

PRIVATE ROAD AND DRIVEWAY STANDARDS

Development Standard #1

I. DRIVEWAYS

A. DEFINITION: Driveway – A private right-of-way that provides the principal means of vehicular access from a public right-of-way to four or fewer parcels.

1. A driveway serving residences on one parcel shall have a minimum width of 12 ft. See example on Page 8.
2. A driveway serving residences on two parcels shall have a minimum width of 16 ft. See example on Page 8.
3. A driveway serving residences on three to four parcels shall have a minimum width of 20 ft. See example on Page 8.
4. Access for five or more parcels shall meet Private Road Standards.
5. 12 ft wide and 16 ft wide driveway sections in excess of 500 ft shall have turnouts approximately every 500 ft. Line of sight issues, topography, or physical constraints may indicate shorter or longer intervals. Driveway dimensions at turnout locations shall be 22 ft wide by 50 ft long inclusive of the driveway. See example on Page 7.

B. Approved turnaround (large enough to accommodate fire trucks) shall be required for driveways longer than 150 ft. See examples on Pages 9 and 10 (CFC 503.2.5).

1. Turnarounds must not exceed 5% in slope.

C. Minimum dimensions for driveway switchbacks shall conform to example as shown on Page 11. (CFC 503.2.4)

D. Driveways may require civil engineering design and certification as deemed necessary on a case-by-case basis.

E. The minimum standard structural section for an all-weather driveway is 6 in. of Class II Aggregate Base (95% relative compaction) (Cal-Trans specifications) over 6 in. of compacted sub-grade soil (95% relative compaction), with adequate drainage control.

NOTE: Multi-family development projects may have additional requirements beyond what is in this standard.

II. PRIVATE ROAD

This section applies to access roads serving residences on five or more parcels.

A private road is a road over which the County has no maintenance responsibilities. The private road may be located in either a publicly or privately owned easement.

NOTE: Developments that require multiple access roads shall comply with the "ACCESS ROAD" DEFINITION. All required access roads shall be able to be used routinely for access into and out of an area.

A. DEFINITIONS:

1. PRIVATE ROAD: A street which is not a public road and does not meet the definition of a driveway.
2. ACCESS ROAD: A private or public road (but not a driveway) used routinely for access into and out of an area for the public and for emergency equipment.

Planned Unit Development of 30 homes or more located in High Fire Hazard areas are required to have multiple access roads.

NOTE: For Planned Unit Developments, road widths shall be established as outlined in the Santa Barbara County Engineering Design Standards Manual.

3. ALTERNATE ACCESS ROAD: An alternate access road provided for the public and for emergency equipment, to be used only when the primary access point is impaired by vehicle congestion or other emergency conditions.

Construction standards for an alternate access road shall be the same as those for primary access roads except that the width for the alternate access road need not exceed 24 feet when there is no on-street parking.

NOTE: The use of alternate access must be approved by the Fire Chief or designee.

4. EMERGENCY ACCESS: An access that does not serve buildings and is being provided for emergency vehicles only, such as access into wildland areas. This type of access is not intended for public use.

B. Access roads serving residences on five or more parcels shall have a minimum width of 24 ft.

C. All access roads shall require civil engineering design and certifications.

- D. All dead-end access roads shall terminate with either a 40 ft or 48 ft radius bulb turnaround or as approved by the Fire Chief or designee. See examples on Pages 14 and 15 (CFC 503.2.5).
- E. Two separate and approved access roads (not alternate access) shall be provided when it is determined by the Fire Chief that access by a single road, in excess of 600 ft, might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access (CFC Appendix D107.1 & 503.1.2)
- F. Minimum curve radius for access roads is 50 ft from centerline.

III. GENERAL REQUIREMENTS FOR DRIVEWAYS AND PRIVATE ROADS

Fire department access ways shall be provided and maintained in accordance with the California Fire Code (CFC) and as provided herein.

- A. Adhere to all Santa Barbara County Public Works and Flood Control grading and drainage requirements.
- B. The minimum standard structural section shall be designed and constructed to be capable of supporting a 20-ton vehicle. (CFC 503.2.3)
- C. A minimum easement shall be provided sufficient to provide appropriate shoulders.
 - 1. 2 foot minimum shoulders on both sides of the paved roadway shall be required unless waived by the Fire Chief or designee.
- D. The standard structural section per Santa Barbara County Public Works, Road Division, may be modified by engineering design or certifications.
- E. Surface Standards (CFC 503.2.3)

Paving is defined as:

- 1. Asphaltic concrete pavement
- 2. Poured concrete
- 3. Chip seal, allowable for grades less than 10%
- 4. Interlocking pavers over approved compacted sub-grade

NOTE: "Grass-Crete" or "Turf Block" is not an acceptable method of paving on an access road but may be authorized for a driveway on a case-by-case basis.

- F. An approved all-weather road surface is allowed where grades do not exceed 10% on driveways and private roadways.
- G. An approved all-weather road / driveway surface is defined as: Suitable aggregate material over compacted subgrade soil.
- H. Paving as defined in III.E. is required on road grades exceeding 10% in slope. A minimum of 2-1/2 in. of asphalt concrete pavement shall be provided over Class II aggregate base, or alternative, as approved.
- I. Maximum allowed grade shall not exceed 15% unless approved by the Fire Chief or designee. Gradients up to 20% may be allowed with extenuating circumstances. Any gradient approved above 15% in slope must consist of a concrete structural section designed by a civil engineer. At no time shall any Fire Department access exceed 20% in slope.
- J. Angles of approach and departure shall be less than 12 degrees combined, e.g., driveway encroachments, drainage crossings.
- K. Minimum access road widths of 24 ft provided in this standard assume no parking on either side of the roadway. Minimum access road width with parking on one side is 28 ft, curb face to curb face. Minimum access road width for parking on both sides of road is 36 ft, curb face to curb face. See examples on Page 16. (Parking Lane = 8 ft)
- L. No stopping fire lane signage, red curbs, stenciling of "FIRE LANE" and striping may be required. See Pages 17 and 18. (CFC Appendix D103.6) (California Vehicle Code, Section 22500.1)
- M. Access
 1. The furthest projection of the exterior wall of a building shall be accessible from within 150 ft of a public or private road or private driveway as measured by an unobstructed route around the exterior of the building. (CFC 503.1.1)
 2. Gated access shall be provided with an approved Fire Department locking system. Minimum clear width of gate opening shall be the same as required of the road served. Please refer to Santa Barbara County Fire Department Development Standard #7. (CFC 503.6)

