Montecito Fire Department

Development Standards

November 2025

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DEVELOPMENT STANDARD #1
ROOFING ASSEMBLY REQUIREMENTS

The Montecito Fire Protection District (Fire District) has mandated that any new or replacement roofing assembly must be "Class A – suitable for extreme fire exposure" to meet the requirements of the current version of the Code.

REPLACEMENT

Replacement of existing and/or application of additional new roof material which amounts to more than 10% of the total roof area will require removal and replacement of the entire roof with conforming Class A roofing material.

PROJECT/PLAN REVIEW

The Fire District is responsible for reviewing plans and contract documents for all new and/or replacement roofing projects occurring within its jurisdiction. Roofing permits are initiated through the standard Fire Protection Certificate Application (FPC) process currently utilized for all building permits within unincorporated areas of the County.
The Fire District reviews plans and/or roofing contracts to verify that a conforming "Class A" roof is being proposed for installation. Wood shake or shingles are not allowed even if they meet Class A roof assembly standards. The contractor or owner's agent is required to produce such documentation for review by Fire District personnel. The County Building Official is responsible for the inspection of any roof installation within the Fire District.

ROOFTOP GARDENS & LANDSCAPE ROOFS

The Fire District will allow rooftop gardens / landscaped roofs on a case-by-case basis but must have prior approval by the District Fire Code Official.
If approval is granted, only succulent vegetation will be permitted for rooftop gardens and landscape roofs and shall be installed and maintained in accordance with Section 317 of the California Fire Code and Sections 1505.0, 1507.16, of the California Building Code, and Chapter 5 of the California Wildland-Urban Interface Code.

DEVELOPMENT STANDARD #2
VEGETATION MANAGEMENT

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

This Standard provides clarification of requirements that reduce the risk to life and property from wildfire exposure and limit the spread of fires into wildland fuels that could endanger lives, overwhelm fire suppression capabilities, or cause significant property loss by reducing fuel loads and enhancing the ability of buildings located in any Fire Hazard Severity Zone within the Fire District to resist the intrusion of flames or burning embers generated by a vegetation fire. These measures also support a systematic reduction of conflagration losses through both performance-based and prescriptive requirements.

SCOPE

Unless otherwise noted, the Defensible Space Standards apply to all parcels within the Fire District. Vegetation management must comply with the code standards listed below as well as this Standard.

- California Public Resources Code Section 4291
- California Government Code Sections 51175 through 51189
- California Wildland-Urban Interface Code 2025 Edition

DEFINITIONS

ATTACHED Directly connected or affixed to a Building or Structure.

BUILDING OR STRUCTURE Anything constructed that is designed or intended for support, enclosure, shelter, or protection of persons, animals, or property, having a permanent roof that is supported by walls or posts that connect to, or rest on the ground. A Building or Structure, for the purpose of an ember-resistant zone, includes an attached deck.

COMBUSTIBLE Vegetative, wood, or petroleum-based material that are likely to ignite and transmit flames.

EXISTING BUILDING OR STRUCTURE An Existing Building or Structure is a Building or Structure other than a New Building or Structure.

NEW BUILDING OR STRUCTURE A New Building or Structure is a Building or Structure that did not exist prior to the effective date of the regulation.

OUTBUILDING Building or Structures that are less than 120 square feet in size and not used for human habitation.

ORNAMENTAL LANDSCAPE All grasses, plants, trees and other vegetation planted by a proper owner.

ROOF RIDGELINE The highest point of a roof.

ZONE 0 A five-foot ember-resistant area required around structures in high-fire-hazard zones to reduce home ignition from wind-blown embers during wildfires. Zone 0 regulations require the use of hardscaping like concrete or pavers, removal of dead plants and debris from roofs and gutters, clearing of combustible items from decks and porches, and the replacement of combustible fences attached to the home with non-combustible alternatives.

ZONE 1 The area within 5-30 feet of structures and decks that reduces the likelihood of fire burning directly to the structure by modifying fuels and creating a discontinuity between planting groups that limits the pathways for fire to burn to the structure and reduces the potential for near-to-building ember generation and radiant heat exposures. An additional purpose of this zone is to provide a defendable area for fire personnel to stage and take direct action.

ZONE 2 The area from the outer edge of Zone 1 to 100 feet from structures and decks that is designed to reduce the potential behavior of an oncoming fire in such a way as to drop an approaching fire from the crown of trees to the ground, reducing the flame heights, and the potential for ember generation and radiant heat exposure to structures. Additional benefits of the Zone 2 include facilitating direct defense actions and improving the function of Zone 0 and 1.

FIRE HAZARD REDUCTION

I. FIRE HAZARD SEVERITY ZONES IN MONTECITO

Fire Hazard Severity Zones (FHSZ) are geographical areas designated pursuant to California Public Resources Code Sections 4201 through 4204 and classified as Very High, High, or Moderate. They were developed by the California Department of Forestry and Fire Protection (CAL FIRE), to identify areas at higher risk for wildfires. The FHSZ maps guide homeowners, as well as landscape design and construction professionals, in determining which wildfire-related building and landscaping standards in the California Building Code apply to their residential or commercial projects.

Scientific models are used to geographically identify FHSZs through an analysis of factors, such as:

- Predominant vegetation type (vegetation is the fuel for a wildfire)
- Terrain (severity of slopes)
- Fire history (past fires are good predictors of future fires)
- Weather patterns (high winds, low humidity, and high temperatures contribute to fire severity)

Please visit https://www.montecitofire.com/fire-hazard-severity-zones-fhsz to determine whether your property falls in the Undesignated, Moderate, High or Very High Fire Hazard Severity Zone.

II. DEFENSIBLE SPACE REQUIREMENTS

Defensible space is the area that property owners are required to create and maintain around a home to help slow or stop the spread of a wildfire. It includes natural or man-made actions, such as clearing dead plants, trimming trees, or creating buffer zones. This space acts as a barrier to protect your home, makes it safer for firefighters to defend property, and helps them work more effectively to put out a fire. Property owners shall maintain defensible space of 100 feet from all sides of any structure but not beyond the property line except when adverse conditions exist as referenced in paragraph*s 2 and 3* below.

A greater distance than that required under paragraph 1 may be required by special order from the Fire Chief or designee if additional distance is necessary due to extreme risks. Such risks could include, but are not limited to, slopes greater than 40% and heavy fuel loading.

Fuels reduction on adjacent properties may be required if it is determined that additional clearing is necessary to significantly reduce the risk of transmission of flame, heat, or embers sufficient to ignite the structure and there is no other feasible mitigation measure to reduce that risk. Additionally, the property owner must have done everything reasonable to meet defensible space requirements on their property. Clearance on adjacent properties shall only be conducted following written consent by the adjacent landowner. It is the responsibility of the property owner to obtain such consent.

The Fire Chief may authorize the removal of any vegetation on a given property that is not maintained consistent with the standards of this section. Following written notice, the Fire Chief may prescribe a procedure for the removal of such vegetation and seek reimbursement from the property owner for work that was done consistent with the procedures prescribed in the Code.

All new or replaced vegetation shall exclude species on the Undesirable Plant List and be in accordance with this section and the requirements of the Defensible Space Standards as issued and approved by the Fire Code Official and the specific requirements noted in Ordinance 2025-02 and this Standard.

Please visit https://www.montecitofire.com/fire-resistant-landscaping for sources of vegetation that exhibit fire-resistant properties and for the Undesirable Plant List. All required landscape plans must comply with the Fire District's Plan Submission Requirements.

