarifying or other approved method. Pits shall be backfilled with "prepared soil" to the required grade, and the balance of the pit filled with "prepared soil" thoroughly settled by water application.
- C. Set plants in center of pit, in a vertical position, so that crown of ball will be level with finish grade after allowing for settling and settling and shall bear the same relationship to the finish grade that it did to the soil surface in the container.
- D. Prepare depressed water basin as wide as plant balls at each plant. Water thoroughly, backfilling any voids with additional prepared planting mix.

## 15. PLANTING VINES, SHRUBS AND GROUNDCOVERS

- A. Vines and shrubs shall be planted in pits at least 18" greater in diameter than their ball of earth and at least 12" below the bottom of the ball. Compacted soils at bottom of pit shall be loosened and the pit filled with "prepared soil" to the bottom of the ball. When the plant has been properly set, the pit shall be filled to the required grade with "prepared soil" and thoroughly settled by taping and watering. All vines shall be removed from stakes, untied, and securely fastened in an approved manner to the wall, fence or other surface next to which they are planted.
- B. Prepare a depressed water basin as wide as plant balls at each plant. Water thoroughly, backfilling any voids with additional prepared planting mix.
- C. **Ground Covers**
  - (1) Pits for flat sized plants to be at least 6"x6"x6". Ground cover areas shall be moistened prior to planting. No flat plants shall be planted in dry soil.
  - (2) Set plants in center of pits so that crown of planting will be level with finished grade after settling of soil, then backfill and water.
  - (3) Flatted plants shall be well-rooted with runners at least 4" but not more than 6" in length.

## 16. TREES AND VINES OCCURRING IN LAWN

Trees and vines occurring in lawn shall be planted before final preparation of those areas.

## 17. CARE OF PLANTS BEFORE AND DURING PLANTING

Plants shall not be allowed to dry out before or while being planted. Keep exposed roots moist by means of wet sawdust, peat moss or burlap at all times during planting operations. Do not expose roots to the air except while being placed in the ground. Wilted plants, whether in place or not, will not be accepted and shall be replaced at the Contractor's expense.

## 18. WATERING BASINS

- A. Construct a firmly compacted mound of soil around each tree and plant to form a watering basin at the edge of and following the shape of the planting pit area. Mounds or trees or for areas from 5-gallon or larger containers, shall be at least 4" high. Mounds for all other trees, vines or plants not otherwise specified shall be at least 2" high. Excavated earth, if capable of retaining water, may be used. Any settlement within the basin retaining water shall be refilled to the required grade with prepared soil, and additional nitrogen stabilized sawdust worked into the surface as required to restore the mulched condition.
- B. At the end of the day maintenance period all watering basins in lawn areas shall be leveled to finish grade and the area shall be sodded with the specific sod.

## 19. SODDED LAWN

- A. Cultivate all lawn areas to a depth of 8". Rocks and debris larger than 1" in diameter which are brought to the surface by cultivation shall be removed from the site. If cultivation does not break lumps, a spike tooth harrow shall be pulled behind a mechanical seeder or tractor.
- B. Areas to be planted in lawn shall be finished smooth to present a neat and uniform grade prior to installation of sod. The lawn bed shall be inspected by the L.A. to determine suitability for planting prior to sodding. Contractor shall obtain such approval before sodding.
- C. All sodded areas shall be thoroughly watered. Lawns are to be kept continuously moist by watering as often as required.
- D. Any lawn areas that do not show a prompt catch of grass shall be re-sodded at ten day intervals until an acceptable stand of grass is assured.

## 20. WATERING

- A. Immediately after planting, water shall be applied to each tree by means of a hose. The water shall be applied in a moderate stream in the planting holes until the material about the roots is completely saturated from the bottom of the hole to the top of the ground.
- B. Plants which cannot be watered efficiently with the existing water system shall be watered by means of a hose.
- C. Apply water in sufficient quantities, and as often as seasonal conditions require, to keep the ground wet at all times, well below the root system of grass and planting. Care is to be taken in watering slopes so as not to cause erosion damage.
- D. Following the planting of ground cover plants furnished in flats, each plant shall be immediately and thoroughly watered by means of a hose with a slow running stream of water.

## 21. TREE STAKING

- A. Stake all non-guyed trees at time of planting by placing stake in the prepared hole and driving it 18" into solid ground. Plant the tree as close to the stake as possible without crowding the roots. Fasten the tree to the upper end of stake in at least three places using "inch lines". (See Drawings)
- B. Trees 36" box size or larger, shall be immediately guyed after planting with not less than three guys per tree, or as directed by the L.A.
  - (1) Protect bark of tree by covering wire with green 1/2" diameter rubber hose.
  - (2) Guys to be anchored by 2"x2"x2" redwood driven flush with finish grade or 1"x2" galvanized pipe in rocky areas.
  - (3) Guy wires shall be #12 ga. galvanized steel. Mark guys with 3'-0" long 1/2" dia. white PVC pipe.
  - (4) Guy lines are to be tightened to firm tension.

## 22. ESPALIERING OF VINES

All trellises and stakes are to be removed from plants and the plants shall be fastened and trained against fences or walls as directed by the L.A.