3. All weather access shall be provided prior to construction of structure. A fire engine must be able to access the building site during construction. (CFC 501-4)
 - a. **Bridges, culverts, cattle guards serving driveways** 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 rated capacity (refer to Page 12); certified by a registered structural engineer. Capacity shall be posted at bridge approaches. A copy of such certification shall be on file with the Fire Department. Minimum clear width of bridge shall be the same as required of the driveway served unless waived by the Fire Chief or designee. See example on Page 12. (CFC 503.2.6)
 - b. **Bridges, culverts and cattle guards serving roadways** 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 HS-20 rated capacity (refer to Page 13); certified by a registered structural engineer. Capacity shall be posted at bridge approaches. A copy of such certification shall be on file with the Fire Department. Minimum clear width of bridge shall be the same as required of the road served unless waived by the Fire Chief or designee. See Example on Page 13. (CFC 503-2.6)

N. Vegetation Clearance

1. Vertical clearance of 13 ft 6 in. shall be maintained. (CFC 503.2.1)
2. Horizontal clearance of up to 10 ft on each side of the driveway or private road shall be maintained as required by the Fire Chief or his designee.
3. Additional clearance may be required in high fire hazard areas.

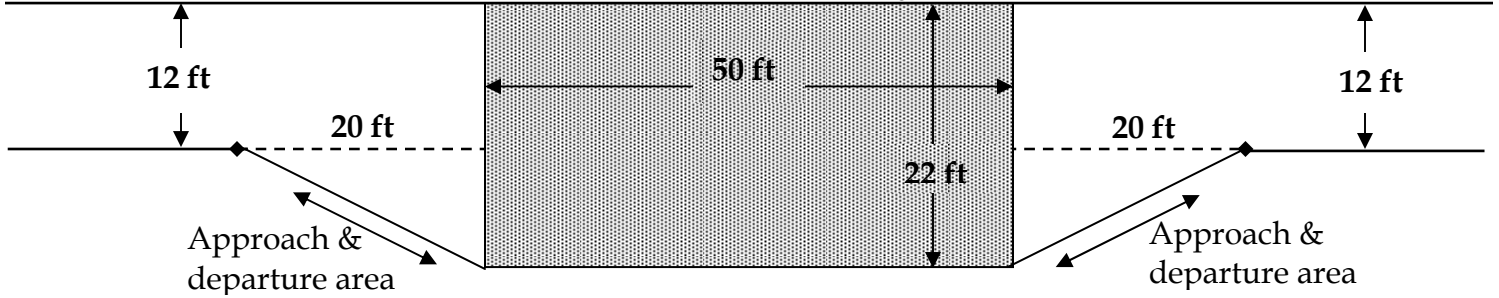
O. Street Name Signs and Building Addressing

1. Street signs shall be installed on private roads. (CFC 503.3)
2. Address numbers shall be installed on the residence prior to occupancy. (CFC 505.1)
3. Residential addresses must be a minimum of 3 in. high on a contrasting background. (County Code, Chapter 15)

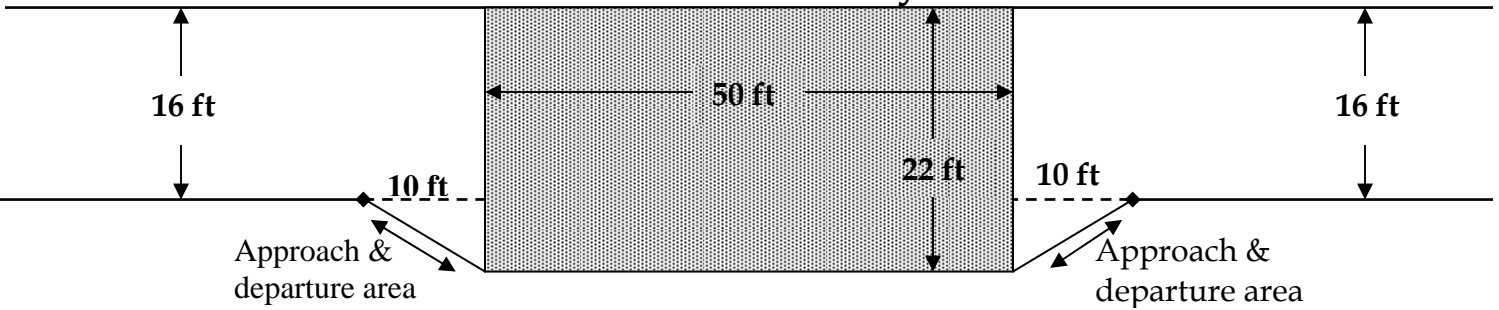
4. Commercial addresses must be a minimum of 6 in. high on a contrasting background. (County Code, Chapter 15)
 5. Addresses must be readily visible from the street or private road. At road forks or down long driveways, it must be obvious to any emergency vehicle where the house is located by direction and numerical signs. (CFC 505.1)
 6. Addresses are assigned by the Fire Department.
- P. Individual review of each proposed road section may disclose that a higher standard of design is warranted by potential future or additional use of the road section or by the existence of special circumstances. (CFC 503.2.2)
- Q. The Fire Chief or designee is authorized to approve alternate materials or methods provided the Fire Chief or designee find the proposed design, use or operation satisfactorily complies with the intent of the California Fire Code and the method of work performed or operation is for the purpose intended, at least equivalent to that prescribed in this standard in quality, strength, effectiveness, fire resistance, durability and safety.