III. VEGETATION CLEARANCE FROM STRUCTURES

Defensible space research clearly demonstrates that defensible space significantly improves the probability of a structure surviving a fire. For the purposes of this standard, defensible space consists of three zones and are measured from the base of all buildings or structures:

- 0 – 5 feet (Zone 0)
- 5 – 30 feet (Zone 1)
- 30 – 100 feet (Zone 2)

Vegetation treatment requirements are most stringent in Zone 0, less restrictive in Zone 1, and further reduced in Zone 2.

Advisory Notice: Montecito Fire Protection District has local Zone 0 requirements currently in effect for New Buildings and additions to Existing Buildings as described in the Development Standard #2. New State regulations for Zone 0 are currently under development by the State Board of Forestry and Fire Protection (BOF). Any State regulation more restrictive than Ordinance No. 2025-02 or the requirements of Defensible Space and Fuel Modification Standards, as issued and approved by the Fire Code Official, shall apply. This may require thinning and/or removal of plants, trees, and vegetation to meet State Zone 0 regulations developed by the BOF.

To address the rising number of structures lost to wildfire, state legislation recently established Zone 0, or the Ember-Resistant Zone. The requirements for Zone 0 apply to all parcels within State Responsibility Areas and Very High Fire Hazard Severity Zones in Local Responsibility Areas. The requirement takes effect January 1, 2026, for new construction and will apply to existing structures three years thereafter.

1. Zone 0 Requirements: The items below are requirements applicable to New Structures. The **bold** items (**b**, **d & e**) are also applicable to Existing Structures.

    a. Allows plants in pots and other vegetation in Zone 0 but prohibits dead or dying plants, needles, leaves, weeds, and combustible mulches.

    b. **No portion of a tree can extend within 10 feet of the outlet to a chimney or stovepipe, including outdoor kitchen areas.**

    c. No items that are likely to be ignited by embers are permitted within Zone 0.

    d. **The roof and rain gutters of a building or structure shall be kept clear of leaves, needles, or other vegetative material.**

e. **The area under decks, balconies, and stairs shall be kept free from vegetative material and combustible items.**

f. Combustible gates shall not be directly attached to a building or structure.

g. Fences that are directly attached to a building or structure shall have a 5 foot non-combustible span at the point of attachment. No new sections of combustible fence are permitted within 5 feet of a building or structure including an attached deck.

h. Outbuilding are not permitted in Zone 0.

2. Zone 1 and Zone 2 Requirements (currently required for all new and existing structures):

a. Remove all dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and needles.

b. Cut annual grasses and forbs down to a maximum height of 3 inches.

c. All mature trees shall be trimmed off the ground 6 feet above ground level. For young/immature trees and large shrubs, ensure bottom 1/3rd of limbs (as it relates to the height of the plant) are removed. The objective is to prevent a ground fire from spreading into the canopy.

d. Provide and maintain adequate spacing between the plants in order to minimize fire spread.

e. Relocate exposed firewood piles at least 30 feet away from any building or structure unless they are completed enclosed in a fire-resistant material. All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

f. Outbuildings and Liquid Propane Gas (LPG) storage tanks shall have 10 feet of clearance to bare mineral soil, in all directions.

g. The Fire District may require the removal of certain existing plants or trees on the property. The final determination of the hazard is up to the Fire Code Official and will consider characteristics of adjacent structures, topography, and fuel conditions.

i. If it is necessary or desirable to revegetate, refer to the undesirable plant list located on the Fire District website.

III. ROADWAY/DRIVEWAY VEGETATION CLEARANCE

Property owners are responsible for vegetation maintenance along Fire Apparatus Access Roads including private roadways, driveways, and public roads which front their property.

1. A minimum 13 ½ foot vertical clearance shall be maintained above full width of the required Fire Apparatus Access Roads to allow for effective response of emergency vehicles at all times.

2. Horizontal clearance of vegetation shall be maintained, at minimum, to the road right-of-way or the edge of the pavement depending on individual easements to maintain maximum traffic circulation in the event of emergency evacuation.

3. Flammable vegetation such as dead materials, annual grasses, and readily combustible fuels shall be removed for 10 feet on each side of every roadway to prevent wildfire from spreading as a result of vehicular causation (catalytic converters, sparking due to metallic/asphalt abrasion, discarded cigarettes, vehicle fires, etc.).

   Exception: Single specimen trees, ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants used as ground cover, provided they do not form a means of readily transmitting fire.

4. Remove dead trees, plants and other vegetative materials within 100 feet of any Fire Apparatus Access Road or as determined necessary by the Fire Code Official.

5. Excessive accumulation of waste, trash, rubbish and other belongings which prevent fire fighters from accessing the full perimeter of the structure or from gaining access to the structure shall be mitigated.

IV. VEGETATION CLEARANCE FOR VACANT PARCELS

This standard applies to all vacant parcels, regardless of proximity to structures. Grasses refer to any readily combustible vegetation having less than ¼ inch shaft diameter.

1. Parcels less than 1 acre in size: All grasses shall be mowed or disked to less than 3 inches in height.

2. Parcels 1 acre or larger in size: Create 30-foot-wide fuel breaks around and across the property dividing it into approximately 1 acre sections. Grasses shall be mowed or disked to less than 3 inches in height.

3. Soil disturbance shall be minimized when working on steep slopes, above waterways, and in environmentally sensitive habitat areas.

4. Dead trees, plants and other vegetative material shall be removed from vacant parcels as determined necessary by the Fire Code Official.

V. PHOTOVOLTAIC SYSTEMS

CLEARANCE The clearance requirements around free standing photovoltaic systems and equipment shall comply with California Fire Code, Section 1205 - Solar Photovoltaic Power Systems and the following:

1. A minimum 10-foot clearance for arrays of panels not exceeding 1,500 square feet of combined panel area.

2. A minimum 30-foot clearance for arrays of panels greater than 1,500 square feet of combined panel area.

3. Arrays shall be separated a minimum of 20 feet.

VI. WILDFIRE RISK AREA (WRA)

RESTRICTED ENTRY TO PUBLIC LANDS Fire Code Official is authorized to determine and publicly announce when an WRA shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of an WRA, except public roadways, inhabited areas or established trails and campsites that have not been closed during such time when the WRA is closed to entry, is prohibited.

Exceptions:

1. Residents and owners of private property within a WRA and their invitees and guests going to or being on their lands.

2. Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the Wildland Firefighting Service.

RESTRICTED ENTRY TO PRIVATE LANDS When the Fire Code Official determines that a specific area within an WRA presents a fire danger because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be restricted or closed until conditions allow termination of such restriction or closure. Signs prohibiting entry by un-authorized persons shall be placed on every closed area. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners of private or public property within closed and posted areas; their guests or invitees; authorized persons engaged in the operation and maintenance of necessary utilities such as electrical power, gas, telephone, water and sewer; and local, state and federal public officers and their authorized agents acting in the course of duty.

VII. ENVIRONMENTALLY SENSITIVE HABITAT (ESH)

Selective fuel management shall be practiced to minimize the removal or clearance of dead and/or decadent native riparian vegetation to the extent feasible. Maintain native vegetation to the maximum extent possible, consistent with fuel modification requirements. It is important to make efforts to minimize soil disturbance.

For clarification or advice on clearing in sensitive areas, please contact County of Santa Barbara Planning and Development.

DEVELOPMENT STANDARD #3
FIRE APPARATUS ACCESS

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

The purpose of this standard is to provide clarification of requirements and establish an acceptable level of quality to provide and maintain required fire department access to premises in the Fire District.