## 23. CERTIFICATES

In addition to any other certificates specified, Contractor shall furnish a certificate with each delivery of bulk material, stating the source, quantity and type of material and that the material conforms to the specification requirements. For bulk delivered organic fertilizer, the certificate shall also state the volume, net weight, percent of Nitrogen and percent of Phosphoric acid. For each fertilizer and soil conditioner, in containers, a similar certificate or invoice shall be furnished stating total quantities by weight and volume for each material. These certificates shall be submitted to the L.A. and Owner prior to the start of the maintenance period.

## 24. PROTECTION

Contractor shall carefully and continuously protect all areas included in the Contract, including plant materials, fences, supports, etc., until final acceptance of the work by the L.A. and Owner.

## 25. MAINTENANCE

- A. Contractor shall maintain a sufficient number of men and adequate equipment to perform the work here in specified. Plant maintenance work shall consist of applying water, weeding, caring for plants, including groundcovers, shrubs and trees, edging, aerating and mowing of lawns, fertilizing and control of pests and diseases.
- B. Damage to any planted area shall be repaired immediately. Depressions caused by vehicles or foot traffic shall be filled with topsoil, leveled and replanted. Exterminate gophers and moles, and repair damage.
- C. The entire project shall be maintained for a period of 90 days commencing from the time all items of work have been completed to the satisfaction of L.A. and Owner.
- D. The project shall be cared for in a neat, clean condition at all times to the satisfaction of Owner and L.A.

## 26. LAWN MAINTENANCE

- A. **Watering** - Water every day once per day for two weeks and thereafter gradually reduce frequency of watering to three times per week. Contractor shall continue to maintain the lawn until final acceptance by the L.A. and Owner.
- B. **Fertilizing** - Apply 16-6-8 at the rate of 5 pounds per 1,000 square feet three weeks after installation and water immediately thereafter.
- C. **Diseases and Pest Control** - Two weeks after installation of lawn, apply a granular mercurial fungicide of 1.8% mercurous chloride as per manufacturer's recommendation.
- D. **Mowing** - The lawn shall be mowed at a height of 1-1/2" with a rotary mower, equipped with runners, before it reaches 2" in height. Collect grass clipping during mowing operations and remove from the site.

## 27. GROUNDCOVER AND SHRUB AREA MAINTENANCE

- A. **Watering** - New plantings shall be watered once per day for two (2) weeks after installation. Reduce watering to every other day for the next two (2) weeks. Water thereafter three (3) times per week until final acceptance.
- B. **Fertilization** - Fertilize three (3) weeks after planting with 5 pounds 16-6-8 per 1,000 square feet; fertilize thereafter every thirty (30) days.
- C. **Disease and Pest Control** - For control of slugs and snails, apply pelletized tricalcium arisanate 5% by weight and metaldehyde 5% by weight as per manufacturer's recommendations two (2) weeks after installation.
- D. **Pruning** - All shrubs and trees shall be pinch pruned as necessary to encourage new growth and to eliminate rank sucker growth. Old flowers, and dead foliage and limbs shall be removed. No major pruning shall be done without the approval of the L.A.
- E. **Weeding** - All planting areas including lawn, groundcover and shrub areas shall be kept weed-free at all times. Weed shall be dug out by the roots and disposed of off site. Upon completion of the day maintenance period, the Contractor shall fertilize per #26 - Lawn Maintenance and #27 Groundcovers and Shrub Area maintenance of these specifications.

## 28. GUARANTEE AND REPLACEMENTS

- A. All shrubs and groundcover shall be guaranteed by Contractor as to growth and health for a period of ninety (90) days after completion of the specified maintenance period, and/or final acceptance by the L.A. All trees up to 20" box size shall be guaranteed by Contractor to live and grow in an acceptable upright position for a period of six (6) months after completion of the specified maintenance period, and/or final acceptance upright position for a period of one (1) year after completion of the specified maintenance period, and/or final acceptance by the L.A.
- B. All plants that show signs of falling growth at any time during the life of the Contract, including the maintenance period, or those plants injured or damaged as to render them unsuitable for the purpose intended, shall be guaranteed as specified for the original guaranteed materials.

## 29. CLEAN-UP

Upon completion of the work in this section, Contractor shall remove all rubbish, trash and debris resulting from the operations; remove disused equipment and implements of service; leave entire area involved in a neat and acceptable condition such as to meet the approval of the Landscape Architect (L.A.).

## HYDROSEED

### 1. GENERAL

- A. Equipment must have minimum capacity of 1,500 gallons and a positive displacement pump with the ability to agitate and properly mix the specified materials. Pump must be capable of creating 100 pounds psi pressure with sufficient volume to distribute above slurry evenly over 12,000 sq. ft. within a 15-minute period.
- B. Vendor furnished label: Vendor agrees to furnish not less than two (2) employees during all hydromulching applications.
- C. The vendor shall fully guarantee his work and services and shall be fully insured and be prepared to furnish satisfactory evidence of such insurance upon demand.