Turnout Examples for 12-Foot and 16-Foot Driveways

12-Foot Driveway

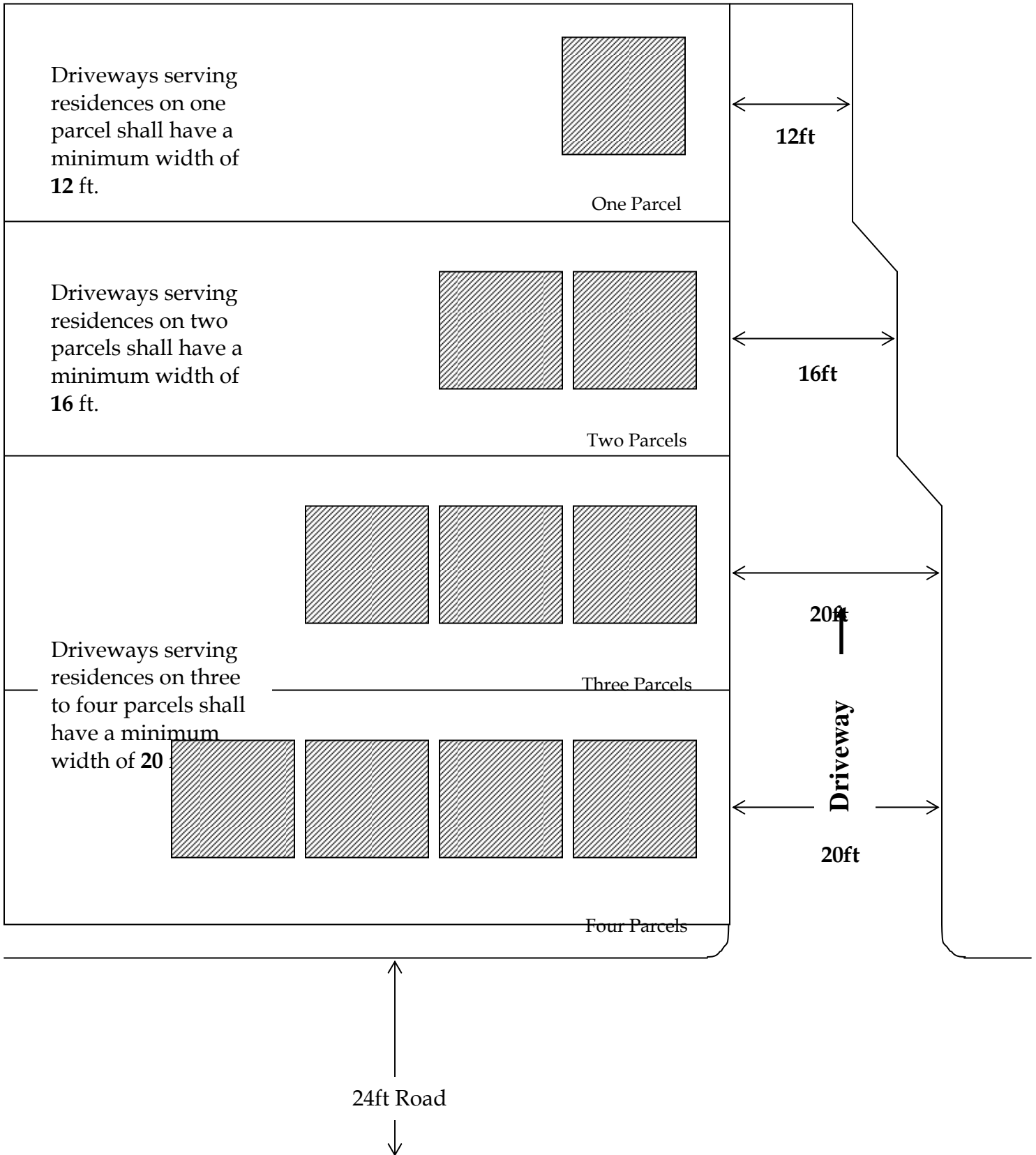


16-Foot Driveway



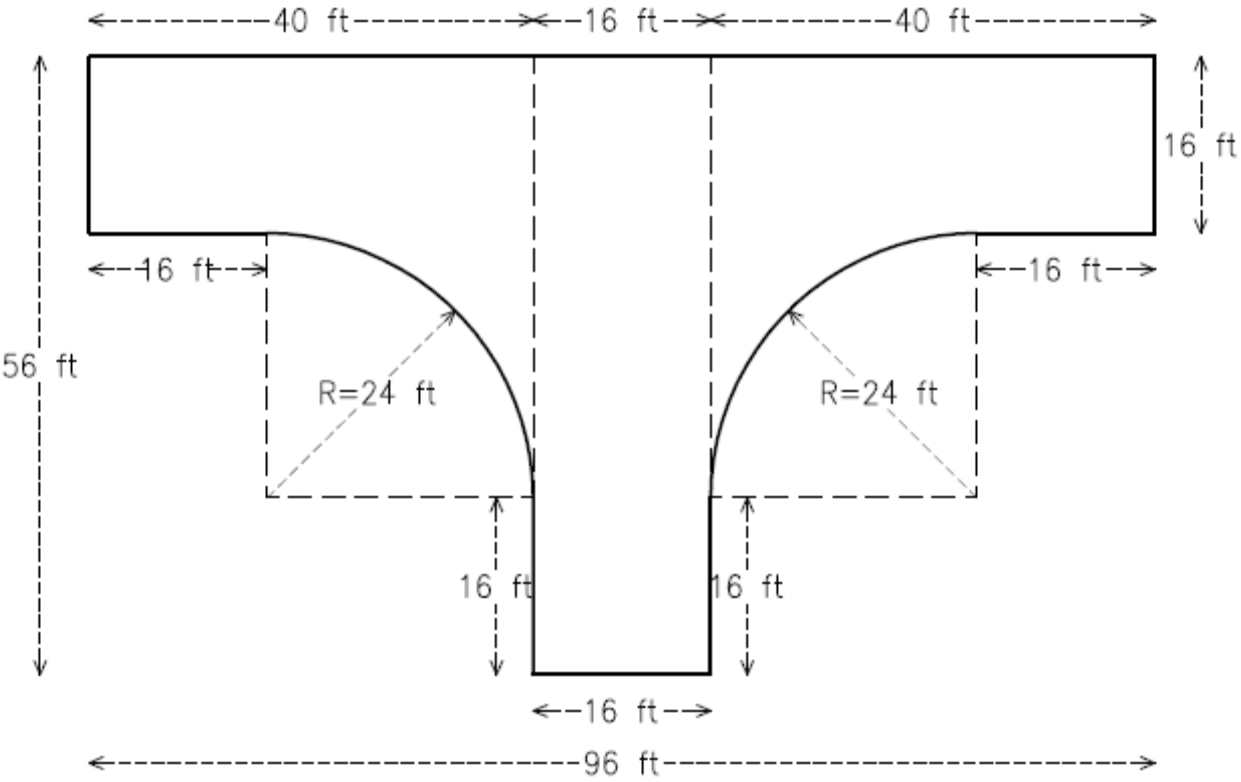
*****Required length of turnout area does not include approach and departure areas.**