SCOPE

This standard shall apply to all Fire Apparatus Access Roads, whether public or private, located within the jurisdictional boundaries of the Fire District. It includes road design, signage, and marking requirements providing for and maintaining adequate and unobstructed emergency access for fire department apparatus and personnel to buildings, structures, hazardous occupancies or other premises.

The Fire District Access Standards are minimum standards and may be increased due to cumulative effect of previously submitted, approved or completed development within a given area. Public Road Standards allow for more restrictive limitations and shall apply when necessary.

Fire Apparatus Access Roads, whether public or private, shall provide for safe access for emergency equipment and civilian evacuation concurrently, and shall provide for unobstructed traffic circulation during a fire or other emergency.

DEFINITIONS

ALL WEATHER ACCESS ROAD A road capable of supporting a 25-ton vehicle after a 10-year storm.

BUILDING Any structure used or intended for supporting or sheltering any use or occupancy that is defined in the California Building Code.

DEAD-END A Fire Apparatus Access Road that has only one point of ingress/egress, including cul-de-sacs and looped roads. A Fire Apparatus Access Road that ends at a gate is considered to be a Dead End Roadway.

DRIVEWAY A private right-of-way serving not more than 4 residential parcels or 4 dwelling units, and any number of accessory structures.

DWELLING UNIT A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

FIRE APPARATUS ACCESS ROAD A roadway that provides fire apparatus access from a fire station or other staging area to a facility, building or portion thereof. This is a general term inclusive of all other terms such as road, fire lane, public street, private street, parking lot lane and access roadway and driveway. This road may provide ingress and egress for both the fire department and the general public during emergency events and normal use.

PRIMARY ACCESS ROAD A Fire Apparatus Access Road designated as the main route for emergency vehicle access to a structure or group of structures.

ROAD, STREET, PRIVATE LANE (ROAD) A private or public road (not a driveway) used routinely for access into and out of an area for public and emergency equipment, inclusive of roadway structures, that provides access to;

(a) more than 4 parcels

(b) more than 4 dwelling units

(c) any industrial or commercial occupancy

ROADWAY Any surface designed, improved, or ordinarily used for vehicle travel. Inclusive of both Roads and Driveways.

SECONDARY ACCESS ROAD An additional, independent route from the primary access road intended to provide alternate emergency access to or egress from a structure or group of structures.

SAME PRACTICAL EFFECT An exception or alternative with the capability of applying accepted fire suppression strategies and tactics, and provisions for fire fighter safety and public safety, including but not limited to;

(a) access for emergency fire equipment,

(b) safe civilian evacuation,

(c) signing that avoids delays in emergency equipment response,

(d) available and accessible water for structure and wildfire suppression

(e) fuel modification sufficient for civilian and fire fighter safety.

TURNAROUND A Roadway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment.

TURNOUT A widening in a Roadway to allow vehicles to pass or emergency equipment to stage off the Roadway.

GENERAL REQUIREMENTS

Fire Apparatus Access Roads shall be provided and maintained in compliance with Section 503 of the California Fire Code (CFC) as amended, the California Wildland-Urban Interface Code (CWUIC) as amended, and this Development Standard.

Fire Apparatus Access Roads shall be provided prior to construction and maintained throughout the life of the development. Plans shall be submitted for review and approval prior to the construction of any obstruction along Fire Apparatus Access Roads. Multi-family development projects may have additional access requirements.

The Fire Code Official or designee is authorized to approve alternate materials or methods provided the proposed design, use, or operation satisfactorily complies with the intent of the CFC, CWUIC and Development Standard, and the method of work performed or operation achieves the same practical effect to that prescribed in this standard in quality, strength, effectiveness, fire resistance, durability and safety.

FIRE APPARATUS ACCESS ROAD STANDARDS

I. MINIMUM REQUIREMENTS DURING CONSTRUCTION

Fire District access and water supply approval must be obtained prior to the start of any structural framing. The finished surface shall be completed prior to final approval for occupancy clearance.

The Fire Apparatus Access Roads shall be installed with a five-inch thickness of Class II road base compacted to 95% relative compaction at minimum. A single application of liquid asphalt emulsion sealcoat shall then be applied to this surface.

II. REQUIRED FIRE APPARATUS ACCESS ROAD WIDTHS

NUMBER OF PARCELS OR DWELLING UNITS	MINIMUM PAVED WIDTH
1	14 feet
2-4	16 feet *
5 OR MORE	20 feet
NON-RESIDENTIAL	20 feet

* Fire Apparatus Access Roads located in the SRA or Very High Fire Severity Zone in the LRA serving four or more parcels or dwelling units require 20 feet minimum paved width

EXCEPTIONS:

(i) When approved by the fire code official, Fire Apparatus Access Road width can be reduced to not less than 12 feet in areas where full width cannot be installed due to topography, other natural obstructions, or valued monuments including historically significant structures or parts of structures. When Fire Apparatus Access Road widths are approved at less than 14 feet, all of the following shall be required;

1. Fire sprinklers shall be installed throughout all structures.

2. A statement shall be recorded with the County Recorder as a public record and a certified copy shall be provided to the Fire District prior to final occupancy. Recorded statement shall be the following; "The minimum required access has been modified due to topography or other natural obstructions. Emergency vehicle response may be delayed."

(ii) When walls higher than a curb height of 6 inches are constructed along Fire Apparatus Access Roads, a minimum 2-foot shoulder between the Fire Apparatus Access Road and the wall may be required in addition to the required paved width at the discretion of the Fire District.

III. TURNAROUNDS

1. Turnarounds shall be provided on all dead-end Fire Apparatus Access Roads 150 feet or longer.
2. Inline turnarounds are to be provided at 400 foot intervals along the Fire Apparatus Access Road, or at the Fire Code Official's discretion. Line of sight issues, topography, or physical constraints may indicate shorter or longer intervals.
3. Turnaround configuration shall be either a minimum 80-foot diameter bulb turnaround, D style, Y style, or a District-approved hammerhead configuration as determined by the Fire Code Official or designee. See exhibits.
4. Where conditions do not allow the size and configuration of the turnarounds in the exhibits, alternate designs may be considered.
5. Turnarounds shall be easily identifiable and are generally made of the same material as the Fire Apparatus Access Road. Turnarounds shall not be obscured by design standards or choice of materials.
6. No parking shall be allowed inside a turnaround and the required access plan shall provide adequate onsite parking outside of the required turnaround.
7. Turnarounds shall have a maximum allowance of 5 percent slope unless otherwise approved by the Fire Code Official or designee.

IV. TURNOUTS

Turnouts shall be provided at 200-foot intervals or at the Fire Code Official's discretion. Line of sight issues, topography, or physical constraints may indicate shorter or longer intervals. Minimum turnout configuration shall be 40 foot long by 10-foot-wide rectangular area plus 10-foot tapers adjoining the roadway.

V. SLOPE / GRADE:

1. Fire Apparatus Access Road slopes greater than ten percent shall be certified by a civil engineer.

2. When Fire Apparatus Access Road slopes are greater than ten percent, alternate surfaces including chip-seal gravel surfaces will not be permitted.

3. Maximum allowed grade shall not exceed fifteen percent unless approved by the Fire Code Official. When Fire Apparatus Access Road slopes are in excess of fifteen percent, a concrete surface with broom finish shall be required.

4. Grades up to twenty percent may be allowed with extenuating circumstances with approval of the Fire Code Official.

5. Angle of approach and departure shall not exceed 12 percent rise for a thirty-foot run, which is to accommodate the overall length of the District's fire apparatus.