### 2. SLOPE & PLANTING AREA PREPARATION

- A. **Scarification** - Prior to installation of the irrigation system, the surface of all slopes shall be cleaned and grubbed to prepare the slope surface for seeding.
- B. **Mulch** - Shall be Silva Fiber Plus (at 2,000 pounds per acre), a green colored, fibrous mulch, containing no growth or germination inhibiting factors. Silva Fiber Plus is manufactured in such a manner that after addition of seed, fertilizer, water and additives in a special 1500-gallon slurry tank, the fibers and above-materials will become uniformly mixed to form a homogeneous slurry; and using the green color to facilitate proper distribution, the slurry shall be hydrologically sprayed onto the ground forming a bi-layer-in-a-ground-cover which after application will allow the absorption and retention of moisture. Suppliers shall be prepared to certify that laboratory and field testing of their product has been accomplished, and that it meets all of the foregoing requirements, based on testing. Weight specifications of this material from suppliers, and for all application, shall refer only to air dry weight of the fiber material. Absolute air dry weight based on the normal standards of the Technical Association of the Pulp Industry for Silva Fiber Plus is considered equivalent to 100% moisture. Each package of Silva Fiber Plus shall be marked by the manufacturer to show the air dry weight content.

### C. Seed Mixes

**Turf Seed Mix:** SEE PLANTING LEGEND FOR SPECIFICATIONS

### D. Weed Abatement Program - Upon completion of the irrigation system and after all existing weeds have been removed from the planting areas, the following weed prevention shall be used:

Apply fertilizer mixture by spray per acre as follows:	
300 lbs. 12-12-12 commercial fertilizer	21 days
300 lbs. urea formaldehyde	2 days
1000 lbs. agricultural gypsum	
Apply pre-emergent herbicide as recommended by a licensed pest control advisor to be compatible with the seeded plant varieties.	
Apply mixtures per the following time schedule:	
Fertilize/water	21 days
Weed	2 days
Spray the pre-emergent per Pest Control Advisor recommendations	7-10 days
Fertilize/water	14 days
Spray Weed Mixture	7 days
Fertilize/water	14 days
Spray Weed Mixture	7 days
Grub/Clean all areas to prepare for seeding	2 days
Plant	23 days maximum
TOTAL	100 days maximum

## 3. PLANTING

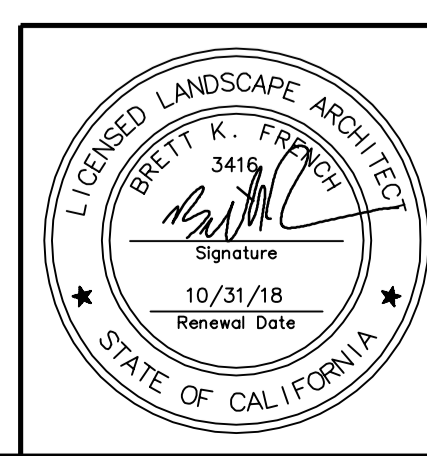
- A. **Trees and Shrubs** - Trees and shrubs can be planted after weed germination and during the contact kill of weeds, as specified.
- B. **Hydroseeding**
  - (1) When all weeds have been eliminated to the satisfaction of the landscape architect and the owner's authorized representative, the hydroseeding operation may begin.
  - (2) The materials for seeded areas shall be machine mixed before application.
  - (3) The mixture of slurry or seed and additives are to be applied by a Hydro-Mulching machine. The nozzle height shall be between 6' and 10' above the ground level. Discharged pressure at the nozzle shall be 100 psi.
  - (4) Spraying shall be done in a sweeping motion allowing the slurry to fall evenly and eventually build up a consistent matting.
  - (5) Soil moisture: Area to be planted shall be irrigated to obtain 12 inches of penetration. This should be done 4 to 7 days prior to planting.
- C. **Mixture**
  - (1) Commercial fertilizer shall be applied at the following rates: 500 lbs./acre...16-20-0 (Best Fertilizer Company Crop maker or equal)
  - (2) Fines material (Covimed 2000) at the rate of 2,000 lbs./acre.
  - (3) Water with mixture of 3,000 gallons/acre.
  - (4) Staking binder - 120 lbs./acre for slopes, 80 lbs./acre for flat areas
- D. **Watering** - Immediately after planting, the slopes and other planting areas shall be watered with a fine spray, care being taken to avoid erosion, and the planted area kept moist until the seed has germinated (or the plants have become established).
- E. **Clean-up** - After completion of the work, all rubbish and surplus material shall be removed from the site, and it shall be left neat and clean.

## 4. PLANT ESTABLISHMENT

- A. **Irrigation** - The irrigation system will be operated to provide an optimum amount of surface moisture for germination of the seeded varieties avoiding all run-off and deep saturation of water.
- B. **Fertilization** - The area shall be hydro-fertilized every 30 days after planting with the following combination of materials: 250 lbs./acre...16-6-8 (Best Fertilizer Company Crop Maker or equal)
- C. **Pre-Emergent Herbicide** - Sixty (60) days after planting, apply a broad spectrum pre-emergent herbicide as recommended by an experienced licensed pest control advisor.