Minimum Widths for Driveways Serving Residences From One to Four Parcels



Option 1

Hammerhead Style Turnaround For Driveways

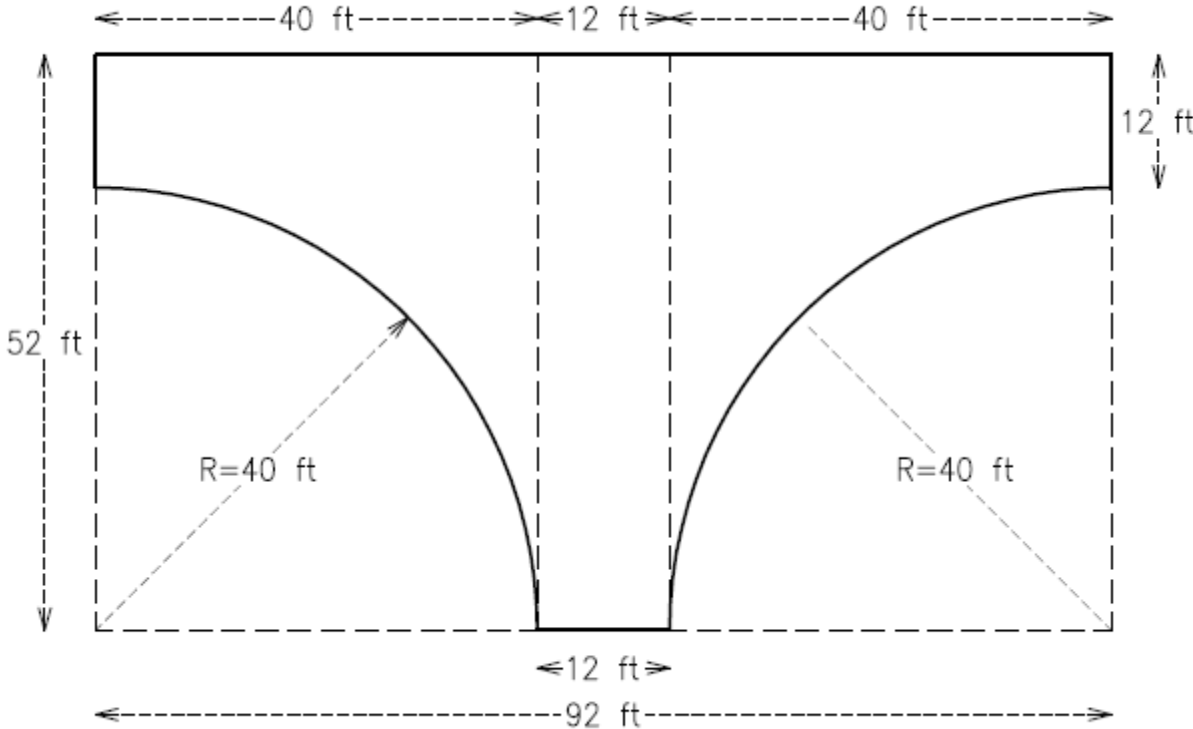


Scale: 1" = 20'



Option 2

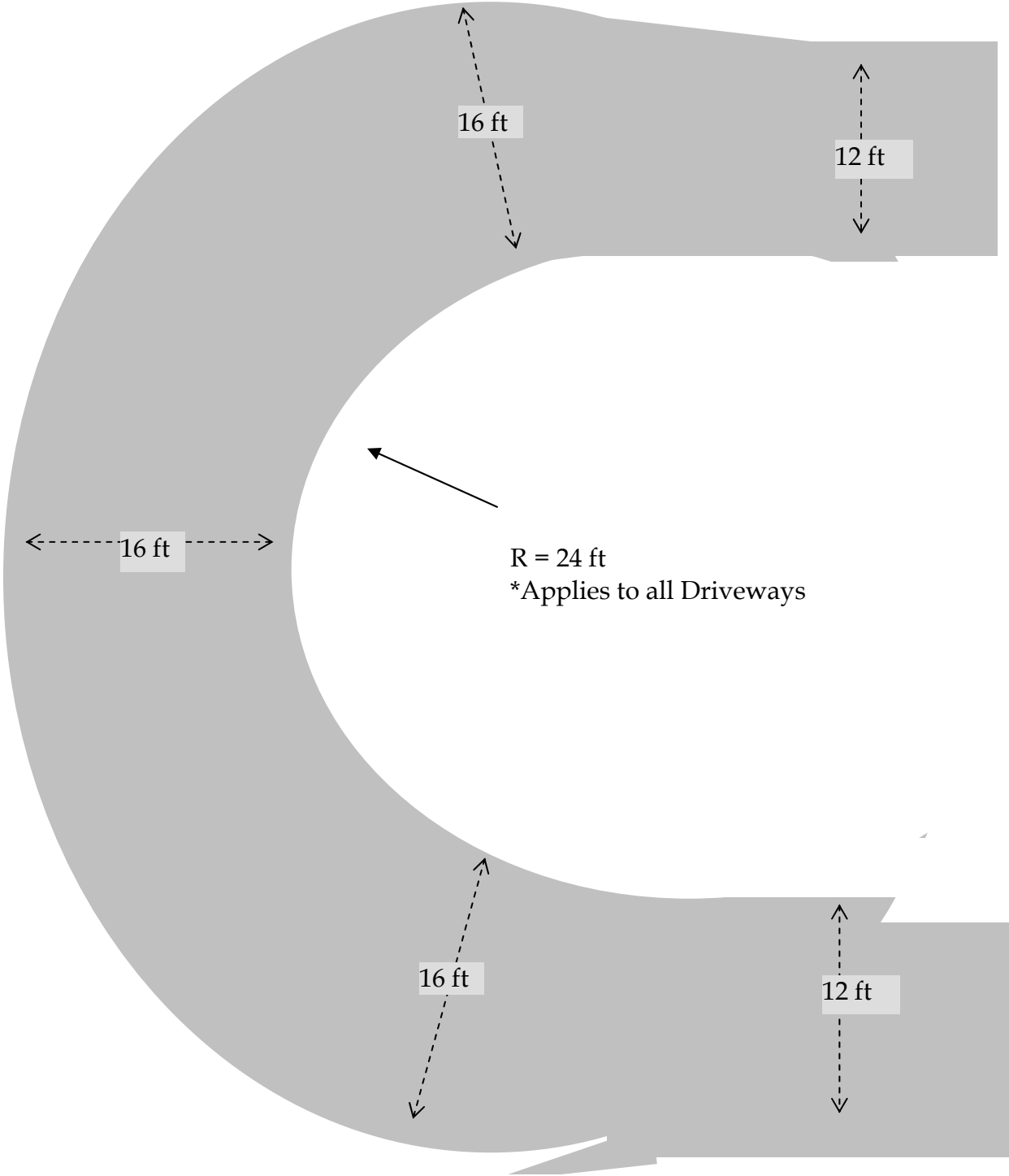
Hammerhead Style Turnaround For Driveways



Scale: 1" = 20'



