FIRE PROTECTION PLAN Final

Temescal Commercial TTM38895 23835 Temescal Canyon Road, Riverside County, CA APN's 283-180-002,020,021

County of Riverside, California



19 December 2023; Revised to Comments 6 Aug 2024 Revised to Landscape Comments 24 Aug 2024

Prepared For:

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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 State Responsibility Area (SRA) and is currently mapped as Very High.

The purpose of this Government Code chapter is to classify lands in accordance with whether a very high fire hazard severity 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 in 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.

Sec 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 <u>Section 4903.2.1</u>.

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

FIRE PROTECTION PLAN Temescal Commercial TTM38895 County of Riverside, California

1.0 GENERAL DESCRIPTION

Project Description. The project applicant proposes to construct a commercial Light Industrial/Office facility consisting of 188,000 square feet on 10.8 net acres, and a rough graded pad for 3 future retail buildings. The Light Industrial structure construction type will be type IIIB. Access to the project site will be made from Temescal Canyon Road and future Ben Garrett Dr along the south PL. The site parcels are zoned C-P-S (Scenic Hwy Commercial). Figure 1



Project Location: The property is within Riverside County at 23835 Temescal Canyon Road. Figure 2



The proposed development is within SRA and is within a Very High Fire Severity Zone.

Figure 3 provides an overview of Hazard Classification that surrounds the future project.



Figure 4 provides a view of the topographic relief of the site, which is mostly flat with hilly topography to the north of the site.



Refer to the APPENDIX 'F' 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 Riverside County Fire Department (RVCFD). The approved FPP shall be recorded against all buildable lots. 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: MISSION CLAY PRODUCT. LLC. C/O AXXCESS REALTY ADVISORS LLC 4350 VON KARMAN, SUITE 200 NEWPORT BEACH, CA 92660

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

Approving Departments: County of Riverside Fire Authority/Fire Construction Permits Riverside County Fire Department (RVCFD) Water Distribution System: Temescal Valley Water District

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, Ordinance 695 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

The Project site itself is generally flat with an increase in elevation to the north, a steeper slope area exists outside the development area to the northwest of the project site. The southern area south of what will be Public Street A is generally flat sloping away somewhat, its current condition at time of site visit had been mowed. The current structures on the Project site will be demolished, followed by grading for the new structures no vegetation

will remain. The area north will eventually be developed, it currently supports either non-native grassland or disturbed Riversidean sage, scrub habitat (disturbed RSS), and the site generally drains towards the south.



The site is bordered by development to the west end, northwest and southwest corners. Figure 5 Risks from offsite fires

Various slope areas have been affected by years of drought, with areas of increased dead fuel loading. Also effecting fuel loading is the local Mediterranean climate, where warm wet winters promote abundant new growth, and long, hot, and very dry summer seasons frequently occur. Occasionally, multi-year droughts cause significant parts of these plants to die back.

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

For Fire Behavior planning purposes model, SH2 Moderate load, dry climate shrub (S) (142) and model GR4 Moderate load, dry climate grass (104) These models were selected based on the site survey.









2.2 Climate

The climate within the project area would be characterized as Mediterranean. It has generally mild and wet (14 to 16 inches 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.

This area is subject to the Elsinore Effect as a result, the northwest winds in the northern portion of the Inland Empire converge (meet) with the southwest winds from the south part of the Inland Empire. The usual meeting place where these winds converge is a line near Lake Elsinore that extends east across Sun City and Perris and on to the San Jacinto Valley. The winds can come together a bit further north or south on any given day. This meeting of winds is called the Elsinore Convergence Zone. Wind gusts may reach 50 mph down slope from higher elevations.



General weather history snapshot from <u>https://weatherspark.com/h/y/1835/1999/Historical-Weather-</u> <u>during-1999-in-Corona-California</u>

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

All residential structures in the area are threatened by wind-blown embers. The use of 'ignition resistant construction' will generally mitigate against a windblown ember threat (see Appendix D and E for a discussion of these features).

The goal of this FPP is to prevent the loss of lives, buildings, and personal property when wildfires occur. The challenge is using a 'best practices' approach to construction and vegetation management, within a fully functioning mixed chaparral habitat. This goal is carried out by requiring the home to be built with ignition resistant materials and properly designed and maintained vegetation management treatments that safely mitigate the fire fuel 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. *FIREWISE* 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 2.4.1 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).

| Fire Deliavior Modeling inputs | | | | | | | | | | |
|---|-------------------------------|----------------------------------|--|--|--|--|--|--|--|--|
| | | Peak Weather (offshore/Santa Ana | | | | | | | | |
| Variable | Summer Weather (Onshore Flow) | Condition) | | | | | | | | |
| 1h Moisture | 3% | 2% | | | | | | | | |
| 10h Moisture | 5% | 3% | | | | | | | | |
| 100h Moisture | 7% | 5% | | | | | | | | |
| Live Herbaceous Moisture | 50% | 30% | | | | | | | | |
| Live Woody Moisture | 60% | 60% | | | | | | | | |
| 20-foot Wind Speed (upslope/downslope) | 0, 15, 30, 45 mph | 0, 65 mph | | | | | | | | |
| Wind Adjustment Factor | 0.5 | 0.5 | | | | | | | | |
| Slope Steepness | Flat up to PL | Flat up to PL | | | | | | | | |

Table 2.4.1 Fire Behavior Modeling Inputs



Fuel Models were selected from project site observations of those areas within 200ft of proposed boundary, scenarios depict slope, aspect, and wind direction.

Scenario 1 Fire to the north pushed towards the boundary. SH2 High load dry climate shrub (S) (142) 15%; GR4 Moderate load, dry climate grass (104) 85% Flame Lengths for no wind included in outputs as a topographically driven fire at 6.5 feet.