VI. ACCESS TO BUILDINGS/STRUCTURES

1. Fire Apparatus Access Roads shall be provided such that any portion of the exterior walls, at grade level, of a Building or Structure is not more than 150 feet from Fire Apparatus Access Roads as measured by an approved route around the exterior of the Building or Structure. The distance for sprinklered structures may be extended to 200'. Access for Group U occupancies shall be in accordance with the requirements of the Fire Code Official as determined on a case-by-case basis. There must be 4' of unobstructed access around all exterior sides of a building or structure.

2. Secondary Access
    a. Multiple-Family residential developments having more than 100 dwelling units shall have two separate and approved Fire Apparatus Access Roads.
        i. Exception: Projects having up to 200 dwelling units shall have not fewer than one approved Fire Apparatus Access Road where all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems
    b. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved Fire Apparatus Access Roads.

c. The Fire Code Official is authorized to require more than one Fire Apparatus Access Road based on the potential for impairment of a single roadway by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

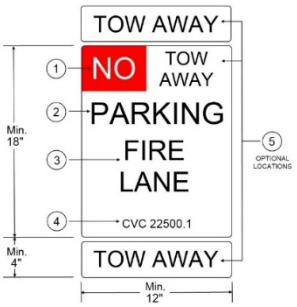
d. When secondary access is required, the width, grade, vertical and horizontal curves, and construction standards shall be the same as required for the primary access road.

e. Secondary access roads shall not be limited for emergency use only and shall permit the free passage for egress at all times without the use of a key, remote, or other special knowledge.

f. Commercial buildings or facilities exceeding 30 feet or three stories in height shall have not fewer than two Fire Apparatus Access Roads for each structure.

g. Where two Fire Apparatus Access Roads are required, their placement shall be determined by the Fire Code Official to ensure that both routes will not be obstructed by a single emergency.

3. Where required by the Fire Code Official, Fire Apparatus Access Roads shall be marked with “NO PARKING – FIRE LANE” signs complying with the figure below.



1. The word “NO” shall be a white reflective background, no smaller than 3-1/2 inches in height.

2. Lettering shall be red on a white reflective background, no smaller than 3 inches in height.

3. Lettering shall be red on a white reflective background, no smaller than 2-1/2 inches in height.

4. Lettering shall be red on a white reflective background, no smaller than 1 inch in height.

5. The words “TOW AWAY” shall be in one of the three optional locations. The lettering shall be red on a white reflective background, no smaller than 2-1/2 inches in height.

4. A minimum 13 ½ foot vertical clearance shall be maintained above the required clear width of all required access roadways.

5. Fire Apparatus Access Roads shall be kept clear of all obstructions. Minimum Fire Apparatus Access Road widths provided in this standard shall not be obstructed in any manner, including parking of vehicles. Parking shall be prohibited in areas designated as turnouts and turnarounds.

6. When possible, pass-through Fire Apparatus Access Roads will be installed/utilized due to safety concerns related to backing fire apparatus during fire department response.

7. The Fire District reserves the right to require the posting of approved signage to maintain roadway clearance.

VII. SURFACE PAVING STANDARDS:

Fire Apparatus Access Roads shall be designed, constructed, and maintained in accordance with public road standards with a surface suitable for all-weather driving capabilities and shall have a cross-section complying with one of the following:

1. Asphalt or concrete in accordance with public road standards.

2. An alternate surface certified by a registered civil engineer as an "All-Weather Access Road" based upon Standard R Value Analysis. A copy of the certification shall be provided to the Montecito Fire Prevention Bureau. Alternate surfacing will be acceptable on grades up to 10%.

   NOTE: Compacted dirt or base does not constitute an All-Weather Access Road and *"Grass-Crete" or "Turf Block" is not an acceptable method of paving on an access road and will not be permitted in the Fire District.*

VIII. STRUCTURAL WEIGHT AND TURNING RADIUS REQUIREMENTS

Horizontal turn radius shall be determined by public road standards based upon street width and speed and no Fire Apparatus Access Road shall have an inside radius of less than 24'. On a Fire Apparatus Access Road radius over 90 degrees, an additional 4' of width shall be added throughout the curve not to exceed 20' in width. When transitioning from one curve to another curve in the opposite direction, a recovery distance of not less than 80 feet shall be provided. See exhibits for examples.

Driveways and shoulders shall support a minimum of 50,000 lbs and driveway structures, culverts etc., shall be rated for 75,000 lbs. Driveways, shoulders, and structures shall require civil engineering design and certification of installation.

The minimum standard structural section of roads shall be designed and constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 lbs and shall require civil engineering design and certification of installation.

IX. GATE INSTALLATIONS:

1. MINIMUM CLEAR WIDTH: Gate installations shall comply with the Code, and shall have a minimum opening clearance width of not less than the required Fire Apparatus Access Road width when such roadway is required for fire department access. The installation of all new gates or alteration of existing gates require Fire District review and approval.

   EXCEPTION: A minimum clearance of twelve feet may be allowed at the Fire Code Official's discretion for Fire Apparatus Access Roads not requiring fire department access point or for existing gates with historical significance.

2. ACCESS FOR GATED COMMUNITIES: When a single Fire Apparatus Access Road is provided for ingress and egress, the minimum open gate width shall not be less than the required roadway width. When there is one Fire Apparatus Access Road for ingress and one for egress, each gate shall have a minimum clear open width of 15 feet.

3. ELECTRONICALLY OPERATED GATES: A Fire District approved key operated switch or box shall be installed at an approved location to allow for emergency response access as stipulated in the Code. It must be at least 24" off the ground and clearly visible.

4. AUXILLIARY BACK-UP POWER: All security gates shall have a means of auxiliary back-up power in the event of an electrical power outage and shall be maintained operational at all times to ensure a means of egress for residents and for fire response access in accordance with the Code.

5. GATE LOCATION: Gates shall be positioned to allow for a minimum 30 foot set-back from the public right-of-way or edge of pavement, as determined by the Fire Code Official or designee. Also, the gate shall open inward unless otherwise approved by the Fire Code Official.

X. ADDRESS IDENTIFICATION

1. New and existing commercial buildings and habitable residential buildings (dwelling unit) shall have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the roadway fronting the property. Address numbers identifying all residences shall also be posted at forks in the roadway and other designated areas which make it obvious for emergency vehicles to locate the correct occupancy.

2. Address identification shall be Arabic numbers or alphabetical letters. Residential addresses must be a minimum 4 inches on a contrasting background. Commercial

addresses must be a minimum 6 inches on a contrasting background. Larger sized numbers or alphabetical letters may be required at the Fire District's discretion.

3. Where multiple addresses are required at a single Fire Apparatus Access Road, they shall be mounted together on a single post or sign.

XI. BRIDGES

1. All Fire Apparatus Access Roads requiring access over bridges or culverts shall be constructed and maintained in accordance with AASHTO HB-17 (Standard Specification for Highway Bridges) or Standard Cal Trans Bridge Design Specifications and shall have a minimum H-20 or HS-20 rated capacity and shall be certified by a registered structural engineer. Bridges and elevated surfaces shall be designed to support a live load sufficient to carry the imposed loads of the fire apparatus responding within the Fire District.

2. Bridges must be evaluated by a California Licensed Civil Engineer at five year intervals.

3. Minimum clear width of bridge shall be the same as required of the Fire Apparatus Access Road served unless waived by the Fire Code Official or designee.

4. Vehicle load limits signs shall be posted at both entrances to the bridge as stipulated in the Code.

XII. FIRE APPARATUS ACCESS ROAD MAINTENANCE

1. To ensure fire access, the property owner shall be responsible for maintenance of private Fire Apparatus Access Roads for the life of the development of the property.

