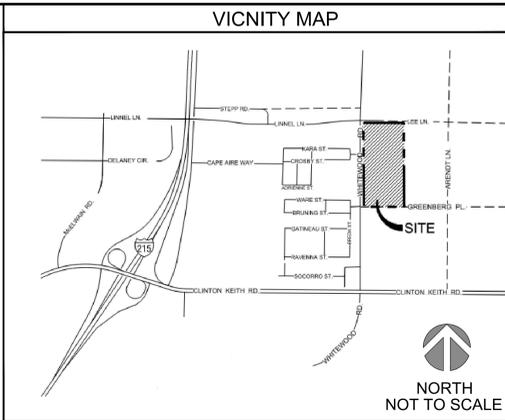


# WHITEWOOD APARTMENTS CITY OF MURRIETA

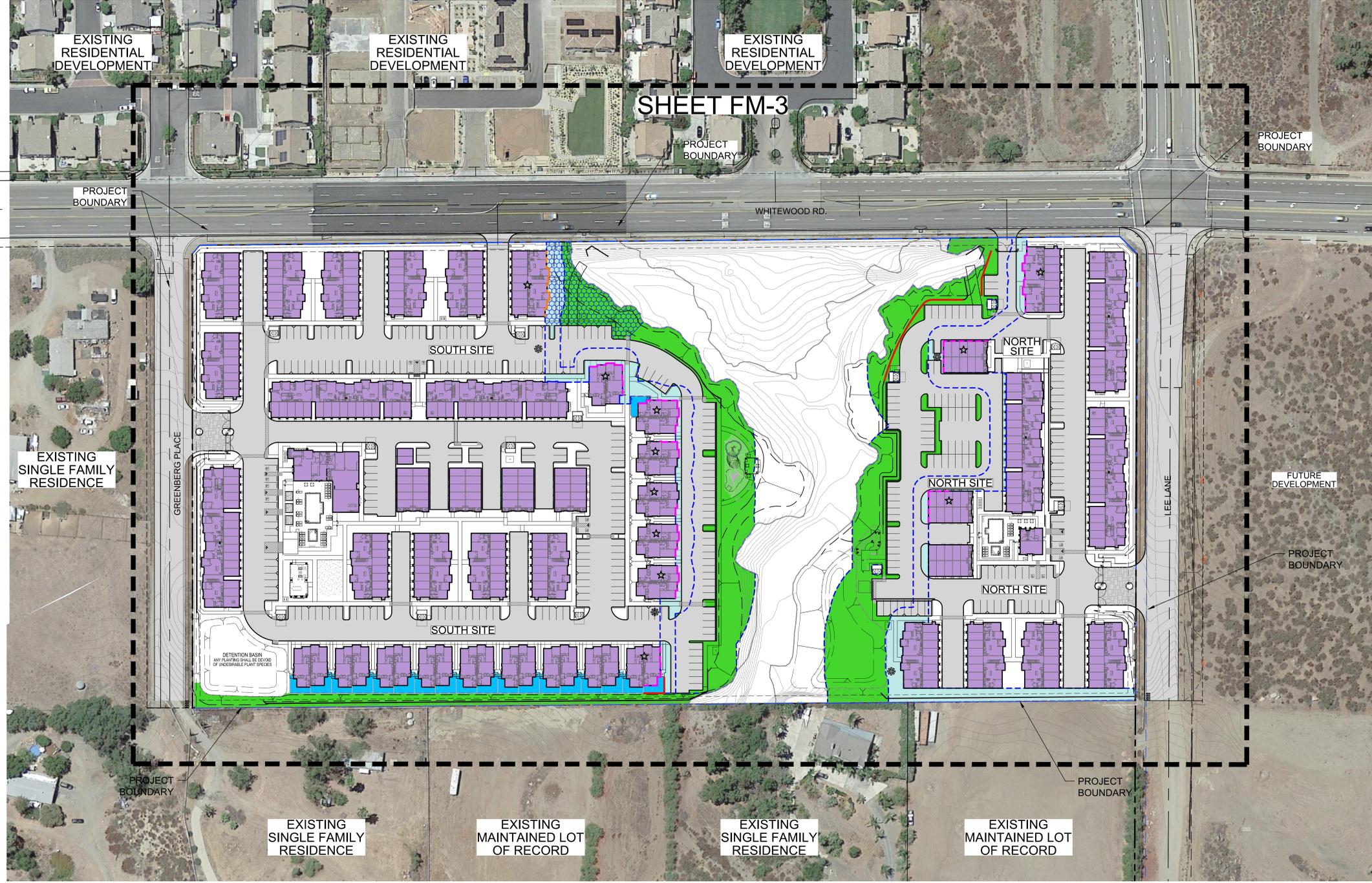
VTTM NO. 28903

## CONCEPTUAL FUEL MODIFICATION PLAN



### FUEL MODIFICATION SHEET INDEX

NO. IN SET	SHEET TITLE
FM-1	TITLE SHEET
FM-2	DETAILS, GUIDELINES AND NOTES
FM-3	FUEL MODIFICATION LAYOUT



NO.	DATE	REVISIONS
1		
2		
3		
4		

CITY OF MURRIETA FIRE AND RESCUE APPROVAL

SCALE: 1" = 60'-0"

WHITEWOOD APARTMENTS - C.F.M.P  
PLAN CONTROL

PLAN SET: "E"  
DATE: 03/31/2022

PREPARED FOR:  
**MURRIETA WHITEWOOD  
MULTI-FAMILY, LLC.**

217 MEDANO STREET  
RANCHO, CA 92694

CIVIL ENGINEER:  
**ALLIANCE**  
LAND PLANNING & ENGINEERING INC.