Modified 6Aug24 The east end of the off site area modeled at 38ft flame lengths, this change resulted from comments made on 15Jul24, it more accurately depicts the off site area fire behaviour.



Scenario 2 Fire burning south of what will become Public Road A, modeled as GR4 Moderate load, dry climate grass (104). Property had been disced grassland. Flame Lengths for no wind included in outputs as a topographically driven fire. Wind values for 15 and 30mph included.



Scenario 3 Fire burning west of the project site, bushing down slope Elsinore Effect. GR4 Moderate load, dry climate grass (104). Flame Lengths for no wind included in outputs as a topographically driven fire. Wind values for 0, 30 and 50mph included.



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 provides detailed requirements providing ignition resistant exterior building materials that will be used in the construction of those structures located on the project site, APPENDIX 'E' 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 home and its immediate surroundings the home 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. Since the requirement in this FPP is for a non-combustible wall or 1-hour fire resistive construction for the exterior portion of a structure, the home's exterior reaching ignition temperature is very unlikely due to either radiant or convective heat.

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) and a thinning zone (low fuel volume buffer strip) between the irrigated zone and the untreated fuels.

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 Tollerant/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 Riverside County Fire Department (RVCFD) has adequate emergency response equipment to protect Temescal Commercial. Station 64 at 25310 Cambell Rd would be the closest resource. A second County Fire Resource is located at 20320 Temescal Canyon Rd; however, it is 8 minutes out. USFS Temescal Fire Station south of site it is a dedicated wildland fire station.

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 *FIREWISE* 2000, LLC. planned projects use '<u>defensible space</u>', ignition resistant building features, and key fuel treatment strategies that enable residents 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 residents 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.

<u>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.</u>

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.

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 <u>Section 4903.2.1.1</u> 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 Ember Resistant Zone - <u>OWNER MAINTAINED</u>- 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, and requires the most stringent wildfire fuel reduction. This area shall be kept clear of combustibles, landscaping mulch, and any large shrubs and trees. 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 – <u>OWNER MAINTAINED</u> - identified as on Fuel Treatment Zone Exhibit. An area starting at the termination of Zone 0 (5ft) and extending to 30 feet.

the

Defined: <u>Required Landscaping</u>.

- 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, and similar noncombustible features are encouraged to break up fuel continuity within Zone 1.
- Organic mulch is required by Riverside County.
- 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:
 - 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.
 - 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.

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 insure proper working order.
- Any dead or dying plant material shall be remove 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 <u>Vegetation Management Zone 2 Irrigated</u>. – <u>OWNER MAINTAINED</u> - 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: <u>Required Landscaping</u>.

- 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 noncombustible 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.
- Organic mulch is required in Riverside County.
- Shrubs should be selected from species that are known to be fire resistive. The project Landscape Architect will have various species that qualify.
 - <u>Shrubs</u> shall be single specimens or groupings; configuration of design shall be in a mosaic. It is important that all groupings be spaced to insure that the plantings do not reach full continuity. Species selected shall not exceed 60 inches at maturity.
 - <u>Trees</u> shall be single specimens or groupings of not more than three trees selected from the approved plant list.
 - <u>Ground cover under tree canopy</u>. 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. 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 as required by this FPP or other standards as applicable.
- Sprinkler systems shall be checked monthly to insure proper working order.
- Any dead or dying plant material shall be remove 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

Plant Spacing

Proper spacing between grass, shrubs, and trees is key in slowing wildfire spread. This spacing varies based on vegetation type, size, and land slope – larger plants on steeper slopes require more space than smaller vegetation on flat areas.

Vertical spacing



- Trim tree branches up to at least 6 feet from the ground.
- Increase vertical space between shrubs and trees to prevent fire from climbing.
- Use a formula for vertical spacing: Multiply shrub height by 3 for clearance.

For example: A 5-foot shrub near a tree needs 15 feet of clearance to the tree's lowest branch.

For example: A 5-foot shrub near a tree needs 15 feet of clearance to the tree's lowest branch.

Horizontal spacing

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. Check the chart below to determine spacing distance.

5.5 Mitigation Measures

Portions of the Temescal Commercial Site because of design is not able to attain a full 100 feet of defensible space/fuel treatment. Those areas are identified as follows.



Figure 12 provides distances to the structure envelope of 79ft2in.

Provide a 3-hour rated wall at the north elevation where the structure is less than 100' from PL similarly as done for the unlimited 40' reduction sect 507.2.1 with 3-hour walls, doors, and panel caulking and a 30" min. parapet at the roof.

507.2.1 Reduced open space.

The public ways or yards of 60 feet (18 288 mm) in width required in Sections 507.3, 507.4, 507.5, 507.6 and 507.12 shall be permitted to be reduced to not less than 40 feet (12 192 mm) in width, provided that the following requirements are met:

- 1. The reduced width shall not be allowed for more than 75 percent of the perimeter of the building.
- 2. The exterior walls facing the reduced width shall have a fire-resistance rating of not less than 3 hours.
- Openings in the exterior walls facing the reduced width shall have opening protectives with a fire protection rating of not less than 3 hours.

The reduced fuel treatment area will not endanger the structure with the addition of the barrier on the PL

- Northwest structure articulation 3hr rated assembly facing open space.
- Northeast structure articulation vegataion well below grade, retaining wall pror to open space.

• All of those elements were found in CBC 7A and CRC 337 for very high fire severity zone construction. See Appendix 'E' for specific list of required construction features for very high fire areas.

5.6 Construction Standards

All structures within the development site shall meet all wildland/interface standards to the satisfaction of RVCFD. 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 Riverside.

For a description of the current construction requirements as of the date of this report (see APPENDIX 'E').

