

## Scope and Purpose

The following information applies to commercial and/or industrial projects where the buildings do not exceed 30 feet in vertical distance between grade plane and the highest roof surface of the building. The highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. If the proposed building exceeds 30 feet in vertical distance, please see *Informational Handout A-2: Fire Department Access - Requiring Aerial Fire Apparatus Access*.

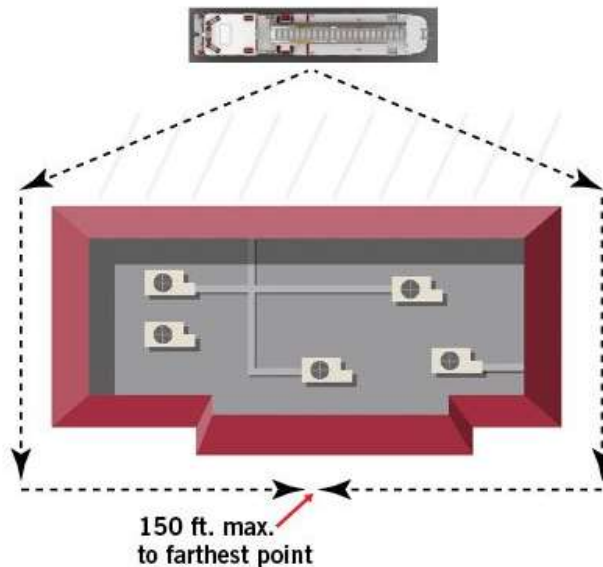
## Definition

**Fire Lane** – A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

**Fire Apparatus Access Road** – A road that provides fire apparatus access from a fire station 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 drive aisle, and access roadway.

## Required Access

Fire Apparatus shall have access to within 150 feet of all portions of a facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of a facility or building.



**Exception:** The fire code official is authorized to increase the dimension of 150 feet where any of the following conditions occur:

1. When there are not more than two detached single-family dwellings or duplexes, or Group U occupancies being served by a private access and the buildings are equipped throughout with an approved NFPA 13D automatic fire sprinkler system the fire code official may increase the dimension of 150 feet to 300 feet.
2. When fire apparatus access roads cannot be installed because of locations of property, topography, waterways, nonnegotiable grades or other similar conditions, an approved alternative means of fire protection may be proposed to be evaluated by the fire code official.

## Surface

Fire apparatus access roads shall be designed, constructed and maintained to support the imposed loads of not less than 75,000 pounds and shall be constructed of asphalt, concrete or other approved all-weather driving surface.

## Vertical Clearance

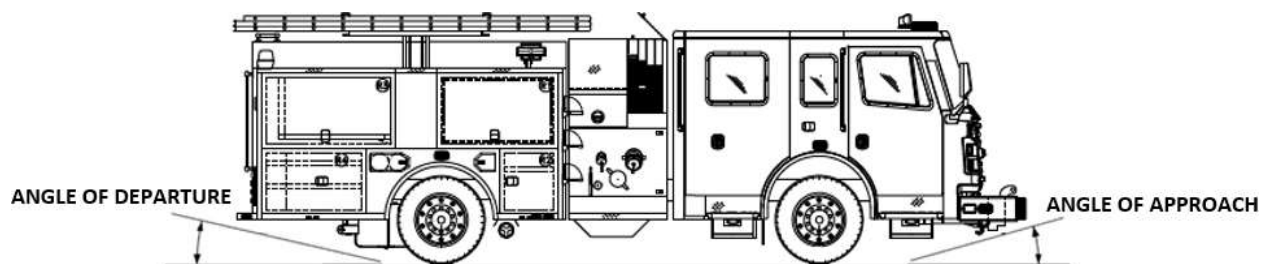
Fire Apparatus Access Roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

## Grade & Angles of Approach/Departure

Fire apparatus access roads shall not exceed 10 percent (10%) in grade longitudinally.

The Cross Slope of a road section or within a turnaround area shall not exceed five percent (5%).