Minimum Dimensions for Driveway Switchbacks
12-Foot Driveway Example



Minimum Bridge Requirements for Driveways



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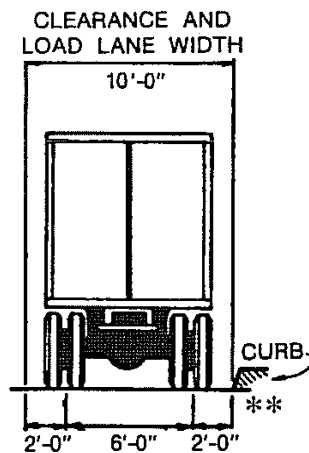
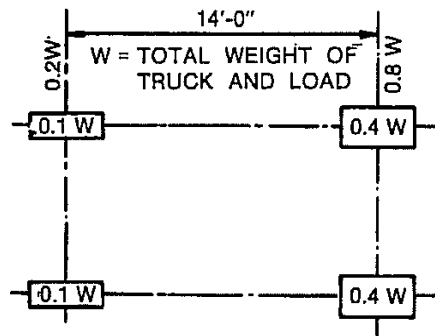
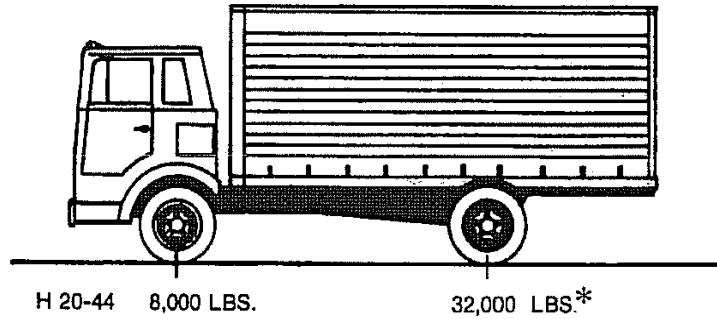


FIGURE 3.7.6A Standard H Trucks

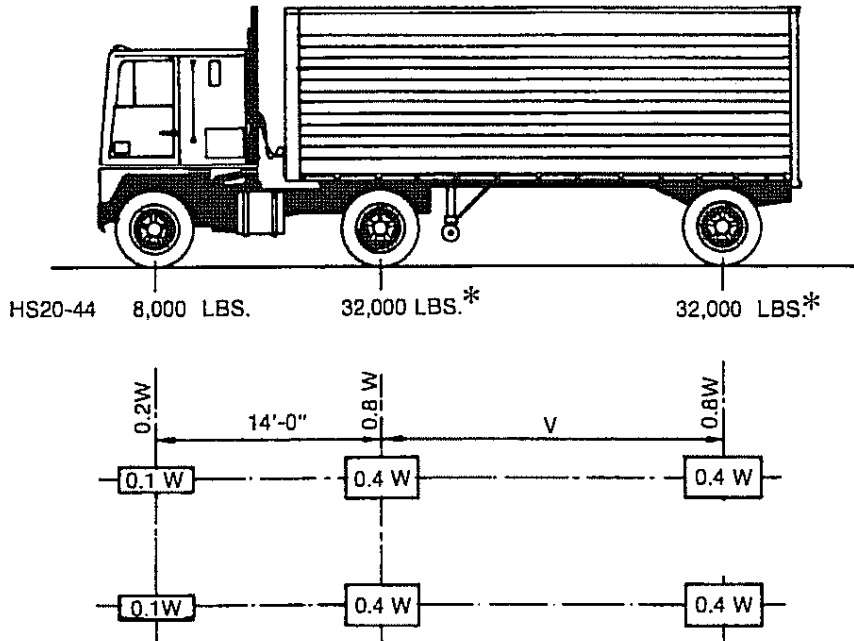
* In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.

** For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2)

Minimum Bridge Requirements for Roadways



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W = COMBINED WEIGHT ON THE FIRST TWO AXLES WHICH IS THE SAME AS FOR THE CORRESPONDING H TRUCK.
 V = VARIABLE SPACING — 14 FEET TO 30 FEET INCLUSIVE. SPACING TO BE USED IS THAT WHICH PRODUCES MAXIMUM STRESSES.

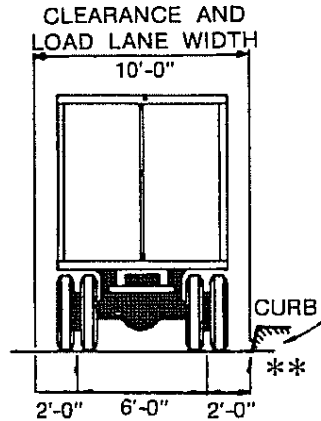
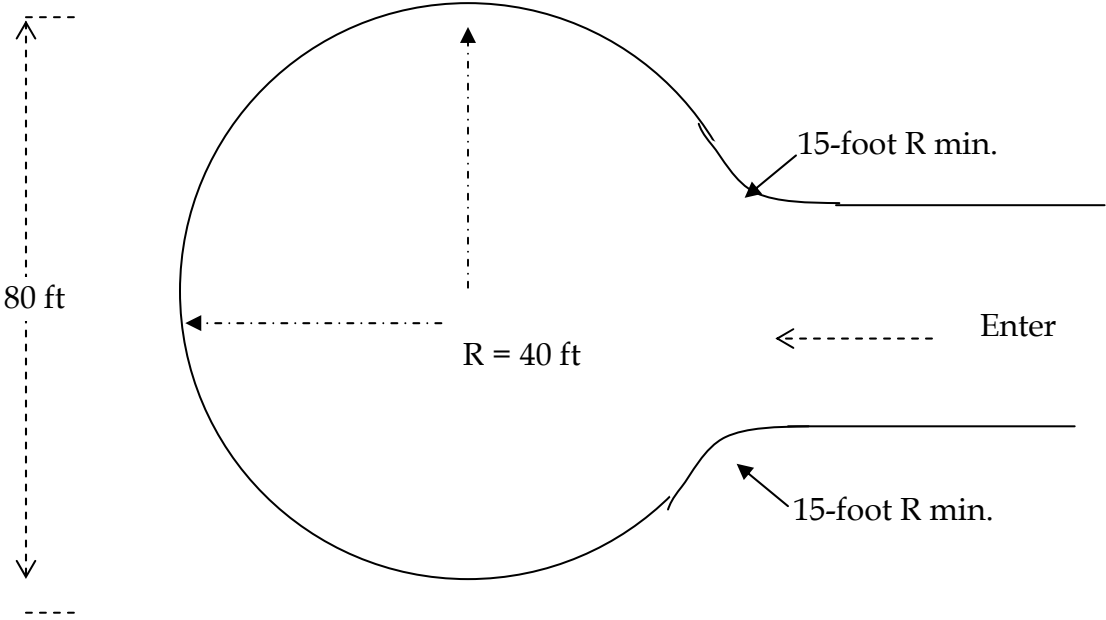