2248 FARADAY AVE  
CARLSBAD, CA 92008  
TEL: (760) 431-8888  
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2543 TORNEY ROAD  
SUITE 100  
VALDIA, CA 91355  
TEL: (661) 799-2780

PREPARED BY:  
**firesafe**  
PLANNING SOLUTIONS

28486 AIROSO STREET  
RANCHO MISSION VIEJO, CA 92694  
(949) 240-5911

**WHITEWOOD APARTMENTS  
CONCEPTUAL FUEL MODIFICATION PLAN  
TITLE SHEET**

A.P.N. 392-320-014 - CITY OF MURRIETA  
**CITY OF MURRIETA FIRE AND RESCUE**

SHEET  
**FM-1**  
OF 3

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ALTERNATE MATERIALS AND METHODS REQUEST

ATTACHMENT 7 - UNDESIRABLE PLANT LIST



Whitewood Apartments – Alternate Materials and Methods Request – Page 2 of 3

**2019 CFC 4907.2.2 Community fuel modification:**  
 Murrieta Fire and Rescue may require a developer, as a condition of issuing a certificate of occupancy, to establish one or more fuel modification zones to protect a new community by reducing the fuel loads adjacent to a community and structures within it. The developer shall assign the land on which any fuel modification zone is established under this section to the association or other common owner group that succeeds the developer as the person responsible for common areas within the community.

The applicant is intending to comply with Fuel Modification Plan requirements in order to improve the fire safety of the project. Construction and architectural features of the buildings will incorporate the ignition resistant requirements of **California Building Code (CBC) Ch. 7A.**

**D. Deficiency / Hardship:**  
 Due to the physical constraints of the project site, strict compliance with the minimum fuel modification distances required from the proposed structures to the riparian areas within the interior of the project site is not possible.

The applicant is proposing modified Fuel Modification Zone design, planting materials and spacing distances, and also incorporating enhanced architectural design and fire protection features for the buildings as alternative materials and methods.

Specially, Buildings 1, 11, 18, 22, and 23 adjacent to the riparian area, and Buildings 4 – 7 and 24 – 32 adjacent to the eastern project boundary have alternative FMZs less than the standard 100-foot onsite width.

**E. Proposed Alternative:**  
 The following alternative landscape design features are proposed:

- Fuel Modification Zones.** Fuel Modification Zones shall consist of irrigated Zone 'A' and Zone 'B' throughout the entire site, as indicated on the Fuel Modification Plan.
- Radiant Heat Wall.** A Radiant Heat Wall measuring six feet high, measured on both sides of the wall, shall be provided adjacent to Buildings 1 and 11 where the FMZ width is less than 100 feet, as indicated on the Fuel Modification Plan.
- Fuel Modification Alternative Planting Design.** The FMZ between the riparian area and Building 18 within the South Site (varies between 31.7-foot and 76.4-foot wide) shall be devoid of trees and planted in accordance with the Alternative Planting for Deficient Fuel Modification specifications as indicated on the Fuel Modification Plan, as approved the Murrieta Fire and Rescue.
- Building Ignition Resistant Construction.** The buildings on site will incorporate the enhanced ignition resistant requirements of CBC Ch. 7A along with additional enhancements that exceed code requirements to improve the fire safety of the project and to compensate for the reduced width of the Fuel Modification Zone.
  - The exterior of Building 18 facing the riparian area Fuel Modification Zone will be rated to one-hour in accordance with the requirement of the Murrieta Building Code standards for rated construction.
  - Both panes of glass in all windows for Building 18 facing the riparian area Fuel Modification Zone will be tempered.

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Whitewood Apartments – Alternate Materials and Methods Request – Page 3 of 3

c. All panes of glass in all windows along the specific portions of Buildings with less than 100-foot of fuel modification shall be provided for Buildings 1, 9 and 11 within the North Site and Buildings 19, 20, 22, 23, 32 and 33 within the South Site facing the riparian area shall be tempered, as indicated on the Fuel Modification Plan dated 03/31/2022.

5. **Fire Sprinkler System.** The fire sprinkler system design criteria (flow density) shall be increased to a level acceptable to the Murrieta Fire and Rescue Department (i.e., four head flow design) for Building 18 only.

**F. Justification:**  
 As noted in the Fire Behavior Analysis report prepared for the project (dated 12.14.2021), the findings were used to develop performance-based fire protection measures for the project design.

"Based on the scientific fire behavior analysis, exterior portions of structures within the 'Whitewood Apartments' will not ignite from the exposure of fire from a wildland vegetation fire with distances and configuration provided in this report. This is primarily because the greatest fire energy is too far away from the structures due to lack of wildland fuels and fire intensity as it approaches the community from the easterly direction; all of other interfaces within the project site are residentially developed. This does not account for windows or doors which are left open or other factors not under the control of this analysis.

