Fire Department Access

SafetyNet #: 535

Introduction

One of the most important aspects of quickly mitigating an emergency is the provision for the immediate and unencumbered access to a site or building for emergency response vehicles (hereafter referred to as “apparatus”).

This FireNet outlines the parameters for the creation and maintenance of emergency access roads. It specifies their required size, location, weight demands, and the timing for the construction of required access roads for new construction projects.

Basis for Requirements

The California Fire Code (CFC) requires fire department access roads be provided and maintained so that fire apparatus can effectively operate during an emergency. The location of the access road(s) must provide for the positioning of the fire engine so that a 150 ' foot hose length will reach any portion of an exterior wall of the first story. Unique building or occupancy conditions may trigger additional requirements for ladder truck operations.

The general access road requirements are:

1. Plans for the construction of fire department access roads shall be submitted to the fire department for review and approval prior to construction (CFC 901.2.2.1).

2. Timing of Installation:

   1. Required access roads shall be installed and made serviceable prior to the construction of exterior walls (including structural steel) and must be maintained during the balance of the project (CFC 901.3).

   2. The preparation of the site and pouring of the foundation does necessitate the installation of an access road in accordance with CFC section 901.3.

3. Dimensions: Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches. CFC 902.2.2.1

4. The access road must be an all - weather surface ( CFC 902.2.2.2), designed and
maintained to support the imposed loads of 70,000 pounds Gross Vehicle Weight or axle weight of 28,000 pounds (this is based on the weight of fire apparatus Truck 34).

5. **Dead ends:** Dead-end fire apparatus access roads in excess of 150' feet in length shall be provided with approved provisions for the turning around of fire apparatus (see Figure 1 and Figure 2). CFC 902.2.4

6. **The turning radius** (CFC 902.2.2.3) is conditionally established by the UC Davis Fire Department at 20' inside radius and 40' outside radius (see Figure 3).

![Diagram](image)

**Figure 1**

**Figure 2**

**Access Radius Requirements:**

**See Figure 3 below:**

1. 20' wide access route (minimum) entering turn.
2. 20' inside radius (minimum) for turns and transitions.
3. 40' outside radius (minimum). [Relocated from below diagram]

NOTE: No vertical obstruction permitted between 15' and 20' inside radius area. If vertical obstructions exist within 5' inside-of-turn “shadow” area, 40' outside radius must be increased to 45'.