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 RVCFD. Prior to the delivery of combustible building construction materials to the project site the following conditions shall be completed to the satisfaction of RVCFD:

- 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 HFA shall not be used without written approval of RVCFD. 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 **Temescal Valley Water District**. Fire flow requirements shall be provided by Riverside County Fire.

Structures shall require an NFPA 13 Commercial Sprinkler system, engineered to the satisfaction of RVCFD. 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 RVCFD, and shall be a paved all weather surface capable of supporting loads of 80,000 lbs gross vehicle weight. A vertical roadway clearance of 13ft 7in is required for all access roads.

Access to all portions of the building must be within 150 feet of the available fire department access. Fire Master Plan see Appendix G.

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

Any gates to be installed shall meet RVCFD Technical Policy Guideline OFM-01A Fire Department Access for Commercial & Residential Development and shall be approved by RVCFD 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

<u>Notice to Owner and Subsequent Owners items in this report pertaining to references to construction</u> <u>shall be adhered to when future improvements are considered. Especially with changes to design</u>



features that may impact combustibility.

7.1 Property Owners Education

ADDENIDICEO

The Owner, by reviewing this Fire Protection Plan, shall be aware of the herein described fire protection measures; the types of non-combustible construction; and the plant materials that has been designed into their property. Of importance are the following APPENDICES which are considered a part of the plan. The Appendices address specific areas more in depth than what is available within the Plan.

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

https://www.paperturn-view.com/cal-fire-communications/cal-fire-ready-set-go-brochure-final-files-v4-print?pid=MjU252417&v=2%3F

7.2 APPENDIX 'E' provides details of enhanced construction features required for structures 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' |
| Non-combustible & Fire-Resistant Building Materials | APPENDIX 'D' |
| Ignition Resistant Construction Requirements | APPENDIX 'E' |
| Fuel Treatment Exhibit | APPENDIX 'F' |
| | |

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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

APPENDIX 'B'

Prohibited (& Fire Prone) Plant Species List For Fuel Modification Zones in High & Very High Hazard Areas

| | Botanical Name | Common Name | Plant Form | | | | | | |
|---|-------------------------|----------------------|--------------|--|--|--|--|--|--|
| 1. | Acacia species • | Acacia | Shrub/Tree | | | | | | |
| 2. | Adenostema fasciculatum | Chamise | Shrub | | | | | | |
| 3. | Adenostema sparsifolium | Red Shank | Shrub/Tree | | | | | | |
| 4. | Artemisia californica | California Sagebrush | Shrub | | | | | | |
| 5. | Anthemis cotula | Mayweed | Weed | | | | | | |
| 6. | Arundo donax | Giant reed | Grass/weed | | | | | | |
| 7. | Brassica nigra | Black Mustard | Weed | | | | | | |
| 8. | Brassica ropa | Yellow Mustard | Weed | | | | | | |
| 9. | Cedrus species | Cedar | Tree | | | | | | |
| 10. | Cirsim vulgare | Wild Artichoke | Weed | | | | | | |
| 11. | Conyza canadensis | Horseweed | Weed | | | | | | |
| 12. | Cortaderia selloana | Pampas Grass | Tall Grass | | | | | | |
| 13. | Cupressus species | Cypress | Tree | | | | | | |
| 14. | Eriogonum fasciculatum | Common Buckwheat | Shrub | | | | | | |
| 15. | Eucalyptus species | Eucalyptus | Shrub/Tree | | | | | | |
| 16. | Heterotheca grandiflora | Telegraph plant | Weed/shrub | | | | | | |
| 17. | Juniperus species | Junipers | Succulent | | | | | | |
| 18. | Lactuca serriola | Prickly lettuce | Weed | | | | | | |
| 19. | Nicotiana bigelevil | Indian tobacco | Shrub | | | | | | |
| 20. | Nicotiana glauca | Tree tobacco | Shrub | | | | | | |
| 21. | Pennisetum species | Fountain Grass | Ground cover | | | | | | |
| 22. | Pinus's species | Pines | Tree | | | | | | |
| 23. | Rosmarinus species | Rosemary | Shrub | | | | | | |
| 24. | Salvia species • • | Sage | Shrub | | | | | | |
| 25. | Silybum marianum | Milk thistle | Weed | | | | | | |
| 26. | Urtica urens | Burning nettle | Weed | | | | | | |
| Except: Acacia redolens desert carpet (Desert Carpet ground cover) Except: | | | | | | | | | |

Salvia columbariae (chia) Salvia sonomensis (Creeping Sage) Additionally, all the following plants shall be removed from fuel treatment zones to not only reduce fuel loading but also eliminate invasive plants that are identified in the Multiple Species Habitat Conservation Plan for Riverside County (MSHCP).

TABLE 6-2PLANTS THAT SHOULD BE AVOIDEDADJACENT TO THE MSHCP CONSERVATION AREA

| BOTANICAL NAME | COMMON NAME |
|--|---|
| Acacia spp. (all species) | acacia |
| Achillea millefolium | var. <i>millefolium</i> common yarrow |
| Ailanthus altissima | tree of heaven |
| Aptenia cordifolia | red apple |
| Arctotheca calendula | OPe weed |
| Arctotis spp. (all species & hybrids) | African daisy |
| Arundo donax | giant reed or arundo grass |
| Asphodelus fistulosus | asphodel |
| Atriplex glauca | white saltbush |
| Atriplex semibaccata | Australian saltbush |
| Carex spp. (all species*) | sedge |
| Carpobrotus chilensis | ice plant |
| Carpobrotus edulis | sea fig |
| Centranthus ruber | red valerian |
| Chrysanthemum coronarium | annual chrysanthemum |
| Cistus ladanifer | (incl. hybrids/varieties) gum rockrose |
| Cortaderia jubata [syn.C. Atacamensis] | jubata grass, pampas grass |
| Cortaderia dioica [syn. C. sellowana] | pampas grass |
| Cotoneaster spp. (all species) | cotoneaster |
| Cynodon dactylon | (incl. hybrids varieties) Bermuda grass |
| <i>Cyperus</i> spp. (all species*) | nutsedge, umbrella plant |
| <i>Cytisus</i> spp. (all species) | broom |
| Delosperma 'Alba' | white trailing ice plant |
| Dimorphotheca spp. (all species) | African daisy, OPe marigold |
| Drosanthemum floribundum | rosea ice plant |
| Drosanthemum hispidum | purple ice plant |
| Eichhornia crassipes | water hyacinth |