Modeling has shown that the performance based design offered for the project site provides the necessary protection to keep the structures safe during a wildland fire incident within the adjacent native fuels and that additional distance would not necessarily increase the safety of these structures beyond the point that is already provided.

The performance-based justifications for areas less than 100 feet indicate that these areas will be adequately protected. Additional fire protection features have been added to the standard interface requirement where it was considered beneficial to the exposed structures. These are enhancements and are not utilized as the primary protection for the structures. The modeling indicates that the structures are safe with the distance and configurations are shown." (page 37)

Specifically for Building 18, the report notes the following:  
 "The maximum flame length of 17.7 will not impinge on the structure; the radiant heat value calculation provides a value of under 12 kW/m2, on the face of the structure and prevailing winds do not align with the fire travel in this area. To provide additional safety margins in this area: 1. The exterior of the structure (Building 18) will be rated to one hour in accordance with the requirement of the Murrieta Building Code standard for rated constructions; 2. Both panes of glass in all windows for the adjacent building will be tempered glass 3. The fire sprinkler system design criteria (flow density) will be increased to a level acceptable to the Murrieta Fire and Rescue Department, and 4. The area between the riparian and the structure will be devoid of trees and planted in accordance with the Alternative Planting for Deficient Fuel Modification specifications of the Fuel Modification Plan as approved by Murrieta Fire and Rescue." (Page 35)

Specifically for Buildings 1 and 11:  
 "In Areas B and C (Figures 38 and 39), the shielding to be used is the radiant heat fence described earlier in this report. The area is installed as indicated by the red lines on the graphics and on the Fuel Modification Plan. These walls are used to provide a solid stop for fire progression and as a shield against radiant and convective heat. They are provided in areas where the prescriptive 100-foot distance is not provided as an additional safety measure." (page 35)

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Whitewood Apartments – Alternate Materials and Methods Request – Page 4 of 3

The following enhanced Ignition Resistant Construction design fire protection features are proposed in lieu of strict compliance with the Fuel Modification Zone requirements.

- Window panes.** All panes of glass in all windows along the specific portions of Buildings with less than 100-foot of fuel modification shall be provided for Buildings 1, 9 and 11 within the North Site and Buildings 19, 20, 22, 23, 32 and 33 within the South Site facing the riparian area shall be tempered, as indicated on the Fuel Modification Plan dated 03/31/2022. Dual pane, one pane tempered glass has been shown during testing and in after fire assessments to significantly decrease the risk of breakage and ember entry into structures. Therefore, requiring code-exceeding dual pane (or all panes), both panes tempered, is anticipated to be an important safety measure that provides enhanced structure protection and provides mitigation for reduced fuel modification zones and limited setbacks from adjacent structures.
- Landscaping.** The project's landscaping will be regularly inspected to ensure compliance with the guidelines.
- Fire Behavior Analysis Report.** A Fire Behavior Analysis Report has been prepared specifically for the Whitewood Apartments project. Vesting Tentative Tract Map Number 28903, dated 12.13.2021 as justification for the Alternative Materials and Methods Request.

We appreciate your consideration of this proposal. As always, please feel free to contact me on any aspect of this request or to ask for additional information, analysis or data to support this recommendation.

Sincerely,

*David Oatis*

David Oatis – Fire Protection Planner  
 Firesafe Planning, Inc.

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The following plant species shall be removed from all fuel modification zones. Additional Plant Material restricted by the City of Murrieta Landscape Standards shall also be removed.

BOTANICAL NAME	COMMON NAME
Adenostoma fasciculatum	Chamise
Adenostoma sparsifolium	Red Shanks
Anthemix cotula	Mayweed
Artemisia californica	California Sagebrush
Brassica nigra	Black Mustard
Brassica rapa	Wild Turnip, Yellow Mustard
Cardaria draba	Noary Cress, Perennial Pepperglass
Centaurea solstitialis	Yellow Star-Thistle
Cirsium vulgare	Wild Artichoke
Coryza canadensis	Horseweed
Cortaderia sellonana	Pampass Grass
Cynara cardunculus	Artichoke Thistle
Datura wrightii	Jimsonweed
Eriogonum fasciculatum	Common Buckwheat
Foeniculum vulgare	Fennel
Heterotheca grandiflora	Telegraph Plant
Lactuca serriola	Prickly Lettuce
Melissa laurina	Laurel Sumac
Nicotiana bigelovii	Indian Tobacco
Nicotiana glauca	Tree Tobacco
Salvia mellifera	Black Sage
Salsola australis	Russian Thistle, Tumbleweed
Silybum marianum	Milk Thistle
Ricinus communis	Caster Bean Plant
Urtica urens	Burning Nettle

BOTANICAL NAME	COMMON NAME
Cortaderia sellonana	Pampass Grass
Cupressus sp.	Cypress
Eucalyptus sp.	Eucalyptus
Juniperus sp.	Juniper
Pinus sp.	Pine

The plants listed above are to be 100% removed from all Fuel Modification Zones and shall not be installed within any interior landscaped areas within the project.

Debris and trimmings produced by thinning and pruning shall be removed from the site, or if left, shall be converted into mulch by a chipping machine and evenly dispersed to a maximum depth of three (3) inches.