2. When a Fire Apparatus Access Road serves two (2) or more parcels, provisions for maintenance of the roadway shall be assured by a permanent homeowners association or equivalent organization and a covenant running with the land establishing and setting forth the maintenance requirement shall be recorded on each parcel.

3. The Fire District shall be indemnified and held harmless for any damage to roadways resulting from Fire District use.

DEVELOPMENT STANDARD #4a
WATER SUPPLY REQUIREMENTS

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person or conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

The purpose of this standard is to provide clarification of the minimum requirements for water supply, in order to ensure that adequate water supply is provided to control fires and provide improved protection against injury, life loss, and property damage in the Montecito Fire District.

SCOPE

It is the policy of the Montecito Fire District to require adequate water supply as described within this standard to all proposed buildings and occupancies within the Fire District. Water supply for fire protection is premised upon minimum available fire flows as stipulated in the Code. The required fire flows shall be from fire hydrants and water main extensions which meet all requirements of the water purveyor.

FLOW RATES

Individual hydrant spacing and flow rates for buildings having a fire area which does not exceed 3,600 sq ft shall be determined according to Table I, below, of this standard. Spacing and flow rates for all other structures shall be determined according to requirements found in Appendix B and C of the California Fire Code.

TABLE I.[1]

Area Type / Acres	Hydrant Spacing	Hydrant Flow Rate
Commercial	300 feet	1,250 gpm
Urban & Rural Developed Neighborhood	500 feet[2]	500 gpm[3]
Rural 5 to 10 Acres	600 feet	500 gpm[3]
Rural over 10 Acres	600 feet	500 gpm[3]

All flows are measured at 20 p.s.i. residual pressure.

[1] Stored water systems should not be used when a water purveyor is available unless augmenting the system and approved by the Fire Chief.

[2] Maximum distance from the driveway entrance to a hydrant cannot exceed 250’ for un-sprinklered and 350’ for sprinklered buildings.

[3] Buildings provided with a rated automatic sprinkler system

SPACING POLICY

1. If the distance from the driveway apron exceeds the maximum distance allowed by code, the installation of a fire hydrant may be required. The location of the new hydrant shall comply with the spacing requirements of the code, as determined by the Fire Code Official.

2. Spacing for one-family and two-family dwellings shall be according to Table I (above) of this standard. Spacing for other than one-family and two-family dwellings shall be according to Appendix C of the California Fire Code. Additional fire hydrants above those required by Table I and Appendix C may be required when deemed necessary by the Fire Code Official to provide needed fire protection.

3. Spacing is based on the distance between hydrants along an approved Fire Apparatus Access Road. Specific locations will be determined by the Fire District prior to project approval.

4. Irrespective of distances provided in the referenced tables, additional hydrants may be required at intersections and near Fire Apparatus Access Roads serving buildings at risk.

5. Regardless of the hydrant spacing, fire hydrants shall be located such that all points on Fire Apparatus Access Roads adjacent to a structure are within the distances listed in Table 1 above, or C102.1 of the California Fire Code.

6. Fire hydrants shall be required on both sides of the roadway whenever:

    i. Roadway easement widths are greater than 60 ft.
    ii. A center median strip exists.
    iii. The roadway is a major highway or thoroughfare as identified by the County Department of Public Works, Road Division.
    iv. In the opinion of the Fire Chief or designee, the use of fire hydrants on the opposite side of the roadway may prove operationally difficult or may create unsafe working conditions.

PRIVATE ON-SITE HYDRANT REQUIREMENTS

1. When required, a fire hydrant shall be installed no closer than 50 ft and no further than 150 ft traveled path distance to the dwelling. Specific location shall be determined by the Fire Code Official or designee.

2. Water mains for on-site fire hydrants shall be installed in accordance with the water purveyor standards or National Fire Code (NFPA Standard 24) and shall be a minimum of 4 in. diameter.

3. All on-site fire hydrants shall be equipped with a shut-off (street) valve.

4. Curb faces shall be painted red to 10 ft on both sides of the hydrant.

5. Maintenance of on-site hydrants is the responsibility of the property owner.

6. The Fire District shall have unrestricted access to on-site fire hydrants for inspection and testing purposes.

GENERAL REQUIREMENTS

1. Fire Hydrant Discharge Outlet Configuration
    i. One- and Two-Family Dwellings
        a. One 4 in. discharge outlet and one 2-1/2 in. discharge outlet
    ii. Other than One- and Two-Family Dwellings
        a. Minimum one 4 in. discharge outlet and two 2-1/2 in. outlets

2. All outlets shall have national standard threads and metal caps to protect threads.

3. The hydrant should be installed within 5’ of the edge of pavement at roadway grade as determined by the Fire Code Official. The center of the lowest outlet shall be a minimum of 18 in. above grade and a maximum of 24 in. above grade.

4. The fire hydrant shall have pentagonal operating nuts.

5. Hydrant barrel shall be painted yellow or as approved by the Fire Code Official or designee.

6. Hydrant and main installations shall be installed, operational, and have Fire District approval prior to structural framing.

7. Hydrant locations shall be identified by the installation of approved blue reflective markers located in the roadway 90 degrees to the hydrant. Location should be near the roadway center, but not likely to be obscured by subsequent striping.

8. No barricades, walls, fences, landscaping, etc., shall be installed, planted or maintained within a 3-foot radius of a fire hydrant.

9. Hydrant flows may be increased and spacing decreased in high fire hazard areas, consistent with nationally recognized standards and industry good practice.

Flow testing may be required by the Fire District prior to the acceptance of required hydrants. Resulting flows must be consistent with the flow criteria stipulated in this Standard. Upon the successful completion of this testing, the contractor may then proceed with structural framing.

DEVELOPMENT STANDARD #4b
WATER STORAGE REQUIREMENTS

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person or conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

The purpose of this standard is to provide clarification of the minimum requirements for water storage, in order to ensure that adequate water is provided to control fires and provide improved protection against injury, life loss, and property damage in the Fire District.

SCOPE

It is the policy of the Montecito Fire District that tank storage of water for firefighting purposes shall be limited to those instances wherein the water purveyor is unable to provide adequate fire flow from its distribution system. All structures to be served from such stored water systems shall be fitted with automatic fire sprinkler systems which comply with the standards of the Fire District as referenced in the National Fire Protection Association (NFPA) Standards 13D, 22, 24 and this Standard.

PLANS

Plans and specifications drawn by a California Licensed Civil Engineer shall be submitted to the Fire District for review and approval prior to installation of the storage system. These plans shall include valve and piping schedules, grade lines, tank specifications, pump curves and specifications, engineer's certifications (where applicable) and scaled system drawings prior to installation of system components. All work shall be inspected prior to being covered up. The system shall be installed and operational prior to the beginning of structural framing.

TANK SYSTEM

The tank system shall be configured such that the required fire flow adequately provides necessary fire protection for a given sized structure as indicated on Figure 4a-1 of this Plan. The **minimum fire flow tank capacity is 5,000 gallons for up to a 2,500 square foot structure.** For every square foot increase in floor area, an increase of 2 gallons of fire flow capacity is required. The table below will be utilized to determine tank capacity for fire flow capacity. **A minimum**

pressure of 20 psi shall be provided at the system discharge outlets. The following table may be used as a guide in tank sizing:

Building Size	Gallons
Up to 2,500 sq. ft.	5,000
Up to 3,000 sq. ft.	6,000
Up to 4,000 sq. ft.	8,000
Up to 5,500 sq. ft.	11,000
Up to 7,500 sq. ft.	15,000
Up to 10,000 sq. ft.	20,000

Shared stored water systems may be utilized where the cumulative square footage of the structures meets requirements stated in the table above. This provision must be approved by the Fire Chief on a case-by-case basis.