## 5. MAINTENANCE

- A. Maintenance of the project shall be for a period of 90 days.
- B. Maintenance shall include all watering, fertilization, mowing, weeding, cultivating, spraying and pruning necessary to keep the plant materials in a healthy growing condition and to keep the planted areas neat and attractive throughout the maintenance period.
- C. Protect all planted areas against damage, including erosion and trespassing, by providing and maintaining proper safeguards.
- D. During the maintenance period, all planted areas shall be kept well watered and weed-free at all times.
- E. From the time any planting is done, until the end of the maintenance period, the Contractor shall maintain a sufficient number of men and adequate equipment to perform the work herein specified.
- F. The Contractor will be relieved from maintenance work when the final plant establishment and maintenance work has been completed to the satisfaction of the Owner.
- G. Damage to planting areas shall be replaced immediately at the Contractor's expense.
- H. Depressions caused by vehicles, bicycles, or foot traffic, shall be filled and leveled. Replant damaged areas.
- I. Exterminate gophers and moles, ground squirrels, and repair damage as above.
- J. All paved areas will be washed and maintained in a neat and clean condition at all times, as directed by the Owner.
- K. Pinch-prune all shrubs and trees to encourage new growth and to eliminate rank sucker growth. Remove all old flowers and dead foliage and limbs. Do no major pruning without the approval of the Owner. Remove damaged branches on trees back to point of growth. Treat cuts over 2" in diameter with an approved tree wound dressing.
- L. During the maintenance period, should the appearance of any plant indicate weakness and probability of dying, immediately replace that plant with a new and healthy plant of the same type and size without additional cost to the Owner.
- M. At the end of the maintenance period, all plant material shall be in a healthy growing condition.
- N. Contractor shall continue the maintenance period past the specified date at no additional cost to the Owner until all deficiencies have been corrected.



IRRIGATION

1. SCOPE

Furnish all materials, tools, equipment and labor required to install a complete operable irrigation system as indicated on the drawings, as specified and as necessary to complete the contract, including, but not limited to, these major items:

- A. Irrigation system and related appurtenances.
B. Connections to water and electrical utilities.
C. Excavation and backfill of pipe trenches.
D. Record drawings and guarantees.
E. Permits and licenses.
F. Testing of completed systems.
G. Clean-up

2. QUALITY ASSURANCE

- A. Qualifications of Installers - Provide at least one person who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed and the material manufacturer's recommended methods of installation and who shall direct all work performed under this section.
B. Codes and Standards - In addition to complying with all pertinent codes and regulation, comply with the latest rules of the National Electrical Code and the Electrical Safety Orders of the State of California, Division of Industrial Safety Orders of the State of California, Division of Industrial Safety, for all electrical work and materials.

3. SUBMITTALS

- A. Materials List - Within thirty-five (35) calendar days after award of contract, and before any irrigation system materials are delivered to the job site, submit to the Owner a complete list of all irrigation system materials proposed to be furnished and installed.
(1) Show manufacturer's name and catalog number for each item; furnish the manufacturer's recommendations as to method of installation.
(2) Upon approval by the Owner, the manufacturer's recommendations shall become the basis for acceptance or rejection of actual methods of installation used in the work.
(3) Do not permit any irrigation system component to be brought onto the job site until it has been approved by the Owner or his representative.
(4) Approval of any item or alternate item indicates only that it apparently meets the requirements of the drawings on the basis of the information submitted, and does not relieve Contractor of any responsibility.
B. As-Built Drawings
(1) During the course of installation, carefully show in red line on a print of the irrigation system drawings all changes made to the irrigation system during installation.
(2) Dimension from easily identifiable permanent features (buildings, monuments, sidewalks, pavement, etc.) points of connection (water and electrical), wire routing, sprinkler main routing, valve locations and other related equipment as directed by Owner.
(3) Upon completion of the irrigation system installation, carefully transfer the as-built data to reproduces as specified in the General Conditions and submit one legible copy as described under "As-Built" below, to the Owner.
C. Submittal of "As-Built" - Upon completion of the irrigation system installation, and as a condition of its acceptance, deliver to the Owner the As-Built drawings referred to above. The delivery of the As-Built Drawings shall not relieve the Contractor of the responsibility of furnishing required information that may have been omitted.