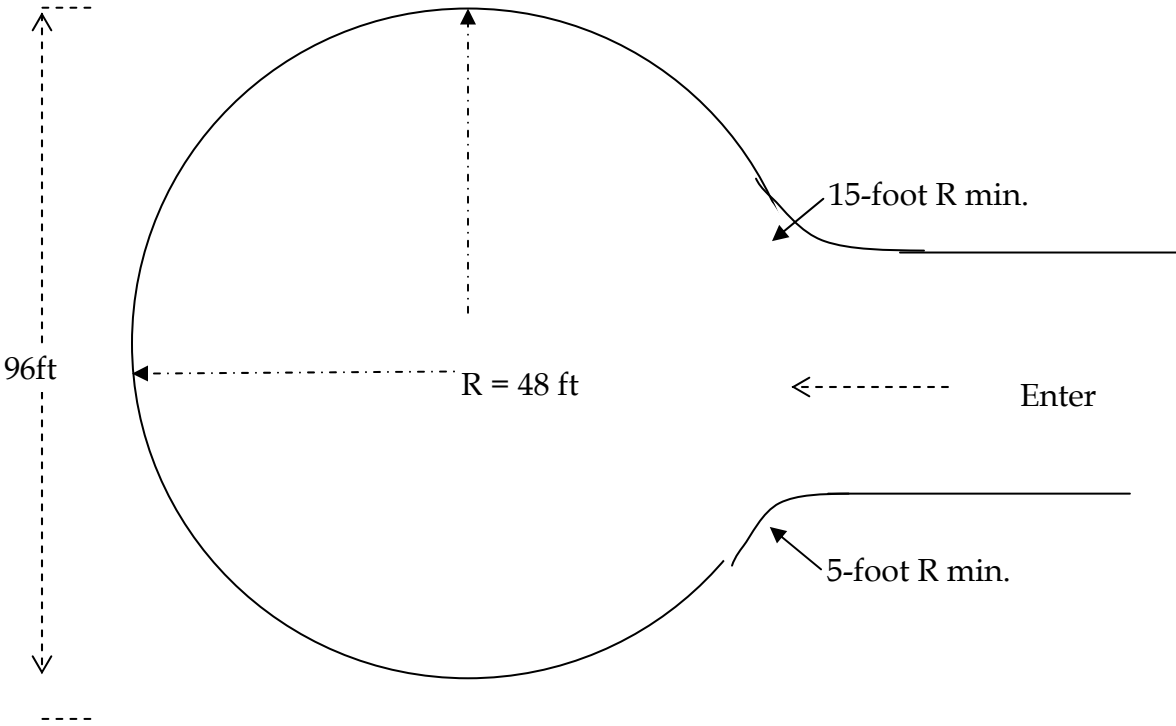
FIGURE 3.7.7A Standard HS Trucks

- * In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.
- ** For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2)

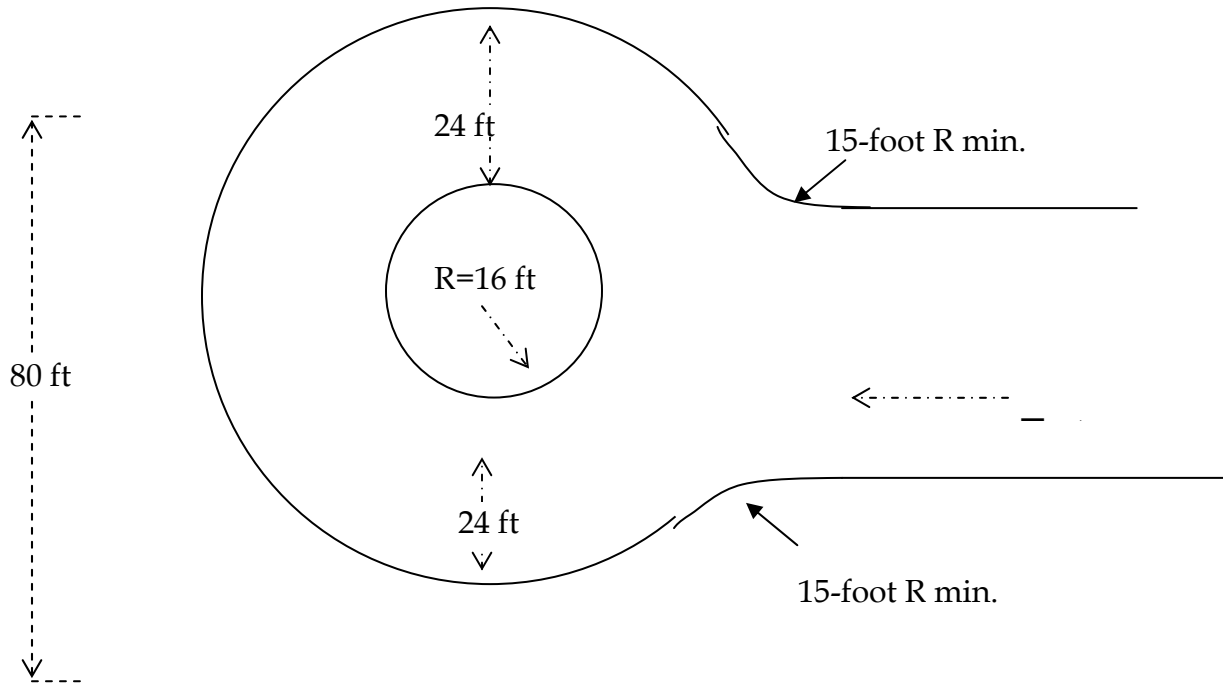
**Bulb Turnaround With No Parking Allowed
Red Curbs and Signage Will Be Required**