| Elaegnus angustifolia | Russian olive |
|--|---|
| <i>Eucalyptus</i> spp. (all species) | eucalyptus or gum tree |
| <i>Eupatorium coelestinum</i> [syn. Ageratina sp.] | mist flower |
| Festuca arundinacea | tall fescue |
| Festuca rubra | creeping red fescue |
| Foeniculum vulgare | sweet fennel |
| Fraxinus uhdei | (And cultivars) evergreen ash, shamel ash |
| Gaura (spp.) (all species) | gaura |
| Gazania spp. (all species & hybrids) | gazania |
| Genista spp. (all species) | broom |
| Hedera canariensis | Algerian ivy |
| Hedera helix | English ivy |
| Hypericum spp. (all species) | St. John's Wort |
| Ipomoea acuminata | Mexican morning glory |
| Lampranthus spectabilis | trailing ice plant |
| Lantana camara | common garden lantana |
| Lantana montevidensis [syn. L. sellowiana] | lantana |
| Limonium perezii | sea lavender |
| Linaria bipartita | toadflax |
| Lolium multiflorum | Italian ryegrass |
| Lolium perenne | perennial ryegrass |
| Lonicera japonica | (incl. 'Halliana') Japanese honeysuckle |
| Lotus corniculatus | birdsfoot trefoil |
| Lupinus arboreus | yellow bush lupine |
| Lupinus texanus | Texas blue bonnets |
| Malephora crocea | ice plant |
| Malephora luteola | ice plant |
| Mesembryanthemum nodiflorum | little ice plant |
| Myoporum laetum | myoporum |
| Myoporum pacificum | shiny myoproum |
| Myoporum parvifolium | (incl. 'Prostratum') ground cover myoporum |
| Oenothera berlandieri | Mexican evening primrose |
| | |

| European olive tree |
|---|
| Indian fig |
| trailing African daisy, African daisy, |
| Bermuda buttercup |
| Mexican palo verde |
| Kikuyu grass |
| fountain grass |
| Canary Island date palm |
| date palm |
| OPe plumbago |
| knotweed |
| ' Lombardy poplar |
| mesquite |
| castorbean |
| black locust |
| Himalayan blackberry |
| Chinese tallow tree |
| bouncing bet, soapwart |
| Peruvian pepper tree, California pepper |
| Brazilian pepper tree |
| Spanish broom |
| tamarisk, salt cedar |
| strawberry clover |
| garden nasturtium |
| prickly broom |
| periwinkle |
| Spanish dagger |
| |

An asterisk (*) indicates some native species of the genera exist that may be appropriate.

Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division

of Plant Health and Pest Prevention Services, California Native Plant Society, Fremontia Vol. 26 No. 4, October 1998, The Jepson Manual; Higher Plants of California, and County of San Diago Department of Agriculture

and County of San Diego-Department of Agriculture.

APPENDIX 'C' REFERENCE MATERIAL

Literature References

- <u>Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model</u>, 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.
- <u>BEHAVEPlus: Fire Modeling System, version 6 build 626: Variables.</u> (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.
- <u>BEHAVEPlus Fire Modeling System, Version 5.0.0</u> 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.
- 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
- 13. Riverside County Ordinances 787 and 460.

APPENDIX 'D'

Non-combustible & Ignition Resistant Building Materials

Non-Combustible & Ignition Resistant Building Materials For Balconies, Carports, Decks, Patio Covers and Floors

Examples of non-combustible & fire-resistant building materials for balconies, carports decks, patio covers, and floors are as follow:

I. NON-COMBUSTIBLE HEAVY GAGE ALUMINUM MATERIALS - <u>Metals USA Building Products</u> <u>Group - Ultra-Lattice</u>



Ultra-Lattice Stand Alone Patio Cover



Ultra-Lattice Attached Patio Cover



Ultra-Lattice Solid Patio Cover



Ultra-Lattice Vs. Wood

II. FRX Exterior Fire-Retardant Treated Wood

Exterior Fire Retardant Treated (FRT) Wood

FRX[®] fire retardant treated wood may be used in exterior applications permitted by the codes where: public safety is critical, other materials would transfer heat or allow fires to spread, sprinkler systems cannot easily be installed, corrosive atmospheres necessitate excessive maintenance of other materials, or fire protection is inadequate or not readily available. The International Building, Residential and Urban-Wildland Interface Codes and regulations permit the use of fire-retardant treated wood in specific instances. See below for typical exterior uses and typical residential uses.

Typical Exterior Uses

- Balconies
- Decks



Homeowners and Residential Architects: See this 2-minute video and the diagram below. For information on fire retardant treated wood for exterior uses, visit www.frxwood.com.

III. TREX COMPANY, INC –"Trex Accents ®: Fire Defense TM" wood and polyethylene composite deck board, nominal 5/4" thick x 5-1/2" width, nominal density of 0.036 lb./in³.

Trex Accents[®]: Fire DefenseTM

The perfect blend of beauty and brawn.

Trex's #1 selling platform, Trex Accents[®], exceeds the strict fire regulations set by the State of California and San Diego County.



- Offers superior safety performance:
 - Exceeds ASTM E84 Class B Flame Spread.
 - Exceeds 12-7A-4 Part A (under flame) and Part B (Burning Brand).
- Self-extinguishing even under extreme fire exposure.