In the fuel modification zones, sensitive and/or protected plant species shall be identified on the Fuel Modification plans and tagged in the field for further disposition. Trees and large tree-form shrubs (e.g. Oaks, Sumac, and Toyon) which are being retained with the approval by the County or Fire Dept. shall be pruned to provide clearance of three (3) times the height of the understorey plant material or ten (10) feet, whichever is higher. Dead and excessively twiggy growth shall also be removed.

FUEL MODIFICATION MAINTENANCE NOTES

**Zone A – Irrigated Structure Setback Zone:**  
 The purpose of the setback zone is to provide a defensible space for fire suppression forces and to protect structures from radiant and convective heat. In no case shall Zone A be less than a 10-foot minimum width. The entire zone is to be located on a level, graded area at the top or base of the slope.

If Zone A is located within the lot containing the protected structure and another entity is maintaining the B-C zones, it shall be located at the most distal level 20 feet prior to the beginning of the slope. If Zone A is located outside of the lot containing the protected structure, it shall begin at the lot property line. The latter condition is preferred as it allows for combustible construction within privately owned individual lots. Typically, Zone A will not be approved when proposed more than 100 feet from the protected structure. Zone A may incorporate trails, roadways, and other level noncombustible surfaces that create defensible space for fire crews heat reduction between the protected structure and the fire.

- Zone A – Specific Maintenance Requirements:**
- Automatic irrigation systems to maintain healthy vegetation with high moisture content and be regularly irrigated.
  - Pruning of foliage to reduce fuel load, maintain vertical continuity, and removal of plant litter and dead wood in accordance with Attachment 6 provided on this plan.
  - Complete removal of undesirable plant species (See Attachment 7 provided on this plan). There is also minimal allowance for retention of selected native vegetation.
  - Plants in this zone shall be highly fire resistant and selected from the approved plant list for the setback zone and given geographical area.
  - Tree species within Zone A are not allowed within 10 feet of combustible structures (measured from the edge of a full growth crown).
  - Maintenance includes thinning and removal of over-growth, replacement of dead/dying fire resistant plantings, and maintenance of the operation of the irrigation system.
  - Devices that burn solid fuels are not permitted in any fuel modification zone.
  - No combustible construction shall be allowed within Zone A.

**Zone B – Irrigated Zone:**  
 This portion of fuel modification consists of irrigated landscaping. This irrigated zone is a minimum of 35 feet in width and may be increased as conditions warrant. The plans must delineate the location of the fuel modification area that be permanently and regularly irrigated. The landscape architect shall select plant species, design an irrigation system, and design a maintenance program which sensitively addresses water conservation practices and includes methods of erosion control to protect against slope failure. All irrigation shall be kept a minimum of 20 feet from the drip line of any existing native Quercus (oak) species.

- Zone B – Specific Maintenance Requirements:**
- Groundcover shall be installed and maintained at a height not to exceed 2 feet.
  - In order to maintain proper coverage, native grasses shall be allowed to seed. Native grasses shall be cut after annual seeding. Cut heights shall be approximately 4 inches.
  - Apply irrigation rates to maintain healthy vegetation with high moisture content based on plant species specific needs.
  - All plant species designed for Zone B shall be selected from Attachment 6. Existing fuel modification maintenance programs are limited to the plants listed on the approved plans unless a revision is requested. Planting and maintenance shall be in accordance with planting restrictions from Attachments 6 and 7 provided on this plan, as well as the Fuel Modification Plant Palette as approved by the Riverside County Fire Department.
  - Groups of trees, tree-form shrubs, and shrubs that naturally exceed 2 feet in height shall be vertically pruned, and horizontally spaced in accordance with Attachment 6 provided on this plan.
  - Removal of dead and dying vegetation and undesirable plant species from Attachment 7 provided on this plan.
  - Devices that burn solid fuels are not permitted in any fuel modification zone.
  - Combustible construction is not allowed within Zone B.