The Fire District will permit property owners to utilize a single tank for supplying both required flows for fire protection and domestic use providing the minimum capacity for fire flow listed above is maintained in the water tank at all times.

Tanks should be from an ICBO (International Conference of Building Officials) recognized manufacturer and shall be installed in accordance with the manufacturer's installation instructions. Appropriate permits shall be obtained from the County as required. Any proposed deviation for these criteria shall be reviewed for structural integrity by and shall bear the stamp and signature of a California Licensed Structural Engineer.

The tank discharge outlet shall have a screen mesh with a minimum nominal size of four (4) inch and be of brass No. 10 B&S (Brown and Sharpe) gage wire.

Above ground piping shall be in compliance with NFPA Standard 20. Underground system piping installation shall conform to NFPA Standard 24.

A four inch class 150 full port shut off valve shall be installed in a locked open position at or near the tank outlet.

When required to achieve necessary fire flow, a centrifugal pump shall be installed and maintained as per NFPA Standard 20. Pump fittings and trim shall include isolation valves, strainer, check valve, pressure relief valve, pressure gauge, mercoid type pressure switch, and adequate provisions for vibration isolation.

System discharge outlet shall be a hydrant by J. Jones all bronze No. 3700 (or district approved equal) with 2 ½ and 4 inch National Standard Thread outlets. Outlet caps shall be bronze. Hydrant shall be installed with a class 51 ductile iron bury and a break off spool. Prior to final acceptance this hydrant shall receive two coats of yellow alkyd gloss paint.

It is to be understood that this system shall be maintained in an operative condition at all times by the property owner for the duration of any occupancy. The Fire District shall be afforded the opportunity to conduct tests of the system when reasonable advance notice is provided. Further, the Fire District shall be notified immediately should the system become inoperative at any time. It shall be the contractor's responsibility to provide a written affidavit that the property owner has been informed of this stipulation before final occupancy clearance will be granted.

DEVELOPMENT STANDARD #5a
RESIDENTIAL AUTOMATIC SPRINKLER SYSTEMS

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

The purpose of this standard is to provide clarification of the minimum requirements for fire sprinkler systems in residential use buildings, in order to aid in the detection and control of fires and thus provide improved protection against injury, life loss, and property damage.

SCOPE

This standard, in conjunction with the latest edition of NFPA 13D and NFPA 13R and California Residential Code (CRC) section R313 shall apply to the design and installation of, as well as the modification to, all fire sprinkler systems in residential buildings. In the event of an inconsistency or conflict between the provisions set forth in this Standard, the Fire District Code, NFPA 13D, NFPA 13R, or CRC R313, the more restrictive provision shall apply.

RESPONSIBILITY

All individuals and companies who intend to engage in the installation or alteration of fire sprinkler systems are subject to the requirements of this standard.

INSTALLER: The sprinkler system can be installed by an individual who holds a state of California C-16 (sprinklers), C-36 (plumbing) license or, by owner-builder of an owner-occupied, single-family dwelling.

DESIGNER: Plans shall be designed by a C-16 licensed contractor or by a Registered Professional Engineer (Civil, Mechanical, or Fire Protection), licensed by the State of California (Board of Professional Engineers). All copies of the plans shall be stamped and signed by the licensed individual. C-36 must have registered engineer design sprinkler drawings.

PLANS SUBMITTAL GUIDELINES

1. The property owner or applicant shall submit one (1) set of plans, data sheets, and hydraulic calculations for the proposed sprinkler system to the Fire District for review and approval prior to installation via VIVA.

2. Plans will be checked and if approved, will be stamped “Approved”, signed and dated. The Fire District will retain a set of plans electronically and the applicant can also access the plans via VIVA.

3. Sprinkler plans shall be subject to review by a Fire District retained consultant at the Fire Code Official’s discretion. Multiple plan reviews may result in fees being charged to the applicant.

4. Any field changes shall be noted on the drawings. The edited drawings may need to be submitted to the Fire District for additional plan check prior to final Fire District approval.

5. A copy of the approved plans shall be maintained on the job site during all phases of system installation.

6. Copies of Manufacturer’s data for all installed system components shall be provided upon Fire District request prior to final system acceptance. All system components shall be installed following manufacturer’s guidelines unless specific relief is granted by the Fire Code Official.

7. Listed and Labeled: Only UL listed and labeled devices and materials shall be installed and used in accordance with the listing limitations and manufactures guidelines. Only new sprinkler heads and components shall be installed in the systems.

PLANS

To speed up the plan check process and to avoid the possibility of having the plans returned for corrections, please use the following checklist, which identifies the information that is required on the working sprinkler drawings prior to submittal.

1. Name of property owner and/or occupant

2. Address of property

3. Assessor’s Parcel Number (APN)

4. Name of sprinkler contractor, address, phone number, type of license and license number

5. Sprinkler contractor’s dated signature and seal (on each sheet)

6. All plans must be to scale or dimension

7. Plot map indicating all structures, water meter location/size, underground pipe size, point of connection, length and type of pipe to be installed

8. Full height cross section showing beamed ceilings, vaulted ceilings, attic areas, and sub-floor basements

9. Sprinkler riser detail including: double check valve assembly, pressure gauge, drain valve, flow switch, pressure relief valve, domestic water control valve
10. Sprinkler head spacing
11. Show all non-sprinklered areas
12. Indicate manufacture, style, sprinkler model orifice size a “K” factor for each sprinkler used
13. Pipe information: type and size
14. Hanger detail
15. Inspectors test valve
16. Identify each room and space of the buildings
17. Location of heat sources: Fireplaces, ovens and cook tops, heating devices, FAU
18. Water flow information: Static pressure, residual pressure, flow

WATER SUPPLY

1. Water Supply: All connections to domestic water supply shall be made in accordance with applicable codes and standards of the County and any local water purveyor.
2. Water Supply Main: All residential sprinkler systems shall have a single supply main from the meter serving both domestic demand and the sprinkler system. A dedicated main solely for sprinkler system may be required on a case by case basis.
3. Domestic Water Supply Shut Off: Domestic water supply shut off valve on the supply line shall be installed on the domestic side of the sprinkler system riser (system plumbing including flow switch and valves). This is to assure the sprinkler system remains in service when domestic supply is shut off.
4. Water Supply: Domestic water supply must be connected to the fire sprinkler system at rough inspection.
5. Domestic Water Demand: System hydraulic design shall provide for an allowance of five gallons per minute (GPM) for domestic demand.
6. Automatic Booster Pump: When domestic water supply pressure is insufficient to produce enough water flow and pressure to accommodate a fire sprinkler system, a booster pump can be integrated into the system to augment domestic and fire flow demand. The pump must be automatically activated upon system demand, self-priming and listed or approved for electrical safety by a recognized testing laboratory. The pump must be protected from exposure to freezing and brush fires.

SPRINKLER RISER SYSTEM COMPONENTS

1. All risers shall be easily located, preferably on the outside of the building in plain sight. Risers may be installed in an access panel on an outside wall with permanent labeling on the door. Alternate locations must have approval by the Fire Official.

2. The system riser shall branch off the domestic supply line on the supply side of the main shut off valve. This is to assure the sprinkler system remains operable when the domestic supply is shut off.

