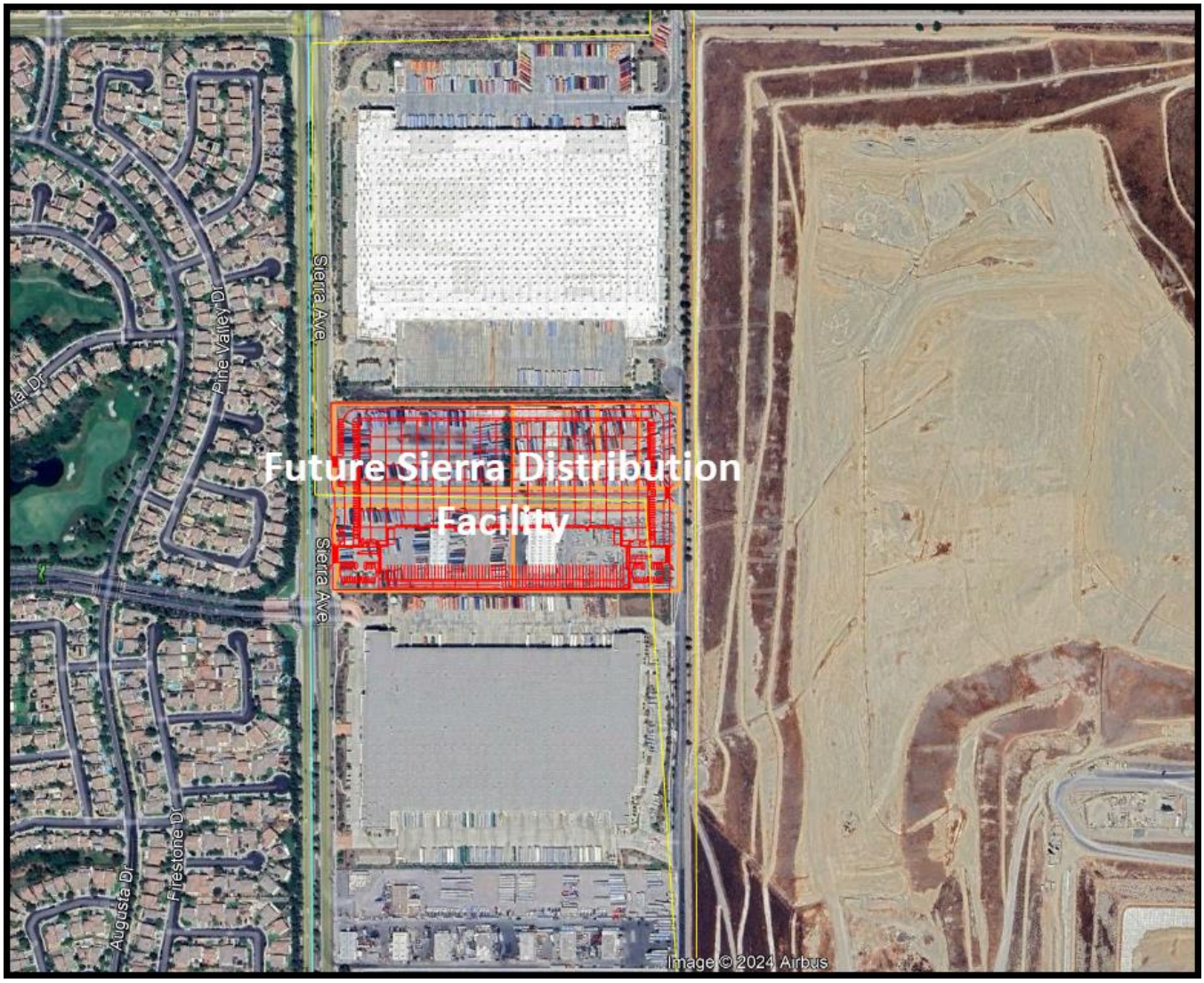
APPENDIX L

Fire Protection Plan

Kimley»Horn

FIRE PROTECTION PLAN

Preliminary
Sierra Distribution Facility
Sierra Avenue and Windflower Avenue
Fontana, CA
County of San Bernardino, California



7 December 2024

Prepared For:
Kimley-Horn and Associates, Inc.
3325 South Timberline Road, Suite 130
Ft. Collins, CO 80525

Certified by: _____
Mel Johnson, Owner
Certified CEQA Wildland Fire Consultant
FIREWISE 2000 LLC
P.O. BOX 339
LOWER LAKE, CA
INFO@FIREWISE2000.COM

FIRE PROTECTION PLAN

Sierra Distribution Facility

Table of Contents

FIGURES **Page**

EXECUTIVE SUMMARY

California Government Code Section 51178 requires the California Department of Forestry and Fire Protection (CAL FIRE) to identify and map very high fire hazard areas statewide, referred to as "Very High Fire Hazard Severity Zones".

The Project site is in a Local Responsibility Area (LRA). A Very High area is northwest of the proposed project site. See Figure 4.

The purpose of this Government Code chapter is to classify lands in accordance with whether a very high fire hazard severity zone is present, so that public officials are able to identify measures that will mitigate the rate of spread and reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property, and to require that those measures be taken.

Chapter 49 of the 2022 Fire Code provides requirements for a Fire Protection Plan in development areas that are within VHFHZs. If a location is not Very High, Local Government may require a Fire Protection Plan if they deem a location is at risk due to proximity of a high classification.

The 2022 Code provided major revision and has added additional requirements.

This FPP will highlight the most important plan improvements and requirements throughout the document. In short, the plan will follow the guidelines stated in Section 4903.

Section 4903
The fire protection plan shall be based on a project-specific wildfire hazard assessment that includes considerations of location, topography, aspect, and climatic and fire history. The plan shall identify conformance with all applicable state wildfire protection regulations, statutes, and applicable local ordinances, whichever are more restrictive. The plan shall address fire department access, egress, road and address signage, water supply in addition to fuel reduction in accordance with Public Resources Code (PRC) 4290; the defensible space requirements in accordance with PRC 4291 or Government Code 51182; and the applicable building codes and standards for wildfire safety. The plan shall identify mitigation measures to address the project's specific wildfire risk and shall include the information required in Section 4903.2.1.

Finally, this FPP and its requirements will be incorporated by reference into the final project Conditions of Approval to ensure compliance with "City of Fontana and San Bernardino County Fire" codes/regulations and significance standards.

This Fire Protection Plan follows the provisions of the 2022 California Fire Code Chapter 49; 2022 California Building Code Chapter 7A; 2022 California Residential Code, Section R337 and local jurisdiction amendments.

The Fire Protection Plan shall consider location, topography, geology, aspect, combustible vegetation, climatic conditions, and fire history. Additionally, the plan shall address water supply, access, structural ignitability, structure setback and ignition resistive building features, fire protection systems and equipment, impacts to existing emergency services and vegetation management. The plan shall identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructures. The plan shall recommend measures that homeowners and communities shall take to reduce the ignitability of structures throughout the area.

The Applicant hereby acknowledges the construction and other requirements of this Fire Protection Plan.

Applicant: _____ Date: _____

Approving Departments: City of Fontana

San Bernardino County Fire Department

Approved by:

_____ Date: _____
City of Fontana

Approved by:

_____ Date: _____
San Bernardino County Fire Dept.

Prepared by:
Monty Kalin
Associate Planner
Firewise2000, LLC
Monty.Kalin@Firewise2000.com
760-533-7096

FIRE PROTECTION PLAN
Sierra Distribution Facility
City of Fontana
County of San Bernardino, California

1.0 GENERAL DESCRIPTION

The Project includes the development of a 398,514 square foot warehouse building including approximately 10,000 square feet of office area on a total of 18.3 net acres in the northern portion of the City. Fifty-four dock-high doors would be constructed along the majority of the south building wall and 125 auto parking stalls, and 118 trailer parking stalls would be provided. The proposed building is expected to be surrounded by asphalt concrete (AC) pavement in the parking and drive areas, with an included 30-foot-wide fire lane, Portland cement concrete (PCC) pavements in the loading dock area, and concrete flatwork and landscaped planters throughout the Project site.
The Project site is presently developed with four commercial/industrial buildings ranging from 5,000 to 25,000 square feet in size.
Figure 1 and Figure 2 provide relevant structure information.

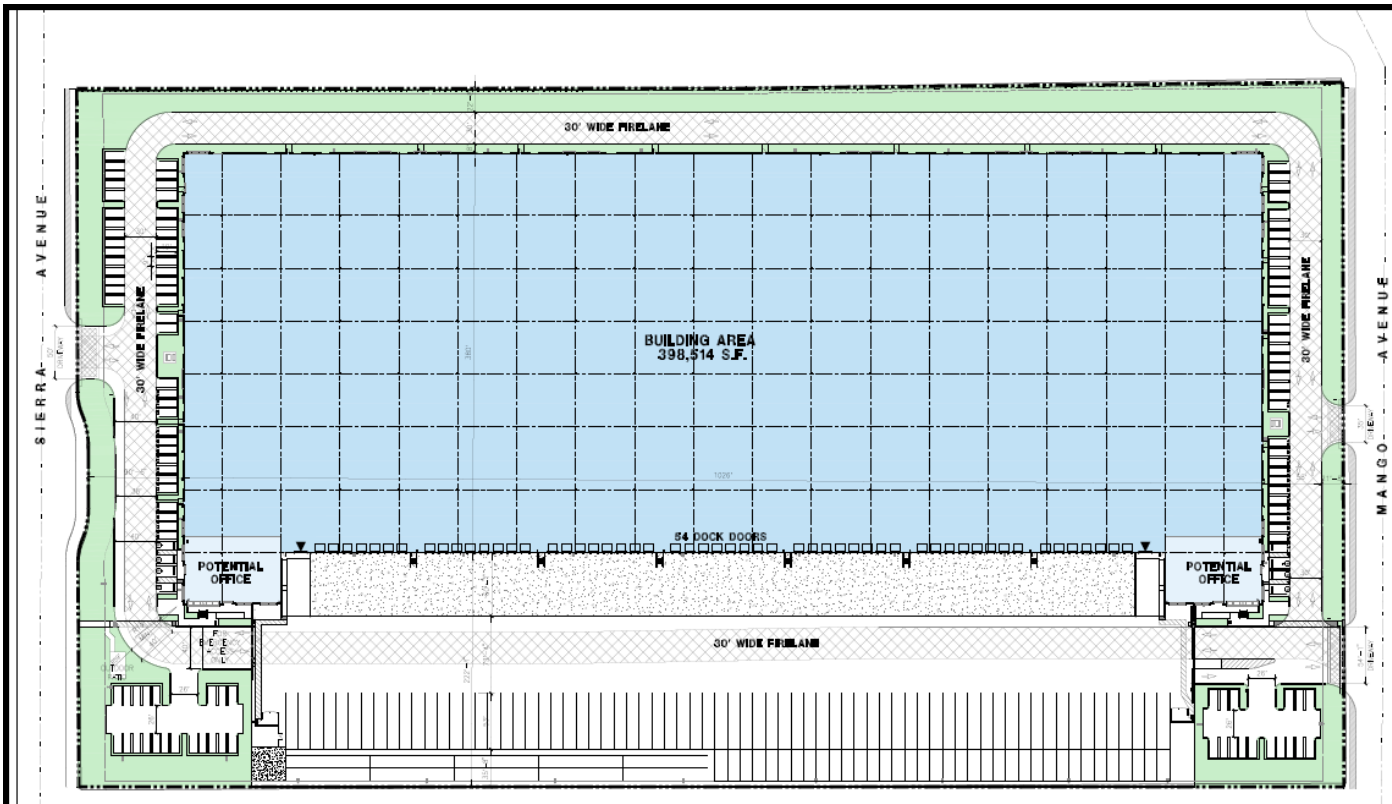


Figure 1 Conceptual Site Plan See Appendix F

Tabulation

SITE AREA		
In s.f.	797,033	sf
In acres	18.30	ac
BUILDING AREA		
SWC Office	5,000	sf
SEC Office	5,000	sf
Warehouse	393,514	sf
TOTAL	**398,514**	sf
FLOOR AREA RATIO		
Maximum Allowed	0.60	
Actual	0.500	
SITE COVERAGE		
Maximum Allowed	60%	
Actual	50.0%	
AUTO PARKING REQUIRED		
Office: (required if over 10% of G.F.A)	0	stalls
Whse: 1st 20,000 @ 1/1,000 s.f.	20	stalls
2nd 20,000 @ 1/2,000 s.f.	10	stalls
above 40,000 @ 1/5,000 s.f.	72	stalls
TOTAL	**102**	stalls
AUTO PARKING PROVIDED		
Standard (9 'x 19')	93	stalls
ADA Standard (9' x 19')	5	stalls
ADA Van (12' x 19')	1	stalls
EV ADA Van (12' x 19')	1	stalls
EV Charging Only (9' x 19')	5	stalls
EV ADA (9' x 19')	1	stalls
EV Capable (9x19')	19	stalls
TOTAL	**125**	stalls
BICYCLE RACK PROVIDED	16 total capacity	
TRAILER PARKING REQUIRED		
1 per 5,000 s.f.	80	stalls
TRAILER PARKING PROVIDED		
Trailer (12' x 53')	71	stalls
Trailer Tandem (12' x 80')	10	stalls
Tractor Trailor (12' x 30')	37	stalls
TOTAL	**118**	stalls
ZONING ORDINANCE		
Zoning Designation - Light Industrial (M-1)		
MAXIMUM BUILDING HEIGHT ALLOWED		
Height - 75'		
LANDSCAPE REQUIREMENT		
Percentage - 15% not including building		
LANDSCAPE PROVIDED		
In s.f.	85,181	sf
Percentage	21.4%	
SETBACKS		
Sierra Avenue - 25'		
Mango Ave. - 20'		
Rear/Interior - 5'; Abutting R or C-1 Zone - 10'		

Figure 2 Tabulation

Project Location: The property is located in the City of Fontana, San Bernadino County at Sierra Avenue and Wildflower Avenue. It is bounded on the west by Sierra Avenue and on the east by Mango Avenue. Generally, the site is north of the 210 Freeway. Figure 3: Location.

Figure 3 Location

The proposed development is Local Responsibility Area (LRA) as designated in the 2007 FRAP mapping, the property had no assigned classification: however, an area of Very High is just northwest of the proposed new structure's location. See Figure 4.

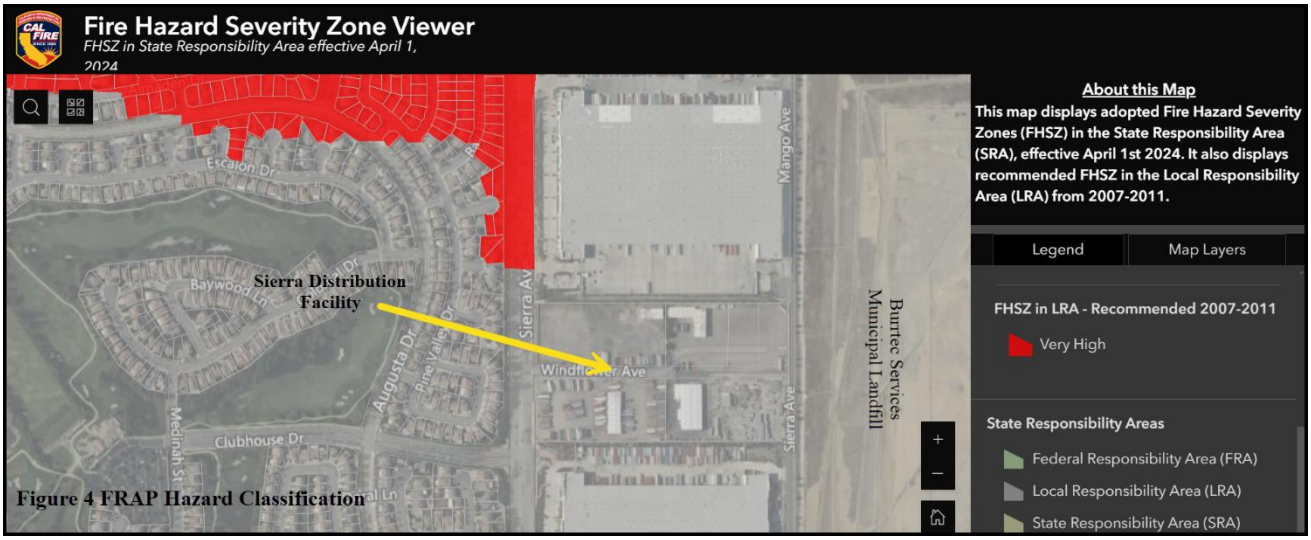


Figure 4 FRAP Hazard Classification

Figure 5 provides a view of the topographic relief of the site, which is mostly flat but slopes up to the west of development's western side and the eastern side slopes up at the development's southeast corner.

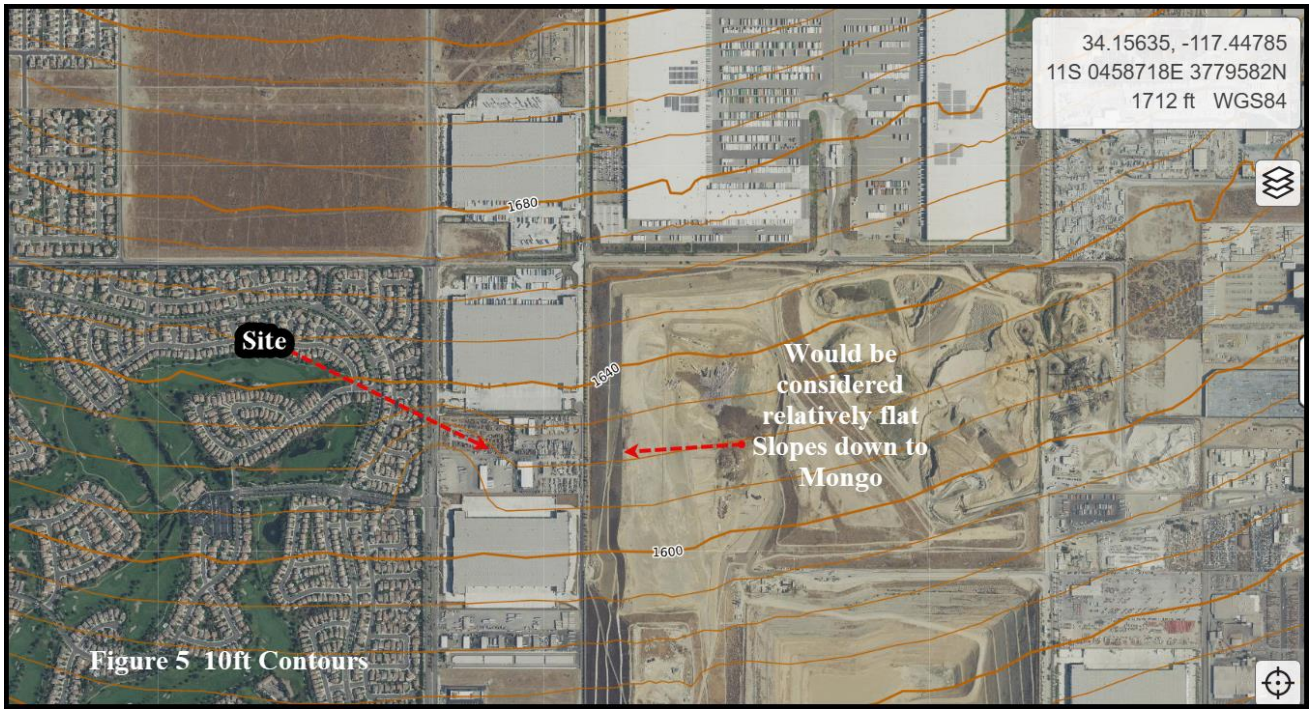


Figure 5 10ft Contours

Refer to the APPENDIX 'E' Vegetation Management Map for the illustration of property lines, structures, and related Vegetation Management Zones

A Fire Protection Plan (FPP) must be submitted to and approved by the City of Fontana and San Bernardino Fire. The approved FPP shall be recorded against the Project. The FPP assesses the overall (on-site and off-site) wildland fire hazards and risks that may threaten life and property associated with the proposed Development. In addition, the FPP establishes both short-term and long-term vegetation management actions needed to minimize any projected wildland fire hazards and assigns annual maintenance responsibilities for each of the required Vegetation Management actions.

1.1 General Information

Owner:
Seefried Industrial Properties, Inc.
3333 Riverwood Parkway, Suite 200
Atlanta, Georgia 30339

Prepared By: Monty Kalin
Firewise2000, LLC
Associate Planner
Email
Monty.Kalin@Firewise2000.com

Approving Departments:
City of Fontana
San Bernardino County Fire
Water Distribution System: Fontana Water Company

The purpose of this FPP is to provide Vegetation Management Zone treatment and construction feature direction for developers, architects, builders, and the individual lot owner. The document will be used in making the structures in the proposed project safe from future wildfires.

Requirements of this FPP are based upon requirements listed in the 2022 California Fire Code, Chapter 49. Public Resources Code, Sections 4201 through 4204, and Government Code, Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires.
Local Amendments as required.

Chapter 7A-California Building Code; 2022 California Residential Code sections R337; National Fire Protection Association Standards (NFPA) 13, 2022 Edition, SBCFD Standared A 1, Fire Apparatus Access Road Design, dated 1 July 2023 and Ordinance 1302 Weed Abatement of hazardous vegetation.

Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained by the following laws and/or regulations:
Public Resources Code, Section 4291. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation "General Guideline to Create Defensible Space"). California Government Code, Section 51182. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.

2.0 WILDLAND FIRE HAZARD AND RISK ASSESSMENT

In assessing the wildland fire hazard, it is necessary to consider plant succession and the climax plant communities. The vegetation described below is the most likely climax plant community that will exist without human intervention and the one utilized for planning purposes. A review found no historical large event catastrophic fires have occurred near the site. Smaller localized fires may not have been captured; there are no obvious past burn scars evident at time of site visit.

2.1 On and Off-Site Fire Hazard and Risk Assessment

On site hazards will include hazardous materials removal in the demolition process of existing developed structures.
Secondarily, for site prep and construction required Mitigation Measures as addressed **in a letter dated May 3, 2023, from Public Health, Environmental Health Services. Appendix H.**
Due to the Projects close proximity to the landfill, San Bernardino County Local Enforcement Agency (LEA) recommends all developments within 1,000 ft including Sierra Distribution Facility to be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building as per 27 California CR § 21190(g):

- A geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;
- A permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;
- A geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;

- A perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;
- The venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;
- Automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and
- Periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (§ 20920 et seq.).

Offsite hazards and risks, The area within the general vicinity of the project site is primarily developed. The exception is the Mid-Valley Landfill directly east of the proposed Sierra Distribution Facility. The slopes down to Mango Avenue east of the proposed site are a vegetation fire risk. In addition, the slope has a vapor recovery system. See Appendix G "Sierra Distribution Facility Project Environmental Impact Report Section 4.9 Hazards and Hazardous Materials dated September 2024.