4. Product Handling

- A. Protection - Use all means necessary to protect irrigation system materials before, during, and after installation and to protect the installed work and all other trades.
B. Replacements - In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.
(1) Exercise care in handling, loading, unloading and storing plastic pipe and fittings under cover until ready to install; transport plastic pipe only on a vehicle with a bed long enough to allow the pipe to lay flat to avoid undue bending and concentrated external load.
(2) Repair all dented or damaged pipe by cutting out the dented or damaged section and rejoining with a coupling.
C. Connection to Utilities
(1) Source of water and power supply: Verify and be familiar with the location, size and detail of stubouts provided as the source of water and electrical supply to the irrigation system, as shown on the plans. Source of supply and point of connection shall be existing stub-outs at approximate locations as shown on plans (unless other wise noted).
(2) Existing utilities and conditions: Prior to cutting into the soil, locate all cables, conduits, sewer septic tanks, and other utilities as are commonly encountered underground and take proper precautions not to damage or disturb such improvements. If a conflict exists between such obstacles and the proposed work, promptly notify the Owner who will arrange for relocations. Proceed in the same manner if rock layer or any other conditions encountered underground make changes advisable.
a. Where investigation of subsurface conditions has been made by a qualified body in areas in which test materials may be obtained, the Contractor may request the use of such information but will be directly responsible for its verification and accuracy.
D. Inspection
(1) At all times permit the Owner or his authorized agents to visit and observe the work or any part thereof. Maintain proper facilities and provide safe access for such observations to all parts of the work. Where the specifications require work to be tested, it shall not be covered up until tested or approved by the Owner and governing agencies. The Contractor shall be solely responsible for notifying the Owner and required agency (48 hours notice minimum required), where and when such work is in readiness for testing. Should any such work be covered without such test or approval, it shall, if so ordered, be uncovered at the Contractor's expense.
(2) Observations Required
a. Prestart Meeting
b. Layout of control equipment and heads.
c. Main line pressure test (3 hours @ 150 P.S.I.) and trench depth check.
d. Lateral trench depth check.
e. Coverage test and prefinal observation.
f. Final observation.
E. Standard of Installation - Material and workmanship shall be in accordance with local codes and ordinances of legally constituted authorities, except that where provisions of these specifications exceed such requirements, these specifications shall govern.
F. Preservation and Cleaning - Cleanup all work as it progresses. At frequent intervals, and at all times when directed by the Owner, remove and dispose of accumulations of rubbish and debris of all kinds. At the time of completion, the entire site shall be cleared of tools, equipment, rubbish, etc., all of which shall be left in proper, clean condition ready for acceptance.
G. Completion - The work shall be accepted in writing when the entire scope of work has been completed satisfactorily to the Owner. In judging the work, no allowance for deviation from the original plans and specifications will be made unless previously approved by the Owner.
(1) When any item appears on the plan and not in the specifications, or in the specifications and not on the plan, it shall be considered in both.
(2) The Owner or his authorized representative shall have the final authority on all items of the project.
H. Equipment to be Furnished - Irrigation equipment, operating keys and spare parts shall be furnished to the Owner as shown on the plans.
I. Service by the Contractor - The Contractor shall service the system at the Owner's request during the guarantee period and shall be paid for work performed which is not covered by the guarantee. If requested by the Owner, the Contractor shall furnish the Owner with a schedule of services fees.

J. Final Acceptance - Within 10 days of the Contractor's notification that the installation is complete, the Owner and required agencies will observe the installation and, if final acceptance is not given, will prepare a "punch list" which, upon completion by the Contractor, and approved by the Owner, will signify final acceptance by the Owner.

K. Irrigation Guarantee

- (1) The entire irrigation system shall be unconditionally guaranteed by the Contractor as to material and workmanship, including settling, backfilling areas below grade for a period of one year following the date of final acceptance of the work.
(2) If, within one year from the date of completion, settlement occurs and adjustments in pipe, valves, and irrigation heads, sod or paving to the proper level of the permanent grades, the Contractor as part of the work under this Contract, shall make all adjustments without extra cost to the Owner, including complete restoration of all damaged planting, paving or other improvements.
(3) Should any operational difficulties in connection with the irrigation system develop within the specified guarantee period, which in the opinion of the Owner may be due to inferior material or workmanship, said difficulties shall be immediately repaired at no additional cost to the Owner, including any and all other damage caused by such defects.
L. Permits and Licenses - Unless otherwise stated, secure the required licenses and permits including payments of charges and fees, give required notices to public authorities, and verify permits secured or arrangements made by others affecting the work of this section.

5. MATERIALS

Materials listed in this section encompass the general items encountered. If products listed below are not used for the project being installed, they are to be omitted.

