



*Fire Marshal's Office*  
*San Mateo County Fire*  
**CAL FIRE**

320 Paul Scannell Drive, San Mateo, California 94402 (650) 573-3846

Date: Aug.16,2016

Revised: NEW

Number: *CFS-006*

Title: *Residential Driveways*

Approved: *Mark Mondragon*

**Purpose:**

This provision establishes the minimum requirements necessary to provide safe and adequate access to a residence. The provisions of this regulation shall apply to new one or two single-family dwelling serviced by a single driveway.

**Dimensions:**

All new driveways shall have 15 feet of vertical clearance, and have an unobstructed minimum width of a twelve (12) foot traffic lane and sixteen (16) feet unobstructed horizontal clearance.

**Surface:**

The driveway shall be designed and maintained to support the imposed load of a fire apparatus weighing at least 75,000 lbs. and shall have a minimum of 2" asphalt surface providing all-weather driving capabilities. Certification by a civil engineer may be required.

Grades of less than 15% shall be surfaced with a minimum Class 2 aggregate base with 95% compaction and an asphalt surface.

Grades of 15% to 20% shall require a non-skid asphalt or concrete surface, or equivalent. Grades 15% to 20% shall be limited to 150 ft. in length.

**Turning Radius:**

The centerline turning radius for emergency apparatus access shall be 35 feet.

**Turnarounds:**

Driveways exceeding 150 ft shall be provided with width and turnaround provisions meeting California Fire Code appendix D. Turnarounds shall have a maximum longitudinal slope no greater than eight percent (8%). The longitudinal slope is defined as the slope corresponding to the long axis of a vehicle as it travels into, out of, and through a turnaround. This slope shall be maintained beginning at and ending at the point of tangency of the edge of pavement curves for the turnaround. The cross slope perpendicular to the longitudinal slope shall not exceed five percent (5%).

**Driveway Grade:**

1. Grades shall not exceed 15% without the approval of the Fire Marshal. (See surface requirements above.)
2. Driveway grades shall not exceed 20%.
3. Grades 15% to 20% shall be limited to 150 ft. in length.

**Bridges:**

When a bridge is used as a part of the driveway access, it shall be constructed and maintained in accordance with AASHTO HB-20. The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus as stated herein:

1. Weight: Every private bridge hereafter constructed or re-constructed due to damage, deterioration, or obsolescence shall be designed to support an imposed load of fire apparatus weighing at least 75,000 lbs. Vehicle loads shall be posted and dated at both entrances to bridges. (HS20 Highway loading)
2. Height: A minimum clear vertical clearance of 13 ½ feet as measured from the driving surface of the bridge shall be provided. In situations where a grade change occurs which might require a greater vertical clearance, such additional clearance shall be determined on a case-by-case basis by the Fire Marshal.
3. Width: All bridges must be a minimum of 20 feet clear width. The Fire Marshal may allow the width to be reduced for a bridge providing access to R-3, U-1, or U-2 occupancies and lands used primarily for agricultural purposes or recreation.  
One-way bridges, and bridges with less than 20' of clear width, require a turnout at both ends of the bridge.
4. Certification: Every private bridge providing fire apparatus access hereinafter constructed or re-constructed shall be engineered by a licensed civil or structural engineer and approved by the Fire Marshal. Certification that the bridge complies with the design standards required in sub-section (a) of this section must be provided by the design engineer, to the Fire Chief.
5. Re-certification: Every private bridge shall be re-certified every ten (10) years or whenever deemed necessary by the Fire Marshal.

**Gates:**

Gates shall be a minimum of 2 feet wider than the roadway they serve. Overhead gate structures shall have a minimum of 15 ½ feet of vertical clearance. Locked gates shall be provided with a Knox Box or Knox Padlock for fire department access. Electric gates shall be provided with a Knox Gate Switch and automatically open during power failures unless equipped with manual override capability (when authorized by San Mateo County Fire.). Gates providing fire access to a driveway or other roadway shall be located at least 35 feet from the primary road or street and shall open to allow a vehicle to stop without obstructing traffic on the adjoining roadway.

Contact San Mateo County Fire for Knox Box application.