Approved for use by the California State Fire Marshal's Office and San Diego County. Read the California Department of Forestry and Fire Protection, Office of the State Fire Marshal <u>WILDLAND URBAN</u> <u>INTERFACE (WUI)PRODUCTS Report.</u> (PDF)

IV. SOLID "WOOD" DECKING

Company Name: Various Manufacturers

Product Description: Solid "Wood" decking: "Redwood", "Western Red Cedar", "Incense Cedar", "Port Orford Cedar", and "Alaska Yellow Cedar".

Sizes: Minimum nominal 2" thickness (American Softwood Lumber Standard PS 20).

Lumber grades: Construction Common and better grades for Redwood, 3 Common and better grades for Cedars, and commercial decking or better grades for both Redwood and Cedars.

Special Instructions: Solid wood decking shall be installed over solid wood joists spacing 24" or less on center.

Decking (SFM Standard 12-7A-4)

V. Vents

Examples of Approved Vents

Brandguard



O'Hagin Fire & Ice® Line – Flame and Ember Resistant

An available option for all O'Hagin attic ventilation products, this attic vent not only features all the same design, construction elements and color choices as the O'Hagin Standard Line, but also features an interior stainless-steel matrix that resists the intrusion of flames and embers. This patent-pending attic vent is accepted for use by many local fire officials for installation in Wildland Urban Interface (WUI) zones.



Vulcan Vents

The founders of Gunter Manufacturing have been working closely over the last two years, with the scientists and inventors of Vulcan Technologies to bring to market this incredible product.

Combining our quality vent products with the fire-stopping honeycomb matrix core designed by Vulcan has produced unique and remarkable results.

Gunter manufacturing has over 50 years of combined sheet metal manufacturing experience. Special orders are not a problem. Their vent frames are industry standard frames so there is little or no learning curve for installers and contractors. Their stated goal is to provide people with the vents they need to secure their homes with additional safety against wildfires and give them piece of mind from knowing that their home or structure is protected by a product that works!

The core of their fire and ember safe vents are manufactured out of hi-grade aluminum honeycomb and coated with an intumescent coating made by <u>FireFree Coatings</u>. The intumescent coating is designed to quickly swell up and close off when exposed to high heat. The expanded material acts as an insulator to heat, fire, and embers



Before

After

After the cells close off, they are extremely well insulated, and fire or embers cannot penetrate.

Even before the cells close off, the vent is designed to protect against flying embers. In many cases embers will attack a structure before fire ever comes near, so this feature is especially important.



Close-up of the coated honeycomb matrix.





Fire easily passes through a standard vent, on the left, but stops cold when it comes up against a Vulcan Vent shown on right.



Non Combustible walls as mitigation measures.

In cases where a radiant heat barrier is required as a mitigtion measure this product may be allowed by the Jurisdicaiton in place of CMU

Appendix 'E' 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).
 - 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 complying 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 $662^{\circ}F(350^{\circ}C)$.
- 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.
- 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. All chimney, flue or stovepipe openings that will burn solid wood will have an approved spark arrester. An approved spark arrester is defined as a device constructed of nonflammable materials, having a heat and corrosion resistance equivalent to 12-gauge wire, 19-game galvanized steel or 24-gage stainless steel. or other material found satisfactory by the Fire Protection District, having ½-inch perforations for arresting burning carbon or sparks nor block spheres having a diameter less than 3/8 inch (9.55 mm). It shall be installed to be visible for the purposes of inspection and maintenance and removeable to allow for cleaning of the chimney flue.
- 10. All structures will have automatic interior fire sprinklers installed according to the National Fire Protection Association (NFPA) 13 2022 Edition
- 11. 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.
- 12. 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.
- 13. No attic ventilation openings or ventilation louvers shall be permitted in soffits, in eave overhangs, between rafters at eaves, or in other overhanging areas.
- 14. 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.
- 15. 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.
- 16. 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.
- 17. 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.
- 18. 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.
- 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.
- 20. All rain gutters, down spouts and gutter hardware shall be constructed from metal or other noncombustible material to prevent wildfire ignition along eave assemblies.
- 21 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.
- 22. 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.
- 23. 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.

- 24. 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

APPENDIX 'F' FIRE PROTECTION PLAN EXHIBIT

Exhibit shall be scalable and is considered a part of the Fire Protection Plan.



FIRE PROTECTION PLAN MAP LEGEND

Temescal MCP Development 23835 Temescal Canyon Road, Riverside County, CA APN's 283-180-002,020,021

Description

IRRIGATED ZONE 0 (OWNER MAINTAINED) An area starting at the structure envelope extending 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 required. Any amount of hardscape or parking is acceptable. See Fire Protection Plan Section 5 for details.

IRRIGATED ZONE 2 (OWNER MAINTAINED) Reduced Fuel Zone - Starts following Zone 1 extending to the Parcel line. Irrigation required, plant species must be drought tolerant and fire resistive. Organic mulch required. Any amount of hardscape or parking is acceptable. See Fire Protection Plan Section 5 for details.

Emergency/Fire Access Way Entrance - two means of access are provided.

Prepared for: BBG KRG, Inc. 4340 Von Karman Avenue Newport Beach, CA 92660

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

Symbo

X

Construction shall comply with CBC Chapter 7A required for

development in areas subject to **VHFHSZ** designations

FUEL MODIFICATION PLAN NOTES

NOTE 1

THE ENTIRE PROPERTY IS WITHIN A VERY HIGH FIRE HAZARD SEVERITY ZONES (VHFHSZ), (SRA) RIVERSIDE COUNTY.

NOTE2

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**.