3. All risers shall use copper piping and all shut off controls shall be ball valves.

4. Riser Location: Separate system risers may be installed remote from the domestic water source however must be easily located outside of the building.

5. Check Valve: For back flow prevention, the Montecito Water District requires that an RP device shall be installed at the meter and an approved single check valve assembly shall be installed on the system riser.

6. Sprinkler System Control Valves: There shall be two shut off ball valves located on each side of the check valve. These valves shall be locked in the open position upon final inspection.

7. Pressure Gauge: A UL listed 300psi gauge shall be installed.

8. Pressure Relief Valve: An approved poppet type pressure relief valve shall be installed on the riser between the back flow device and the system flow switch. Device shall be set with a design pressure of 160 psi. Note: This valve is not required when sprinkler system is supplied from a gravity fed stored water system.

9. Drain Valve: An unthreaded 1/2 inch ball valve shall be installed on the system and positioned such that flow will be to the outside away from the building.

10. Flow Switch: A system flow switch shall be installed. It shall be equipped with two connections; one for a local exterior 6 inch bell and one for alarm system monitoring. All flow switches shall be set for a 30 second delay.

11. Signage: All sprinkler system shutoff valves shall have an all weather sign affixed identifying the buildings they serve.

12. Alarms: Each sprinkler riser shall have a minimum 6 inch alarm bell affixed to an exterior wall of the structure positioned such that it can be heard by closest neighbor when activated.

RESIDENTIAL SPRINKLER SYSTEM DESIGN

1. Piping: The following list of approved piping is acceptable to use in residential fire sprinkler systems installations: Type “M” copper, Type “L” copper, steel pipe, and

Chlorinated Polyvinyl Chloride (CPVC) plastic. CPVC piping & fittings are to be listed for fire sprinkler system installations. Note: Type "K" copper pipe is unacceptable to use

2. Hanging Methods: All piping shall be provided with approved hangers and supported per manufactures requirements. Refer to Standard VII of this section for further information on hanging pipe.

3. Sprinklers: Only new residential sprinklers shall be installed unless otherwise indicated in the Code. Sprinklers shall only be installed according to their listing.

4. Inspector's Test Valve: Property owner shall install non-threaded one-half inch ball valve at the remote area of the system to serve as the inspector's test valve. This same type of valve shall be located at the riser to serve as a system drain. Any threads on these outlets are to be removed.

5. Attics: Finished attic spaces intended for storage shall be sprinklered.

6. Garages: Garages shall be sprinklered with residential type sprinklers at their listed spacing and flows.

7. Detached Group U buildings, as defined by the California Building Code, carports without habitable space, trellises and pergolas, may be exempted from the installation of sprinklers on a case-by-case basis by the Fire Code Official.

8. Water Heater Closets: All water heater closets regardless of size require fire sprinklers.

9. Mechanical Rooms: Intermediate temperature sprinkler heads are required and spaced for ordinary hazard with cage protectors.

10. Forced Air Units (FAU): A single intermediate temperature sprinkler shall be installed over each individual fuel-fired FAU. When there is more than one fuel-fired FAU in a single location, sprinkler heads shall be spaced as per Ordinary Hazard.

11. HVAC Diffuser: Heads shall be located a minimum eighteen inches away from any HVAC diffuser grille.

12. Heat /Return Air Registers: Sprinklers shall be located no closer than two feet from any register.

13. Obstructions: Sprinkler spray patterns shall not be obstructed and all head clearances shall be provided as required by NFPA 13D

SPRINKLER PIPE INSTALLATION REQUIREMENTS

1. Copper Pipe

    a. All materials delivered to the job site shall be protected from the physical elements and damage. Any damaged, gouged, cut, scratched

heads, pipe or fittings shall be removed and replaced.

b. No corrosive or self-cleaning fluxes shall be used. Joints shall be wiped clean of excess flux and solder.

c. All piping running through studs or masonry shall be protected by elastomeric or plastic sleeves at three foot maximum intervals.

d. Nails are unacceptable as a means of securing hangers and supports. Piping shall be supported at the following maximum intervals:

- Within six inches of all sprinkler drops
- Within eighteen inches of all joints
- Within four foot intervals on CPVC piping
- Within six foot intervals on copper tubing

e. Hangers: Refer to local plumbing codes for acceptable hanger types. Hangers shall be installed every twelve feet and within one foot of any sprinkler.

f. Copper pipe may be exposed in attics, porches, canopies, garages and open carports.

g. Spray Foam Insulation: When spray foam insulation is applied around sprinkler heads, a minimum of six inches shall be maintained between the spray foam insulation and all sides of the sprinkler head.

h. Approved copper pipe must be utilized and protected when application calls for piping running through the sub-roof assembly just below roof decking.

i. Approved Pipe: Type “M” copper, Type “L” copper.

2. CPVC Pipe

a. CPVC piping is to be installed per manufacturer’s listing. All CPVC piping & fittings are to be listed for fire sprinkler system installations.

b. Installers shall have attended a practical application training class by a CPVC pipe manufacture and have in possession a pocket card verifying proper certification to install this pipe.

c. Hangers shall be approved for CPVC Pipe and installed every six feet along the length of the pipe and within six inches from sprinkler heads.

d. Spray Foam Insulation: CPVC pipe must be protected as per manufactures recommendations where it could come in contact with spray foam insulation. Under no circumstances is CPVC pipe allowed to be encased by this product

without protection. When spray foam insulation is applied around sprinkler heads, a minimum of six inches shall be maintained between the spray foam insulation and all sides of the sprinkler head.

e. Incompatible Materials: Materials that have been identified as incompatible with CPVC shall not be allowed to contact the pipe. Examples of such materials are Romex electrical wiring, flexible wire/cable, metallic ducting, and communication lines. Check CPVC manufacture product data sheets for a complete list of incompatible materials.

f. Test Plugs: For CPVC piping, no sprinkler heads shall be installed in any system until the Fire Official has completed both flow test and rough inspections. At this stage of inspection, test plugs must be installed.

INSPECTION REQUIREMENTS

1. Rough Inspection: All system components including piping, connections, sprinkler heads (Test Plugs for CPVC), hangers, valves, gauges, and flow switches are required to be in place and shall be exposed for visible inspection.

   The system shall be pressurized with water at a pressure comparable to working pressure for the duration of the inspection. System must pass inspection before being covered.

2. Hydrostatic Test: Each system shall be hydrostatically tested at no less than 200 psi for copper and steel systems and at 150 psi for all CPVC systems. System shall hold a desired pressure for a minimum period of two hours.

3. Flow/Bucket Test: Flow testing of system is required. Flow shall be measured for a thirty second flow period and shall conform to the manufacturer's listing criteria for the installed sprinkler heads plus an additional 5 GPM for domestic supply from the hydraulically most demanding heads in the system. Contractors shall provide all equipment necessary for conducting test. The system shall meet the required flow.

4. Spray Foam Insulation Inspection: A visual inspection after spray foam is installed on CPVC systems is required.

5. Final Inspection: At final inspection, fire sprinkler covers/escutcheons shall be installed. Sprinkler head box shall be mounted in plain sight in garage or mechanical room. Included in the box shall be three spare sprinkler heads per type installed in the system and a wrench sized for each type of head.

   All-weather signs shall be permanently affixed to system or structure next to system and installed at time of inspection. (Main Drain, Inspector's Test, Control Valve, and Warning Sign)

   System shall be flowed and tested for operability using the Inspectors Test Valve (ITV). Where waterflow detection devices are installed, these devices shall be flow tested and

shall result in an audible alarm on premises within 30-45 seconds. If system is monitored by an alarm monitoring system, the proper communication links must be in place at time of inspection and the District must be contacted by the local alarm company within five minutes of the start of the flow test.