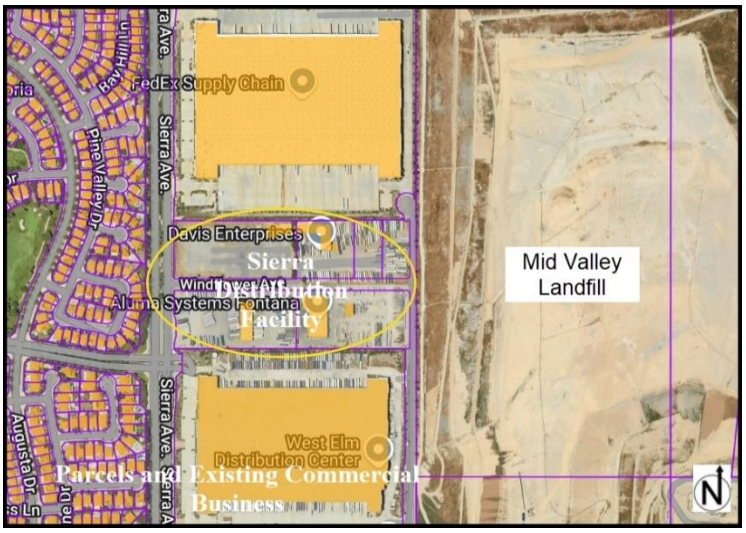
Figure 6 Risks from Off Site Wildland Fires

See Figure 6: Risks from off-site wildland fires.

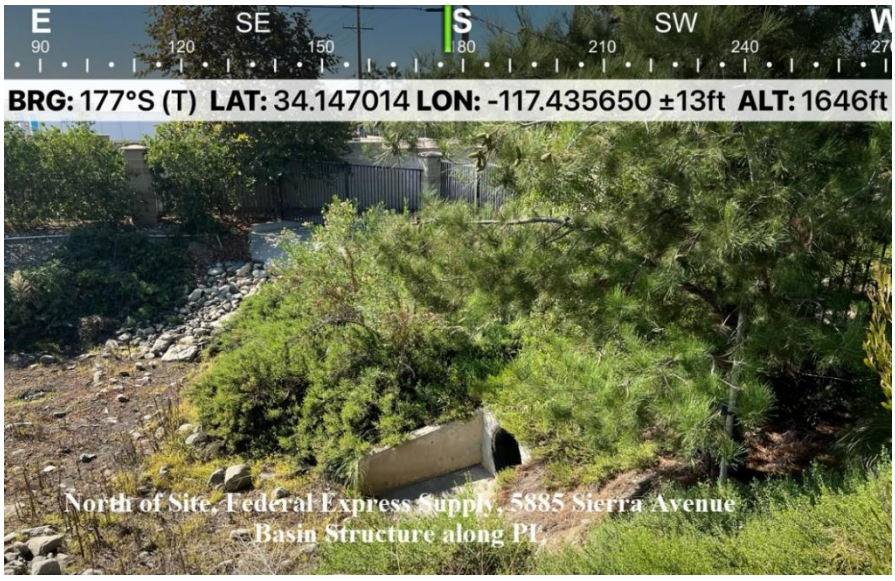
See Section 2.4 for Fire Behavior Modeling results in flame length distances and rates of spread.

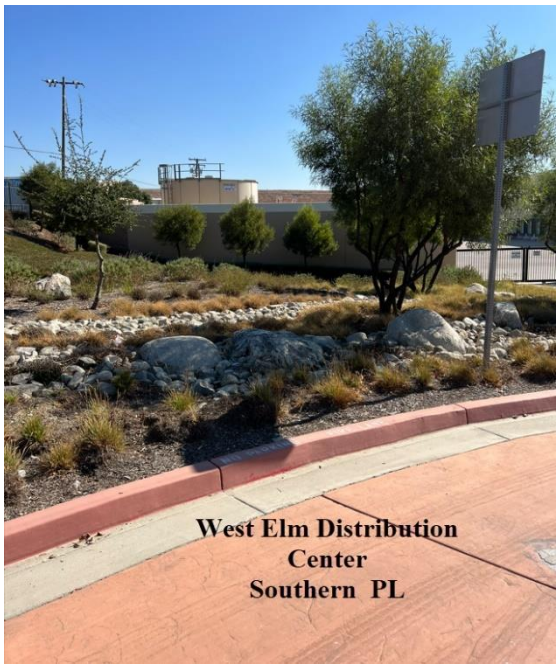
For Fire Behavior planning purposes model, Fuel Model gr4, Description Moderate load, dry climate grass (D) 1-h Fuel Load 0.25 tons/ac, 10-h Fuel Load 0 tons/ac, 100-h Fuel Load 0 tons/ac, best described the fuels closest to the property line (PL) in Figure 6.

Site Photos

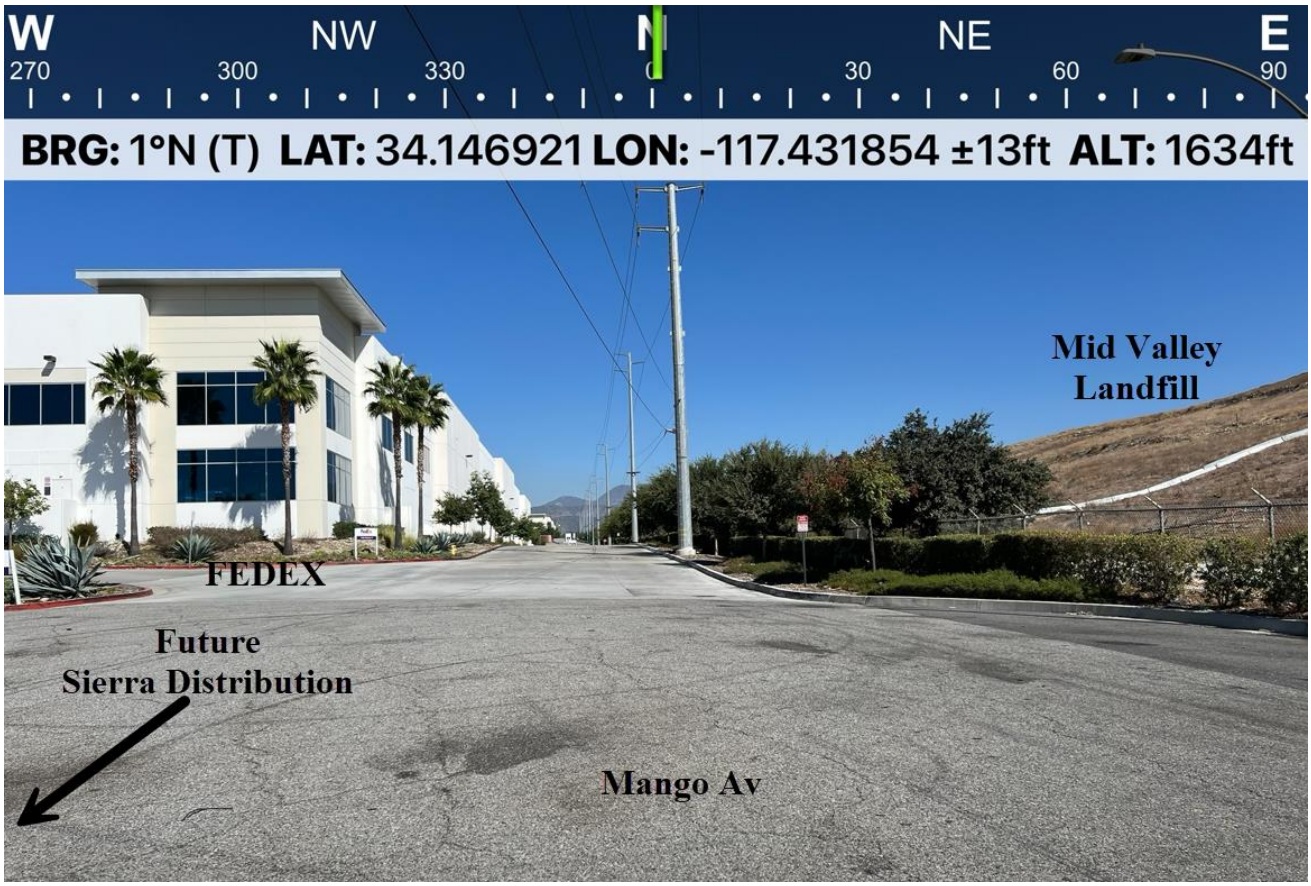

FedEx Supply Chain
Sierra Ave.
Pine Valley Dr.
Davis Enterprises
Sierra
Distribution
Facility
Alluma Systems Fontana
Mid Valley
Landfill
West Elm
Distribution Center
Parcels and Existing Commercial
Business
Augusta Dr
N


N NE E SE
0 30 60 90 120 150
BRG: 68°E (T) LAT: 34.145941 LON: -117.435919 ±13ft ALT: 1631ft
Note; Grass slope east
end
East of Mango Av
Site Wildflower AV

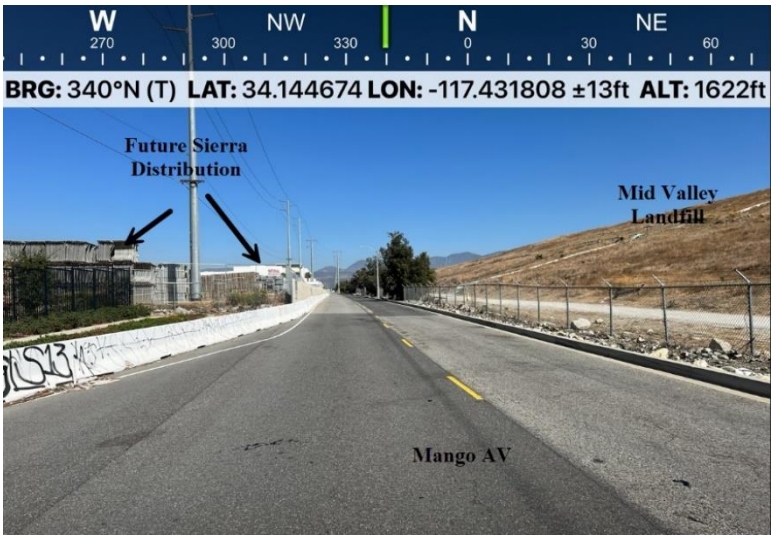

E SE S SW
90 120 150 180 210 240
BRG: 177°S (T) LAT: 34.147014 LON: -117.435650 ±13ft ALT: 1646ft
North of Site, Federal Express Supply, 5885 Sierra Avenue
Basin Structure along PL

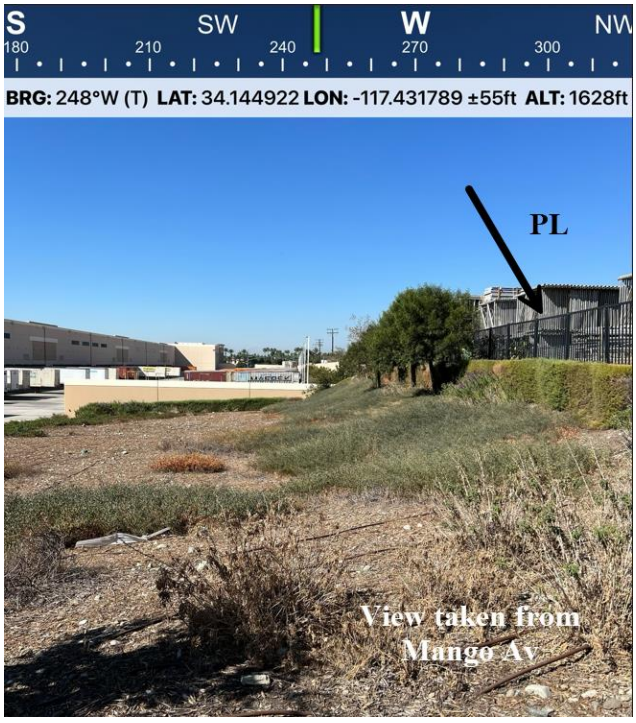

West Elm Distribution
Center
Southern PL


View of joining
structure south


W
NW
N
NE
E
270
300
330
0
30
60
90
BRG: 1°N (T) LAT: 34.146921 LON: -117.431854 ±13ft ALT: 1634ft
Mid Valley
Landfill
FEDEX
Future
Sierra Distribution
Mango Av


N NE E SE S
0 30 60 90 120 150 180
BRG: 92°E (T) LAT: 34.146670 LON: -117.431770 ±13ft ALT: 1637ft
East of Mango Av
Mid Valley Landfill
Note Potential Wildfire Risk Grass Covered Slope


W NW N NE
270 300 330 0 30 60
BRG: 340°N (T) LAT: 34.144674 LON: -117.431808 ±13ft ALT: 1622ft
Future Sierra Distribution
Mid Valley Landfill
Mango AV


S SW W NW
180 210 240 270 300
BRG: 248°W (T) LAT: 34.144922 LON: -117.431789 ±55ft ALT: 1628ft
PL
View taken from Mango Av

2.2 Climate

The climate within the project area would be characterized as Mediterranean. It is generally mild and wet (14 to 16 inches of precipitation per year) winters, the bulk of the annual precipitation falling between January and March. Long, hot, and very dry summer seasons frequently occur with occasional multi-year droughts.

The most critical weather pattern is a hot, dry offshore wind, typically called Santa Ana. Such wind conditions are usually associated with strong (>70 MPH), hot, dry winds with very low (<15%) relative humidity. Santa Ana winds originate over the dry desert land and can occur anytime of the year; however, they generally occur in the late fall (September through November). This is also when non-irrigated vegetation is at its lowest moisture content.

The undeveloped land in proximity can contribute to a damaging wildland fire event. Any wind or topography driven wildfire burning under a northeastern (*Santa Ana*) wind pattern through areas to the north would create a wildland fire hazard to the proposed project. Wildland fires starting west of the proposed site, on a typical fire day with a southwest wind will likely burn up to the fuel treatment areas and be controlled.

The typical prevailing summertime wind pattern is out of the south or southwest and normally is of a much lower velocity (5-19 MPH) with occasional gusts to 30 MPH and is associated with higher relative humidity readings.

All other (west around to north) wind directions may be occasionally strong and gusty. However, they are generally associated with cooler moist air and often have higher relative humidity (> 40%). They are considered a serious wildland fire weather condition when wind speeds reach > 20-MPH.

Strong Gust to 70mph as detailed by https://weatherspark.com/h/y/1939/2020/Historical-Weather-during-2020-in-Fontana-California-United-States#Figures-WindDirection

As mentioned, the strong gusts were in the majority during offshore wind events.

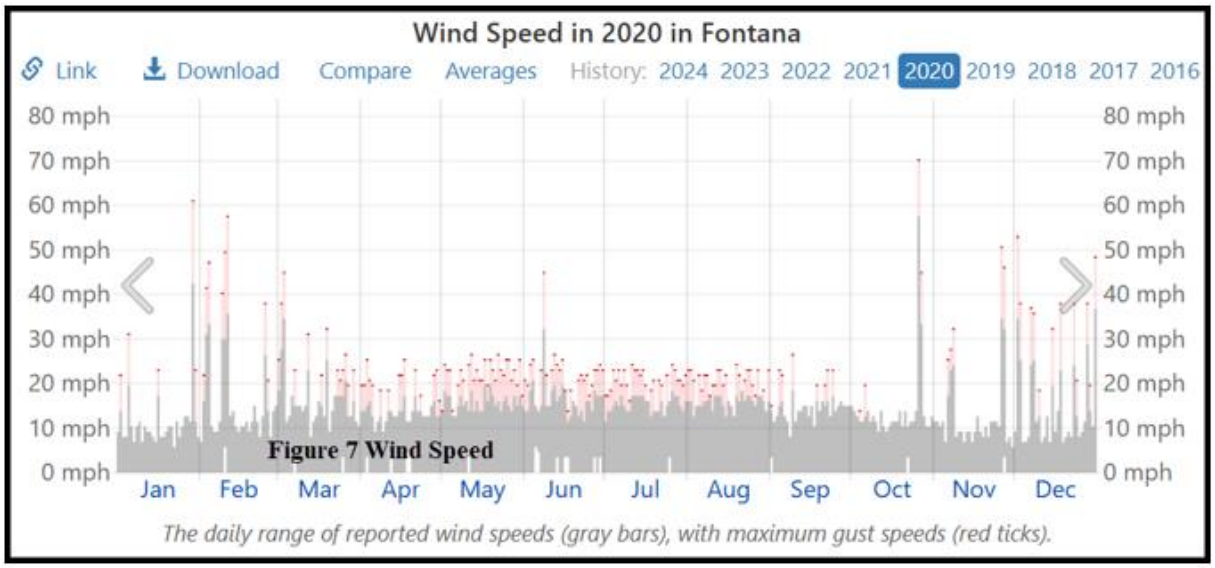


Figure 7 Wind Speed

The daily range of reported wind speeds (gray bars), with maximum gust speeds (red ticks).

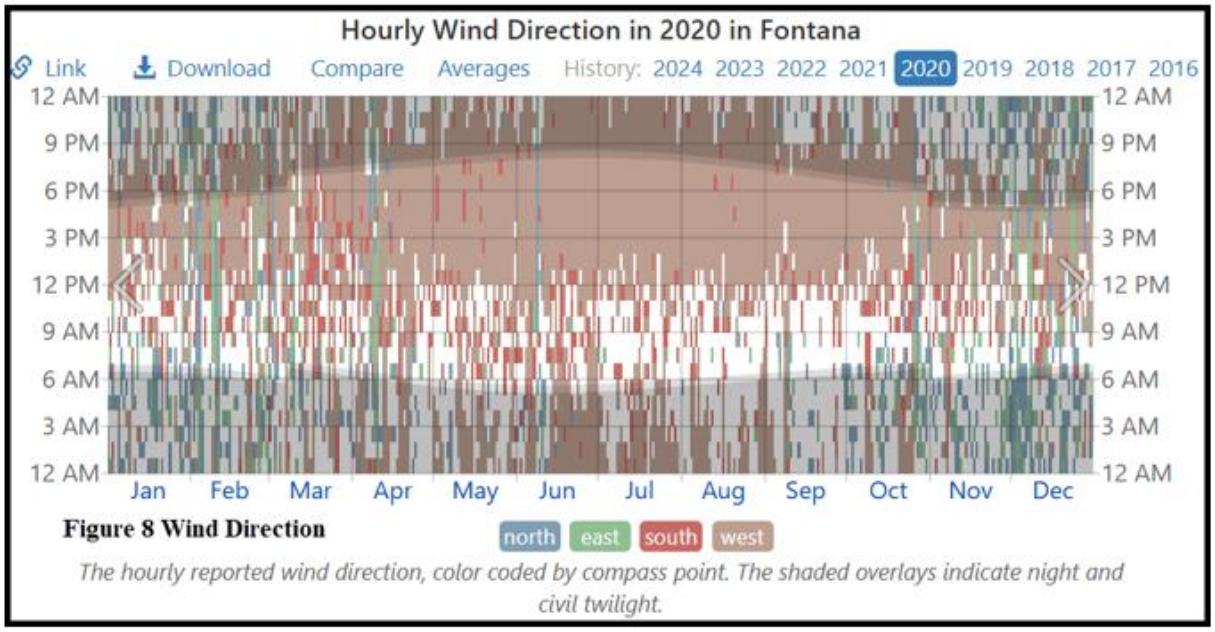


Figure 8 Wind Direction

The hourly reported wind direction, color coded by compass point. The shaded overlays indicate night and civil twilight.

Table 2.2.1
Model Inputs

Variable	**Site not Effected by On Shore Flow Developed Summer Weather**	**Peak Weather (offshore/Santa Ana Condition) East Wind**
1h Moisture	3%	2%
1Oh Moisture	5%	3%
1OOh Moisture	7%	5%
Live Herbaceous Moisture	50%	30%
Live Woody Moisture	60%	60%
20-foot Wind Speed (upslope/downslope)	0, 15, 30 mph	0, 70 mph gusts
Wind Adjustment Factor	0.5	0.5
Slope Steepness	flat	varies

All structures in the area are threatened by wind-blown embers. The use of 'ignition resistant construction' will generally mitigate against a windblown ember threat.

The goal of this FPP is to prevent the loss of lives, buildings, and individual property when wildfires occur. The challenge is using a 'best practices' approach to construction and vegetation management. This goal is carried out by requiring the proposed Sierria Distribution Facility be constructed with ignition resistant materials and professionally designed and maintained vegetation management treatments that safely mitigate the fire hazard to insignificant levels.

2.3 Predicting Wildland Fire Behavior

The BEHAVE 6 (build 626) Fire Behavior Prediction and Fuel Modeling System developed by USDA–Forest Service research scientists Patricia L. Andrews and Collin D. Bevins at the Intermountain Forest Fire Laboratory, Missoula, Montana, is one of the best systematic methods for predicting wildland fire behavior. The BEHAVE fire behavior computer modeling system is utilized by wildland fire experts and managers nationwide. The program projects the expected spotting distance, rate-of-spread and flame lengths with a reasonable degree of certainty for use in Fire Protection Planning purposes. ***FIRE*WISE 2000, LLC**. used the BEHAVE 6 Fire Behavior Prediction Model to make the fire behavior assessments discussed below.

2.4 Wildland Fire Behavior Calculations for the Off-Site Hazardous Vegetative Fuels

Wildland fire behavior calculations have been projected for the hazardous vegetative fuels on the undeveloped areas in proximity to the site. These projections are based on fire scenarios that are considered 'worst case.' Local environmental assumptions in the vicinity of the project area were used in the model process.

Table 2.2.1 provides Behave Plus Inputs; fuel moisture values are at critical, and the fuel bed is unsheltered. All scenario outputs provide the expected Flame Length (expressed in feet), Rate of Fire Spread (expressed in ft/min), and Fireline Intensity (as btu/ft/s).