ALL GROUND COVER (< 3" IN HEIGHT) AND PLANTS (< 16" IN HEIGHT) SHALL BE MINIMALLY SET BACK FROM

STRUCTURES, DECKS, AND OTHER PLANTS 1.5 TIMES THE HEIGHT OF THE PLANT OR 12-INCHES, WHICHEVER IS GREATER. GROUND COVERS AND PLANTS SHALL HAVE HIGH WATER CONTENT. NO COMBUSTIBLE MULCH.

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

OWNER: MCP INDUSTRIES, INC 4350 VON KARMAN AVENUE, NEWPORT BEACH, CA 92660 (619) 838-9963 MFREED99@AXXCESSRA.COM

TEMESCAL COMMERCE BUILDING COUNTY OF RIVERSIDE, CA

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.

VL = VERY LOW WATER USE, L = LOW WATER USE, M = MODERATE WATER USE, H = HIGH WATER USE. WATER USE ZONE 2 30 TO 100 FEET, IS A REDUCED FUEL ZONE AND IS DESIGNED TO STATED IS PER 'WATER USE CLASSIFICATION OF LANDSCAPE SPECIES' (ALSO REFERRED TO AS WUCOLS IV) FOR THE CITY OF CORONA, CALIFORNIA. 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.**

PROPOSED PLANT PALETTE

BOTANICAL

BRACHYCHITON

POPULNEUS

CASSIA LEPTOPHYLLA

LAGERSTROEMI

A INDICA

PLATANUS ACERIFOLIA

'MEXICANA'

QUERCUS

AGRIFOLIA

RHUS LANCEA

BOTANICAL

LEUCOPHYLLU

M F. 'GREEN

WESTRINGIA

'WYNABEE GEM'

FRUITICOSA

BOTANICA

BACCHARIS

'TWIN PEAKS' CALLISTEMON

'LITTLE JOHN'

CAPILLARIS

BOTANICAL

NAME

ACACIA

REDOLENS

ALOE STRIATA

HESPERALOE

PARVIFLORA

WESTRINGIA

SENECIO

BOTANICAL

MACFADYENA

'LOW HORIZON'

MANDRALISCAE STICKS

'DESERT

CARPET'

MUHLENBERGIA

PILULARIS

CLOUD'

BACKGROUND SHRUBS

MIDGROUND SHRUBS

FOREGROUND SHRUBS

SYMBOL

HT. X

5 GAL. 60" O.C. L

5 GAL. 48" O.C. L

1 GAL. 8' O.C. L

1 GAL. 24" O.C. L

FLATS 12" O.C. L

FLATS 12" O.C. L

SIZE

1 GAL./

STAKED

1 GAL. 30" O.C.

1 GAL. 36" O.C. L

SIZE /

BOX STD.

36" BOX

STD.

BOX

STD.

BOX STD.

24'

BOX STD.

24"

BOX STD.

SIZE

SIZE

5 GAL.

5 GAL.

SIZE

FORM

COMMO

BOTTLE TREE

MEDALLION

MEXICAN

SYCAMORE

COAST LIVE

OAK

AFRICAN

COMMON

TEXAS

RANGER

COAST

ROSEMARY

TWIN PEAKS

LITTLE JOHN

PINK MUHLY

GRASS

COMMON

TRAILING

ACACIA

CORAL ALOE

RED YUCCA

ROSEMARY

BLUE CHALK

COMMON

CAT'S CLAW

VINE

COAST

LOW HORIZONS

NAMF

BOTTLE BRUSH

COYOTE BUSH

SUMAC

CRAPE MYRTLE

TRFF

NAME

TREES

SYMBOL

٠

Μ This Exhi 2024

PRELIMINARY FUEL MODIFICATION PLAN SCHEMATIC DESIGN

| and | holm | | |
|------------------------|----------------------|------------------|----------------|
| el Johnson, Owne | r | Date: 23 A | ugust 2024 |
| | FIREWISE 2000, LL | с. | |
| | PO Box 339 | | |
| | Lower Lake, CA 954 | 157 | |
| 1 | elephone: 760-745- | 3947 | |
| | nfo@firewise 2000. | com | |
| bit is found to be con | npliant with the Fin | re Protection Pl | an dated 23 Au |

SYMBOL

VINES

UNGUIS-CATI WATER USE KEY:





JOB # 23087 08.23.2024

F1.1

| SPRD. X CAL. (MIN.) | WATER USE | DESCRIPTION | LANDSCAPE KEY | INVASIVE PLANT LIST |
|---|--|---|---|--|
| 8'H X 3'W | L | PERIMETER TREE | N.A. | NO |
| 11' H X 5'W | Μ | VEHICULAR ENTRY FLOWERING ACCENT | N.A. | NO |
| 9'H X 3'W | Μ | PEDESTRIAN ENTRY SMALL FLOWERING ACCENT | W | NO |
| 10'H X 4'W | М | DECIDUOUS CANOPY | W | NO |
| 8'H X 3'W | L | NATIVE EVERGREEN CANOPY | _ | NO |
| 9'H X 3'W | L | SPREADING PARKING AREA SHADE CANOPY | Ν | NO |
| SPACIN G | WATER USE | DESCRIPTION | DEFENSIBLE LANDSCAPE KEY | MSHCP INVASIVE PLANT LIST |
| 60" O.C. | L | LARGE FLOWERING | W | NO |
| 48" O.C. | L | LARGE FLOWERING | W | NO |
| SPACIN G | WATER USE | DESCRIPTION | DEFENSIBLE LANDSCAPE KEY | MSHCP INVASIVE PLANT LIST |
| 48" O.C. | L | NATIVE MASS | Х | NO |
| 36" O.C. | L | MIDGROUND SHRUB | NA | NO |
| 36" O.C. | | | | |
| | L | ORNAMENTAL GRASS | N.A. | NO |
| SPACIN G | L WATER USE | ORNAMENTAL GRASS DESCRIPTION | N.A. DEFENSIBLE LANDSCAPE KEY | NO MSHCP INVASIVE PLANT LIST |
| SPACIN G 8' O.C. | L WATER USE L | ORNAMENTAL GRASS DESCRIPTION GROUND COVER | N.A. DEFENSIBLE LANDSCAPE KEY W | NO MSHCP INVASIVE PLANT LIST |
| SPACIN G 8' O.C. 24" O.C. | L WATER USE L | ORNAMENTAL GRASS DESCRIPTION GROUND COVER SUCCULENT ACCENT | N.A. DEFENSIBLE LANDSCAPE KEY W | NO MSHCP INVASIVE PLANT LIST NO |
| SPACIN G 8' O.C. 24" O.C. 30" O.C. | L WATER USE L L | ORNAMENTAL GRASS DESCRIPTION GROUND COVER SUCCULENT ACCENT STRAPPY ACCENT | N.A. DEFENSIBLE LANDSCAPE KEY W N N W | NO MSHCP INVASIVE PLANT LIST NO NO |
| SPACIN G 8' O.C. 24" O.C. 30" O.C. 12" O.C. | L WATER USE L L L | ORNAMENTAL GRASS DESCRIPTION GROUND COVER SUCCULENT ACCENT STRAPPY ACCENT FOREGROUND SHRUB | N.A. DEFENSIBLE LANDSCAPE KEY W N W W | NO MSHCP INVASIVE PLANT LIST NO NO NO |
| SPACIN G 8' O.C. 24" O.C. 30" O.C. 12" O.C. 12" O.C. | L WATER USE L L L L | ORNAMENTAL GRASS DESCRIPTION GROUND COVER SUCCULENT ACCENT STRAPPY ACCENT FOREGROUND SHRUB SUCCULENT GROUNDCOVER | N.A. DEFENSIBLE LANDSCAPE KEY W N W W W | NO MSHCP INVASIVE PLANT LIST NO NO NO NO |
| SPACIN G 8' O.C. 24" O.C. 30" O.C. 12" O.C. 12" O.C. SPACIN G | L WATER USE L L L L WATER | ORNAMENTAL GRASS DESCRIPTION GROUND COVER SUCCULENT ACCENT STRAPPY ACCENT FOREGROUND SHRUB SUCCULENT GROUNDCOVER DESCRIPTION | N.A. DEFENSIBLE LANDSCAPE KEY W N W W NA. DEFENSIBLE LANDSCAPE KEY | NO MSHCP INVASIVE PLANT LIST NO NO NO NO NO NO NO |



8841 RESEARCH D **SUITE 200** IRVINE - CA 9261 949.387.1323



PROPOSED PLANT PALETTE

TREES

| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE / FORM | HT. X SPRE X CAL. (MIN | D. WATER N.) USE | DESCRIPTION | DEFENSIBLE LANDSCAPE KEY | MSHCP INVASIVE PLANT LIST | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE | DESCRIPTION | DEFENSIBLE LANDSCAPE KEY | MSHCP INVASIVE PLANT LIST | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE | DESCRIPTION |
|----------------|-------------------------------------|-----------------------|-----------------|---------------------------|---------------------|---|--------------------------------|------------------------------------|-----------------|--|--------------------------|--------|----------|--------------|---------------------|--------------------------------|------------------------------------|-----------------|--------------------------------------|--------------------------------|-------------------|----------|--------------|--------------------------|
| | | | | | | | | | | ELEAGNUS PUNGENS | SILVER BERRY | 5 GAL. | 48" O.C. | L | SCREENING HEDGE | W | NO | | ALOE STRIATA | CORAL ALOE | 1 GAL. | 24" O.C. | L | SUCCULENT ACCENT |
| • | BRACHYCHITON POPULNEUS | BOTTLE TREE | 24" BOX STD. | 8'H X 5'W | L | PERIMETER TREE | N.A. | NO | | RHAPHIOLEPIS UMBELATTA | YEDDO BUSH | 5 GAL. | 48' O.C. | М | LARGE SHRUB | Ν | NO | | CARISSA MACROCARPA 'GREEN CARPET' | GREEN CARPET NATAL PLUM | 5 GAL. | 36" O.C. | М | FLOWERING SHRUB |
| ATA | | | | | | | v | | | LEUCOPHYLLUM F. 'GREEN CLOUD' | TEXAS RANGER | 5 GAL. | 60" O.C. | L | LARGE FLOWERING | W | NO | | COPROSMA KIRKII | CREEPING COPROSMA | 1 GAL. | 36" O.C. | Μ | PROSTRATE GROUNDCOVER |
| | CASSIA LEPTOPHYLLA | GOLD MEDALLION TREE | 36" BOX STD. | 8' H X 6'W | / M | FLOWERING ACCENT | N.A. | NO | | RHAMNUS C. 'MOUND SAN BRUNO' | COFFEEBERRY | 5 GAL. | 48" O.C. | L | LARGE SHRUB | _ | NO | | DIANELLA 'LITTLE REV' | LITTLE REV FLAX LILY | 1 GAL. | 24" O.C. | L | STRAPPY ACCENT |
| | | | | | | PEDESTRIAN | | | | WESTRINGIA FRUITICOSA 'WYNABEE GEM' | COAST ROSEMARY | 5 GAL. | 48" O.C. | L | LARGE FLOWERING | W | NO | | HESPERALOE PARVIFOLIA | RED YUCCA | 1 GAL. | 30" O.C. | L | STRAPPY ACCENT |
| | LAGERSTROEMIA FAUEREI 'MUSKOGEE' | MUSKOGEE CREPE MYRTLE | 36" BOX STD. | 8'H X 5'W | Μ | ENTRY SMALL FLOWERING ACCENT | W | NO | MIDGROUND SHRUE | BS | | | | | | | MSHCP | | WESTRINGIA 'LOW HORIZONS' | LOW HORIZONS COAST ROSEMARY | 1 GAL. | 30" O.C. | L | FOREGROUND SHRUB |
| | | | | | | | | | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE | DESCRIPTION | LANDSCAPE KEY | INVASIVE PLANT LIST | | SENECIO MANDRALISCAE | BLUE CHALK STICKS | FLATS | 12" O.C. | L | SUCCULENT GROUNDCOVER |
| | PLATANUS ACERIFOLIA 'MEXICANA' | MEXICAN SYCAMORE | 24" BOX | 8'H X 5'W | М | DECIDUOUS CANOPY | W | NO | | AGAVE ATTENUATA 'BLUE FLAME' | BLUE FLAME AGAVE | 5 GAL. | 36" O.C. | L | SUCCULENT ACCENT | W | NO | BIOSWALE GRASSE | ES | | | | | |
| | | | | | | | | | | BACCHARIS PILULARIS 'TWIN PEAKS' | TWIN PEAKS COYOTE BUSH | 5 GAL. | 48" O.C. | L | NATIVE MASS | х | NO | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE | DESCRIPTION |
| (\diamond) | QUERCUS AGRIFOLIA | COAST LIVE OAK | 24" BOX | 7'H X 3'W | L | NATIVE EVERGREEN CANOPY | _ | NO | | CALLISTEMON 'LITTLE JOHN' | LITTLE JOHN BOTTLE BRUSH | 5 GAL. | 36" O.C. | L | MIDGROUND SHRUB | N.A. | NO | | JUNCUS ACUTUS | SPINY RUSH | 1 GAL. | 18" O.C. | L | BIOSWALE GRASS |
| | | | | | | | | | | MUHLENBERGIA RIGENS | DEER GRASS | 1 GAL. | 36" O.C. | L | ORNAMENTAL GRASS | N.A. | NO | VINES | | | | | | |
| | RHUS LANCEA | AFRICAN SUMAC | 24" BOX | 8'H X 5'W | L | SPREADING PARKING AREA SHADE CANOPY | Ν | NO | | RHAPHIOLEPIS INDICA 'CLARA' | INDIAN HAWTHORN | 5 GAL. | 36" O.C. | L | FLOWERING ACCENT | Ν | NO | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | WATER USE | DESCRIPTION |
| and the | | | | | | | | | | | | | | | | | | ▼ | DISTICTUS BUCCINATORIA | BLOOD-RED TRUMPET VINE | 1 GAL./ STAKED | | М | FLOWERING VINE |
| | | | | | | | | | | | | | | | | | | | | | | | | |