6. PIPE

- A. PVC
(1) PVC Pressure Rated Pipe - Type 1220 (PVC Class 200 and 315 and PVC Schedule 40-1120).
a. Type I Grade II pressure rated pipe.
b. Materials shall meet requirements set forth in the ASTM current standards.
c. Outside diameter of pipe shall be the same size as iron pipe.
d. Pipe shall be marked at intervals not to exceed 5 feet with the following information:
Manufacturer's name, nominal pipe size, PVC type and grade (i.e. PVC 1220), S.D.R. rating class, NSF approval and commercial standard designation CS 256-63.
e. PVC pipe shall comply with standards set forth in CS 256-63.
f. PVC Type I shall not be threaded.
g. PVC fittings shall be Schedule 40 or 80, PVC Type II.
h. Solvent shall be #715 Gray NSF approved as manufactured by Industrial Polychemical Service, Gardena, California, or approved equal.
i. Caution shall be utilized in handling Type I pipe due to the possibility of cracking or spitting when dropped or handled carelessly.
j. Where called for on drawings, pipe shall be bell end, conforming to ASTM-2672. Install concrete thrust blocks as recommended in Johns-Manville installation guide No. TR-624, where conditions dictate.
(2) PVC High Impact Pipe - Type 2110 (PVC Schedule 40 and 80).
a. Type II Grade I High Impact Pipe.
b. Outside diameter of pipe shall be the same size as iron pipe.
c. Pipe shall be marked at intervals not to exceed 5 feet with the following information:
Manufacturer's name, nominal pipe size, PVC type and grade (i.e. PVC 2110), schedule, NSF approval and commercial standard designation CS 207-60.
d. PVC pipe shall comply with standards set forth in CS 207-60.
e. PVC schedule 40 shall not be threaded.
f. Fittings shall be PVC Schedule 40 or 80, Type II, NSF approved, as required.
g. All threaded PVC pipe shall be Schedule 80, Type 2110.
h. Solvent shall be #175 or #710 Gray, NSF approved as manufactured by Industrial Polychemical Service, Gardena, California, or approved equal.
(3) UWR - PVC - "Bromine" pipe.
Where called for - on grade pipe shall be UWR - PVC pipe anchored at 10' intervals with re-bar. All UWR - PVC pipe shall be installed per manufacturer's recommendations.
(4) When connection is plastic to metal, mole adapters shall be used. The mole adapter shall be hand tightened, plus one turn with a strap wrench. Joint compound shall be nonhardening sealing compound compatible to plastics. Compound must not lubricate the joint.
B. Brass Pipe
(1) Where indicated on the drawings, brass pipe shall be red brass screwed pipe conforming to Federal Specification BW-P-351.
(2) Fittings shall be red brass conforming to federal specification WW-P-450.
C. Galvanized Pipe
(1) Where indicated on the drawings, galvanized steel pipe shall be ASA Schedule 40, mild steel screwed pipe.
(2) Fittings shall be medium galvanized screwed beaded malleable iron. Galvanized couplings must be merchant coupling.
(3) All galvanized pipe and fittings installed below grade shall be painted with two (2) coats of Koppers #50 Blumastic and wrapped with 20 mil tape.
(4) All nonmagnetic galvanized pipe installed on grade shall be stenciled or identified with green tape at all connections and continuously along its length.
D. Copper Pipe and Fittings - Where indicated on the drawings, copper pipe shall be type "K" sweat soldered pipe.
7. Risers
All sprinkler heads shall have risers as shown in the detail drawings.
8. Valves
A. Gate Valves
(1) Gate valves 3" and smaller shall be 125 lb. SWP bronze gate valve with screw-in bonnet, nonrising stem and solid wedge disc.
(2) Gate valves 3" and smaller shall have threaded ends and shall be equipped with a bronze hand wheel or operating nuts.
(3) Gate valves 3" and smaller shall be similar to those manufactured by Kennedy or approved equal.
(4) All gate valves shall be installed per detailed drawings.
B. Quick Coupling Valves - Quick coupling valves shall be of manufacturer shown on the drawings or approved equal. Each quick coupler shall have a molded vinyl locking cover. Upon completion of the contract and prior to final acceptance, supply the Owner with quick coupler keys and hose ends of the quantity called for on the plans. The quick coupler keys and hose ends shall be of the same manufacturer as the coupling valve. All quick coupling valves shall be installed per detailed drawings.
C. Remote Control Valves
(1) The electric remote control valves shall be of the type and manufacturer shown on the drawings, or approved equal, and installed per detailed drawings and manufacturer's recommendations.
(2) Valves shall be installed minimum 6" from all fixed objects and 12" apart.
D. Pressure Regulating Valves - Pressure regulating valves shall be of the type and manufacturer shown on the drawings, or approved equal, and installed per detailed drawings and manufacturer's recommendations.
E. Check Valves - Anti-drain valves shall be of heavy duty virgin PVC or brass construction with F.I.P. thread inlet and outlet. Internal parts shall be stainless steel and neoprene. Anti-drain valves shall be field adjustable against drain out from 5 to 40 feet of head. The anti-drain valve, where indicated on the plans, shall have an excess flow feature which will automatically stop the flow when it exceeds the GPM preset by the manufacturer. The anti-drain and excess flow valve shall be similar to the Victrol ADV-35, Rain Bird SM-1 or approved equal. Sprinkler heads having check valves in heads will not require additional check valves.

9. VALVE BOXES

All valves, including pressure regulating valves, remote control valves and gate valves shall be installed in suitable valve boxes as shown in details. All shall be marked "PRV", "RCV", or "GV" respectively with station numbers for control valves stenciled in white on the valve cover. (RCV boxes shall have locking covers.)

10. CONTROLS

- A. Automatic Controller - Automatic controllers shall be of the type and manufacturer shown on the drawings or approved equal and installed per manufacturer's recommendations and detailed drawings.
B. Low Voltage Control Wire - All wiring to be used for connecting the automatic controller to the electric solenoid actuated remote control valve shall be Type UF-600V, 7-strand or solid copper, PVC insulation, single conductor, UL approved underground feeder cable. Each pilot or hot wire shall be black with the common wire being white. Field splices between the controller and electric valves are not permitted. Control wire size of the gauge indicated on the detailed drawings.
C. Communication Cable - Communication cable from the central computer to the field control units shall be Toro P-716-D A1 cable.
D. 110 Volt Wire to Controller - 110 volt wire shall be per local code as to type and quality. Install in conduit 24" below grade.

11. BACKFLOW PREVENTION UNITS

Backflow prevention units shall be of size and type as indicated on the drawings. All backflow prevention units shall be installed in accordance with detailed drawings and the requirements set forth by local codes and/or the County Health department.

12. IRRIGATION HEADS

- A. Sprinkler heads shall be of the types and sizes with the diameter (or radius) of throw, pressure, discharge and other designations necessary to determine the types and sizes as indicated on the plans. They shall be constructed of bronze, brass, stainless steel and/or high impact plastic.
B. All heads of a particular type of function in the system shall be of the same manufacturer and shall be marked with the manufacturer's name and identification in such a position that they can be identified without being removed from the system.