**Fuel Modification Implementation & Required Inspections**

- Prior to Rough Grading Permit Issuance.** The developer/builder shall have approved/stamped Conceptual or Precise Fuel Modification Plan.
- Prior to Precise Grading Permit Issuance.** The developer/builder shall have approved/stamped Precise Fuel Modification Plan, with applicable note stating maintenance language will be provided in CC&Rs and reviewed prior to issuance of certificate of occupancy.
- Prior to Building Permit Issuance:** Prior to dropping Lumber, the developer/builder shall implement those portions of the approved fuel modification plan determined to be necessary by the Riverside County Fire Department prior to the introduction of any combustible materials into the area. Removal of undesirable species may meet this requirement or a separation of combustible vegetation for a minimum distance of 100 feet from the location of the structure and lumber stockpile. This generally involves removal and thinning of plant materials located on the approved plan. An inspection and/or release letter to the building department is required.
- Prior to Issuance of Certificate of Occupancy:** The fuel modification zones adjacent to structures must be installed, irrigated, and inspected. This includes physical installation of features identified in the approved precise fuel modification plan (including, but not limited to, plant establishment, thinning, irrigation, zone markers, access easements, etc.). A Riverside County Fire Department Inspector will provide written approval of completion at the time of this final inspection. A written disclosure may be requested by the Riverside County Fire Department Inspector indicating that the homeowner is aware of the fuel modification zone on their land and that they are aware of the associated restrictions of the zone. Copies of buyer or builder signed emergency and maintenance acceptance easements shall be presented upon occupancy final.
- Prior to Home Owner Association (HOA) Maintenance Acceptance from Developer:**  
 This inspection/meeting must include the Fire Inspector and the following representatives:  
 - Landscape design professional  
 - Installing landscape contractor  
 - HOA management representative  
 - HOA landscape maintenance contractor  
 The fuel modification areas shall be maintained as originally installed and approved. A copy of the approved plans must be provided to the HOA representatives at this time. Landscape professionals must convey ongoing maintenance requirements to HOA representatives. The CC&R language for maintenance must also be provided and approved by the Riverside County Fire Department.
- Annual Inspection and Maintenance.** The property owner is responsible for all maintenance of the fuel modification. All areas must be maintained indefinitely in accordance with notes on the approved fuel modification plans. This includes a minimum of two growth reduction maintenance activities throughout all fuel modification zones each year. Perform maintenance sometime within time periods of mid to late spring and once again in early to mid fall. Other activities include maintenance of irrigation systems, replacement of dead or dying vegetation with approved species, removal of dead plant material, removal of trees and shrubs not on the approved plans, and removal of undesirable highly combustible species. The Riverside County Fire Department may conduct inspections of established fuel modification areas. Ongoing maintenance shall be conducted a minimum of twice each year regardless of the dates of these inspections. The property owner shall retain all approved fuel modification plans. The plans should be used to perform the maintenance. As property is transferred, property owners shall disclose the location and regulations of fuel modification zone to the new property owners.

March 31, 2022

Murrieta Fire and Rescue  
 Life & Fire Safety Division  
 41825 Juniper Street  
 Murrieta, CA 92562

**SUBJECT:** Whitewood Apartments  
 Vesting Tentative Tract Map Number 28903  
 Alternate Materials and Methods Request (AM&M)

On behalf of Murrieta Whitewood Multi-Family, LLC, and in accordance with Section 104.9 of the California Fire Code, as adopted by the City of Murrieta, we hereby present an Alternate Materials and Methods Request (AM&M) per the 2019 California Fire Code Section 104.9 Alternate materials, design and methods of construction and equipment as it relates to California Fire Code Section 4907.1.2 Fire Setbacks adjacent protected areas as adopted by the City of Murrieta. Our request relates to providing the minimum total fuel modification distances per the adopted Municipal Code. The following information is being provided to assist in your evaluation of this proposed AM&M.

- A. Project Information:**
- Project name: Whitewood Apartments
  - Owner/Developer: Murrieta Whitewood Multi-Family, LLC.  
 217 Medano Street  
 Rancho, CA 92694
  - Owner Representative: Karen Alves and Sunti Kumjinn
  - Contact Person: David Oatis, Firesafe Planning, Inc. (949) 240-5911
  - Development Type: Multi-Family Residential Development

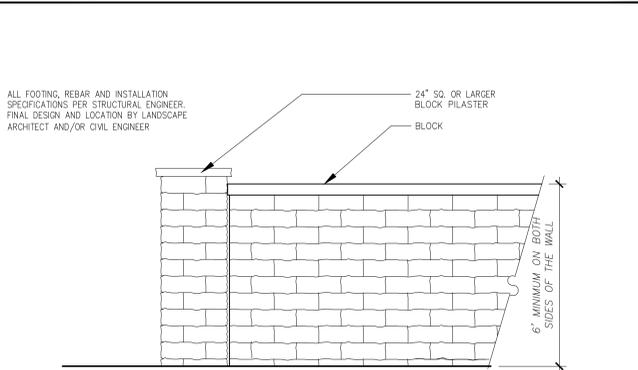
**B. General Description:**  
 The Whitewood Apartments project is located within the northern area of the City of Murrieta on the northern side of Greenberg Place, adjoined by Whitewood Road and existing residential to the west, and Lee Lane and planned future development to the north. Along the eastern edge, the project site is adjoined by existing single-family estate lots on Apple Street. The Whitewood Apartments is a proposed multi-family residential project with 324 residential dwelling units over 33 proposed multi-family and duplex buildings on 18.7 acres. Fuel Modification is provided along the eastern edge of the project site adjoining the single-family estate lots, as well as along an existing riparian habitat area that is to be retained and protected in place. This riparian area bisects the project site in the northern area, running west to east.

**C. Code Section** for which the modifications are requested:  
 The project is located in the Very High Severity Zone; within this area a minimum of a 100 foot fuel modification zone is required by MMC § 15.24.330. The fuel modification shall provide protection for the structures on the property.

**2019 CFC 4907.2 Measurements of Fuel Modification Distance:**  
 Minimum 100-foot of fuel modification measured on a horizontal plane.