Fuel Model selected as **Fuel Model gr4, Description Moderate load, dry climate grass (D) 1-h Fuel Load 0.25 tons/ac, 10-h Fuel Load 0 tons/ac, 100-h Fuel Load 0 tons/ac, best described the fuels closest east of Mango Avenue.**

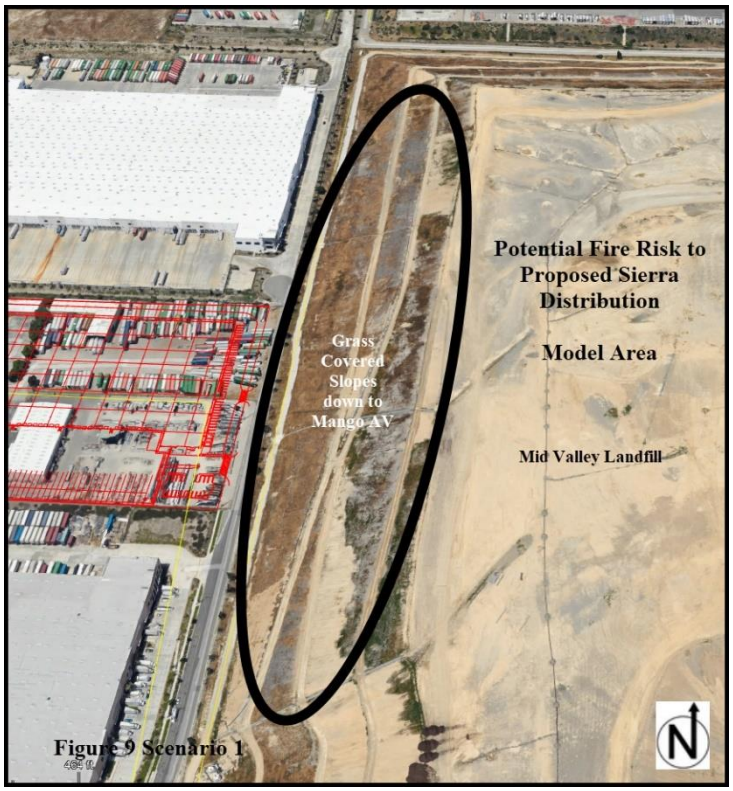
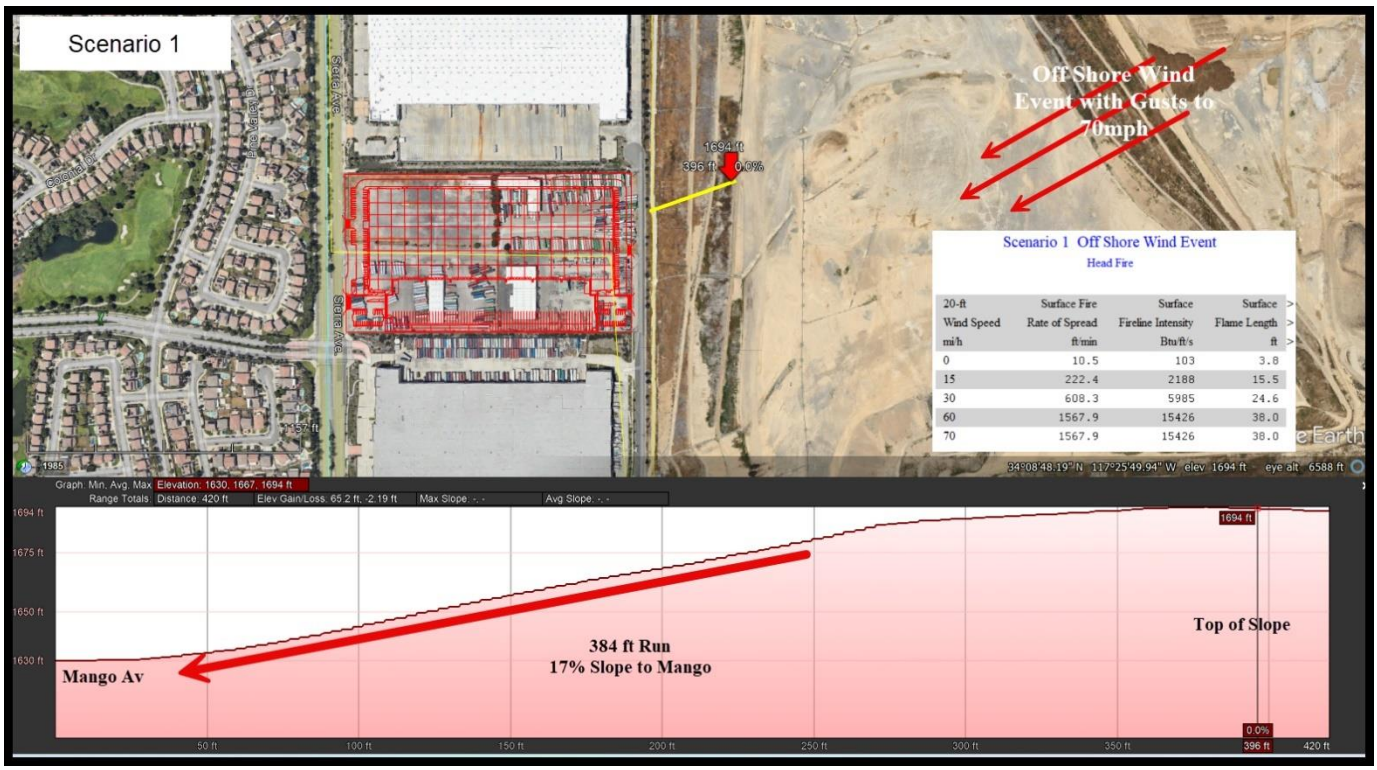
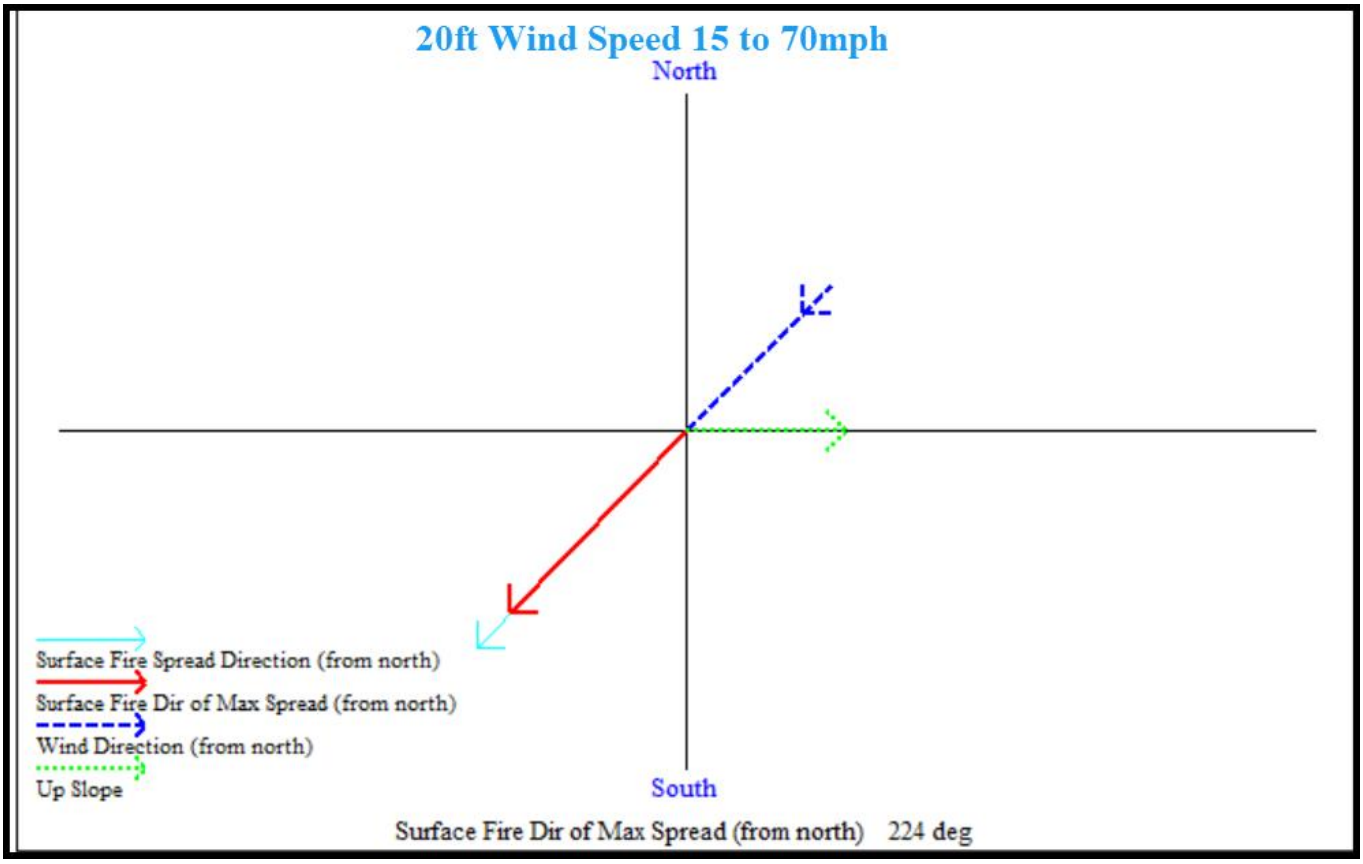


Figure 9 Scenario 1

Scenario 1: Fire start on grass covered slope east Mango Avenue. Fire pusing down slope to Mango

Avenue. GR4 Fuel Bed, dry climate grass.
Flame Lengths for a range of east wind velocities included in outputs.





3.0 ASSESSING STRUCTURE IGINITIONS IN THE WILDLAND/URBAN INTERFACE

Structure ignitions from wildland wildfires basically come from three sources of heat: convective firebrands (flying embers), direct flame impingement, and radiant heat. The Behave Plus Fire Behavior Computer Modeling Program does not address windblown embers or firebrands. Chapter 7a of the California Building Code and CRC 337 provide detailed requirements for ignition resistant exterior building materials that will be used in the construction of those structures located on the project site. APPENDIX 'D' provides a description of 'ignition resistive construction features' required in the design process.

3.1 Firebrands

Firebrands are pieces of burning materials that detach from burning fuel due to the strong convection drafts in the flaming zone. Firebrands may also be referred to as embers. Firebrands can be carried a long distance (one mile or more) by fire drafts and high winds. Severe wildland/urban interface fires can produce heavy showers of firebrands. The chance of these firebrands igniting a structure will depend on the size and number of the firebrands, how long each ember burns after contact, and the type of building materials, building design, and construction features of the structure. Firebrands landing on combustible roofing and decks are common sources for structure ignition. They can also enter a structure through unscreened vents, decks and chimneys, unprotected skylights, and overhangs.

Even with non-combustible roofing, firebrands landing on leaves, needles, and other combustibles located on a roof (due to lack of maintenance) can cause structure ignition. Any open windows, doors or other types of unscreened openings are sources for embers to enter a structure during a wildland fire. If these maintenance issues are addressed on a regular basis, firebrands should not be a concern.

3.2 Radiant Heat/Direct Flame Impingement

Radiation and convection involve the transfer of heat directly from the flame. Unlike radiation heat transfer, convection requires that the flames or heat column contact the structure. An ignition from radiation (given an exposed flammable surface) heat transfer depends on two aspects of the flame:
1) the radiant heat flux to a combustible surface
2) the duration (length of time) of the radiant flux.

The radiant heat flux depends on the flame zone size, flame-structure distance, and how much combustible material of the structure is exposed to the flame. While the flame from a wildfire may approach 1,800 degrees Fahrenheit, it is the duration of heat that is more critical. For example, a blow torch flame typically approaches 2,100 degrees Fahrenheit, yet a person can easily pass his/her hand through the flame. Heat duration only becomes critical to a home with a wood exterior surface if the heat is allowed to remain for 30-90 seconds.

Research scientist Jack Cohen of the USDA Forest Service has found that a home's characteristics--its exterior materials and design in relation to the immediate area around a home within 100 feet--principally determine the home ignition potential. He calls the structure envelope and its immediate surroundings the structure ignition zone. In a study of ignition of wood wallboard, tests by a USDA Forest Service research team described in the Proceedings, 1st International Fire and Materials Conference showed that flame impingement for sufficient length of time (approximately 1 min.) ignites a typical hardboard siding material.

Fire agencies consider vegetation management as a principal approach to wildland fire hazard reduction. Whenever the flame lengths are within proximity to the structure envelope and 1-2 minutes in duration or more, and if the setback and modified fuel is equal to or less than the separation of combustible vegetation from a combustible structure, there is a high probability of structure ignition. This is not necessarily from the radiant heat, but from a greater chance of ember intrusion into the structure.

Contact with a fire's convection heat column also may cause ignition but the temperature of the column's gases is generally not hot enough or long enough in duration to sustain the ignition of the structure.
Comparing the expected wildland fire behavior projections in each of the scenarios in Section 2.4 against the required fuel modification zones outlined in Section 5.0 demonstrates substantial reductions in the expected flame length and fireline intensity.

By requiring the structures exposed to the threat of wildfire to incorporate the following guidelines, those structures will be provided with the most effective treatment for minimizing losses from flame impingement and associated radiant heat intensities.

- Each structure is constructed of ignition resistant building materials.
- The area surrounding each structure contains an irrigated zone (defensible space)

The eventual owners shall be required to maintain their properties to Zone 1 Vegetation Management standards and shall keep the roof free of leaves, needles, and other combustible debris. All pallets and other combustible materials must be safely stored away from the structures (minimum 30 ft.) so that embers falling on or near the structures have no suitable host.

3.3 Fire Resistant Plant Palette

Wildland fire research has shown that some types of plants, including many natives, are more fire resistant than others. These low fuel volume, non-oily, non-resinous plants are commonly refered to as 'fire resistant'. This term comes with the proviso that each year these plants are pruned, all dead wood is removed and all grasses or other plant material are removed from beneath the circumference of their canopies. Species selection should be from those that are considered Drought Tolerant/Fire Resistive.

Chapter 49 of the 2022 Code provides references to assist in finding the best fit for the project: Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book

Some native species are not considered 'undesirable' from a wildfire risk management perspective provided they are properly maintained year round (refer to APPENDIX 'B' for a list of prohibited plant species). Should any plant inadvertantly appear on both the Recommended and Prohibited Lists, the listing on the Prohibited List shall prevail and it shall be prohibited.

4.0 FIRE DEPARTMENT RESPONSE

The San Bernardino County Fire Department (SBCFD) has adequate emergency response equipment to protect the Sierra Distribution Facility; Fire Station 81 at 16615 Casa Grande Ave, would be the closest resource. Fire Station 78, 7110 Citrus Ave., a second County Fire Resource is approximately 5 min further out.

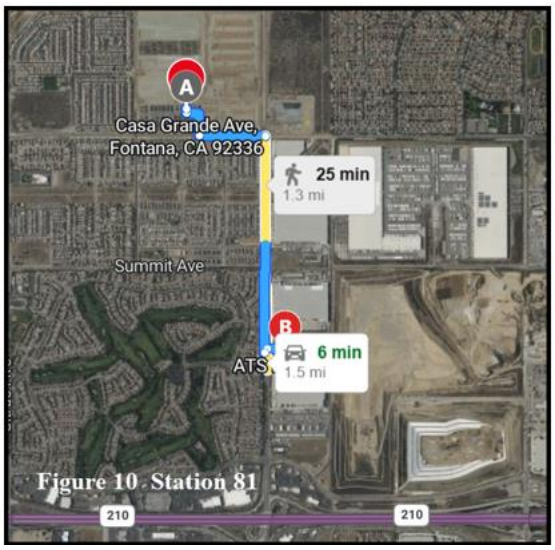


Figure 10 Station 81

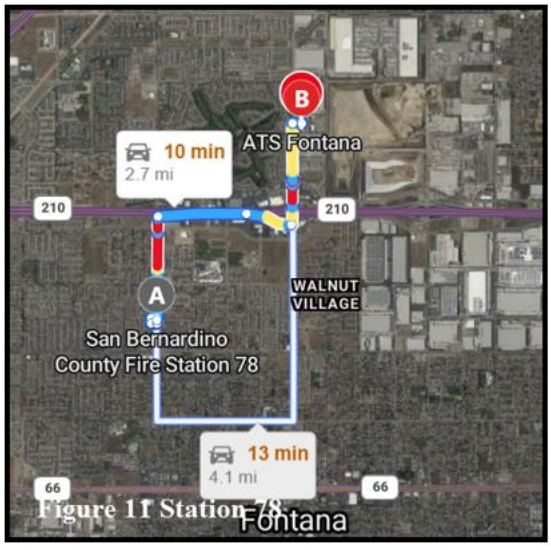


Figure 11 Station 78

There is no assurance that the closest fire station will be in its station when a wildfire threatens the site from an ignition in the adjacent wildland area. Engines may respond from other stations located further away or to

other incidents. On high/extreme fire danger days there often may be multiple fire starts and engine companies may be already deployed on other incidents.

Therefore ***FIRE*WISE 2000, LLC.** planned projects use *'defensible space'*, ignition resistant building features, and key fuel treatment strategies that enable occupants to substantially increase their ability to survive a wildfire on their own and without the loss of their structure.

The goal of this FPP therefore is to make the development and its eventual property owners as safe as possible and able to survive on their own until such time as firefighting equipment arrives and/or occupants can be safely evacuated.

5.0 VEGETATION MANAGEMENT ZONE DESCRIPTIONS & REQUIRED TREATMENTS

5.1 Chapter 49 of the 2022 Fire Code provides overall guidance and requirements as follows. This plan is subject to this criterion as well.

All new vegetation shall be fire-resistant/drought tolerant vegetation in accordance with this section.
To be considered fire-resistant vegetation, it must meet at least one of the following:

1. Be identified as fire-resistant vegetation in an approved book, journal or listing from an approved organization.
2. Be identified as fire-resistant vegetation by a licensed landscape architect with supporting justification.
3. Plants considered fire-resistant vegetation and approved by the local enforcing agency.

All new plantings of shrubs shall comply with the following:

1. Shrubs shall not exceed 6 feet in height.
2. Groupings of shrubs are limited to a maximum aggregate diameter of 10 feet.
3. Shrub groupings shall be separated from other groupings a minimum of 15 feet.
4. Shrub groupings shall be separated from structures a minimum of 30 feet.
5. Where shrubs are located below or within a tree's drip line, the lowest tree branch shall be a minimum of three times the height of the understory shrubs or 10 feet, whichever is greater.

Trees shall be managed as follows within the 30-foot zone of a structure:

1. New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10 feet from any combustible structure.
2. The horizontal distance between crowns of new trees and crowns of adjacent trees shall not be less than 10 feet.
3. Existing trees shall be trimmed to provide a minimum separation of 10 feet away from chimney and stovepipe outlets per Title 14, Section 1299.03.

Below are the descriptions and required treatments for the Vegetation Management Zones. All distances in this report are measured horizontally. These distances are depicted on the attached Fire Protection Plan Exhibit.

Zones 0, 1 and 2 encompass various distances, which will ensure no radiant heat will reach the structure. Distances can be found on the Fuel Treatment Exhibit. See **Appendix 'E'.**

Linkage to as-built landscape plans in accordance with Chapter 49 of the Fire Code required as stated below;
4903.2.1.2 Final Fire Protection Plan.
The final Fire Protection Plan shall include items listed in Section 4903.2.1.1 and the following:

1. *A map identifying all proposed plants in the fuel modification zones with a legend that includes a symbol for each proposed plant species. The plan shall include specific information on each species proposed, including but not limited to:*
    a. The plant life-form;

b. The scientific and common name; and
c. The expected height and width for mature growth.

2. *Identification of irrigated and non-irrigated zones.*
3. *Requirements for vegetation reduction around emergency access and evacuation routes.*
4. *Identification of points of access for equipment and personnel to maintain vegetation in common areas.*
5. *Legally binding statements regarding community responsibility for maintenance of fuel modification zones.*
6. *Legally binding statements to be included in covenants, conditions, and restrictions regarding property owner responsibilities for vegetation maintenance.*

5.2 Vegetation Management Zone 0 Irrigated - *OWNER MAINTAINED* – identified as on the Fuel Treatment Zone Exhibit.

An area starting at the structure envelope extending 5 feet outward. This zone includes the area under and around all attached decks, benches, patios and requires the most stringent wildfire fuel reduction. This area shall be kept clear of combustibles. Accepable landscaping in this area is hardscape, gravel, and decomposed granite. **Zone 0 has not been fully defined by the Board of Forestry and should not contain vegetation until further guidance is provided**

5.3 Vegetation Management Zone 1 Irrigated – *OWNER MAINTAINED* – identified as on the Fuel Treatment Zone Exhibit. An area starting at the termination of Zone 0 (5 ft) and extending to 30 feet.

Defined:
Required Landscaping.

- Plants in this zone shall be fire resistant and shall not include any pyrophytes that are high in oils and resins such as pines, eucalyptus, cedar, cypress, or juniper species. Thick or leathery leaf species with high moisture content is the most 'fire resistant'. For a listing of prohibited plant species refer to APPENDIX 'B' for the Prohibited Plant list.
- Zone 1 will be cleared of all fire prone and undesirable plant species (see APPENDIX 'B').
- Xeriscape™ designs, where compatible and hardscape such as concrete, rock, pavers, decomposed granite and similar non-combustible surfaces are encouraged to break up fuel continuity within Zone 1.
- Combustible ground covers (mulch, bark, wood chips, etc.) are not allowed.
- Shrubs should be selected from species that are known to be fire resistive. The project Landscape Architect will have various species that qualify.
  Chapter 49 of the Fire Code provides this information; The following sources contain examples of types of vegetation that can be considered fire-resistant vegetation. (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book.
- If a local jurisdiction has a preferred plant list, it shall be used in accordance with their requirements.
- All new plantings of shrubs shall comply with the following: (modified based on structure)
  1. Shrubs shall not exceed 6ft in height.
  2. Groupings of shrubs are limited to a maximum aggregate diameter of 10 feet.
  3. Shrub groupings shall be separated from other groupings a minimum of 15 feet.
  4. Shrub groupings shall not be allowed within 30ft of the structure, limited to Zone 2.
  5. Where shrubs are located below or within a tree's drip line, the lowest tree branch shall be a minimum of three times the height of the understory shrubs or 10 feet, whichever is greater.
- Trees shall be managed as follows within the 30-foot Zone 1:
  1. New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10 feet from any combustible structure.
  2. The horizontal distance between crowns of new trees and crowns of adjacent trees shall not be less than 10 feet.

3. Existing trees shall be trimmed to provide a minimum separation of 10 feet away from chimney and stovepipe outlets per Title 14, Section 1299.03.

- An automatic irrigation system is required. Areas inside the drip line of native oak trees shall not be irrigated.

Required Maintenance

- The property shall be maintained year round as needed by the property owner within their property boundary (lot lines) as required by this FPP or other standards as applicable.
- Sprinkler systems shall be checked monthly to ensure proper working order.
- Any dead or dying plant material shall be removed and replaced. Shrubs and trees are to be bi-annually maintained free of dead material.
- All trees shall be maintained to the current ANSI A300 standards [*Tree, Shrub, and Other Woody Plant Maintenance —Standard Practices (Pruning)]*. Other professional standards will be acceptable.
- **All plantings should be installed with size at maturity in mind.**

5.4 Vegetation Management Zone 2 Irrigated. – *OWNER MAINTAINED -* Zone 2 is a reduced fuel zone and is designed to reduce the potential behavior of an oncoming fire by reducing the flame heights, and the potential for ember generation and radiant heat exposure to structure.
Identified as on the Fuel Treatment Zone Exhibit. An area starting at the termination of Zone 1 (30ft) and extending to 100ft or the project boudary.

Defined:
Required Landscaping.

- Plants in this zone shall be fire resistant and shall not include any pyrophytes that are high in oils and resins such as pines, eucalyptus, cedar, cypress, or juniper species. Thick or leathery leaf species with high moisture content is the most 'fire resistant'. For a listing of prohibited plant species refer to APPENDIX 'B' for the Prohibited Plant list.
- Xeriscape™ designs, where compatible and hardscape such as concrete, rock, pavers, and similar non-combustible features are encouraged to break up fuel continuity.
- Chapter 49 of the Fire Code provides this information: The following sources contain examples of types of vegetation that can be considered fire-resistant vegetation. (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book.
- If a local jurisdiction has a preferred plant list, it shall be used in accordance with their requirements.
- Combustible mulch is allowable.
- Shrubs should be selected from species that are known to be fire resistive. The project Landscape Architect will have various species that qualify.
    - ***Shrubs shall be single specimens or groupings; configuration of design shall be in a mosaic. It is important that all groupings be spaced to ensure that the plantings do not reach full continuity. Species selected shall not exceed 6ft at maturity.***
    - ***Trees shall be single specimens or groupings of not more than three trees that may be of various species known to have fire resistive qualities.***
    - ***Ground cover under tree canopy. When approved ground cover and shrubs are located underneath trees, the vertical clearance to the lowest branch of the tree canopy shall not be less than three times the height of ground cover or shrub under or adjacent to the tree. The horizontal clearance shall be 3-feet from the trunk of the tree. See Section 5.4.1***
    - An automatic irrigation system is required.