6. Maintenance Schedule: The sprinkler contractor shall provide the property owner with maintenance information as described in NFPA 13D. Property owner shall maintain the system consistent with these requirement.

DEVELOPMENT STANDARD #5b
COMMERCIAL AUTOMATIC SPRINKLER SYSTEMS

The information contained in this standard is provided solely for the convenience of the developers, architects, and contractors in complying with the Montecito Fire Protection District (Fire District) requirements. The Fire District reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the responsibility of the person conducting any work pursuant to this standard to ensure their work complies with any and all applicable codes, ordinances, and regulations.

PURPOSE

The purpose of this standard is to provide clarification of the minimum requirements for fire sprinkler systems in commercial and industrial use buildings, in order to aid in the detection and control of fires and thus provide improved protection against injury, life loss, and property damage.

SCOPE

This standard, in conjunction with the latest CFC adopted edition of NFPA 13 shall apply to the design and installation of, as well as the modification to, all fire sprinkler systems in commercial and industrial use buildings. In the event of an inconsistency or conflict between the provisions set forth in this Standard, the Fire District Code and NFPA 13, the more restrictive provision shall apply.

RESPONSIBILITY

All individuals and companies who intend to engage in the installation or alteration of fire sprinkler systems are subject to the requirements of this standard.

Installer: The sprinkler system can be installed by an individual who holds a state of California C-16 (sprinklers) license.

Designer: Plans shall be designed by a C-16 licensed contractor or by a Registered Professional Engineer (Civil, Mechanical, or Fire Protection), licensed by the State of California (Board of Professional Engineers). All copies of the plans shall be stamped and signed by the licensed individual.

PLANS SUBMITTAL GUIDELINES

1. The property owner or applicant shall submit one (1) set of plans, data sheets, and hydraulic calculations for the proposed sprinkler system to the Fire District for review and approval at least three weeks prior to installation.

2. Plans will be checked and if approved, will be stamped “Approved”, signed and dated. The Fire District will retain a set of plans electronically. Once approved, the plans can be picked up by the owner/applicant at District Fire Station #1 located at 595 San Ysidro Road.

3. Sprinkler plans shall be subject to review by a Fire District retained consultant at the Fire Code Official’s discretion. All costs associated with this review shall be paid for by the property owner.

   Any field changes shall be noted on the drawings. The edited drawings may need to be submitted to the Fire District for additional plan check prior to final Fire District approval.

4. A copy of the approved plans shall be maintained on the job site during all phases of system installation.

5. Copies of Manufacturer’s data for all installed system components shall be provided upon Fire District request prior to final system acceptance. All system components shall be installed following manufacturer’s guidelines unless specific relief is granted by the Fire Code Official.

6. Listed and Labeled: Only UL listed and labeled devices and materials shall be installed and used in accordance with the listing limitations and manufactures guidelines. New sprinkler heads and components shall be installed in the systems.

PLANS

To speed up the plan check process and to avoid the possibility of having the plans returned for corrections, please use the following checklist, which identifies the information that is required on the working drawings prior to submittal.

   a. Name of sprinkler contractor, address, phone number, license number

   b. Sprinkler contractor’s dated signature and seal (on each sheet)

   c. Cross-sectional drawings for all typical sprinklered areas.

   d. Riser schematic details to include all valves, jointing and support bracing.

   e. Control diagram for flow switch.

   f. Details of all typical hanger and bracing applications for this work.

g. All applicable support and drainage provisions as described in NFPA 13 shall be met by the Sprinkler Contractor. Auxiliary drains shall be routed to the building exterior.

h. A list of all abbreviations and symbols shall be provided on the drawings.

i. Certification required for all welding. All welding to be indicated on shop drawings.

j. The sprinkler shop drawings shall bear the signature and registration number of a National Institute for Certification in Engineering Technologies (NICET) Level III sprinkler designer. At the discretion of the Fire Chief, the sprinkler designer may submit resume and credentials which demonstrate an equivalent level of expertise.

SPRINKLER SYSTEM DESIGN/INSTALLATION

1. Hydraulics: Maximum flow rate for any underground pipe shall not exceed 16 feet per second.

2. All pipe and materials delivered to the job site shall be protected from the elements and physical damage.

3. All penetrations of fire separation walls by sprinkler piping shall be sealed with a suitable sealant prior to final inspection.

4. All underground pipe shall be bedded on a puddled and tamped 4 inch thick base of yellow sand prior to hydrostatic testing. Backfilling shall consist of an initial 12 inch lift of tamped yellow sand. Subsequent compacted lifts of 12 inches, or a fraction thereof, shall be made with clean backfill.

5. The Sprinkler Contractor shall provide all information as deemed necessary by the Fire Chief to establish evidence of compliance with the Manufacturer's guidelines.

6. All system valves shall be UL and/or FM listed for fire sprinkler service.

7. Any deviations from procedures described within this Standard shall be allowed only with the express written consent of the Fire Chief.

INSPECTION REQUIREMENTS

1. The sprinkler system shall be inspected at the following intervals:

   a. All welded sections shall be field inspected prior to installation. All burrs, slag, and welding residue shall be filed and removed prior to inspection.

   b. All piping shall be inspected prior to being covered, buried or concealed.

   c. Hydrostatic testing will be required upon completion of piping installation.

   d. Final inspection for system acceptance shall be completed prior to granting occupancy clearance. A set of approved shop drawings with all field changes shall be produced

for this inspection. All components of this system shall be operational and in compliance with this Section.

All required inspections shall be arranged to allow the Fire District 48 hours advance notice. Any work completed without the required inspections shall be removed and replaced at the discretion of the Fire Code Official.

DEVELOPMENT STANDARD #6
REQUEST FOR MODIFICATIONS FOR POST DISASTER REBUILDS

The Montecito Fire Protection District (Fire District) recognizes the adverse impacts of disasters within our community such as wildfires, earthquakes, floods, and debris flows that could not have been prevented by the exercise of foresight or caution. The Fire District is committed to working with property owners in recovering from the impacts of disaster as quickly as possible to ensure a resilient community.

Consistent with established development standards, each proposed rebuild will have a set of conditions pursuant to requirements set forth in the current California Fire Code (CFC) and the adopted Fire District Code and Development Standards. The Fire District recognizes that when re-building communities following disasters, there may be practical difficulties in meeting requirements relevant to current code standards.

Property owners that are affected by disasters and have demonstrated difficulties making the code upgrade requirements may request a modification to the imposed conditions of the Fire Protection Certificate (FPC). The appeal for modification shall be in the form of a written request and shall contain an acknowledgement of the applicable code standards and include a description of the practical difficulties in attaining the specific requirements imposed. Further, the letter shall include a list of suggested modifications to the project that will assist the Fire District in providing the highest level of fire and life safety for the residents, their properties, and the community as a whole.

The structure shall be constructed to not exceed the previously legal existing square-footage. If the occupancy classification of the existing structure changes, in whole or in part, this policy shall not apply, and the structure shall meet all current adopted codes and standards. The request for modification must be received within one year of the disaster. Only legal property owners at the time of the disaster may request a modification.

Fire District staff will convey which conditions apply specific to an individual project, both in the initial planning phase, and as condition of final approval / certificate of occupancy issuance. Site inspections and conceptual plan reviews by Fire District personnel will be made upon the request of owners or their agents or at the discretion of Fire District personnel.

Address the request for modification of the Fire Protection Certificate and any questions to the District Fire Marshal.