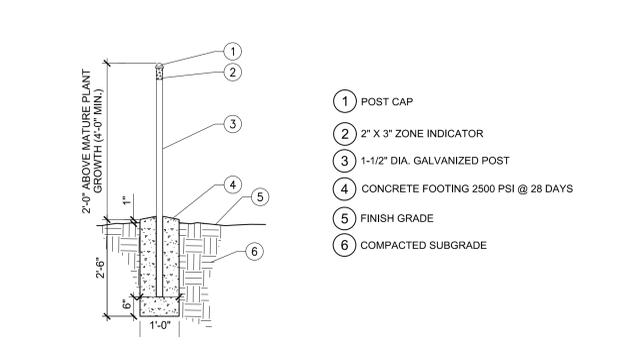
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SOLID FENCING - BLOCK WALL



In areas where the total fuel modification zones are less than the minimum 100-foot, a Solid Block Wall provides a physical barrier to provide protection from radiant heat and flame impingement from an impending wildfire.

IDENTIFICATION MARKER DETAIL



NOTE: MARKER DISTANCE SHALL BE INCREASED ON SLOPES TO ACCOMMODATE INCLINE MEASUREMENTS). IDENTIFICATION MARKERS SHALL BE INSPECTED ANNUALLY AND MAINTAINED OR REPLACED WHEN DEFICIENT

PREPARED FOR:  
**MURRIETA WHITEWOOD MULTI-FAMILY, LLC.**  
 217 MEDANO STREET  
 RANCHO, CA 92694

CIVIL ENGINEER:  
  
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 27413 TORNEY ROAD SUITE 102 WALNUT, CA 91355  
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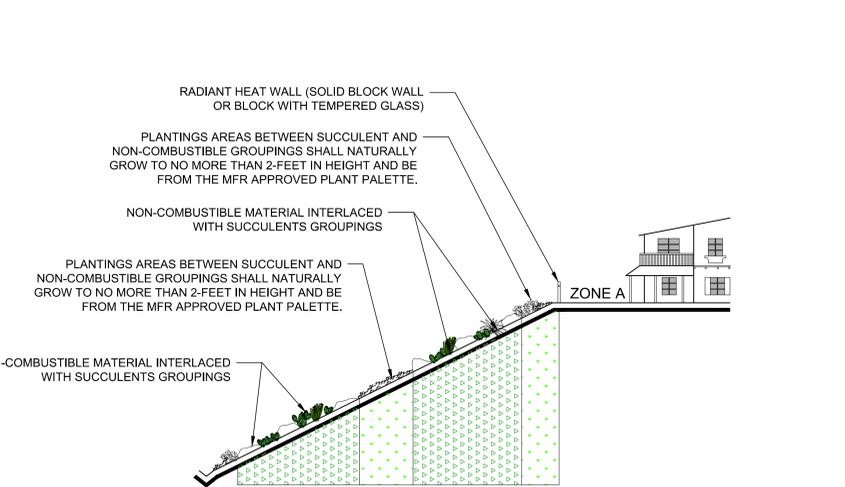
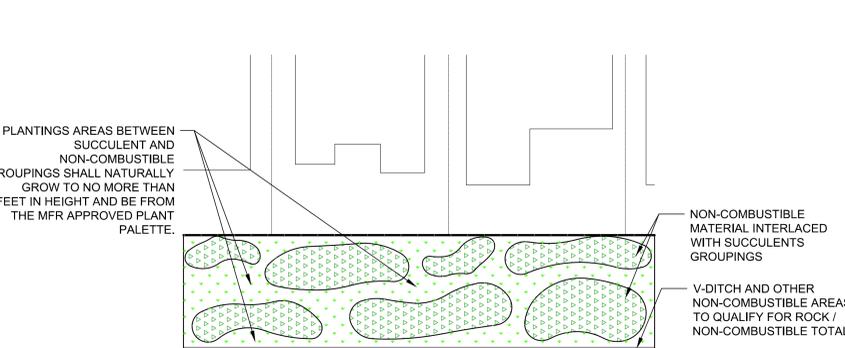
PREPARED BY:  
  
 28486 ALOROSA STREET  
 RANCHO MISSION VIEJO, CA 92694  
 (949) 240-5911

WHITEWOOD APARTMENTS - C.F.M.P PLAN SET: "E"  
 PLAN CONTROL DATE: 03/31/2022

EXAMPLE SUCCULENT PLANTING AND ROCK GROUPINGS

FINAL DESIGN BY THE LANDSCAPE ARCHITECT  
 SUCCULENT PLANT MATERIAL AND ROCK / NON-COMBUSTIBLE MATERIAL TO BE PLANTED IN GROUPS COVERING A MINIMUM OF 50% TOTAL OF THE AREA AS DEMONSTRATED BELOW (25% SUCCULENT AND 25% ROCK / NON-COMBUSTIBLE)

PLANTING AREAS BETWEEN SUCCULENT AND NON-COMBUSTIBLE GROUPINGS SHALL BE FROM THE MURRIETA FIRE & RESCUE (MFR) APPROVED FUEL MODIFICATION PLANT PALETTE