Required Maintenance

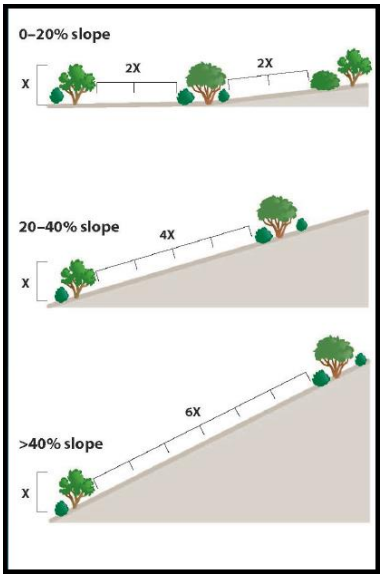
- The property shall be maintained year round on a as needed basis by the property owner. This respensibility is required by Chapter 49 of the Fire Code.
- Sprinkler systems shall be checked monthly to ensure proper working order.
- Any dead or dying plant material shall be removed and replaced. Shrubs and trees are to be bi-annually maintained free of dead material.

- All trees shall be maintained to the current ANSI A300 standards [*Tree, Shrub, and Other Woody Plant Maintenance —Standard Practices (Pruning)]*. Other professional standards will be acceptable.
- **All plantings should be installed with size at maturity in mind.**

5.4.1 Zone 2 Defensible Space Cal Fire Recommendations

Zone 2 extends from 30 feet to 100 feet out from buildings, structures, decks, etc. or to your property line, whichever is closer.

- Trim annual grass to a maximum height of 4 inches
- Space out shrubs and trees horizontally (See diagram)
- Ensure vertical spacing between grass, shrubs, and trees (See diagram)
- Remove fallen leaves, needles, and small branches, but can leave up to 3 inches.



Recommended approach:

- **Creating discontinuity/separation between islands of vegetation, adjacent to Zone 0, and in relation to wooden structures is needed.**

- **FUEL MOSAIC. A Fuel Modification system that provides for the creation of islands and irregular boundaries to reduce the visual and ecological impact of Fuel Modification.**

- **Use the plant height separation guidance developed for slopes as the standard for separation of islands of vegetation.**

- **Minimize abrupt transitions between Zone 0 to 1, by limiting vegetation height to a max of two feet for an additional 5 feet.**

- **Cut and maintain live grasses to 4 inches when not in a decorative island.**

Source: Working Group Zone 0 Guidance, Interpretation, and Regulations for enhanced defensible space as directed by AB 3074 (2020).

5.5 Construction Standards

All structures within the development site shall meet all wildland/interface standards to the satisfaction of SBCFD. Design and construction shall meet the requirements listed in the 2022 Edition of the Fire and Building Codes, with special adherence to Chapter 7A, and the 2022 Edition of the California Residential Code section R337, with other local amendments/ordnances adopted by the County of San Bernardino. For a description of the current construction requirements as of the date of this report (see APPENDIX 'D').

Construction or building permits shall not be issued until the fire code official inspects and approves required vegetation clearance, fire apparatus access and water supply for the construction site. The issuance of building permits regarding these requirements shall be in accordance with SBCFD. Prior to the delivery of combustible building construction materials to the project site the following conditions shall be completed to the satisfaction of SBCFD:

- All wet and dry utilities shall be installed and approved by the appropriate inspecting department or agency.
- Clearance of Zone 1, and 2 vegetation management shall be provided prior to combustible material arriving on the site and shall be maintained throughout the duration of construction. Fire code officials may require additional vegetation management and/or defensible space when warranted.
- Additional requirements as listed in the development will be adhere to:

a. Mobile stationery or portable powered operated equipment in the High Fire Area (HFA) s hall not be used without written approval of SBCFD. Specific fire protection measures that may be required to mitigate the hazard include, but are not limited to:
   1. A standby water tender, equipped with a pump, fire hose and nozzle.
   2. Pre-wetting of the site to avoid the production of sparks between blades, tracks, and rocks.
   3. Conducting a fire watch for a minimum of one-hour following the cessation of operations each day.
   4. For welding, cutting or grinding work, clear away all combustible material from the area around such operations for a minimum distance of 10 feet. A hot-work permit may be required prior to beginning work.
   5. Maintain a serviceable round point shovel with an overall length of not less than forty-six (46) inches and a five (5) gallon backpack water pump-type fire extinguisher fully equipped and ready for use at the immediate area during the operation.

6.0 INFRASTRUCTUE

6.1 Water Supply

The developments water supply will be provided by the Fontana Water District. Fire flow requirements shall be provided by San Bernadino County Fire Department.
Structures shall require an NFPA 13 Commercial Sprinkler system, engineered to the satisfaction of the SBCFD. Fire Department Connection (FDC) location shall be approved by the fire code official.

6.2 Access Roads/Driveways and Gates

Fire access roads shall meet the design requirements for the SBCFD Standared A 1, Fire Apparatus Access Road Design, dated 1 July 2023. Fire Access roads shall be a paved, with an all weather surface capable of supporting loads of 80,000 lbs gross vehicle weight.
A vertical roadway clearance of 14ft 6in is required for all access roads.
Access to all portions of the building must be within 150 feet of the available fire deparment access.

Fire access roads shall be maintained for clear access of emergency vehicles. The proposed project requires primary and secondary access at the time of construction.

Any gates to be installed shall meet SBCFD requirements and shall be approved by SBCFD prior to fabrication and installation. A 'Knox' override key switch must be installed outside the gate in an approved, readily visible, and unobstructed location at or near the gate to provide emergency access.

7.0 PROPERTY OWNERS NOTICE AND INFORMATION

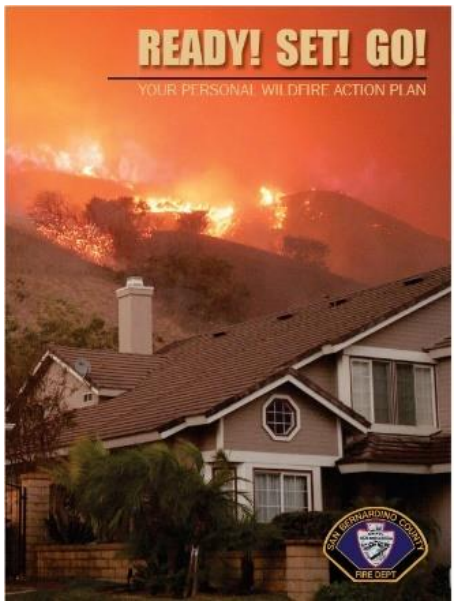
Chapter 49 of the 2022 Fire Code requires;

- *Legally binding statements regarding the Owners responsibility for maintenance of fuel modification zones.*
- *Legally binding statements to be included in covenants, conditions, and restrictions if any regarding property owner responsibilities for vegetation maintenance.*

Notice to Owner and Subsequent Owners items in this report pertaining to references to construction shall be adhered to when future improvements are considered. Especially with changes to design features that may impact combustibility.

7.1 Property Owners Education The Owner, by reviewing this Fire Protection Plan, shall be aware of the herein described fire protection measures and requirements; the types of non-combustible construction; and the plant materials that has been designed to ensure the property complies with current codes and ordinances for overall fire safety in the Wildland Interface.

Should a wildland fire occur within the geographical area, the property owner should understand the 'Ready, Set, Go' procedures as recommended by the SBCFD.



https://www.fontanaca.gov/1325/Ready-Set-Go-Personal-Wildfire-Action-Pl

7.2 APPENDIX 'D' provides a synopsis of enhanced code requirements and construction features required in a Very High Fire Area.

8.0 FIRE PROTECTION PLAN EXHIBIT'S

All Exhibits are considered a part of the plan. They graphically provide information on required fuel treatment locations/measures, plantings, and access.

APPENDICES

Acceptable Plant List	**APPENDIX 'A'**
Undesirable Plant Species	**APPENDIX 'B'**
Literature Referenced	**APPENDIX 'C'**
Ignition Resistant Construction Requirements	**APPENDIX 'D'**
Fuel Treatment Zone Exhibit	**APPENDIX 'E'**
Site Access Plans	**APPENDIX 'F'**
Section 4.9 Draft EIR Sept 2024 Hazards and Hazardous Materials	**APPENDIX 'G'**
SB County_ Letter Gas Migration- Mitigation Measures	**APPENDIX 'H'**

APPENDIX 'A'

Acceptable Plant List

Various lists of plant species are available, Firewise2000, LLC will provide a list of acceptable species, if required. A Landscape Architect will be able to provide various listings as needed.

The project Landscape Architect will have various species that qualify within the fire resistive/drought tolerant categories.

If a local area has a preferred plant list, it shall be used in accordance with the requirements.

Chapter 49 of the Fire Code provides this information. The following sources contain examples of types of vegetation that can be considered fire-resistant vegetation. (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book).

APPENDIX 'B'
PROHIBITED PLANT SPECIES

Prohibited plant list: Botanical Name	Common Name	Comment*
	Trees	
Abies species	Fir	F
Acacia species (numerous)	Acacia	F, I
Agonis juniperina	Juniper Myrtle	F
Araucaria species (A. heterophylla, A. araucana, A. bidwillii)	Araucaria (Norfolk Island Pine, Monkey Puzzle Tree, Bunya Bunya)	F
Callistemon species (C. citrinus, C. rosea, C. viminalis)	Bottlebrush (Lemon, Rose, Weeping)	F
Calocedrus decurrens	Incense Cedar	F
Casuarina cunninghamiana	River She-Oak	F
Cedrus species (C. atlantica, C. deodara)	Cedar (Atlas, Deodar)	F
Chamaecyparis species (numerous)	False Cypress	F
Cinnamomum camphora	Camphor	F
Cryptomeria japonica	Japanese Cryptomeria	F
Cupressocyparis leylandii	Leyland Cypress	F
Cupressus species (C. fobesii, C. glabra, C. sempervirens,)	Cypress (Tecate, Arizona, Italian, others)	F
Eucalyptus species (numerous)	Eucalyptus	F, I
Juniperus species (numerous)	Juniper	F
Larix species (L. decidua, L. occidentalis, L. kaempferi)	Larch (European, Japanese, Western)	F
Leptospermum species (L. laevigatum, L. petersonii)	Tea Tree (Australian, Tea)	F
Lithocarpus densiflorus	Tan Oak	F
Melaleuca species (M. linariifolia, M. nesophila, M. quinquenervia)	Melaleuca (Flaxleaf, Pink, Cajeput Tree)	F, I
Metrosideros excelsus	*New Zealand Chistmas tree*	FR
Olea europea	Olive	I
Picea (numerous)	Spruce	F
Palm species (numerous)	Palm	F, I,FR
Pinus species (P. brutia, P. canariensis, P. b. eldarica, P. halepensis, P. pinea, P. radiata, numerous others)	Pine (Calabrian, Canary Island, Mondell, Aleppo, Italian Stone, Monterey)	F
Platycladus orientalis	Oriental arborvitae	F
Podocarpus species (P. gracilior, P. macrophyllus, P. latifolius)	Fern Pine (Fern, Yew, Podocarpus)	F
Pseudotsuga menziesii	Douglas Fir	F
Schinus species (S. molle, S. terebenthifolius)	Pepper (California and Brazilian)	F, I
Tamarix species (T. africana, T. aphylla, T. chinensis, T. parviflora)	Tamarix (Tamarisk, Athel Tree, Salt Cedar, Tamarisk)	F, I
Taxodium species (T. ascendens, T. distichum, T. mucronatum)	Cypress (Pond, Bald, Monarch, Montezuma)	F
Taxus species (T. baccata, T. brevifolia, T. cuspidata)	Yew (English, Western, Japanese)	F

Prohibited plant list: Botanical Name	Common Name	Comment*
Thuja species (T. occidentalis, T. plicata)	Arborvitae/Red Cedar	F
Tsuga species (T. heterophylla, T. mertensiana)	Hemlock (Western, Mountain)	F
Groundcovers, Shrubs & Vines		
Acacia species	Acacia	F, I
Adenostoma fasciculatum	Chamise	F
Adenostoma sparsifolium	Red Shanks	F
Aeonium decorum	Aeonium	FR
Aeonium simsii	No common name	FR
Agave attenuata	No common name	FR
Agave victoriae-reginae	No common name	FR
Agropyron repens	Quackgrass	F, I
Alogyne huegeii	Blue hibiscus	FR
Anthemis cotula	Mayweed	F, I
Arbutus menziesii	Madrone	F
Arctostaphylos species	Manzanita. Also note that Eastwood Manzanita grows to 8’	F
Arundo donax	Giant Reed	F, I
Artemisia species (A. abrotanium, A. absinthium, A. californica, A. caucasica, A. dracunculus, A. tridentata, A. pynocephala)	Sagebrush (Southernwood, Wormwood, California, Silver, True tarragon, Big, Sandhill)	F
*Atriplex species (numerous)***	Saltbush	F, I**
Avena fatua	Wild Oat	F
Baccharis pilularis	Coyote Bush	F
Bambusa species	Bamboo	F, I
Bougainvillea species	Bougainvillea	F, I, FR
Brassica species (B. campestris, B. nigra, B. rapa)	Mustard (Field, Black, Yellow)	F, I
Bromus rubens	Foxtail, Red brome	F, I
Bromus carinatus	California brome	Grows to 5’, Dies if cut
Castanopsis chrysophylla	Giant Chinquapin	F
Cardaria draba	Hoary Cress	I
Carpobrotus species	Ice Plant, Hottentot Fig	I
Carissa macrocarpa	Green carpet natal plum	FR
*Ceonothus griseus “ Louis Edmunds****	Louis Edmunds Ceanothus	Grow higher than 18”*
*Ceonothus griseus var. horizontalis****	Carmel Creeper Ceonothus	Grows higher than 18”**
*Ceonothus griseus var. horizontalis “yankee point”**	Yankee Point Ceonothus	Grows higher than 18”**
*Ceonothus megacarpus****	Big pod ceonothus	Grows higher than 18”**
Cirsium vulgare	Wild Artichoke	F,I
Conyza bonariensis	Horseweed	F
Coprosma pumila	Prostrate Coprosma	F
Cortaderia selloana	Pampas Grass	F, I
Cytisus scoparius	Scotch Broom	F, I
Delosperma “alba”	White trailing Ice Plant	F

Prohibited plant list: Botanical Name	Common Name	Comment*
Dodonaea viscosa	Hopseed Bush	F
Drosanthemum Floribundum	Rosea Ice plant	F
Eriodictyon californicum	Yerba Santa	F
Eriogonum species (E. fasciculatum)	Buckwheat (California)	F
Fremontodendron species	Flannel Bush	F
Hakea suaveolens	Sweet Hakea	FR
Hedera species (H. canariensis, H. helix)	Ivy (Algerian, English)	I
Helix Canariensis	English Ivy	F
Heterotheca grandiflora	Telegraph Plant	F
Hordeum leporinum	Wild barley	F, I
Juniperus species	Juniper	F
Lactuca serriola	Prickly Lettuce	I
Lamprathus aurantiacus	Bush Ice Plant	F
Lamprathus spectabilis	Trailing Ice Plant	F
Larix species (numerous)	Larch	F
Larrea tridentata	Creosote bush	F
Leymus condensatus	Giant Wild Rye	Grows to 9' tall
Lolium multiflorum	Ryegrass	F, I
Lonicera japonica	Japanese Honeysuckle	F
Mahonia species	Mahonia	F
Mimulus aurantiacus	Sticky Monkeyflower	F
Miscanthus species	Eulalie Grass	F
Muhlenbergia species	Deer Grass	F
Nassella (stipa)leprida	Foothill needlegrass	Gets to 18" high. Can't cut to 4". Okay in mosaics (clumps) in certain areas of FMZ.
Nassella (stipa) pulchra	Purple needlegrass	Same comment as above
Nerium Oleander	Oleander	Toxic
Nicotiana species (N. bigelovii, N. glauca)	Tobacco (Indian, Tree)	F, I
Pennisetum setaceum	Fountain Grass	F, I
Perovskia atroplicifolia	Russian Sage	F
Phoradendron species	Mistletoe	F
Pickeringia montana	Chaparral Pea	F
*Rhus (R. diversiloba, R. laurina, R. lentii)***	Sumac (Poison oak, Laurel, Pink Flowering)	F**. Poison oak presents a health hazard
Ricinus communis	Castor Bean	F, I
Rhus Lentii	Pink Flowering Sumac	F
Rosmarinus species	Rosemary (except dwarf/prostrate variety)	F
Salvia species (numerous)	Sage	F, I
Salsola australis	Russian Thistle	F, I
Senecio serpens	No common name	FR
Solanum Xantii	Purple Nightshade (toxic)	I, Toxic
Solanum Douglasii	Douglas Nightshade	Toxic
Silybum marianum	Milk Thistle	F, I
Strelizia nicolae	Giant bird of paradise	FR

Prohibited plant list: Botanical Name	Common Name	Comment*
Strelizia reginae	Bird of paradise	FR
Thuja species	Arborvitae	F
Urtica urens	Burning Nettle	F
Vinca major	Periwinkle	I

F = flammable, I = Invasive, FR- freezes in some areas (see sunset book zones 18 and 19 as an example and check the zones the development is in)

NOTES:

1 Plants on this list that are considered invasive are a partial list of commonly found plants. There are many other plants considered invasive that should not be planted in a fuel modification zone, and they can be found on The California Invasive Plant Council's Website www.cal-ipc.org/ip/inventory/index.php. Other plants not considered invasive at this time may be determined to be invasive after further study.

2 For the purpose of using this list as a guide in selecting plant material, it is stipulated that all plant material will burn under various conditions.

3 The absence of a particular plant, shrub, groundcover, or tree, from this list does not necessarily mean it is fire resistive.

4 All vegetation used in Vegetation Management Zones and elsewhere shall be subject to approval of the Fire Marshal.

5 Landscape architects, homeowners, contractors, developers, or the HOA may submit proposals for use of certain other vegetation on a project specific basis to the Fire Department for review and approval.

6 This list was prepared by Hunt Research Corporation and Dudek and Associates and reviewed by Scott Franklin Consulting Co, with certain plants added due to freezing and growth heights.

7 Native, drought tolerant plants are encouraged unless they are on this Prohibited Plant list or otherwise known as flammable or Invasive.

8 Notwithstanding the type of plant not included on this list, spacing and configuration of plantings in relationship to structures is critical to stopping fire spread.

9 **: certain species of Ceonothus, Saltbush and Sumac need to be maintained free of dead materials, which build up in the plant. Remove any poison oak (Sumac).

APPENDIX 'C'
REFERENCE MATERIAL

Literature References

1. *Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model*, General Technical Report RMRS-GTR-153. June 2005. Joe H. Scott, Robert E. Burgan, United States Department of Agriculture - Forest Service, Rocky Mountain Research Station, Missoula, Montana.

2. *BEHAVEPlus: Fire Modeling System, version 6 build 626: Variables.* (Not Revised upon release of V6)General Technical Report RMRS-GTR-213WWW Revised. September 2009. Patricia L. Andrews, United States Department of Agriculture - Forest Service, Rocky Mountain Research Station, Missoula, Montana.

3. *BEHAVEPlus Fire Modeling System, Version 5.0.0* General Technical Report RMRS-GRT-106WWW Revised. June 2008. Patricia L. Andrews, Collin D. Bevins and Robert C. Seli. United States Department of Agriculture - Forest Service, Rocky Mountain Research Station, Missoula, Montana.

4. *BEHAVEPlus Fire Modeling System, Version 5.0 User's Guide*. General Technical Report RMRS-GRT-106WWW Revised. July 2009. Patricia L. Andrews, Collin D. Bevins, Robert C. Seli. United States Department of Agriculture - Forest Service, Rocky Mountain Research Station, Missoula, Montana.

5. The 2022 California Fire Code Chapter 49

6. The 2022 California Fire Code with Local Amendments

7. The 2022 California Residential Code, Section R337.

8. Chapter 7A-California of the 2022 Building Code

9. National Fire Protection Association - NFPA 13 Standard for the Installation of Sprinkler Systems in One – and Two-Family Dwellings and Manufactured Homes, 13-R &13-D, 2022 Editions

10. National Fire Protection Association - NFPA 1144 *Standard for Reducing Structure Ignition Hazards from Wildfire (*2018).

11. National Fire Protection Association - NFPA 1710, 2020 Edition. Response and Staffing

12. *The California State and Local Responsibility Area Fire Hazard Severity Zone Map – Fire and Resource Assessment Program FRAP at CAL FIRE*

Appendix 'D'
Ignition Resistant Construction Features

The following is a summary of the current requirements for ignition resistant construction for high fire hazard areas under Chapter 7A of the California Building Code (CBC) 2022 edition and the current California Residential Code, Section R337. However, the requirements listed below are not all inclusive and all exterior building construction including roofs, eaves, exterior walls, doors, windows, decks, and other attachments must meet the current CBC Chapter 7A ignition resistance requirements, the California Fire Code, and any additional County and/or City codes in effect at the time of building permit application. See the current applicable codes for a detailed description of these requirements and any exceptions.

1. All structures will be built with a Class A Roof Assembly and shall comply with the requirements of Chapter 7A of the California Building Code. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.

2. Roof valley flashings shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72-pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909, at least 36-inch-wide (914 mm) running the full length of the valley.

3. Attic or foundation ventilation louvers or ventilation openings in vertical walls shall be covered with a minimum of 1/16-inch and shall not exceed 1/8-inch mesh corrosion-resistant metal screening or other approved material that offers equivalent protection.

4. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to resist the intrusion of flames and embers, be firestopped with approved materials or have one layer of a minimum 72-pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking.

5. Enclosed roof eaves and roof eave soffits with a horizontal underside, sloping rafter tails with an exterior covering applied to the under-side of the rafter tails, shall be protected by one of the following:
   - noncombustible material
   - Ignition-resistant material
   - One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the rafter tails or soffit
   - The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the rafter tails or soffit including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual
   - Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in Section 707A.10 when tested in accordance with the test procedures set forth in ASTM E2957.
   - Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

   Exceptions: The following materials do not require protection:
   1. Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.
   2. Fascia and other architectural trim boards.

6. The exposed roof deck on the underside of unenclosed roof eaves shall consist of one of the following:
   - Noncombustible material, or

- Ignition-resistant material, or
- One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside exterior of the roof deck, or
- The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the roof deck designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association fire Resistance Design Manual.
  Exceptions: The following materials do not require protection:
  1. Solid wood rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2 inch (50.8 mm).
  2. Solid wood blocking installed between rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2-inch (50.8 mm).
  3. Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.
  4. Fascia and other architectural trim boards.