13. OTHER MATERIALS

All other materials not specifically described but required for a complete and proper irrigation system installation, shall be new, first quality of their respective kinds, and subject to the approval of the Owner.

14. EXECUTION

- A. Inspection
(1) Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
(2) Verify that the irrigation system will be installed in strict accordance with all pertinent codes and regulations, the original design, the reference standard and the manufacturer's recommendations.
(3) Verify all field conditions including property lines, rights of way, tract boundaries, easements and any other legal or physical element as required for the successful completion of the project.
B. Discrepancies
(1) In the event of discrepancy, immediately notify the Contractor or his authorized representative.
(2) Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

15. FIELD MEASUREMENTS

Make all necessary measurements in the field to ensure precise fit of items in accordance with the original design.

16. TRENCHING AND BACKFILLING

- A. Trenching
(1) Excavation shall be open vertical construction sufficiently wide to provide free working space around the work installed and to provide ample space for backfilling and compaction.
(2) Trenches for pipe shall be cut to required grade lines, and trench bottom shall be compacted to provide an accurate grade and uniform bearing for the full length of the pipe run.
(3) When two pipes are to be placed in the same trench, maintain a six-inch space between pipes as a minimum. No pipe shall be installed directly over another.
B. Backfilling
(1) Backfill material shall be approved soil. Unsuitable material, including clods and rocks over 2 1/2" in size, shall be removed from the premises and disposed of legally at no cost to the Owner.
(2) All backfilling shall be done carefully and shall be properly compacted.
(3) Depth of trenches shall be sufficient to provide a minimum cover above the top of the pipe as follows:
a. 14" over non-pressure rotor pop-up lines (minimum).
b. 12" over non-pressure lateral lines (minimum).
c. 18" over 24 volt conduit and non-potable irrigation main line 3" and smaller (minimum).
d. 24" cover over pipe serving potable water to a backflow preventer and 120V conduit (minimum).
e. 30" cover over pipe crossing under paving (minimum).
Surplus earth remaining after backfilling shall be disposed of on the premises as directed by the Owner.

17. INSTALLATION OF PIPE

- A. General
(1) The irrigation piping layout is schematic. Contractor can make minor adjustments to the system as required to avoid physical elements or conform to other site conditions. In all cases there should be no conflicts between the irrigation system, planting, and structural elements. The Contractor is responsible for maintaining coverage as indicated, prior approval of any such adjustment from the Owner and for recording of any such change.
(2) Prior to installation, pressure, meter size, size of service to meter, at each point of connection. Make final connections allowing for possible minor deviations from locations shown on plans due to site conditions. Any deviation from design criteria shall be brought to the attention of the Owner. Continuation of work shall be at Contractor's risk and expense.
(3) Verify the static pressure, meter size, size of service to meter, at each point of connection. Make final connections allowing for possible minor deviations from locations shown on plans due to site conditions. Any deviation from design criteria shall be brought to the attention of the Owner. Continuations of work shall be at Contractor's risk and expense.
B. Under Existing Pavement
(1) Pipe required under existing pavement shall be installed by jacking, boring or hydraulic driving except that no hydraulic driving will be permitted under asphaltic concrete pavement.
(2) Where cutting or breaking of existing pavement is necessary, secure permission from the Owner before cutting or breaking the pavement and then make all necessary repairs and replacements to the approval of the Owner and at no additional cost to the Owner.
C. Inspection of Pipe and Fittings - Carefully inspect all pipe and fittings before installation, removing all dirt, scale, and burrs and removing as required, install all pipe with all markings up for visual inspection and verification.
D. PVC Pipe
(1) PVC pipe shall be installed in a manner which will provide for expansion and contraction as recommended by the pipe manufacturer. Routing is diagrammatic and shall be installed in such a manner as to conform with the details per the drawings.

(2) In joining, use Christys Red Hot solvent and make all joints in strict accordance with the manufacturer's recommended methods; give solvent welds at least 15 minutes set up time before moving or handling and 24 hours curing time before filling with water.

18. INSTALLATION OF EQUIPMENT

- A. Automatic Controller Location and Installation
(1) Automatic controller(s) shall be installed at the location(s) shown on the drawings.
(2) The controller location is essentially diagrammatic and shall be specifically located by the Owner or his representative.
(3) All local and applicable codes shall take precedence in the furnishing and/or connecting of 110V electrical service to the controller.
(4) Adequate coverage (18" minimum) of the 24V service wire leading from the controller shall be installed from the bottom of the controller to trenches.
(5) Controllers shall be installed within vandal-resistant enclosures as called for on the drawings.
B. Control Wires
(1) All electrical equipment and wiring shall comply with local and State Codes and be installed by those skilled and in the trade. Unless the governing code specifies otherwise, low voltage control wire may be installed by the irrigation Contractor.
(2) Connecting and splicing of wire at the valves shall be made using prefilled Dri Splice Connectors with crimp sleeves by Spaw.