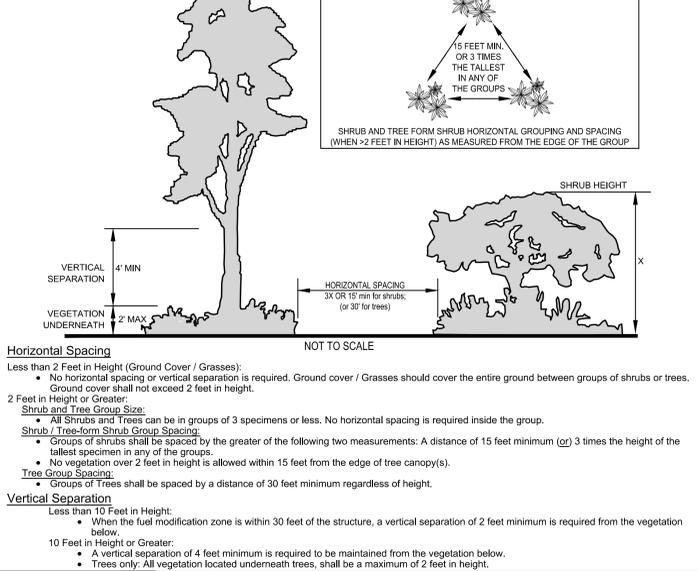


MAINTENANCE GUIDELINES

**SAMPLE CC&R MAINTENANCE LANGUAGE**  
 It is recommended that the following language be included in the CC&Rs recorded for a common interest development:  
 The duty of the homeowners' association to perform "Fire Prevention Maintenance" (as defined below) for all Fuel Modification Zones and manufactured interior slopes within the development shall be included as an express obligation in the recorded CC&Rs for the development. Similarly, each owner whose lot (or Condominium) is subject to Fuel Modification Zone restrictions (e.g., non-combustible structure setback, etc.) shall be obligated to comply with such restrictions.  
 1. The Murrieta Fire & Rescue will be designated as a third party beneficiary of a homeowner's duty to perform "Fire Prevention Maintenance" (as defined below) for all portions of the Association Property (or Common Area) that constitute fuel modification zones and designated interior/manufactured slopes to be maintained by the homeowners' association, and of any Owner's duty to comply with any fuel modification zone restrictions applicable to their lot (or condominium). Additionally, Murrieta Fire & Rescue shall have the right, but not the obligation, to enforce the homeowners' association's duty to perform such Fire Prevention Maintenance, and to enforce compliance by any owner with any fuel modification zone restrictions applicable to their lot (or Condominium). In furtherance of such right the Murrieta Fire & Rescue shall be entitled to recover its costs of suit, including its actual attorneys' fees, if it prevails in an enforcement action against a homeowners' association and/or an individual owner. (A sample third party beneficiary provision to be incorporated into the CC&Rs is attached hereto as Addendum "1").  
 2. As used herein, "Fire Prevention Maintenance" shall mean the following:  
 (i) All portions of the Association Property (or Common Area) that constitute fuel modification zones or designated interior/manufactured slopes shall be regularly maintained by the homeowners' association on a year-round basis in accordance with the fuel modification plan on file with the property manager for the development.  
 (ii) The irrigation system for fuel modification zones or designated interior/manufactured slopes shall be kept in good condition and proper working order at all times. The irrigation system shall not be turned off except for necessary repairs and maintenance.

**ADDENDUM "1"**  
 Enforcement by the Murrieta Fire & Rescue: The Murrieta Fire & Rescue is hereby designated as an intended third party beneficiary of the Association's duty to perform "Fire Prevention Maintenance" for all portions of the Association Property (or Common Area) consisting of fuel modification zones or designated interior/manufactured slopes in accordance with the fuel modification plan, and of each Owner's duty to comply with any fuel modification zone or designated interior/manufactured slopes restrictions applicable to his lot (or condominium) as set forth in the fuel modification plan. In furtherance thereof, the Murrieta Fire & Rescue shall have the right, but not the obligation, to enforce the performance by the association of its duties and any other fire prevention requirements which were imposed by the Murrieta Fire & Rescue or other public agency as a condition of approval for the development (e.g., prohibition of parking in fire lanes, maintenance of the blue reflective markers indicating the location of fire hydrants, etc.) and shall also have the right, but not the obligation, to enforce compliance by any owner with any fuel modification zone or designated interior/manufactured slopes restrictions applicable to his lot (or condominium) as set forth in the fuel modification plan. If in its sole discretion, the Murrieta Fire & Rescue shall deem it necessary to take legal action against the association or any owner to enforce such duties or other requirements, and prevails in such action, the Murrieta Fire & Rescue shall be entitled to recover the full costs of said action including its actual attorneys' fees, and to impose a lien against the association property, or an owner's lot (or condominium), as the case may be, until said costs are paid in full.

ATTACHMENT 6  
 HORIZONTAL SPACING AND VERTICAL SEPARATION REQUIREMENTS FOR INSTALLATION AND MAINTENANCE IN ALL FUEL MODIFICATION ZONES



WHITEWOOD APARTMENTS  
 CONCEPTUAL FUEL MODIFICATION PLAN  
 DETAILS, GUIDELINES AND NOTES  
 A.P.N. 392-320-014 - CITY OF MURRIETA  
 CITY OF MURRIETA FIRE AND RESCUE