7. Vents - ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation openings shall be fully covered with metal wire mesh, vents, other materials, or other devices that meet one of the following requirements:
   A. Vents listed to ASTM E2886 and complying with all the following:
      i. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
      ii. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
      iii. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

   B. Vents shall comply with all of the following:
      i. The dimensions of the openings therein shall be a minimum of 1/16-inch (1.6 mm) and shall not exceed 1/8-inch (3.2 mm).
      ii. The materials used shall be noncombustible.
      Exception: Vents located under the roof covering, along the ridge of roofs, with the exposed surface of the vent covered by noncombustible wire mesh, may be of combustible materials.
      iii. The materials used shall be corrosion resistant.

8. Vents shall not be installed on the underside of eaves and cornices.
   Exceptions:
   1. Vents listed to ASTM E2886 and comply with all the following:
      - There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
      - There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
      - The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).
   2. The enforcing agency shall be permitted to accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.
   3. Vents complying with the requirements of Section 706A.2 shall be permitted to be installed on the underside of eaves and cornices in accordance with either one of the following conditions:
      3.1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or,
      3.2. The exterior wall covering, and exposed underside of the eave are of noncombustible materials, or ignition-resistant materials, as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material and the requirements.

9. The exterior wall covering, or wall assembly shall comply with one of the following requirements:
   - Noncombustible material, or

- Ignition resistant material, or
- Heavy timber exterior wall assembly, or
- Log wall construction assembly, or
- Wall assemblies that have been tested in accordance with the test procedures for a 10-minute direct flame contact expose test set forth in ASTM E2707 with the conditions of acceptance shown in Section 707A.3.1 of the California Building Code, or
- Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.
  Exception: Any of the following shall be deemed to meet the assembly performance criteria and intent of this section including;
  a. One layer of 5/8-inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing, or
  b. The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Associate Fire Resistance Design Manual.

10. Exterior walls shall extend from the top of the foundation to the roof and terminate at 2-inch nominal solid blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

11. No attic ventilation openings or ventilation louvers shall be permitted in soffits, in eave overhangs, between rafters at eaves, or in other overhanging areas.

12 All projections (exterior balconies, decks, patio covers, unenclosed roofs and floors, and similar architectural appendages and projections) or structures less than five feet from a building shall be of non-combustible material, one-hour fire resistive construction on the underside, heavy timber construction or pressure-treated exterior fire-retardant wood. When such appendages and projections are attached to exterior fire-resistive walls, they shall be constructed to maintain the same fire-resistant standards as the exterior walls of the structure.

13. Deck Surfaces shall be constructed with one of the following materials:
    - Material that complies with the performance requirements of Section 709A.4 when tested in accordance with both ASTM E2632 and ASTM E2726, or
    - Ignition-resistant material that complies with the performance requirements of 704A.3 when tested in accordance with ASTM E84 or UL 723, or
    - Material that complies with the performance requirements of both SFM Standard 12-7A-4 and SFM Standard 12-7A-5, or
    - Exterior fire-retardant treated wood, or
    - Noncombustible material, or
    - Any material that complies with the performance requirements of SFM Standard 12-7A-4A when the attached exterior wall covering is also composed of noncombustible or ignition-resistant material.

14. Accessory structures attached to buildings with habitable spaces and projections shall be in accordance with the Building Code. When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas and exterior wall construction in accordance with Chapter 7A of the Building Code.

15. Exterior windows, skylights and exterior glazed door assemblies shall comply with one of the following requirements:
    - Be constructed of multiplane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing, or

- Be constructed of glass block units, or
- Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or
- Be tested to meet the performance requirements of SFM Standard 12-7A-2.

16. All eaves, fascia and soffits will be enclosed (boxed) with non-combustible materials. This shall apply to the entire perimeter of each structure. Eaves of heavy timber construction are not required to be enclosed as long as attic venting is not installed in the eaves. For the purposes of this section, heavy timber construction shall consist of a minimum of 4x6 rafter ties and 2x decking.

17. Detached accessory buildings that are less than 120 square feet in floor area and are located more than 30 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2 of the California Building Code.
Exception: Accessory structures less than 120 square feet in floor area located at least 30 feet from a building containing a habitable space.

18. All rain gutters, down spouts and gutter hardware shall be constructed from metal or other noncombustible material to prevent wildfire ignition along eave assemblies.

19 Gutters shall be provided with the means to prevent the accumulation of leaf litter and debris within the gutter that contribute to roof edge ignition.

20 All side yard fence and gate assemblies (fences, gate and gate posts) when attached to the home shall be of non-combustible material. The first five feet of fences and other items attached to a structure shall be of non-combustible material.

21 Exterior garage doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the bottom, sides and tops of doors, from exceeding 1/8 inch. Gaps between doors and door openings shall be controlled by one of the methods listed in this section.
- Weather-stripping products made of materials that:
  (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2,000 hours, where the maximum allowable difference in tensile strength values between exposed and non-exposed samples does not exceed 10%; and (b) exhibit a V-2 or better flammability rating when tested to UL 94, Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
- Door overlaps onto jambs and headers.
- Garage door jambs and headers covered with metal flashing.

22. Exterior doors shall comply with one of the following:
    1. The exterior surface or cladding shall be of noncombustible material or,
    2. The exterior surface or cladding shall be of ignition-resistant material or,
    3. The exterior door shall be constructed of solid core wood that complies with the following requirements:
       3.1. Stiles and rails shall not be less than 1-3/8 inches thick.
       3.2. Panels shall not be less than 1-1/4 inches thick, except for the exterior perimeter of the panel that shall be permitted to taper to a tongue not less than 3/8 inch thick.
    4. The exterior door assembly shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252 or,
    5. The exterior surface or cladding shall be tested to meet the performance requirements of Section 707A.3.1 when tested in accordance with ASTM E2707 or,
    6. The exterior surface or cladding shall be tested to meet the performance requirements of SFM Standard 12-7A-1.

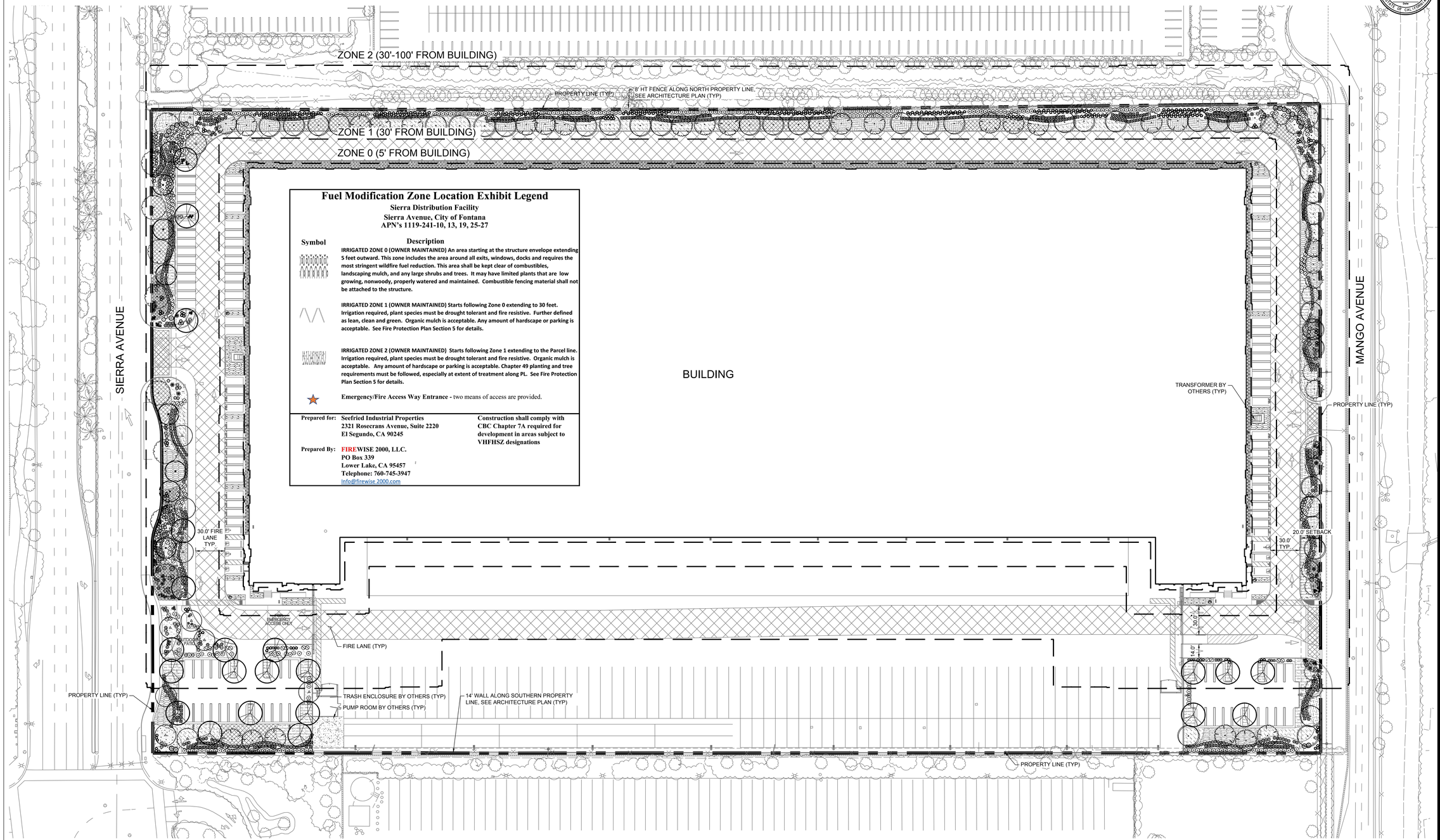
** FAHJ – Fire Authority Having Jurisdiction
SFM – State Fire Marshal
NFPA – National Fire Protection Association

Access Requirements shall comply with; Fire Apparatus Access Road Design, dated 1 July 2023

706A.2 Requirements. Ventilation openings shall be fully covered with Wildfire Flame and Ember Resistant vents approved and listed by the California State Fire Marshal, or Wildland Urban Interface (WUI) vents tested to ASTM E2886 and listed, by complying with all of the following requirements:
1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

APPENDIX ‘E’
FUEL TREATMENT ZONE EXHIBIT

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT



Fuel Modification Zone Location Exhibit Legend

Sierra Distribution Facility
Sierra Avenue, City of Fontana
APN's 1119-241-10, 13, 19, 25-27

Symbol	Description
	IRRIGATED ZONE 0 (OWNER MAINTAINED) An area starting at the structure envelope extending 5 feet outward. This zone includes the area around all exits, windows, docks and requires the most stringent wildfire fuel reduction. This area shall be kept clear of combustibles, landscaping mulch, and any large shrubs and trees. It may have limited plants that are low growing, nonwoody, properly watered and maintained. Combustible fencing material shall not be attached to the structure.
	IRRIGATED ZONE 1 (OWNER MAINTAINED) Starts following Zone 0 extending to 30 feet. Irrigation required, plant species must be drought tolerant and fire resistive. Further defined as lean, clean and green. Organic mulch is acceptable. Any amount of hardscape or parking is acceptable. See Fire Protection Plan Section 5 for details.
	IRRIGATED ZONE 2 (OWNER MAINTAINED) Starts following Zone 1 extending to the Parcel line. Irrigation required, plant species must be drought tolerant and fire resistive. Organic mulch is acceptable. Any amount of hardscape or parking is acceptable. Chapter 49 planting and tree requirements must be followed, especially at extent of treatment along PL. See Fire Protection Plan Section 5 for details.
	Emergency/Fire Access Way Entrance - two means of access are provided.

Prepared for: Seefried Industrial Properties
2321 Rosecrans Avenue, Suite 2220
El Segundo, CA 90245

Prepared By: FIREWISE 2000, LLC.
PO Box 339
Lower Lake, CA 95457
Telephone: 760-745-3947
Info@firewise 2000.com

Construction shall comply with CBC Chapter 7A required for development in areas subject to VHFHSZ designations

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME
TREES		
	9	CINNAMOMUM CAMPHORA / CAMPHOR TREE
	18	LAURUS X 'SARATOGA' / SARATOGA HYBRID LAUREL
	40	LOPHOSTEMON CONFERTUS / BRISBANE BOX
	8	OLEA EUROPAEA 'SWAN HILL' / SWAN HILL FRUITLESS OLIVE
	22	PODOCARPUS GRACILIOR / FERN PINE
	25	PRUNUS CERASIFERA 'KRAUTER VESUVIUS' / PURPLE-LEAF PLUM
	13	X CHITALPA TASHKENTENSIS / CHITALPA
SHRUBS		
	15	AGAVE ATTENUATA / FOXTAIL AGAVE
	44	ALOE STRIATA / CORAL ALOE
	27	BACCHARIS X 'STARN' / STARN THOMPSON® COYOTE BRUSH
	20	BOUGAINVILLEA X 'LA JOLLA' / LA JOLLA BOUGAINVILLEA
	48	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA
	24	DIETES BICOLOR / FORTNIGHT LILY
	369	FESTUCA MAIREI / ATLAS FESCUE
	72	HESPERALOE PARVIFLORA / RED YUCCA
	98	LANTANA X 'NEW GOLD' / NEW GOLD LANTANA
	344	LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE
	636	MUHLENBERGIA DUBIA / PINE MUHLY
	260	MYRTUS COMPACTA / COMPACT MYRTLE
SHRUBS		
	15	PENSTEMON EATONII / FIRECRACKER PENSTEMON
	16	SALVIA GREGGII / AUTUMN SAGE
	116	WESTRINGIA FRUTICOSA 'MORNING LIGHT' / MORNING LIGHT COAST ROSEMARY
INERT MATERIAL		
	17	BOULDER / 3' DIA
GROUND COVERS		
	182	ACACIA REDOLENS 'LOW BOY' / LOW BOY BANK CATCLAW
	445	BACCHARIS PILULARIS 'TWIN PEAKS LL' / TWIN PEAKS LL COYOTE BRUSH
	553	DALEA GREGGII / TRAILING INDIGO BUSH
	515	MYOPORUM X 'PUTAH CREEK' / PUTAH CREEK MYOPRORUM
	194	ROSMARINUS OFFICINALIS 'PROSTRATUS' / DWARF ROSEMARY
	747	TEUCRIUM COSSONII MAJORICUM / GERMANDER

INERT MATERIAL

	14,070 SF	ROCK COBBLE / 1" - 3"
	5,751 SF	ROCK MULCH / 1/8" SCREENED
	56,662 SF	WOOD BARK MULCH

NORTH

GRAPHIC SCALE IN FEET
0 40 80

LICENSED LANDSCAPE ARCHITECT — Signature — Renewal Date — Date — STATE OF CALIFORNIA

HPA architecture 43 Years
hpa, inc.
18831 bardeen avenue, - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
401 B ST SUITE 600
SAN DIEGO, CA 92101

Owner:

SEEFRIED INDUSTRIAL PROPERTIES
2321 ROSECRANS AVE
EL SEGUNDO, CA 90245
tel: (310) 536-7900

Project:

SIERRA DISTRIBUTION FACILITY
SIERRA AVE.
FONTANA, CA 92337

Consultants:

Civil:	HUITT-ZOLLARS
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	KIMLEY-HORN
Fire Protection:	-
Soils Engineer:	-

Title: LANDSCAPE AND FUEL MODIFICATION PLAN

Drawn by:	EB
Date:	12/05/24
Revision:	
2nd Submittal	01/03/23
3rd Submittal	06/16/23

Sheet: L1.1

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL.	WUCOLS
TREES						
	9	CINNAMOMUM CAMPHORA / CAMPHOR TREE	36" BOX	-	-	MODERATE
	18	LAURUS X 'SARATOGA' / SARATOGA HYBRID LAUREL	24" BOX	-	-	LOW
	40	LOPHOSTEMON CONFERTUS / BRISBANE BOX	24" BOX	-	-	MODERATE
	8	OLEA EUROPAEA 'SWAN HILL' / SWAN HILL FRUITLESS OLIVE	36" BOX	-	-	LOW
	22	PODOCARPUS GRACILIOR / FERN PINE	24" BOX	-	-	MODERATE
	25	PRUNUS CERASIFERA 'KRAUTER VESUVIUS' / PURPLE-LEAF PLUM	24" BOX	-	-	LOW
	13	X CHITALPA TASHKENTENSIS / CHITALPA	24" BOX	-	-	LOW

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
SHRUBS					
	15	AGAVE ATTENUATA / FOXTAIL AGAVE	5 GAL.	4' O.C.	LOW
	44	ALOE STRIATA / CORAL ALOE	5 GAL.	2' O.C.	LOW
	27	BACCHARIS X 'STARN' / STARN THOMPSON® COYOTE BRUSH	5 GAL.	4' O.C.	LOW
	20	BOUGAINVILLEA X 'LA JOLLA' / LA JOLLA BOUGAINVILLEA	5 GAL.	5' O.C.	LOW
	48	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	1 GAL.	2' O.C.	LOW
	24	DIETES BICOLOR / FORTNIGHT LILY	1 GAL.	3' O.C.	MODERATE
	369	FESTUCA MAIREI / ATLAS FESCUE	1 GAL.	3' O.C.	LOW
	72	HESPERALOE PARVIFLORA / RED YUCCA	5 GAL.	4' O.C.	LOW
	98	LANTANA X 'NEW GOLD' / NEW GOLD LANTANA	5 GAL.	3' O.C.	LOW
	344	LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE	1 GAL.	3' O.C.	LOW
	636	MUHLENBERGIA DUBIA / PINE MUHLY	1 GAL.	3' O.C.	LOW
	260	MYRTUS COMPACTA / COMPACT MYRTLE	5 GAL.	4' O.C.	MODERATE
	15	PENSTEMON EATONII / FIRECRACKER PENSTEMON	5 GAL.	2' O.C.	LOW
	16	SALVIA GREGGII / AUTUMN SAGE	5 GAL.	3' O.C.	LOW
	116	WESTRINGIA FRUTICOSA 'MORNING LIGHT' / MORNING LIGHT COAST ROSEMARY	5 GAL.	4' O.C.	LOW
INERT MATERIAL					
	17	BOULDER / 3' DIA	ROCK	-	-

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
GROUND COVERS					
	182	ACACIA REDOLENS 'LOW BOY' / LOW BOY BANK CATCLAW	5 GAL.	5' O.C.	LOW
	445	BACCHARIS PILULARIS 'TWIN PEAKS LL' / TWIN PEAKS LL COYOTE BRUSH	1 GAL.	4' O.C.	LOW
	553	DALEA GREGGII / TRAILING INDIGO BUSH	1 GAL.	3' O.C.	LOW
	515	MYOPORUM X 'PUTAH CREEK' / PUTAH CREEK MYOPRORUM	5 GAL.	4' O.C.	LOW
	194	ROSMARINUS OFFICINALIS 'PROSTRATUS' / DWARF ROSEMARY	5 GAL.	4' O.C.	LOW
	747	TEUCRIUM COSSONII MAJORICUM / GERMANDER	5 GAL.	3' O.C.	LOW
INERT MATERIAL					
	14,070 SF	ROCK COBBLE / 1" - 3"	ROCK	-	-
	5,751 SF	ROCK MULCH / 1/8" SCREENED	ROCK	-	-
	56,662 SF	WOOD BARK MULCH	MULCH	-	-

LANDSCAPE NOTE:

THE SELECTION OF PLANT MATERIAL IS BASED ON CLIMATIC, AESTHETIC, AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. DECOMPOSED GRANITE SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER SOIL TEMPERATURE, AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF FONTANA MUNICIPAL CODE.

IRRIGATION NOTE:

AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE 100% COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. THE WATER SUPPLY FOR THIS SITE IS A POTABLE WATER CONNECTION AND A DEDICATED IRRIGATION METER WILL BE PROVIDED. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH NO WATER LOSS DUE TO WATER CONTROLLERS, AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL POINT SOURCE SYSTEM SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF FONTANA MUNICIPAL CODE.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AB-1881 AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

COREY R. CAMERON, LLA 6625

FUEL MODIFICATION PLAN NOTES

NOTE 1
THE ENTIRE PROPERTY IS WITHIN A VERY HIGH FIRE HAZARD SEVERITY ZONES (VHFHSZ), (LRA) CITY OF FONTANA, COUNTY OF SAN BERNARDINO.

NOTE 2
2022 FIRE CODE CHAPTER 49, ADDITIONS TO LANDSCAPE PLANS FOR PLANT SPECIES, SPACING ETC.

ZONE 0 EMBER RESISTANT ZONE AS REQUIRED NOT A PART OF CFC49.
AN AREA STARTING AT THE STRUCTURE ENVELOPE EXTENDING 5 FEET OUTWARD. THIS ZONE INCLUDES THE AREA UNDER AND AROUND ALL ATTACHED DECKS, AND REQUIRES THE MOST STRINGENT WILDFIRE FUEL REDUCTION. THIS AREA SHALL BE KEPT CLEAR. ZONE 0 HAS NOT BEEN FULLY DEFINED BY THE BOARD OF FORESTRY AND SHOULD NOT CONTAIN VEGETATION
UNTIL FURTHER GUIDANCE IS PROVIDED

SEC 4906.3 EXHIBIT
LANDSCAPE PLANS SHALL CONTAIN THE FOLLOWING:
1. DELINEATION OF THE 100-FOOT (30.5 M) FUEL MANAGEMENT ZONES FROM ALL STRUCTURES.
2. IDENTIFICATION OF EXISTING VEGETATION TO REMAIN IF ANY AND PROPOSED NEW VEGETATION.
3. IDENTIFICATION OF IRRIGATED AREAS.
4. A PLANT LEGEND WITH BOTH BOTANICAL AND COMMON NAMES, AND IDENTIFICATION OF ALL PLANT MATERIAL SYMBOLS.
5. IDENTIFICATION OF GROUND COVERINGS WITHIN THE 30-FOOT (9144 MM) ZONE.

SEC 4906.4 VEGETATION.
ALL NEW VEGETATION SHALL BE FIRE-RESISTANT VEGETATION IN ACCORDANCE WITH THIS SECTION. EXCEPTION: TREES CLASSIFIED AS NON-FIRE-RESISTANT VEGETATION COMPLYING WITH SECTION 4906.4.2.1. TO BE CONSIDERED FIRE-RESISTANT VEGETATION, IT MUST MEET AT LEAST ONE OF THE FOLLOWING:
1. BE IDENTIFIED AS FIRE-RESISTANT VEGETATION IN AN APPROVED BOOK, JOURNAL OR LISTING FROM AN APPROVED ORGANIZATION.
2. BE IDENTIFIED AS FIRE-RESISTANT VEGETATION BY A LICENSED LANDSCAPE ARCHITECT WITH SUPPORTING JUSTIFICATION.
3. PLANTS CONSIDERED FIRE-RESISTANT VEGETATION AND APPROVED BY THE LOCAL ENFORCING AGENCY.