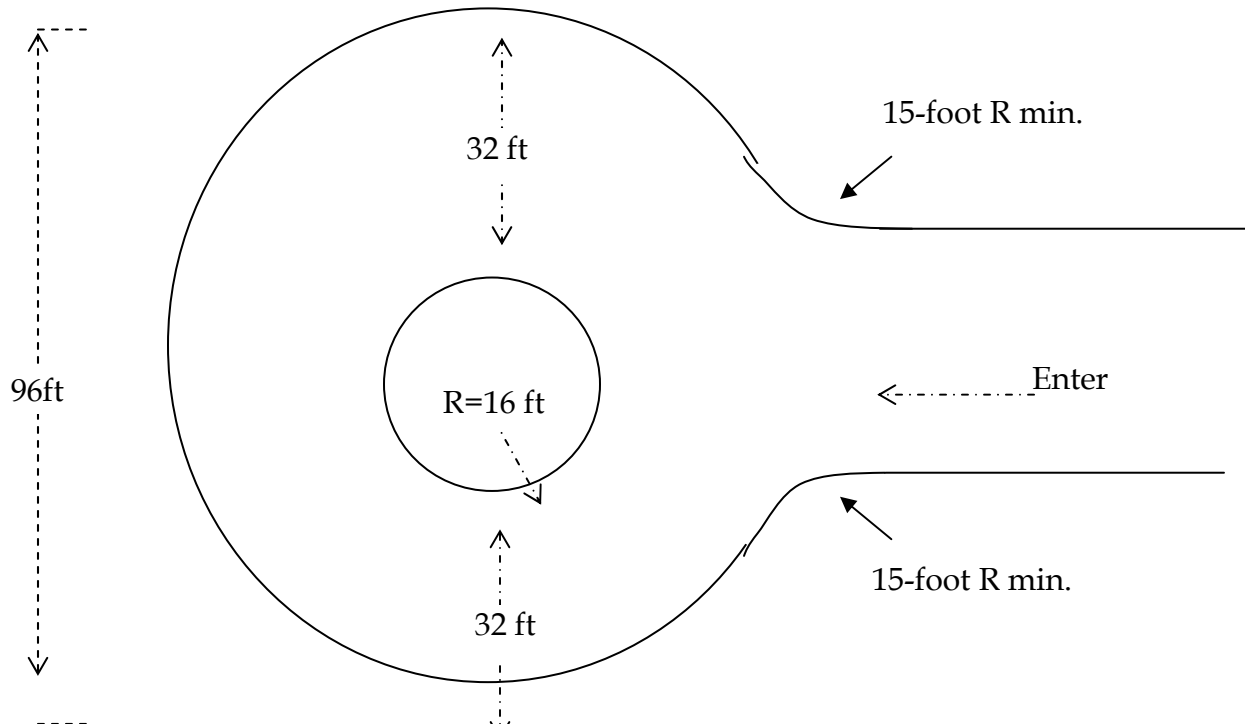
Bulb Turnaround With Unrestricted Parking



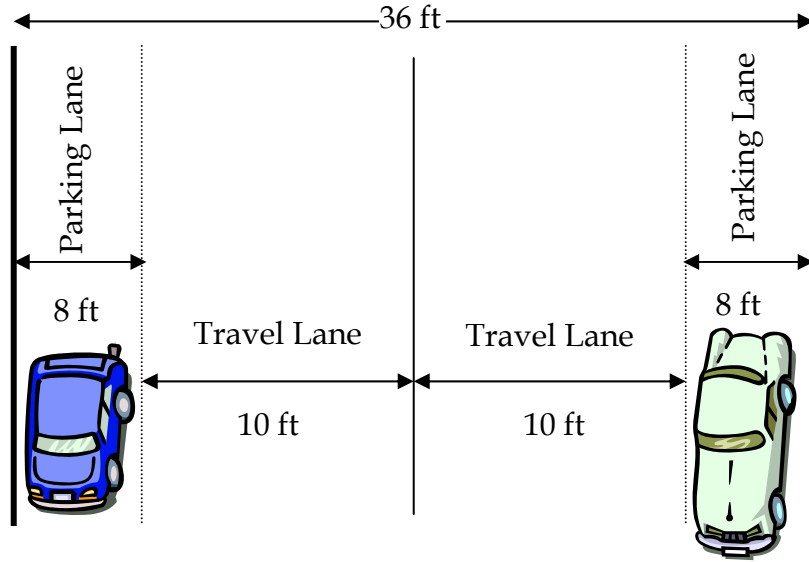
**Bulb Turnaround Including Center Planter With No Parking Allowed
Red Curbs and Signage Will Be Required**



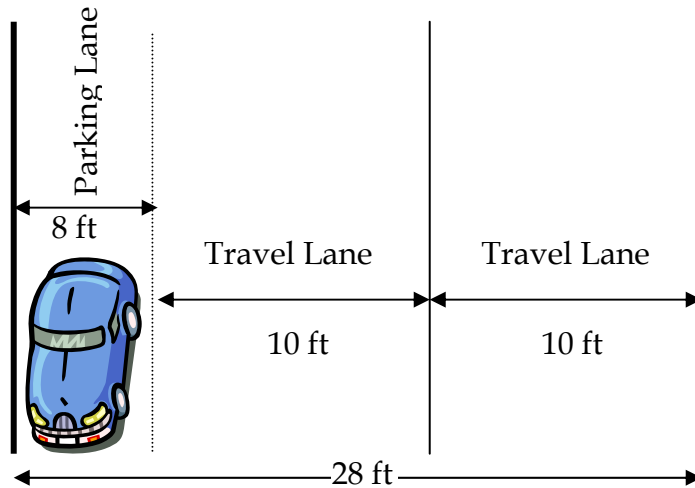
**Bulb Turnaround Including Center Planter
With Parking Allowed on Outside Perimeter Only**



Minimum Unobstructed Road Width for Residential Development With Parking Allowed on Both Sides of the Street

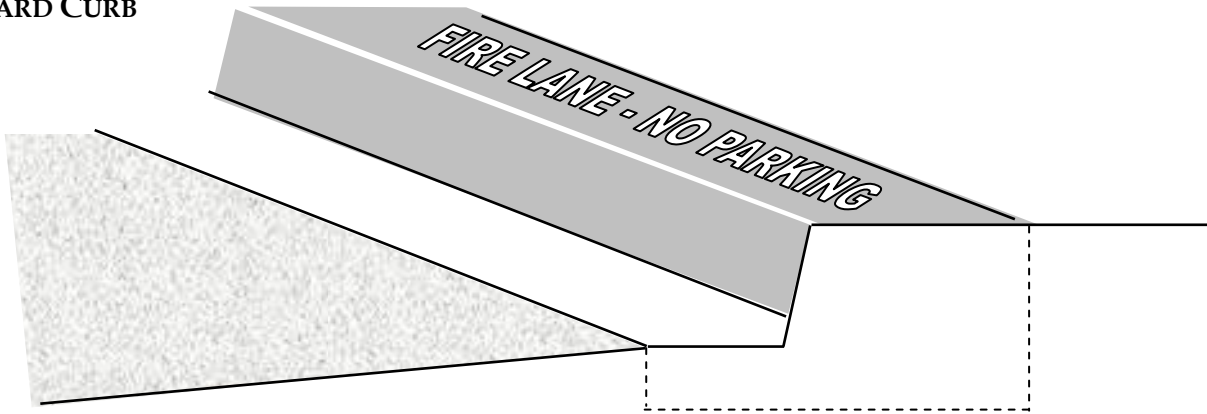


Minimum Unobstructed Road Width for Residential Development With Parking Allowed on One Side of Street Only