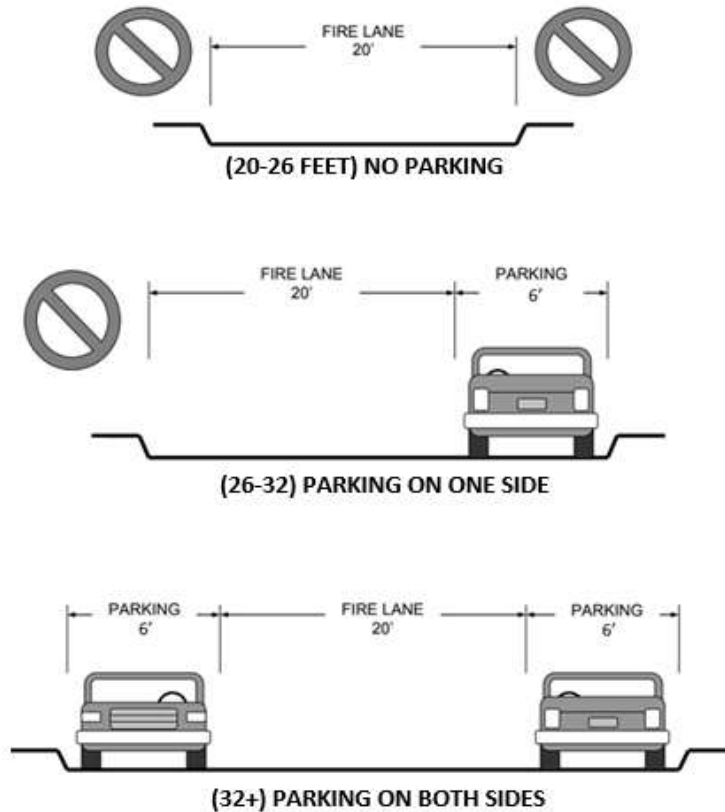
The Angles of approach and departure, the gradient in fire access roads shall not exceed a five percent (5%) change along any ten (10) foot section.



## Width

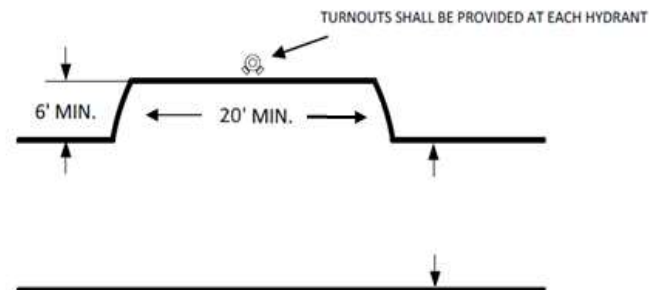
A Fire apparatus access roads shall have a minimum unobstructed width (exclusive of shoulder) of not less than the following:

WIDTH (FEET)		
No parking	Parking on One Side (Parallel)	Parking on Both Sides (Parallel)
20	26	32



### Exceptions:

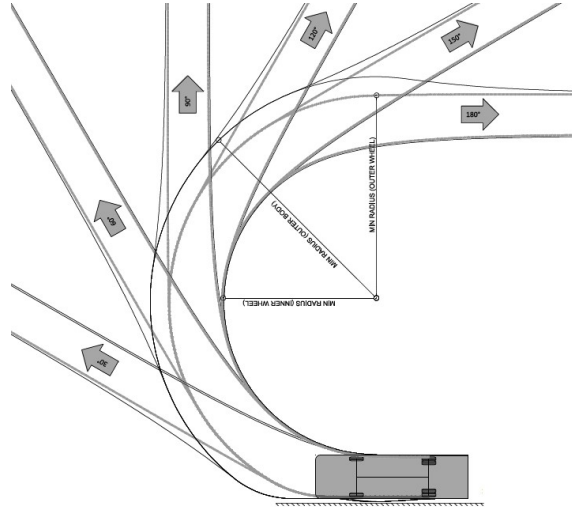
- Dead-end fire apparatus access roads in excess of 501 feet shall be a minimum unobstructed width of 26 feet. (See “Dead Ends & Turnarounds”)
- Where Aerial Fire Apparatus Access Roads are required, see *Informational Handout A-2: Fire Department Access - Requiring Aerial Fire Apparatus Access..*
- Where a fire hydrant is located on a fire apparatus access road, the minimum unobstructed road width shall be 26 feet. Please see illustration



## Turning Radius

Fire apparatus access road shall be designed to accommodate the following turning radius;

- 35 foot minimum inside turning radius
- 55 foot minimum outside turning radius.



