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 (MFPD or Fire District) requirements. It should be used as a schematic reference only. The MFPD reserves the right to make changes and improvements to this standard as and when required by law, or otherwise.

It is the sole responsibility of the person or persons 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 MFPD access to premises in the MFPD jurisdiction.

SCOPE

This standard shall apply to all Fire Apparatus Access Roads, whether public or private, located within the jurisdictional boundaries of the MFPD. 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 Apparatus Access Standards are minimum standards and may be increased due to cumulative effect of previously submitted, approved or completed development within a given area. Santa Barbara County public road standards, as defined by Santa Barbara County Public Works Department ("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 roadways. A Fire Apparatus Access Road that ends at a gate is considered to be a Dead End.

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 fire lane, public street, private street, parking lot lane and access roadway and driveway. This roadway may provide ingress and egress for both the Fire District and the general public during emergency events and normal use.

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.

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 and Chapter 49 of the California Fire Code (CFC) 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 California Fire Code and this 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 (95% relative compaction) with adequate drainage control. Roads must also have compacted sub-grade soil (95% relative compaction). 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, parts of structures.

(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 having the same practical effect 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. At no time shall Fire District access exceed twenty percent slope.

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 feet. There must be 4 feet of unobstructed access around all exterior sides of a building or structure.

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

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

4. 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.

5. The Fire District reserves the right to require the posting of approved signage to maintain roadway clearance at any time during this occupancy.

VII. 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 feet. On driveway radius over 90 degrees, an additional 4 feet of width shall be added throughout the curve not to exceed 20 feet 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.

VIII. 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 District.*

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 Fire Apparatus Access Road is required for Fire District 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 District access point or for existing gates with historical significance.

2. ACCESS FOR GATED COMMUNITIES: When a single road is provided for ingress and egress, the minimum open gate width shall not be less than the required fire apparatus access road 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 buildings shall have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the street or road 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 roadway, 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 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.