ZONE 1; 0 TO 30 FEET FROM THE STRUCTURE

SEC 4906.4. SHRUBS.
ALL NEW PLANTINGS OF SHRUBS SHALL COMPLY WITH THE FOLLOWING:
1. SHRUBS SHALL NOT EXCEED 6 FEET (1829 MM) IN HEIGHT.
2. GROUPINGS OF SHRUBS ARE LIMITED TO A MAXIMUM AGGREGATE DIAMETER OF 10 FEET (3048 MM).
3. SHRUB GROUPINGS SHALL BE SEPARATED FROM OTHER GROUPINGS A MINIMUM OF 15 FEET (4572 MM).
4. SHRUB GROUPINGS SHALL BE SEPARATED FROM STRUCTURES A MINIMUM OF 30 FEET (9144 MM).
5. WHERE SHRUBS ARE LOCATED BELOW OR WITHIN A TREE'S DRIP LINE, THE LOWEST TREE BRANCH SHALL BE A MINIMUM OF THREE TIMES THE HEIGHT OF THE UNDERSTORY SHRUBS OR 10 FEET (3048 MM), WHICHEVER IS GREATER.

SEC 4906.4. TREES.
TREES SHALL BE MANAGED AS FOLLOWS WITHIN THE ZONE 1, 0 TO 30-FOOT AREA OF A STRUCTURE:
1. NEW TREES SHALL BE PLANTED AND MAINTAINED SO THAT THE TREE'S DRIP LINE AT MATURITY IS A MINIMUM OF 10 FEET (3048 MM) FROM ANY COMBUSTIBLE STRUCTURE.
2. THE HORIZONTAL DISTANCE BETWEEN CROWNS OF NEW TREES AND CROWNS OF ADJACENT TREES SHALL NOT BE LESS THAN 10 FEET (3048 MM).
3. EXISTING TREES SHALL BE TRIMMED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET (3048 MM) AWAY FROM CHIMNEY AND STOVEPIPE OUTLETS PER TITLE 14, SECTION 1299.03.

SEC 4906.4.2 NON-FIRE-RESISTANT VEGETATION.
NEW TREES NOT CLASSIFIED AS FIRE-RESISTANT VEGETATION, SUCH AS CONIFERS, PALMS, PEPPER TREES AND EUCALYPTUS SPECIES,
SHALL BE PERMITTED PROVIDED THE TREE IS PLANTED AND MAINTAINED SO THAT THE TREE'S DRIP LINE AT MATURITY IS A MINIMUM 30
FEET (9144 MM) FROM ANY COMBUSTIBLE STRUCTURE.

ZONE 2 30 TO 100 FEET
IS A REDUCED FUEL ZONE AND IS DESIGNED TO REDUCE THE POTENTIAL BEHAVIOR OF AN ONCOMING FIRE BY REDUCING THE FLAME HEIGHTS, AND THE POTENTIAL FOR EMBER GENERATION AND RADIANT HEAT EXPOSURE TO THE STRUCTURE.

LANDSCAPE CALCULATIONS

REQUIRED LANDSCAPING
15% LANDSCAPE AREA REQUIRED
TOTAL SITE AREA MINUS BUILDING AREA = 398,519 SF*.15 = 59,778 SF REQUIRED
80,668 SF TOTAL LANDSCAPE AREA PROVIDED = 20%

REQUIRED TREES
1 TREE FOR EVERY 600 SF OF LANDSCAPE AREA
80,668 SF / 600 = 134 TREES REQUIRED
135 TREES PROVIDED

REQUIRED TREE CONTAINER SIZE
90% 24" BOX TREES AND 10% 36" BOX TREES REQUIRED
135 TREES PROVIDED
17 TREES AT 36" BOX = 13%
118 TREES AT 24' BOX = 87%

Certified By
Mel Johnson, Owner Date: 7 Dec 2024
FIREWISE 2000, LLC.
PO Box 339
Lower Lake, CA 95457
Telephone: 760-745-5847
info@firewise2000.com
This Exhibit is found to be compliant with the Fire Protection Plan dated 6 Dec 2024

REGISTERED LANDSCAPE ARCHITECT — COREY REGINALD CAMERON — Signature — Renewal Date — Date — STATE OF CALIFORNIA

hpa, inc.
18831 bardeen avenue, - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

KIMLEY-HORN AND ASSOCIATES, INC.
401 B ST SUITE 600
SAN DIEGO, CA 92101

Owner:
SEEFRIED INDUSTRIAL PROPERTIES
2321 ROSECRANS AVE
EL SEGUNDO, CA 90245
tel: (310) 536-7900

Project:
SIERRA DISTRIBUTION FACILITY
SIERRA AVE.
FONTANA, CA 92337

Consultants:

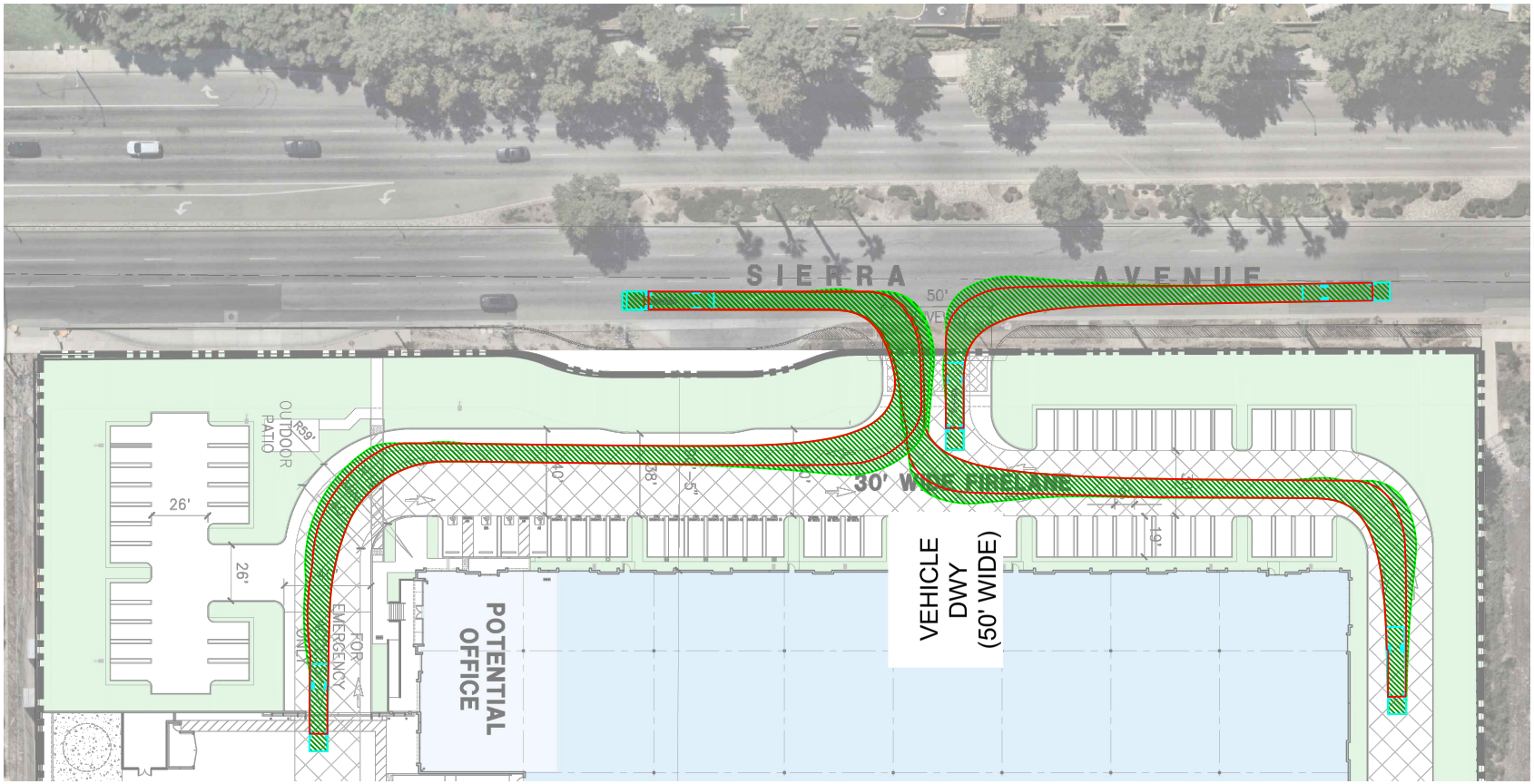
Civil:	HUITT-ZOLLARS
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	KIMLEY-HORN
Fire Protection:	-
Soils Engineer:	-

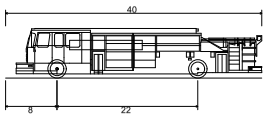
LANDSCAPE AND FUEL MODIFICATION NOTES

2nd Submittal	01/03/23
3rd Submittal	06/16/23

L1.0

APPENDIX 'F'
SITE ACCESS PLAN





Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

Kimley»Horn
401 B STREET, SUITE 600,
SAN DIEGO, CA 92101
PHONE: 619-234-9411
WWW.KIMLEY-HORN.COM

SIERRA DISTRIBUTION FACILITY

Passenger Vehicle DWY at Sierra Avenue

Emergency Vehicle Turning Movement Figure 4.17-1

NORTH

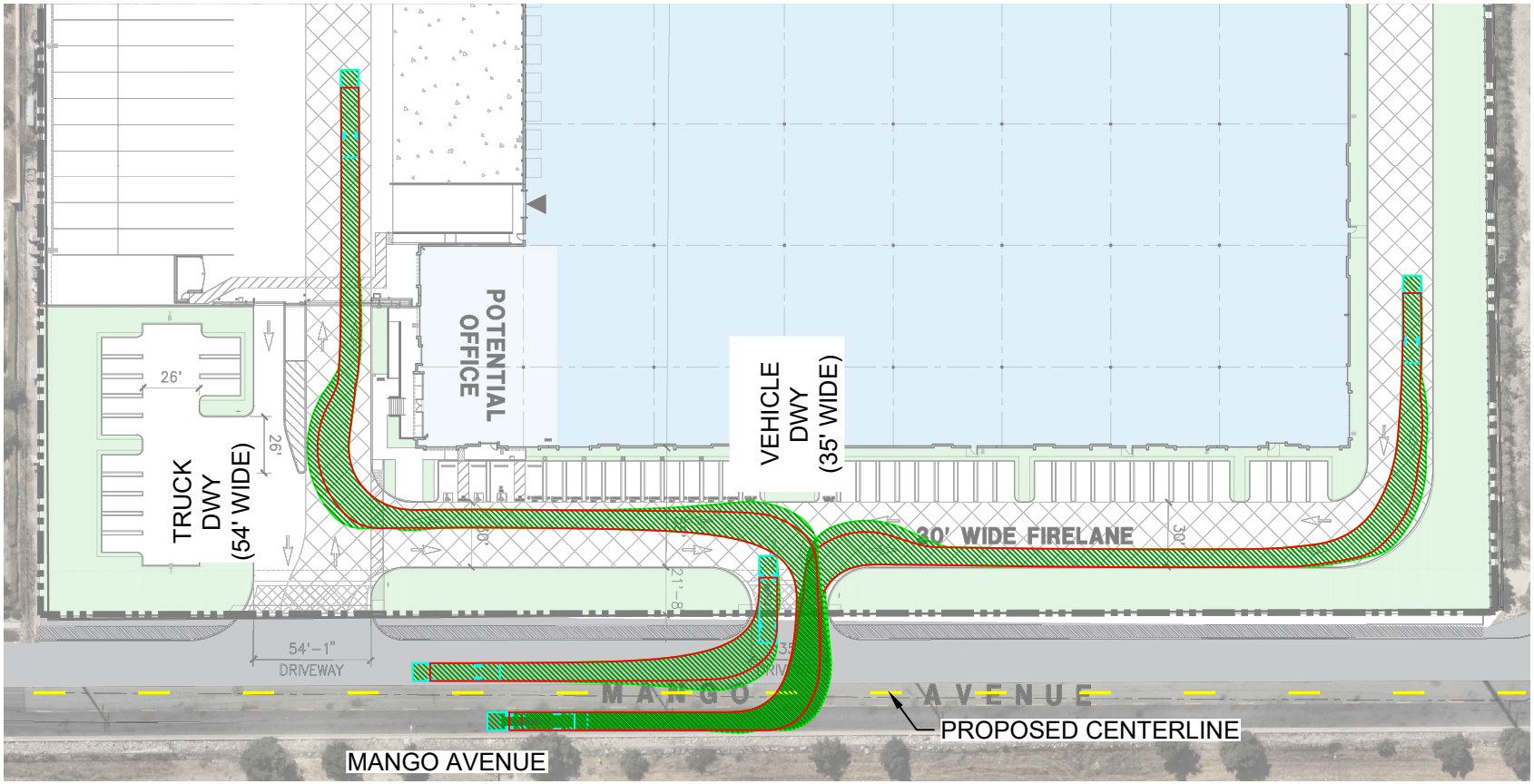
JOB NO.: XXXXXXXXX

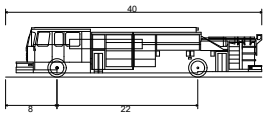
DATE: 11/25/2024

40 80

GRAPHIC SCALE AS SHOWN

1 OF





Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

Kimley»Horn
401 B STREET, SUITE 600,
SAN DIEGO, CA 92101
PHONE: 619-234-9411
WWW.KIMLEY-HORN.COM

SIERRA DISTRIBUTION FACILITY

Truck DWY and Passenger Vehicle DWY at Mango Avenue

Emergency Vehicle Turning Movement Figure 4.17-2

NORTH

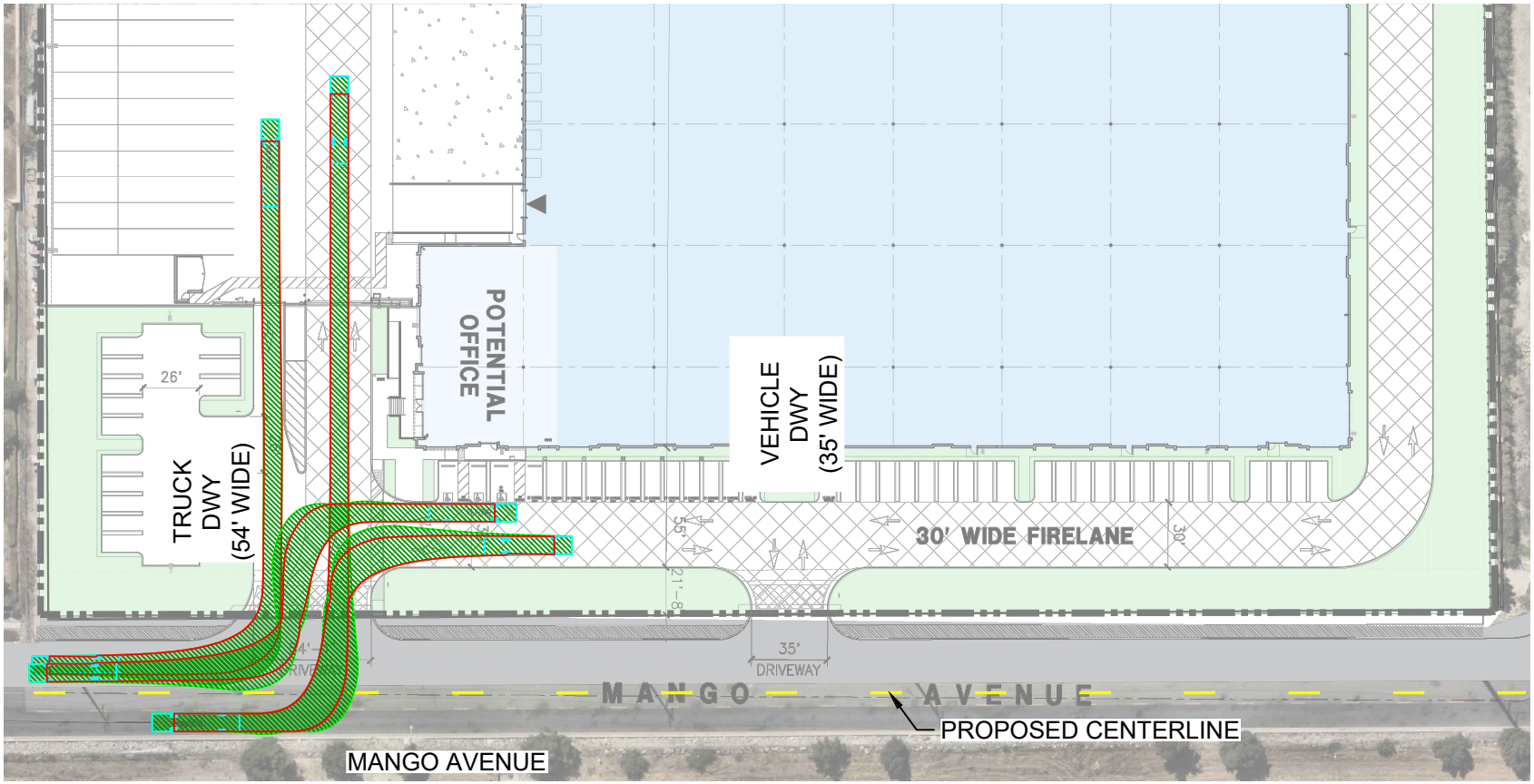
JOB NO.: XXXXXXXXX

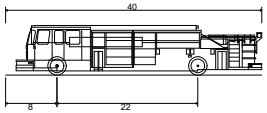
DATE: 11/25/2024

40 80

GRAPHIC SCALE AS SHOWN

2 OF





Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

Kimley»Horn

401 B STREET, SUITE 600,
SAN DIEGO, CA 92101
PHONE: 619-234-9411
WWW.KIMLEY-HORN.COM

SIERRA DISTRIBUTION FACILITY

Truck DWY and Passenger Vehicle DWY at Mango Avenue

Emergency Vehicle Turning Movement Figure 4.17-3

NORTH

JOB NO.: XXXXXXXXX

DATE: 11/25/2024

40 80

GRAPHIC SCALE AS SHOWN

APPENDIX ‘G’
Section 4.9 Draft EIR Sept 2024 Hazards and Hazardous Materials

4.9

Hazards and Hazardous Materials

4.9 HAZARDS AND HAZARDOUS MATERIALS

4.9.1 Introduction

This section evaluates the potential impacts of the Sierra Distribution Facility Project (Project) on human health and the environment due to exposure to hazardous materials or conditions associated with the Project site, Project construction, and Project operations. Potential Project impacts and appropriate mitigation measures are included as necessary. The analysis in this section is based, in part, upon the following sources, which are contained in ***Appendix H*** of this Draft EIR:

- Hazard Management Consulting. 2021. Phase I Environmental Site Assessment, 5975 and 6075 Sierra Avenue, 16899, 17010 and 17051 Windflower Avenue, Fontana, California 92336.
- Hazard Management Consulting. 2020. Results of a Soil and Soil Gas Investigation, 17010 and 17051 Windflower Avenue, Fontana, California.

Analysis of area cumulative impacts and identification of appropriate and feasible mitigation measures are also included in the discussion portions of this section.

4.9.2 Environmental Setting

Existing Conditions

Current Uses of Property

The Project site is presently developed with four commercial/industrial buildings ranging from 5,000 to 25,000 square feet in size. The northwestern quadrant is developed with one building and is utilized as a wooden pallet facility. The northeastern quadrant is developed with one building and is utilized as a carnival attraction repair facility with truck trailer parking. The southwestern quadrant is developed with one building and open-graded gravel pavements and is utilized for truck trailer storage. The southeastern quadrant is developed with one building and is utilized as a storage facility. The existing buildings are single-story, metal-framed structures and are assumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. Ground surface cover consists mainly of open graded gravel and exposed soil, with asphaltic concrete (AC) or Portland cement concrete (PCC) pavements surrounding the buildings. Little to no vegetation exists on site. Few large trees are present between the northwest and northeast quadrants.

The Project site is currently occupied by the following businesses:

1.) San Gabriel Valley Lumber & Milling, 6075 Sierra Avenue. This portion of the Project site is located on the northwest and is used for manufacturing of wood molding and repair/sale of wooden pallets. This property was developed in late 1980s and houses a metal structure and a mobile office. Limited volume of potentially hazardous substances is used/stored at this facility. Stringent housekeeping practices appeared to be implemented at this property.

2.) 5975 Sierra Avenue/16899 Windflower Avenue. This parcel is located on the southwest portion and is currently unoccupied. This property was last occupied by Anderson Trucking Services for

storage and distribution of furniture and was developed in early 1980s and houses a metal structure. No visual evidence of subsurface features and/or significant staining was identified.

3.) Davis Partners, 17010 Windflower Avenue. This parcel is located on the northeast portion and is currently used for repair of carnival rides. This property was developed in the late 1980s and houses two attached metal structures. Potentially hazardous substances are used/generated at this facility. Poor housekeeping practices were observed at this facility. There are no designated areas of hazardous substances storage at this Project site, and no secondary containments were utilized.

4.) Aluma Systems, 17051 Windflower Avenue. This parcel is located on the southeast portion and is currently used for repair and rent of steel and aluminum scaffolding. This property was developed in 1990 and houses a large metal structure. Two stormwater catch basins are present at this property. Stringent housekeeping practices are implemented at this facility.

Surrounding Uses

The Project site is in an area currently zoned for Light Industrial (M-1) and is bound:

- on the north by Federal Express Supply facility (5885 Sierra Avenue);
- on the east by Mango Avenue beyond which is the boundary of Mid-Valley (Burrtec Services) Municipal Landfill;
- on the south by Williams-Sonoma Warehouse (6101 Sierra Avenue); and,
- on the west by Sierra Avenue beyond which is residential development.

Historical Uses of Property

According to available historical sources, the Project site was historically undeveloped vacant land as early as 1896 and was developed in phases from 1982 to 1990. The Project site was historically occupied by light industrial businesses including: All American Pipe & Steel Distribution; Days Express Inc.; Anderson Trucking Services; Apollo Amusement; San Gabriel Valley Lumber & Milling; S.J. Steel Inc.; Active Steel, Inc.; and National Pallets (1987-Present). The Project site is located in an area that has had been historically undeveloped vacant land.

Environmental Conditions

In accordance with the American Society for Testing and Materials (ASTM) Standard of Practice E1527-13, the objective of the Phase I ESA is to assess, to the extent feasible under the standard, the likelihood that a Recognized Environmental Conditions (RECs), as defined by ASTM, are present at the Project site. An REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

A controlled REC (CREC) is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example,

as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

A historical REC (HREC) is a past release of any hazardous substances or petroleum products that has occurred in connection with the Project site and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the Project site to any required controls (e.g., use restrictions, activity and use limitations, institutional controls, or engineering controls).

There was no evidence of CREC or HRECs in connection with the Project site. However, poor housekeeping practices were noted to be implemented at the Davis Partners facility and constitutes as a REC. There are no designated areas of hazardous substances storage at this Project site, no secondary containments were utilized, and unlabeled 55-gallon drums were identified on the western building. Additionally, due to the potential for landfill gas to migrate towards the Project site, the Mid Valley Landfill is considered an REC to the Project site.