C. Communication Cable

- (1) Communication cable shall be installed from the field control unit to the area called for on the plans.
(2) Install cable in PVC conduit and stub in valve box as indicated on the plans. Ends of cable shall be sealed with an approved water tight connectors as specified. (See Section 18-B-2 above.)
(3) Field splices are not permitted, except where lying in to cable which has been stubbed out by others. Splices shall be made using a Paige Splice Kit No. P71620-1 and in accordance with the manufacturer's recommendations.
(4) Install all communication cable in approved PVC electrical conduit.
D. Electrical Work - All electrical work shall be installed per code requirements.
E. Loose Key Hose Bib - shall be set approximately 12" from walls, curbs, header boards, or paved areas where applicable per detail drawings.
F. Valves
(1) All valves shall be installed as shown in the details and in accordance with manufacturer's recommendations.
(2) All automatic valves shall be sized as shown on plans. Gate Valves shall be line size.
(3) Install each control valve in a separate valve box with a minimum of 12" between valves and 6" from any walk or structure.
G. Valve Boxes
(1) Valve boxes installed near walls, curbs, header boards and paving shall about those items and the top surfaces shall be flush with items listed and covered with manhole covers.
(2) All valve boxes shall be installed as shown in the details in accordance with manufacturer's recommendations.

19. TESTING AND INSPECTION

- A. General
(1) Furnish all necessary testing equipment and personnel.
(2) Correct all leaks and retest until acceptance by the Owner.
B. Covering up Uninspected Work - Do not allow or cause any of the work of this section to be covered up or enclosed until it has been inspected, tested and approved by the Owner and authorized agencies. (See Section 4-D-2)
C. Flushing - Before backfilling the main line, and with all control valves in place but before lateral pipes are connected is completely flush and test the main line and repair all leaks; flush out each section of lateral pipe before irrigation heads are attached.
D. Testing
(1) Make all necessary provisions for thoroughly bleeding the line of air and debris.
(2) Before testing, fill the line with water for a period of at least 24 hours.
(3) Prior to installation of control valves, test all live lines for leaks at a pressure of 150 PSI for a period of three hours, with all coupling losses and with all pipe sections center loaded.
(4) Adjust remote control valves so that the most remote sprinkler heads operate at the pressure recommended by the head manufacturer. Adjust remote control valves so a uniform distribution of water is applied by the sprinkler heads to the planting area for each individual valve system.

E. Final Inspection

- (1) Thoroughly clean, adjust and balance all systems.
(2) Demonstrate the entire system to the Owner, his authorized agent and/or governing agencies to show that all remote control valves are properly balanced, all heads are properly adjusted for radius and arc of coverage, and that the installed system is workable, clean and efficient.

20. OPERATIONAL AND MATERIALS MANUALS

- A. Operational and Product Manuals - Prepare and deliver to the Owner, prior to approved final inspection, all required and necessary descriptive material in complete detail and sufficient quantity, operation and product manual. The manual shall describe the material installed and shall be in sufficient detail to permit operating personnel to understand, operate and maintain all equipment. Spare parts lists and related manufacturer information shall be included for each equipment item installed.
Each complete, bound manual shall include the following information:
(1) Index sheet stating Contractor's address and telephone number.
(2) Duration of guarantee period.
(3) List of equipment with names and addresses of local manufacturer representatives.
(4) Complete operating and maintenance instructions on all major equipment.
B. In addition to the above manuals, provide the maintenance personnel with instructions for major equipment and show written evidence to the Owner, at the conclusion of the project, that this service has been rendered.
C. INSPECTION
(1) At all times permit the Owner or his authorized agents to visit and observe the work or any part thereof. Maintain proper facilities and provide safe access for such observations to all parts of the work. Where the specifications require work to be tested, it shall not be covered up until tested or approved by the Owner and governing agencies. The Contractor shall be solely responsible for notifying the Owner and required agency (48 hours notice minimum required), where and when such work is in readiness for testing. Should any such work be covered without such test or approval, it shall, if so ordered, be uncovered at the Contractor's expense.
(2) Observations Required
a. Prestart meeting
b. Layout of control equipment and heads
c. Main line pressure test and trench depth check.
d. Lateral trench depth check
e. Coverage test and prefinal observation
f. Final observation

Standard of Installation - Material and workmanship shall be in accordance with local codes and ordinances of legally constituted authorities, except that where provisions of these specifications exceed such requirements, these specifications shall govern.

Preservation and Cleaning - Cleanup all work as it progresses. At frequent intervals, and at all times when directed by the Owner, remove and dispose of accumulations of rubbish and debris of all kinds. At the time of completion, the entire site shall be cleared of tools, equipment, rubbish, etc., all of which shall be left in proper, clean condition ready for acceptance.

Completion - The work shall be accepted in writing when the entire scope of work has been completed satisfactorily to the Owner. In judging the work, no allowance for deviation from the original plans and specifications will be made unless previously approved by the Owner.

Equipment - Irrigation equipment, operating keys and spare parts shall be furnished to the Owner as shown on the plans.

Service by the Contractor - The Contractor shall service the system as the Owner's request during the guarantee period and shall be paid for work performed which is not covered by the guarantee. If requested by the Owner, the Contractor shall furnish the Owner with a schedule of services and fees.

Final acceptance - Within 10 days of the Contractor's notification that the installation is complete, the Owner and required agencies will observe the installation and, if final acceptance is not given, will prepare a "punch list" which, upon completion by the Contractor, and approved by the Owner, will signify final acceptance by the Owner.

REVISIONS

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