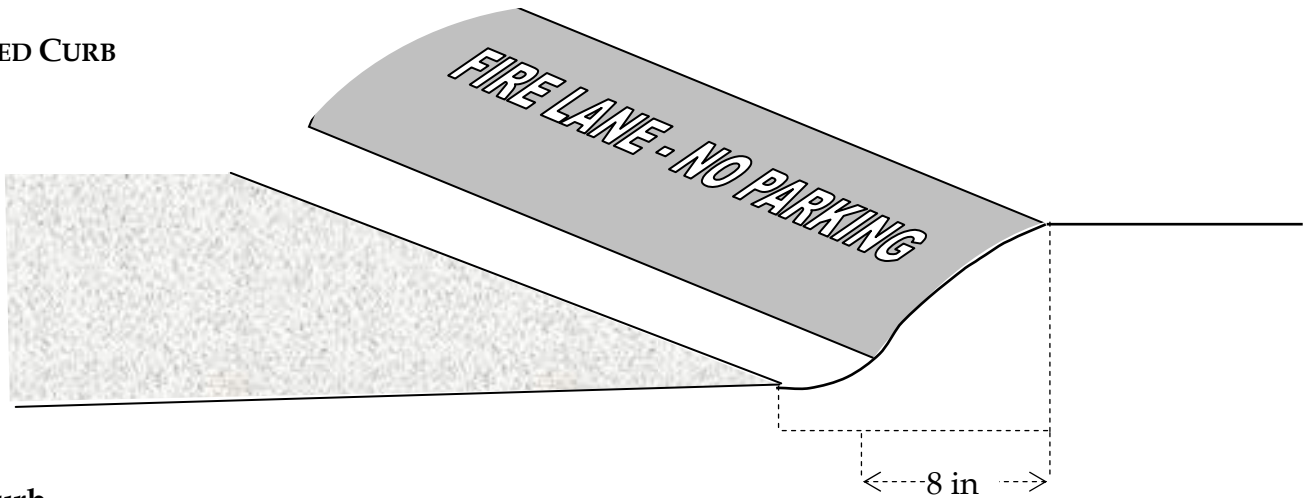


Fire Lane Identification - Red Curbs

STANDARD CURB

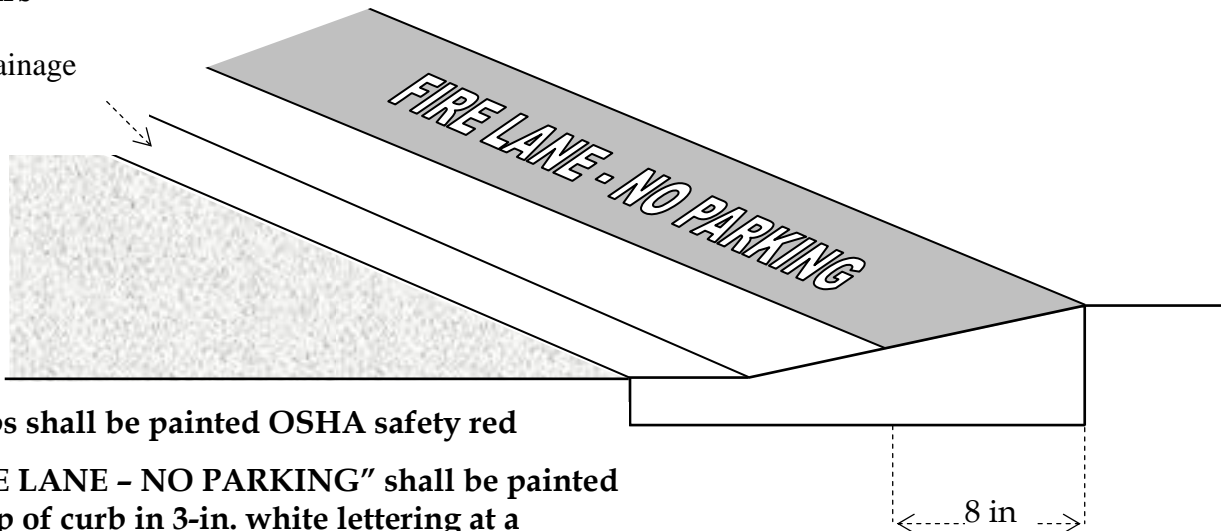


ROLLED CURB



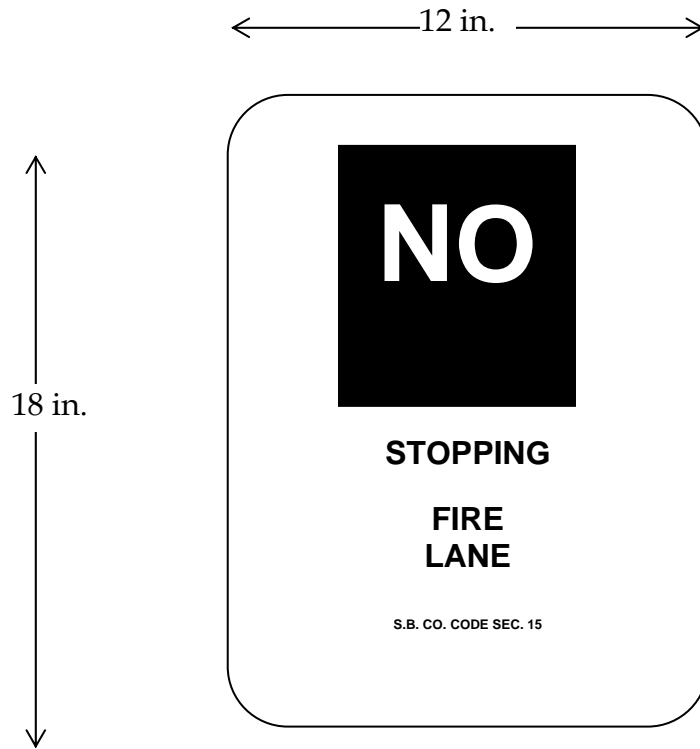
No Curb

2% Drainage Swale



1. Curbs shall be painted OSHA safety red
2. "FIRE LANE - NO PARKING" shall be painted on top of curb in 3-in. white lettering at a spacing of 30 ft or portion thereof.

Fire Lane Sign



1. Metal reflectorized
2. Size: Minimum 12 in. by 18 in.
3. Lettering size: Minimum 3 in. high
4. Background: White with red lettering
5. Bottom of sign shall be no less than 7 ft above ground
6. Posting: Post at the beginning and end of control zone and every 150 ft