A Phase II ESA was conducted for the Project. The objective of the Phase II ESA was to assess whether elevated concentrations of selected chemicals were present in soil in the vicinity of the chemical uses, and to assess whether elevated concentrations of Volatile Organic Compounds (VOCs) and methane gas were present in soil vapor due to the off-site landfill. Laboratory results indicated no detectable concentrations of petroleum hydrocarbons, VOCs, and hexavalent chromium, and no detectable to low concentrations of Title 22 metals, well below the state and/or federal screening levels for human health, and background concentrations of arsenic. Based on these results, there is a low likelihood that elevated concentrations of selected chemicals are present in soil in the vicinity of the chemical uses.

Regulatory Agency Database Research

A Phase I ESA (see ***Appendix H***) was completed in January 2021. The Project site was identified on the databases listed below. Regulatory agency database information was obtained from a standard radius Site Assessment report by Environmental Data Resources, Inc. The center of the search was in the approximate center of the Project site. Search distances for specific databases were one-quarter to one mile as specified in the ASTM 1527-13 standard. The database search includes over 70 federal, State, local, and proprietary records.

Database Records Concerning the Project Site

Davis Enterprises, 17010 Windflower Avenue

This Project site occupant is listed in HAZNET, Enforcement and Compliance History Online (ECHO), Hazardous Waste Tracking System (HWTS), National Pollutant Discharge Elimination System (NPDES) and Resource Conservation and Recovery Act (RCRA)-Non-Generators (NonGen) databases. According to the records, state-regulated wastes including other organic solids were generated in 2011 and disposed off-site of the Project site. No violations or releases were reported for that time period.

S.J. Steel Inc., 17010 Windflower Avenue

This former occupant is listed in Aboveground Storage Tanks (AST), California Environmental Reporting System (CERS) Haz Waste, Emergency Management Institute (EMI), and San Bernardino County Permit databases. According to the records, this former occupant was permitted by San Bernardino County Fire Department (SBCFD) to handle hazardous substances. It appears that they have utilized ASTs for storage of chemicals. They also have had a permit from the South Coast Air Quality Management District (AQMD) in 1987. No violations or releases were reported.

Active Steel Inc., 17010 Windflower Avenue

This former occupant is listed in Haznet and HWTS databases. According to the records, state-regulated wastes including an unspecified solvent mixture were generated and disposed off-site for the Project site in 1992. No violations or releases were reported.

All American Pipe & Steel, 17051 Windflower Avenue

This former occupant is listed in San Bernardino County Permit database. According to the records, this facility had a permit from SBCFD to handle hazardous substances. The permit expired in 2012.

National Pallets/San Gabriel Valley Lumber & Milling, 6075 Sierra Avenue

This Project site occupant is listed in San Bernardino County Permit, Haznet, CERS Haz Waste, and CERS databases. According to the records, state-regulated wastes including waste oil/mixed oil and unspecified oil containing wastes were generated from 2013 to 2019 that were disposed of off-site of the Project site. This facility has a permit from SBCFD to handle hazardous substances. According to the records, SBCFD has conducted compliance evaluation inspections of this facility, administrative violations were identified that were subsequently corrected and the facility had returned to compliance. No unresolved violations and/or releases were reported.

Database Records Concerning Surrounding Uses

A review of the Environmental Data Resources, Inc. (EDR) Radius Map database search was conducted to assess potential off-site facilities that could be contributing hazardous substances to the Project site and represent an REC. In review of the many entries on the database, HMC reviewed the following factors that affect the ability of a facility to affect the Project site:

- Distance from the Site,
- Location from the Site with regard to the direction of groundwater flow,
- Nature of the release and whether the release has affected soil, groundwater, or both, and
- Status of the investigation (e.g., open or closed)

Based on these factors, two facilities were found to have the ability to affect the Project site. Both facilities are discussed below.

Federal Express Supply, 5885 Sierra Avenue

This facility is located immediately north of the Project site and is listed in ECHO, Haznet, RCRA-Small Quality Generators (SQGs), CERS and NPDES databases. According to the records, state and federal-regulated wastes were generated and disposed off-site in 2018 and 2019. No violations or releases were reported. Based on regulatory status, depth to groundwater and absence of a release, these listings do not constitute RECs for the Project site.

Mid Valley Landfill

The Mid-Valley Sanitary Landfill is located to the east of the Project site (less than 1000 feet from an active solid waste facility) and is an existing Class III sanitary landfill and accepts residential, commercial, demolition, and agricultural wastes. The landfill is approximately 147 acres in size and includes four separate "cells." The initial landfill activity began in 1958 in Cell 1 which is located southeast of the Project site and expanded over time to include the four cells. Cell 1 is now closed but Cell 3 which is located directly east of the Project site is open. The Project site is located upgradient of the landfill closest to Cell 3. Monitoring results for the landfill have documented a release of VOCs and Perchlorates to groundwater which have migrated off of the landfill boundary to the southeast away from the Project site. Groundwater mitigation efforts are underway to address this release which includes both groundwater pump and treat as well as soil vapor extraction. Based on the Project site being upgradient to the landfill and monitoring data not suggesting any groundwater impacts in the direction of the Project site, the landfill is not considered as a source of groundwater impact to the Project site. However, due to the potential for landfill gas to migrate towards the Project site, Mid Valley Landfill is considered a REC to the Project site.

Hazardous Materials, Hazardous Wastes or Petroleum Products

The following presents potentially hazardous substances at the Project site:

San Gabriel Valley Lumber & Milling, 6075 Sierra Ave.

Thirty-four, ten-gallon propane cylinders; and one 55-gallon barrel of used oil (the hazardous wastes are transported off-site by Environmental Logistics).

Davis Partners, 17010 Windflower Ave.

- Five, 55-gallon drums, and three 5-gallon containers of engine oil
- Ten five-gallon containers of acetone
- Fifteen five-gallon containers of oil-based paints
- Two, 55-gallon drums of unknown liquid, smelled like petroleum hydrocarbons
- Several one- and five-gallon containers of unknown substances
- Part washer

A paint spray booth was present inside the open metal building that had a permit from AQMD that expired on August 18, 2020.

It was reported that hazardous wastes are disposed off-site by Clean Tech. HMC did not see any hazardous waste containers during the Project site reconnaissance.

Drains, Drain Lines, and Sumps

The Project site primarily drains via sheet flow.

Pits, Ponds, Lagoons

No ponds, pits, or lagoons were observed at the Project site.

Industrial Wastewater

Industrial wastewater is not presently generated at the Project site.

Stains

No significant stains were observed at the Project site.

Wells

There are currently no groundwater wells, monitoring wells or oil/gas wells identified at the Project site.

Transformers

Pole-mounted transformers were observed at 5975 Sierra Avenue property.

Underground and Above-ground Storage Tanks

There are currently no Underground Storage Tanks (USTs) or ASTs on-site.

Vapor Intrusion

Based on the findings within the Phase I ESA, it is believed that given the presence of a Class III landfill east of the Project site, there is a moderate risk of a vapor intrusion condition at the Project site.

Asbestos

Based on the construction dates, there is a moderate likelihood that asbestos-containing materials are present at the Project site.

Radon

The Project site is listed as being located in Zone 2 with regards to radon indicating that radon may be present at concentrations less than 4 pico curies/liter.

Mold

Mold was not identified on the Project site.

Other Features

Two stormwater catch basins were identified at 17051 Windflower Avenue property.

Nearby Airports or Airstrips

The nearest airstrips are the Ontario International Airport (located roughly 11 miles to the southwest) and the San Bernardino International Airport (located roughly 11 miles to the southeast).

Wildland Fire Hazards

According to the City's Local Hazard Mitigation Plan[1], the Project site is identified within a High Fire Hazard Severity Zone within a Local Responsibility Area (LRA). According to California Department of Forestry and Fire Protection (CAL FIRE), the Project site is not designated as a Very High Fire Hazard Safety Zone (VHFHSZ) or a State Responsibility Area.[2] See ***Section 4.20: Wildfire*** for more detail.

Evacuation Routes

According to the Fontana GP Noise and Safety Element, the City has no defined emergency routes.

Schools

The nearest schools to the Project site are Sierra Lakes Elementary School, located approximately one mile west of the Project site; Wayne Ruble Middle School, located approximately 1.1 miles south of the Project site; and AB Miller High School, located approximately 1.2 miles southwest of the Project site. Other nearby schools are Summit High School and Falcon Ridge Elementary School. None of these schools are located along the officially designated local truck route, Sierra Avenue, which is located adjacent to the Project site. Note, however, that Project-related truck traffic would be prohibited from using Sierra Avenue.

Soil and Gas Investigation Results

Laboratory results indicated no detectable concentrations of petroleum hydrocarbons, VOCs, and hexavalent chromium, and no detectable to low concentrations of Title 22 metals, well below the state and/or federal screening levels for human health, and background concentrations of arsenic. Based on these results, there is a low likelihood that elevated concentrations of selected chemicals are present in soil in the vicinity of the chemical uses.

Eight soil borings were advanced along the eastern portion of the Project site to further asses possible VOCs and methane gas concentrations emanating from off-gassing contaminated groundwater and from decomposition of materials in the landfill. Laboratory results of VOCs in soil gas indicated low concentrations, well below the state and federal modified screening levels using the very conservative attenuation factor of 0.03. Methane was detected below the lower explosive limit (LEL) and conservative risk factor of 10 percent of the LEL, indicating a low likelihood of an explosive condition.

[1] City of Fontana. 2018. *Local Hazard Mitigation Plan, Figure 4-6: Wildfire Hazard Severity Zones*. https://www.fontanaca.gov/3196/Local-Hazard-Mitigation-Plan-LHMP. (accessed June 2023).

[2] CAL FIRE. 2008. *Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE – Fontana*. https://osfm.fire.ca.gov/media/5943/fontana.pdf (accessed June 2022).

The Mid-Valley Sanitary Landfill requires that all developments within 1,000 feet of its perimeter be designed and constructed in accordance with an equivalent design which will prevent gas migration into the building as per 27 CCR Section 21190(g).

4.9.3 Regulatory Setting

Federal

Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act of 1976 and RCRA established a program administered by the United States Environmental Protection Agency (U.S. EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), was enacted by Congress on December 11, 1980. This law (U.S. Code Title 42, Chapter 103) provides broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulation [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and the National Priorities List

The U.S. EPA also maintains the Comprehensive Environmental Response Compensation (CERCLIS) and Liability Information System list. This list contains sites that are either proposed to be or on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The NPL is a list of the worst hazardous waste sites that have been identified by Superfund. There are no NPL sites on the Project site.

Emergency Planning and Community Right-to-Know Act

The Federal Emergency Planning and Community Right-To-Know Act (EPCRA) was enacted to inform communities and residents of chemical hazards in their area. Businesses are required to report the locations and quantities of chemicals stored on-site to both state and local agencies. EPCRA requires the U.S. EPA to maintain and publish a digital database list of toxic chemical releases and other waste

management activities reported by certain industry groups and Federal facilities. This database, known as the Toxic Release Inventory, gives the community more power to hold companies accountable for their chemical management.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (U.S. DOT) receives authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act, as amended and codified (49 U.S. Code 5101 et seq.). The U.S. DOT is the primary regulatory authority for the interstate transport of hazardous materials and establishes regulations for safe handling procedures (i.e., packaging, marking, labeling, and routing).

In California, Section 31303 of the California Vehicle Code states that any hazardous material being moved from one location to another must use the route with the least travel time. This, in practice, means major roads and highways, although secondary roads are permitted to be used for local delivery. These policies are enforced by both the California Highway Patrol and the California Department of Transportation.

Clean Water Act/Spill Prevention, Control, and Countermeasure Rule

The Clean Water Act (CWA) (33 U.S. Code Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the U.S. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the NPDES permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCB). The Project is within the jurisdiction of the Santa Ana RWQCB.

Section 402 of the CWA authorizes the California State Water Resources Control Board (SWRCB) to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the U.S.; and
- Perform inspections of all BMPs.

NPDES regulations are administered by the RWQCB. Projects that disturb one or more acres are required to obtain NPDES coverage under the Construction General Permit.

As part of the CWA, the U.S. EPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112), which is often referred to as the "SPCC rule"

because the regulations describe the requirements for facilities to prepare, amend, and implement Spill Prevention, Control, and Countermeasures (SPCC) Plans. A facility is subject to SPCC regulations if a single oil (or gasoline, or diesel fuel) storage tank has a capacity greater than 660 gallons, the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "Navigable Waters" of the United States.

Occupational Safety and Health Administration

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. To establish standards for workplace health and safety, OSHA also created the National Institute for Occupational Safety and Health as the research institution for OSHA. The Administration is a division of the U.S. Department of Labor that oversees the administration of OSHA and enforces standards in all states. OSHA standards are listed in Title 29 CFR Part 1910.

OSHA's Hazardous Waste Operations and Emergency Response Standard apply to five groups of employers and their employees. This includes any employees who are exposed or potentially exposed to hazardous substances (including hazardous waste) and who are engaged in clean-up operations; corrective actions; voluntary clean-up operations; operations involving hazardous wastes at treatment, storage, and disposal facilities; and emergency response operations.

State

California Environmental Protection Agency (CalEPA)

CalEPA has jurisdiction over hazardous materials and wastes at the state level. The Department of Toxic Substance Control (DTSC) is the department of CalEPA responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. DTSC regulates hazardous waste in California primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California but not by the U.S. EPA are called "non-RCRA hazardous wastes." Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Enforcement of directives from DTSC is handled at the local level, in this case the San Bernardino County Department of Public Health (DPH) Environmental Health Services (EHS) division. The RWQCB also has the authority to implement regulations regarding the management of soil and groundwater investigation.

Regional Water Quality Control Board

The RWQCB is a department of CalEPA that oversees investigation and cleanup of sites including USTs where wastes have been discharged in order to protect the state water quality. The RWQCB regulates wastewater discharges to surface waters and to groundwater. They also regulate stormwater discharges from construction, industrial, and municipal activities. The RWQCB is the lead regulatory agency for the Project site.

California Department of Forestry and Fire Protection

CAL FIRE has mapped fire threat potential throughout California. CAL FIRE ranks fire threats based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat.

California Fire Code

California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Title 24, Part 9. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The California Health and Safety Code, Division 20, Chapter 6.95, known as the Hazardous Materials Release Response Plans and Inventory Act or the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Businesses must submit this information to the County DPH. The Environmental Health Division verifies the information and provides it to agencies responsible for protection of public health and safety and the environment. Business Plans are required to include emergency response plans and procedures in the event of a reportable release or threatened release of hazardous materials, including, but not limited to, all of the following:

- Immediate notification to the administering agency and to the appropriate local emergency rescue personnel.
- Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
- Evacuation plans and procedures, including immediate notice, for the business site.

Business Plans are also required to include training for all new employees, and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of hazardous material.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to but more stringent than the Federal RCRA program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting); Above-ground Petroleum Storage Tank SPCC; Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or "Community-Right-To-Know"); California Accidental Release Prevention Program (Cal ARP); UST Program; and Uniform Fire Code Plans and Inventory Requirements.

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA. The Project site is located within San Bernardino County. The CUPA designated for San Bernardino County is the Hazardous Materials Division of the San Bernardino County Fire Department.

Department of Toxic Substance Control

As previously described in this section, DTSC is a department of CalEPA and is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. CGC Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and have had a discharge of hazardous wastes or materials into the water or groundwater and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

The DTSC publishes guidelines which are intended to regulate the presence of toxic materials while minimizing risks to sensitive human receptors. These publications and policies include the Toxicity Criteria Selection for Risk Assessments, Screening Levels, and Remediation Goals; Preliminary Endangerment Assessment Guidance Manual (PEA Guidance Manual); and Human Health Risk Assessment Note 3 – DTSC-Modified Screening Levels (DTSC-SLs). Adherence to the regulations within these guidelines ensures the continued protection of human receptors from potential hazards and risks.

California Office of Emergency Services

To protect the public health and safety and the environment, the California Office of Emergency Services (OES) is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters, public safety officers, and regulatory agencies. The information must be included in these institutions' business plans to prevent or mitigate the damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment.

These regulations are covered under Chapter 6.95 of the California Health and Safety Code Article 1 – Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2 – Hazardous Materials Management (Sections 25531 to 25543.3). CCR Title 19, Public Safety, Division 2, OES, Chapter 4 – Hazardous Material Release Reporting, Inventory, and Response Plans, Article 4 (Minimum Standards for Business Plans) establishes minimum statewide standards for Hazardous Materials Business Plans (HMBP). These plans shall include the following: (1) a hazardous material inventory in accordance with Sections 2652 to 2655; (2) emergency response plans and procedures in accordance with Section 2658; and (3) training program information in accordance with Section 2659. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state. Each business shall prepare a HMBP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following: 500 pounds of a solid substance, 55 gallons of a liquid, 200 cubic feet of compressed gas, a hazardous compressed gas in any amount, or hazardous waste in any quantity.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than Federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

In addition, Cal/OSHA regulates medical/infectious waste, including management of sharps, requirements for containers that hold or store medical/infectious waste, labeling of medical/infectious waste bags/containers, and employee training.

California Health and Safety Code

CalEPA has established rules governing the use of hazardous materials and the management of hazardous wastes. California HSC Section 25531, et seq. incorporate the requirement of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. HSC Section 25534 directs owners or operators storing, handling, or using regulated substances exceeding threshold planning quantities to develop and implement a Risk Management Plan. The Risk Management Plans are submitted to the administering agency and possibly U.S. EPA, depending upon the chemical and the amount, for review.

Hazardous Materials Transportation

Section 31303 of the California Vehicle Code and U.S. Department of Transportation regulate hazardous materials transport. The California Highway Patrol and Caltrans are the enforcement agencies. Cal OES provides emergency response services involving hazardous materials incidents.

Hazardous Materials in Structures: Asbestos-Containing Materials and Lead-Based Paint

Several regulations and guidelines pertain to abatement of and protection from exposure to asbestos-containing materials (ACM) and lead-based paint (LBP), including Construction Safety Orders Section 1529 (pertaining to ACM) and Section 1532.1 (pertaining to LBP) from Title 8 of the CCR, and Part 61, Subpart M, of the CFR (pertaining to ACM). In California, ACM and LBP abatement must be performed and monitored by contractors with appropriate certification from the California DHS. Asbestos is also regulated as a hazardous air pollutant under the Clean Air Act and a potential worker safety hazard under the authority of Cal/OSHA.

Requirements for limiting asbestos emissions from building demolition and renovation are specified in SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). CGC Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and ACMs.

Certified Unified Program Agency

A CUPA is an agency of a county or city that administers several state programs regulating hazardous materials and hazardous wastes. SBCFD is the CUPA for all unincorporated areas and incorporated cities and towns. SBCFD administers the following programs:

- Hazardous Materials Release Response Plans and Inventory Program
- California Accidental Release Prevention Program, a combination of federal and state programs for the prevention of accidental release of regulated toxic and flammable substances
- Underground Storage Tanks Program
- Aboveground Petroleum Storage Act Program
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs Program

Hazardous Materials Management Plan (HMMP) and Hazardous Material Inventory Statement (HMIS) in California Fire Code Program.

Regional

San Bernardino County Public Health Agencies

The County of San Bernardino DHS EHS Division has regulatory control over hazardous and solid waste, land use, wastewater.

Additionally, the Department of Public Works manages solid waste, transportation, and stormwater. This department also manages all construction and demolition activities.

The Hazardous Materials Division of the SBCFD is designated by the State Secretary for Environmental Protection as the Certified Unified Program Agency or "CUPA" for the County of San Bernardino in order to focus the management of specific environmental programs at the local government level. The CUPA is charged with the responsibility of conducting compliance inspections for over 7,000 regulated facilities in San Bernardino County. The SBCFD manages six hazardous material and hazardous waste programs. This includes hazardous waste management and above/underground storage tanks. The CUPA program is designed to consolidate, coordinate, and uniformly and consistently administer permits, inspection activities, and enforcement activities throughout San Bernardino County.[3]

San Bernardino County Emergency Operations Plan

The City of Fontana adheres to the County-wide San Bernardino Emergency Operations Plan (EOP), which provides a comprehensive, single source of guidance and procedures for the County to prepare for and respond to significant or catastrophic natural, environmental, or conflict-related risks that produce situations requiring coordinated response. The EOP describes the operations of the County's Emergency Operations Center, which is the central management entity responsible for directing and coordinating the various City departments and other agencies in their emergency response activities. The County's Emergency Operations Center centralizes the collection and dissemination of information about the emergency and makes policy-level decision about response priorities and the allocation of resources. As part of the City's Emergency Management Program, the County's Emergency Services Manager is responsible for ensuring the readiness of the EOP.[4]

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. The agency's primary responsibility is ensuring that state and federal ambient air quality standards are attained and maintained in the SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public

[3] San Bernardino County Fire Department. 2020. *About CUPA (Certified Unified Program Agency)*. https://sbcfire.org/hazmatcupa/ (accessed June 2022).
[4] County of San Bernardino. 2018. *Emergency Operations Plan (EOP) Part I - Basic Plan.* https://www.sbcounty.gov/uploads/SBCFire/documents/OES/2018_EOP_Update.pdf (accessed June 2022).

education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of applicable SCAQMD rules that are required of construction activities associated with the Project:

- **Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil) –** This rule requires that any person conducting excavation for underground storage tanks or transferring piping which currently stores, or previously stored VOCs shall operate under an approved mitigation plan, conduct consistent VOC monitoring, and provide notice to an Executive officer at least 24 hours prior to excavation activities. If VOC-contaminated soil is encountered, remediation tasks outlined in this rule are to be implemented by the person handling the VOC-encountered soil. This includes the segregation of contaminated soils, the use of vapor suppressants, consistent visual inspections, and proper storage and handling methods.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) –** This rule provides guidelines intended to limit and prevent the exposure asbestos to the outside air. Requirements within this rule include the completion of facility surveys, proper notification of SCAQMD, an established schedule of removal, accepted removal actions, storage and handling procedures, climate considerations, and additional regulations based on disposal facility and site characteristics. This rule also includes requirements for material handling training for those that would be in contact with contaminated soils and proper testing protocols.
- **Rule 1466 (Control of Particulate Emissions from Soils with Toxic Air Contaminants) –** This rule requires that any person performing earth-moving activities conduct consistent monitoring of PM_{10} particles, or particles which are generally 10 micrometers or smaller. This rule includes the installation of PM_{10} monitors, the use of a data acquisition system (DAS), and coordination with an Executive Officer. This rule has been expanded in January 2022 to include additional measures for the reduction of fugitive dust.

Local

Fontana General Plan 2015-2035

Noise and Safety Element

This Element[5] describes hazards that exist in Fontana and the measures that the City is taking to address them. Some naturally occurring hazards may be unavoidable, but their impacts on communities can be reduced through planning and preparation. Thus, the Noise and Safety Element addresses natural hazards and human activities that may pose a threat to public safety within the following topic areas: wildfires, geological and seismic hazards, flooding, hazardous materials, and noise, which are discussed in their respective chapters of this EIR. Specifically related to this chapter, the Noise and Safety Element discusses hazards and hazardous materials and the LHMP, discussed above. The General Plan expects that emergencies will occur even when precautions are taken against hazards, the Noise and Safety Element describes the City's goals and policies to prepare and respond to emergencies.

[5] City of Fontana. 2018. *Fontana Forward General Plan Update 2015-2035. Chapter 11 – Noise and Safety.* https://www.fontana.org/DocumentCenter/View/26750/Chapter-11---Noise-and-Safety (accessed June 2022).