TEMESCAL COMMERCIAL COUNTY OF RIVERSIDE

PROPOSED PLANT PALETTE

BACKGROUND SHRUBS

PRELIMINARY OVERALL LANDSCAPE PLAN RETAIL/DRIVE THROUGH RESTAURANT SUPPLEMENT

LEGEND

- 1 PROPERTY LINE 2 8' HT TUBULAR STEEL FENCE **3** VEHICULAR GATE 4 GEOGRID WALLS 5 TRUCK LOADING AREA 6 TRASH ENCLOSURE 7 RETAINING WALL WITH TUBE STEEL FENCE ON TOP 8 STORAGE YARD 9 ENHANCED CONCRETE PAVING AT BUILDING ENTRY 10 NATURAL GRAY CONCRETE PAVING 11 PUBLIC SIDEWALK 12 DROUGHT TOLERANT PLANTING 13 PARKWAY LANDSCAPE 14 SCREEN TREE
- **15** STREET TREE
- 16 PARKING SHADE TREE
- 17 ACCENT TREE
- **18** CLASS 1 BIKE LOCKERS

PROPOSED PLANT PALETTE

FOREGROUND SHRUBS

WATER USE KEY: VL = VERY LOW WATER USE, L = LOW WATER USE, M = MODERATE WATER USE, H = HIGH WATER USE. WATER USE STATED IS PER 'WATER USE CLASSIFICATION OF LANDSCAPE SPECIES' (ALSO REFERRED TO AS WUCOLS IV) FOR THE CITY OF CORONA, CALIFORNIA.



JOB # 23087 12.18.2023

L1.1

MSHCP DEFENSIBLE INVASIVE LANDSCAPE KEY PLANT LIST NO NO NO W N.A. NO NO W NO W N.A. NO MSHCP INVASIVE PLANT LIST DEFENSIBLE LANDSCAPE KEY NC MSHCP DEFENSIBLE INVASIVE PLANT LIST LANDSCAPE KEY Ν NO

8841 RESEARCH I SUITE 200 IRVINE - CA 926

APPENDIX 'G' ACCESS PLAN



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TEMESCAL COMMERCIAL RIVERSIDE COUNTY

RETAIL/ DRIVE-THROUGH RESTAURANT SUPPLEMENT

- = GRADE DOOR (14'X14')
- = A.D.A. ACCESSIBLE PRKG.
- = PROPERTY LINE (SEE CIVIL)
- = DOCK DOOR & LEVELER
- = CANOPY OR OVERHANG
- = CENTERLINE OR GRID LINE = EASEMENT (SEE CIVIL)
- = TRASH ENCLOSURE W/ SOLID ROOF A.D.A. ACCESSIBLE
- = WB-62' TRACTOR TRAILER
- = ADA PATH OF TRAVEL = 12' X 55' TRAILER PARKING
- = SCREEN WALL
- = TUBULAR FENCE
- = FIRE LANE
- = FIRE HYDRANT

(1) PEDESTRIAN PAVING (SEE CIVIL & LANDSCAPE)

(2) LANDSCAPE AREA (SEE LANDSCAPE)

(3) TRASH ENCLOSURE (ADA COMPLIANT)