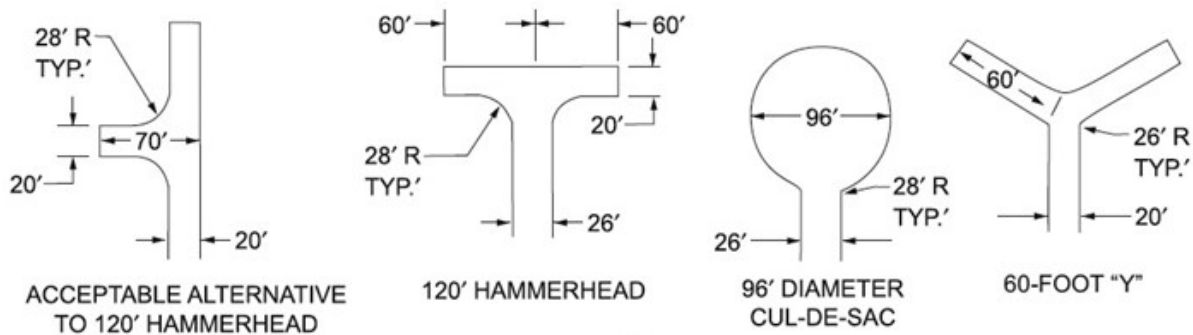
## Turnarounds

Dead-end fire apparatus access roads in excess of 150 feet shall be provided with width and turnaround provisions in accordance with Table D103.2 & D103.10.

**TABLE D103.2**  
**REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS**

LENGTH (FEET)	WIDTH (FEET)			TURNAROUNDS
	No Parking	Parking on One Side (Parallel)	Parking on Both Sides (Parallel)	
0-150	20	26	32	Not Required
151-500	20	26	32	Required
501-750	26	32	38	Required
Over 750	Special Approval Required			

**TABLE D103.10**  
**DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND**



## Signs & Markings

See *Informational Handout A-4: Fire Department Access – Signs & Markings*.

## Gates

See *Informational Handout A-3: Fire Department Access – Gates Securing Fire Apparatus Access Roads*.

## Two or More Means of Access

Under the following circumstances the fire code official is authorized to require two separate and approved fire apparatus access roads placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

**Potential impairment** - Projects that have the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

**Commercial and industrial developments** - Commercial and industrial developments shall have not fewer than two means of approved fire apparatus access roads where any of the following exist:

1. Buildings or facilities exceeding 30 feet or three stories in height.
2. Buildings or facilities having a gross building area of more than 62,000 square feet.

**Multiple-family residential developments** - Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

**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 an approved automatic sprinkler systems installed in accordance with IFC Section 903.3.1.1 or 903.3.1.2. If more than 200 dwelling units, the project shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

**One- or two-family residential developments** - 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.

**Exceptions:**

1. Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with IFC Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.

## Alternate Paving Materials

Alternative paving materials such as “Grass Crete” turf block or similar type materials may be used for Fire Department Access Roads under certain conditions. When submitting for permits the applicant shall include cut sheets of the proposed alternative material and the design criteria based upon the imposed load of fire apparatus weighing at least 75,000 pounds. The following shall comply:

- Everett Fire Department’s Signs & Marking requirements shall be followed.
- Paving shall be structurally sound to preclude movement or disbanding with soil movement.
- The paving shall be field tested by the contractor in the presence of the Fire Code Official. Testing may include driving the access road by a weight-verified vehicle. Prior to testing, the soil shall be soaked for three days in a row.
- Prior to final approval, the engineer of record (civil or soils engineer) shall certify the installation.

## During Construction

All required Fire Department Access Roads shall be installed to an extent that will provide all-weather paved access for emergency vehicles prior to combustibles being brought to the site or combustible construction taking place. The Fire Code Official shall determine the adequacy of the access roads during construction. Prior to final approval for any development project, fire department access roads shall be completed with all markings, signage and striping.