Goal 4:	***Seismic injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, earthquake-induced landslides, and other earthquake-induced ground deformation are minimized in Fontana***
Policy 4.2:	The City shall continue to ensure that current geologic knowledge and peer (third party) review are incorporated into the design, planning, and construction stages of a project and that site-specific data are applied to each project.
Goal 7:	***Threats to public and private property from urban and wildland fire hazards are reduced in Fontana.***
Policy 7.1:	The City shall continue to require residential, commercial, and industrial structures to implement fire hazard-reducing designs and features.

City of Fontana Local Hazard Mitigation Plan

The City's Federal Emergency Management Agency (FEMA)-approved Local Hazard Mitigation Plan[6] (LHMP) provides natural hazard profiles which describe each hazard that is considered to pose a risk to the City; a risk assessment which measures the potential impact to life, property and economic impacts resulting from the identified hazards; a vulnerability assessment which includes an inventory of the numbers and types of buildings and their tabulated values that are subject to the identified hazards; and mitigation goals, objectives and actions relative to each hazard.

The City developed the LHMP in coordination with an internal/external planning team including representatives from City departments, external stakeholders/agencies, and the general public. As required by the Department of Homeland Security's Federal Emergency Management Agency, all LHMPs must be updated, adopted, and approved every five years in order to validate and incorporate new information into the plan and identify progress that has been made since the last approval of the plan. The City's current 2017 LHMP is an update to its previously adopted 2012 LHMP.

Fontana Municipal Code Chapter 11, Section 11.2

Any new development or improvement of real property within the limits of the City shall be subject to the imposition of fees for capital improvements necessary to provide fire protection services. Pursuant to Article VI of Chapter 21 of the Fontana Municipal Code (Fontana MC), the City may allow partial or complete satisfaction of the fee required by this section through execution of an agreement requiring construction of public improvements and/or dedication of property. The fee required under this section shall be due as provided for in Article V of Chapter 21 of the Fontana MC.

Fontana Municipal Code Chapter 30, Article IX – Overlay Districts, Division 8 – Fire Hazard Overlay District

The fire hazard overlay provisions apply to areas designated on the Fontana GP land use map. The fire hazard overlay district is created to provide greater public safety to City residents and structures in areas prone to wildfires, by establishing development standards for these areas. Projects within the overlay

[6] City of Fontana. 2017. City of Fontana Local Hazard Mitigation Plan. https://www.fontana.org/DocumentCenter/View/28274/2017-Local-Hazard-Mitigation-Plan. (accessed June 2022).

district, required a fuel modification zone plan to be prepared for each new tentative tract map, parcel map or design review application. The Project is located within the overlay.

4.9.4 Impact Thresholds and Significance Criteria

State CEQA Guidelines Appendix G contains the Environmental Checklist Form, which includes questions concerning hazards and hazardous materials. The questions presented in the Environmental Checklist Form have been utilized as significance criteria in this section. Accordingly, the Project would have a significant effect on the environment if it would:

- Create a significant hazard to the public or the environmental through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere within an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Methodology and Assumptions

The Project is evaluated against the aforementioned significance criteria in order to determine the level of impacts related to hazards and hazardous materials. This analysis also considers existing regulations, laws and standards that serve to avoid or reduce potential environmental impacts., as well as recommendations from existing site evaluations. Where significant impacts may remain, feasible mitigation measures are recommended, where warranted, to avoid or lessen the potential for significant adverse impacts to occur.

Approach to Analysis

This analysis of impacts on hazards and hazardous materials examines the Project's temporary (i.e., construction) and permanent (i.e., operational) effects based on application of the significance criteria/ thresholds outlined above. Each criterion is discussed in the context of the Project site and the surrounding characteristics/geography. The impact conclusions consider the potential for changes in environmental conditions, as well as compliance with the regulatory framework enacted to protect the environment.

The baseline conditions and impact analyses are based on, available information in public databases including local planning documents, a site evaluation of the Project site; review of Project maps and drawings; and analysis of aerial and ground-level photographs. The determination that a Project component would or would not result in "substantial" adverse effects on standards related to hazards and hazardous materials considers the available policies and regulations established by federal, state, regional, and local agencies, and the amount of deviation from these policies in the Project's components.

4.9.5 Impacts and Mitigation Measures

Impact 4.9-1 ***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Level of Significance: Less than Significant with Mitigation Incorporated

Construction and Operation

The Project propose the construction of a warehouse building on a site currently occupied with a series of industrial buildings, respectively, and associated infrastructure improvements. Construction activities would include demolition, grading, building, paving, architectural coating, landscaping, and any of the applicable off-site improvements conditioned by the City. During construction of the Project site, the transport, use, and disposal of hazardous materials on-site and off-site during would occur, which include fuels, paints, mechanical fluids, and solvents, but would not be present in such a quantity or used in such a manner that would pose a significant hazard to the public. In addition, should a spill or other hazardous materials incident occur, construction staff are well versed in how to handle such a situation, including containment and who to contact if such a situation occurs. Additionally, debris found during demolition would include commonly found structural components as well as potentially contaminated soils as well as other potentially hazardous material products and byproducts due to the Project site's history of industrial use. Although no export of soil is anticipated from the Project site, any disposal or transport of demolition materials and any graded soils from the Project site may increase the potential for the exposure of hazardous materials. Implementation of **Mitigation Measures (MMs) HAZ-1** and **HAZ-2** would ensure proper handling of contaminated soils and substances which may be encountered and implement assistance in the management of soil during planned future development due to the Project site's historical industrial use.

The operations of the proposed facility would be expected to use limited hazardous materials and substances which would be limited to cleaners, paints, solvents, and fertilizers and pesticides for site landscaping. The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the U.S. EPA, U.S. Department of Transportation, and the California Division of Occupational Safety and Health. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. These regulations ensure that hazardous materials/waste users, generators, and transporters provide operational safety and measures to reduce threats to public health and safety. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance

with applicable state and local regulations for the cleanup and disposal of that contaminant. All contaminated waste would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. The Project would also be operated with strict adherence to all emergency response plan requirements set forth by the City of Fontana Local Hazard Mitigation Plan (LHMP).[7] Furthermore, strict adherence to all emergency response plan requirements set forth by SBCFD would be required through the duration of the Project construction phase. Therefore, hazards to the public or the environment arising from the routine use of hazardous materials during Project construction and operations would be less than significant with mitigation incorporated.

Mitigation Measures

MM HAZ-1 If potentially contaminated soil is identified during site disturbance activities for the Project, as evidenced by discoloration, odor, detection by instruments, or other signs, a qualified environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the Site Developer or Lead Agency, as applicable, stating the recommended course of action. Depending on the nature and extent of contamination, the qualified environmental professional shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the qualified environmental professional, substantial remediation may be required, Site Developer or Lead Agency, as applicable, shall contact representatives of the San Bernardino County Fire Department and/or DTSC for guidance and oversight and shall comply with all performance standards and requirements of the respective agency for proper removal and disposal of contaminated materials.

MM HAZ-2 Prior to the issuance of a demolition permit for any buildings or structures on-site, if hazardous substances are used and/or stored greater than as specified by the applicable health and safety code, the Project applicant shall prepare and implement a Hazardous Materials Management Plan in accordance with all applicable standards set forth by the Hazardous Material Division of the San Bernardino County Fire Department, for facilities that store, handle, or use regulated substances as defined in the California Health and Safety Code Section 25532 in excess of threshold quantities, identifying and developing methods of protection from the hazards presented by the hazardous materials. This report shall also explain the proposed facility's intended methods of operation and list all of the proposed materials, their quantities, classifications, and the effects of any chemical (material) inter-mixing in the event of an accident or spill. This plan shall be prepared by a qualified person, firm, or corporation and submitted to Fontana Building & Safety and reviewed and approved by the San Bernardino County Fire Department through the Certified Unified Program Agencies (CUPA) process prior to implementation as required by the California Accidental Release Prevention (CalARP) Program.

[7] City of Fontana. Local Hazard Mitigation Plan. 2018. Retrieved from: https://www.fontana.org/DocumentCenter/View/28274/2017-Local-Hazard-Mitigation-Plan. (accessed August 2023).

Impact 4.9-2 ***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Level of Significance: Less than Significant with Mitigation Incorporated

Construction

The construction of the Project could result in hazards to the public or the environment through the accidental upset or release of hazardous materials caused by accidental spillage of hazardous materials used during construction phases, or as a result of the exposure of contaminated soil during grading activities. The Project site is not listed on an NPL or Superfund site, and there are no oil wells within 1,000 feet. No significant environmental concerns were noted on the historical aerial photographs. Database searches did not reveal any USTs.

The demolition of existing structures and removal of graded soil throughout the site could potentially release some of the hazardous materials historically found on the site. Although no current violations were noted, given the age of the on-site structures, there is a moderate likelihood that asbestos containing materials (ACM) are present in the building materials on the Project site. Therefore, in accordance with **MM HAZ-2**, prior to the issuance of a demolition permit for any buildings or structures on-site, a comprehensive ACM survey shall be conducted, reducing impacts to less than significant.

Likewise, no evidence of CREC or HRECs in connection with the Project site were found, however, poor housekeeping practices were noted to be implemented at the Davis Partners facility which constitutes it as an REC. There are no designated areas of hazardous substances storage at this Project site, no secondary containments were utilized, and unlabeled 55-gallon drums were identified on the western building. Additionally, due to the distance of the Mid-Valley Landfill to the Project site, there is potential for landfill gas to migrate towards the site, which could make the Mid-Valley Landfill an REC. Therefore, a Phase II Soil and Gas investigation was conducted to assess whether elevated concentrations of selected chemicals were present in soil in the vicinity of the chemical uses, and to assess whether elevated concentrations of VOCs and methane gas were present in soil vapor due to the off-site Mid-Valley landfill.

The Phase II investigation (***Appendix H***) included the collection of soil samples in the vicinity of chemical uses at the Davis Partners property. Laboratory results indicated no detectable concentrations of petroleum hydrocarbons, VOCs, and hexavalent chromium, and no detectable to low concentrations of Title 22 metals, well below the state and/or federal screening levels for human health, and background concentrations of arsenic. Moreover, laboratory results of VOCs in soil gas indicated low concentrations, well below the state and federal modified screening levels. Methane was detected below the lower explosive limit, indicating a low likelihood of an explosive condition.

Based on these results, there is a low likelihood that elevated concentrations of selected chemicals are present in soil in the vicinity of the chemical uses. However, due to proximity of the Mid-Valley Sanitary Landfill, there is still potential for methane gas exposure, therefore, **MM HAZ-3** would be implemented, which would require the Project to be designed and constructed in accordance with 27 CCR Section 21190(g), which will prevent gas migration into the building.

Despite the limited potential for the exposure of the public and environment to hazardous materials, with implementation of **MM HAZ-2** and **MM HAZ-3**, and compliance with all applicable federal, state, and local regulations, the impact would be reduced to less than significant levels with mitigation incorporated.

Operations

Project operations would not involve the routine transport, use, and storage of materials/chemicals typical of industrial facilities. Use of these materials could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, as discussed in Impact 4.9-1 above, the routine transport, use, and disposal of these materials during Project operations must adhere to federal, state, and local regulations for transport, handling, storage, and disposal of hazardous substances. The Project would also be subject to compliance with the regulatory framework which would ensure that Project operations would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. A less than significant impact would occur in this regard.

Mitigation Measures

MM HAZ-3 Prior to the issuance of a demolition permit for any buildings or structures on-site, the Master Developer or Site Developer, as applicable, shall conduct a comprehensive asbestos containing materials (ACM) survey to identify the locations and quantities of ACM in above-ground structures. The Master Developer or Site Developer, as applicable, shall retain a licensed or certified asbestos consultant to inspect buildings and structures on-site. The consultant's report shall include requirements for abatement, containment, and disposal of ACM, if encountered, in accordance with South Coast Air Quality Management District (SCAQMD's) Rule 1403.

MM HAZ-4 All developments within 1,000 feet of the Mid-Valley Sanitary Landfill, shall be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building as per 27 CCR Section 21190(g):

1. a geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;
2. a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;
3. a geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;
4. perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;
5. the venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;

6. automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and
7. periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (Section 20920 et seq.).

Impact 4.9-3 ***Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Level of Significance: Less than Significant

Construction and Operations

Construction of the Project would involve the transport, use, and disposal of hazardous materials on-site and off-site, which include fuels, paints, mechanical fluids, and solvents, but would not be present in such a quantity or used in such a manner that would pose a significant hazard to nearby schools. As stated previously, the nearest schools to the Project site are Sierra Lakes Elementary School, located approximately one mile west of the Project site; Wayne Ruble Middle School, located approximately 1.1 miles south of the Project site; and AB Miller High School, located approximately 1.2 miles southwest of the Project site. None of these schools are located along the officially designated local truck route, Sierra Avenue, located adjacent to the Project site. Note, however, that Project-related truck traffic would be prohibited from using Sierra Avenue. This would fall outside of the 0.25-mile requirement of this threshold. Notwithstanding, the routine transport, use, and disposal of hazardous materials must adhere to federal, state, and local regulations for transport, handling, storage, and disposal of hazardous substances. Compliance with the regulatory framework would ensure Project construction would not create a significant hazard to nearby schools due to the transport of any hazardous materials on local roadways. Therefore, a less than significant impact would occur.

Mitigation Measures

No mitigation is necessary.

Impact 4.9-4 ***Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Level of Significance: Less than Significant

Construction and Operations

The Project site is not included on the hazardous sites list compiled pursuant to California Government Code Section 65962.5 (Cortese List).[8] The Project site is not included on the hazardous sites list compiled

[8] California, State of, Department of Toxic Substances Control, DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). https://dtsc.ca.gov/dtscs-cortese-list/. (accessed June 2022).

pursuant to California Government Code Section 65962.5. The Phase I ESA indicated that there were no RECs identified in association with the Project site. Therefore, the impact would be less than significant.

Mitigation Measures

No mitigation is necessary.

Impact 4.9-5 ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

Level of Significance: No Impact

Construction and Operations

The Project site is not within proximity to, or within two miles of a public or private use airport. The nearest airstrips are the Ontario International Airport (located roughly 11 miles to the southwest) and the San Bernardino International Airport (located roughly 11 miles to the southeast). There are no associated safety hazards or noise issues. No impact would occur.

Mitigation Measures

No mitigation is necessary.

Impact 4.9-6 ***Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Level of Significance: Less than Significant

Construction and Operations

When construction occurs on the Project site, with the exception of worker vehicle trips and transportation of construction materials, the majority of the proposed work would occur within the boundaries of the site and would not impede access to nearby roadways. There would be required off-site improvements as part of the Project. However, all off-site improvements to be constructed will require a Traffic Control Plan be processed for approval by the City to ensure adequate roadway circulation can be maintained during off-site construction. The City does not designate any roads as emergency evacuation routes and any future construction activities on the site would not affect any evacuation route and would not interfere with the City's emergency management program. As discussed, construction activities may require the transport of heavy equipment and materials to and from the site. These activities may temporarily impede traffic flows; however, these impediments would be localized and short-term in nature. Impacts in this regard would be less than significant.

The County has adopted an EOP to identify evacuation routes, emergency facilities, and City personnel and equipment available to effectively deal with emergency situations. No revisions to the adopted EOP would be required as a result of construction on the Project site. The nearest fire station is the San Bernardino County Fire Station 78 (located at 7110 Citrus Avenue, Fontana, CA 92336), located

approximately 1.8 miles south of the Project site. Should a response from the station or other fire station to the site or other nearby uses be required, response times would not be impacted because primary access to all major roads would be maintained during demolition and construction.

Furthermore, design of any needed roadway improvements and subsequent construction would comply with the applicable federal, state, and local requirements related to emergency access and evacuation plans. The proposed design and construction plans for any future construction and roadway improvements would be reviewed and approved by the City engineering department and fire marshal (if needed) during the plan review and prior to project approval.

Neither construction or operations of the Project site would disrupt or interfere with emergency access or impede access to nearby roadways or would interfere with the City's emergency management program. The Project would comply with design standards for emergency services and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant in this regard and mitigation is not required.

Mitigation Measures

No mitigation is necessary.

Impact 4.9-7 Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Level of Significance: Less than Significant

Construction and Operations

The City is categorized as an LRA by CAL FIRE. Also, according to CAL FIRE, the Project site is designated as a Non-VHFHSZ.[9] However, according to the City's Local Hazard Mitigation Plan, the Project site is within a High FHSZ within the City. The Project site is located within the City limits and is surrounded by developed land. Although the Project site is not located in a VHFHSZ, the City, in conjunction with the SBCFD reviews all building plans for compliance with the California Building Code, state and local statutes, ordinances, and regulations relating to the prevention of fire, the storage of hazardous materials, and the protection of life and property against fire, explosion, and exposure to hazardous materials. Adherence to regulations already in place through the development application and review process at the City would reduce the potential impacts associated with fire hazards as a result of wildland fires to less than significant.

In addition, as noted above, the Fontana MC has a fire hazard overlay district provision for areas designated on the Fontana GP land use map. Projects within the overlay district must prepare a fuel modification zone plan for each new tentative tract map, parcel map, or design review application. Therefore, in conformance with the Fontana MC, a fuel modification zone plan has been prepared for the Project. The fuel modification zone plan for the Project establishes fuel zones in conformance with Section 30-658 of the Fontana MC that includes permanent fuel modification zones, access requirements and

[9] CAL FIRE. 2008. Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE – Fontana. https://osfm.fire.ca.gov/media/5943/fontana.pdf (accessed June 2022).

protection measures. The Project's fuel modification zone plan protects the site from wildfire exposure and reduces exposure to the City of Fontana residents, people, and structures from wildfires.

Mitigation Measures

No mitigation is necessary.

4.9.6 Cumulative Impacts

For purposes of hazardous materials impact analysis, cumulative impacts are considered for cumulative development in the vicinity of the Project site.

Impacts associated with hazardous materials are often site-specific and localized. This EIR evaluates environmental hazards in connection with the Project site and surrounding areas. Regarding the off-site environmental hazards, the database search documents the findings of various governmental database searches regarding properties with known or suspected releases of hazardous materials within a search radius of up to one mile from the site and serves as the basis for defining the cumulative impacts study area.

Cumulative impacts related to hazards and hazardous materials would result from projects that combine to increase exposure to hazards and hazardous materials. The potential for cumulative impacts to occur is limited since the impacts from hazardous materials use on-site are site-specific. Although some of the cumulative projects and other future projects associated with buildout of the surrounding communities also have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are typically site-specific. It is expected that future development within the area must comply with all federal, state, and local statutes and regulations applicable to hazardous materials.

Each project is required to address any issues related to hazardous materials or wastes on a project-specific basis. With adherence to applicable federal, state, and local regulations governing hazardous materials, the potential risks associated with hazardous materials would be less than significant. The incremental effects of the Project in relation to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific.

Therefore, considering the above, Project impacts would be mitigated to less than significant levels, and the Project's contribution to cumulative impacts is not otherwise considered to be "cumulatively considerable."

4.9.7 Significant Unavoidable Impacts

No significant unavoidable impacts were identified.

4.9.8 References

CAL FIRE. 2008. *Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE – Fontana*. https://osfm.fire.ca.gov/media/5943/fontana.pdf.

California, State of, Department of Toxic Substances Control. 2022. *DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)*. https://dtsc.ca.gov/dtscs-cortese-list/.

City of Fontana. 2017. *City of Fontana Local Hazard Mitigation Plan*. https://www.fontana.org/DocumentCenter/View/28274/2017-Local-Hazard-Mitigation-Plan.

City of Fontana. 2018. *Fontana Forward General Plan Update 2015-2035. Chapter 11 – Noise and Safety*. https://www.fontana.org/DocumentCenter/View/26750/Chapter-11---Noise-and-Safety.

County of San Bernardino. 2018. *Emergency Operations Plan (EOP) Part I - Basic Plan*. https://www.sbcounty.gov/uploads/SBCFire/documents/OES/2018_EOP_Update.pdf.

San Bernardino County Fire Department. 2020. *About CUPA (Certified Unified Program Agency* https://sbcfire.org/hazmatcupa/.

Hazard Management Consulting. 2020. Re*sults of a Soil and Soil Gas Investigation, 17010 and 17051 Windflower Avenue, Fontana, California*.

Hazard Management Consulting. 2021. *Phase I Environmental Site Assessment*.

This page intentionally left blank.

APPENDIX 'H'
SB County Letter Gas Migration - Mitigation Measures

385 N. Arrowhead Ave, 2nd Floor, San Bernardino, CA 92415 | Phone: 800.442.2283 Fax: 909.387.4323

www.SBCounty.gov

SAN BERNARDINO COUNTY

Public Health
Environmental Health Services

Joshua Dugas, MBA, REHS
Director

Jennifer Osorio, REHS
Assistant Director

Janki Patel, MPH
Assistant Director

Michael A. Sequeira, M.D.
Health Officer

May 3, 2023

Irene Romero
City of Fontana
8353 Sierra Avenue
Fontana, CA 92335
Email: iromero@fontana.org

SUBJECT: NOTICE OF PREPARATION OF A DRAFT EIR FOR THE SIERRA DISTRIBUTION FACILITY PROJECT

Dear Ms. Romero,

Thank you for allowing the San Bernardino County Local Enforcement Agency (LEA) staff to provide comments on this proposed project and for the City of Fontana's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

The Project includes the development of a 398,514-square foot warehouse building on an approximately 18.3-net acre site, with associated facilities and improvements that include approximately 10,000 square feet of office space, vehicle parking, loading dock doors, trailer parking, onsite landscaping, and related onsite and off-site improvements. Project site is composed of the following six parcels:

1. 1119-241-10
2. 1119-241-13
3. 1119-241-18
4. 1119-241-25
5. 1119-241-26
6. 1119-241-27

The Project location is less than 1000 ft from an active solid waste facility, Mid-Valley Sanitary Landfill (SWIS# 36-AA-0055). Landfills actively produce methane gas as a byproduct of waste decomposition. Routine gas monitoring of wells are conducted at the landfill by San Bernardino County Solid Waste Management and LEA. Due to the Projects close proximity to the landfill, the LEA recommends all developments within 1000 ft including Sierra Distribution Facility to be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building as per 27 California CR § 21190(g):

1. a geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;
2. a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;
3. a geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;

4. perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;
5. the venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;
6. automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and
7. periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (§ 20920 et seq.).

The LEA staff thanks the Lead Agency for the opportunity to review and comment on this environmental document and hopes that this comment letter will be useful to the Lead Agency in carrying out their responsibilities in the CEQA process. The LEA requests copies of any subsequent environmental documents, public notices, and any Notices of Determination for this project.

If you have any questions regarding these comments, please contact me at 800-442-2283 or Sarah.Cunningham@dph.sbcounty.gov.

Sincerely,

Sarah Cunningham REHS II
Environmental Health Services/LEA

CC:
Kimberly Tra, LEA Kimberly.Tra@dph.sbcounty.gov;
Rodney Tolosa, LEA Rodney.Tolosa@dph.sbcounty.gov;
Megan Emslander – CalRecycle Megan.Emslander@calrecycle.ca.gov