SHEET  
**FM-2**  
 OF 3

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EXISTING MAINTAINED LOT OF RECORD AND FUTURE DEVELOPMENT

PROJECT BOUNDARY

EXISTING MAINTAINED LOT OF RECORD AND FUTURE DEVELOPMENT

JURISDICTIONAL BOUNDARY

EXISTING SINGLE FAMILY RESIDENCE

EXISTING MAINTAINED LOT OF RECORD AND FUTURE DEVELOPMENT

**FUEL MODIFICATION LEGEND**

- ZONE A - HOMEOWNER:**  
5'-0" to 12'-0" setback zone for non-combustible construction only. Zone A shall be maintained by the Private Homeowner.
- ZONE A - NON-COMBUSTIBLE CONSTRUCTION:**  
20'-0" setback zone for non-combustible construction only. Zone A shall be maintained by the Homeowner's Association.
- ZONE B - WET ZONE (100% REMOVAL UNDESIRABLE SHRUBS):**  
12'-0" to 131'-0" from Zone A. Zone B shall be permanently irrigated, fully landscaped with approved drought tolerant, deep rooted, moisture retentive material. If any new plant material is added this zone shall be planted with container shrub material. Zone B area shall be maintained the Homeowners Association.
- ALTERNATIVE PLANTING FOR DEFICIENT FUEL MODIFICATION:**  
Where indicated on this Plan adjoining Building 18, planting within the Zone B as indicated on this plan, shall be designed and installed with a minimum 25% succulent material (such as cactus and agaves) and a minimum of 25% rock or non-combustible material. This shall be maintained as such in perpetuity. This Alternative Planting design provides a long term passive protection measure requiring less maintenance than traditional fuel modification Zone B. The non-combustible material reduces the amount of potential fuel within the fuel modification zone, and the succulent material provides plant material with higher moisture characteristics compared to other plant material. With the higher moisture content, succulent plant material tends to melt rather than be entirely consumed during a wildfire reducing the radiant heat and flame lengths from an impending wildfire that enters the fuel modification, as well as reducing the amount of flying embers that could be produced. No trees shall be permitted within this area.

**SYMBOL LEGEND**

- ACCESS POINT**  
Fuel Modification walk in access point. A 5' non-combustible tubular steel gate will only be installed where necessary, and shall be provided with a Knox padlock or Knox Box at each gate.
- IDENTIFICATION MARKER**  
Permanent identification markers shall be constructed to identify the limits of applicable Fuel Modification zones, marker design shall be 2" dia. x 8'-0" long galvanized pipe, embed minimum 2'-6" into solid ground, 1" reflector tape 1" tape band at top. Expose pipe 2'-0" above vegetation minimum.
- SOLID BLOCK (RADIANT HEAT WALL)**  
6" Minimum on both sides of the Wall. Final location and design by the project Landscape Architect and Civil Engineer. Refer to sheet FM-2 for minimum requirements.  
  
In areas where the total fuel modification zones are less than the minimum 100-feet, a Solid Block Wall provides a physical barrier to provide protection from radiant heat and flame impingement from an impending wildfire.
- INDICATES THE LIMITS OF THE FUEL MODIFICATION ZONES**
- FUEL MODIFICATION ZONE INDICATOR**  
Fuel Modification Zones indicated per the Fuel Modification Legend herein.
- PROPOSED BUILDINGS**  
Indicates proposed buildings within the project development. All buildings shall comply with all portions of the California Building Code Chapter 7A and/or California Residential Code Section R337.
- PAVED ROADWAYS**  
Indicates proposed paved roadway improvements. The proposed paved roadways serve as non-combustible break from the unmanaged open space vegetation and the proposed development.
- INDICATES BUILDINGS WITH ADDITIONAL PROTECTION MEASURES AS INDICATED BELOW**
- BUILDING 18 SPECIFIC - ADDITIONAL CONSTRUCTION REQUIREMENTS**  
As indicated within the Fire Behavior Analysis for the Whitewood Apartments project, dated 12/14/2021, the northern face of Building 18, where indicated on this on Plan, shall comply with the following requirements as mitigation of the deficient fuel modification zone distances.
  1. The exterior of the structure shall be rated to one-hour in accordance with the requirements of the Murrieta Building Code standards for rated construction.
  2. All panes of glass in all windows shall be tempered glass.
  3. The fire sprinkler system design criteria (flow density) shall be increased to a level acceptable to the Murrieta Fire and Rescue Department.
- ADDITIONAL CONSTRUCTION REQUIREMENTS**  
Where specifically indicated on Buildings all panes of glass in all windows shall be tempered glass. The extent of the tempered panes are specific for each building where the portion with the increased protection measure is at portions of the building with less than 100-feet from the unmanaged vegetation within the riparian area. Portions of these buildings with a minimum of 100-feet of total fuel modification shall not require this additional protection measure.

SCALE: 1" = 40'-0"

0 40' 80' 120' 160'

NORTH

WHITEWOOD APARTMENTS - C.F.M.P. PLAN SET: "E"  
PLAN CONTROL DATE: 03/31/2022

PREPARED FOR:

**MURRIETA WHITEWOOD MULTI-FAMILY, LLC.**

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**WHITEWOOD APARTMENTS**  
**CONCEPTUAL FUEL MODIFICATION PLAN**  
**FUEL MODIFICATION LAYOUT**  
A.P.N. 392-320-014 - CITY OF MURRIETA  
CITY OF MURRIETA FIRE AND RESCUE

SHEET  
**FM-3**  
OF 3

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