



Oceanside Fire Department

300 N. Coast Highway
Oceanside, CA 92054
760-435-4101

Standard 4-2008 Emergency Access Roadways

PURPOSE

The effectiveness of emergency response is directly related to the proper installation of fire access roadways. These general guidelines are intended to provide assistance with establishment and maintenance of fire department access required by Section 902 of the 2001 California Fire Code and the City ordinance.

SCOPE

This guideline is applicable to all emergency access roadways, whether public or private. It includes the requirements for emergency access roadway design, signage and striping requirements and provisions for enforcement.

DEFINITIONS

The following definitions are provided to allow for the consistent application of this guideline.

Bollards Bollards are permanent or removable poles that are placed across a roadway for the purpose of restricting vehicular access to a portion of a site, or to protect a piece of equipment from potential vehicular damage.

Fire Access Roadways Fire access roadways are the means for emergency equipment and personnel to access a facility/structure for emergency purposes. Roadways must extend to within 150 feet of all portions of the exterior of any structure and must meet specified criteria such as width, pavement characteristics, roadway gradient, turning radius, etc.

Fire Lane Identification Fire lanes are regular roadways that, because of physical constraints, need to comply with specific requirements that allow them to be readily recognized.

Gates and Barriers Gates and barriers are those devices that restrict ingress and egress to and from a facility.

Premises Identification Premises identification is the visual means to readily identify a structure. It is also the numbering system that is placed on buildings for the purpose of identification of a facility.

Speed Bumps and Speed Humps Speed bumps are "steep" protrusions in the pavement of a roadway that are designed to slow down vehicular traffic. Speed humps are "gentle" protrusions in the pavement of a roadway that are designed to slow down vehicular traffic.



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General Requirements

1. Enforcement of requirements pertaining to fire apparatus access roads and fire lanes is a joint effort between the Oceanside Fire Department, Oceanside Police Department, property owners and property management associations.
2. A homeowners association or property owner designated as the primary enforcement representative is responsible to provide, install, and maintain the required signs and red curbs on approved access roads and fire lanes. Property owners or managers may have illegally parked vehicles towed from fire lanes in accordance with CVC 22658 (a).
3. Plans for fire apparatus access roads shall be submitted to the Fire Department for review and approval prior to construction or modification. Upon completion of construction, a field inspection is required to verify compliance with these guidelines.
4. Fire Lane Identification will be required when it is necessary to restrict parking of vehicles in order to maintain the required width of fire access roadways for emergency vehicle use per California Fire Code 901.4.
5. Locations of requested gates and barriers must be clearly shown on three (3) scaled site plans and submitted for review and approval, per California Fire Code 901.2.2.1. Information such as the location, type, dimensions, operation and emergency release during a power failure must also be provided.
6. Approved numbers or addresses shall be provided for all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Numbers shall contrast with their background and shall be either internally or externally illuminated to be visible at night.

Requirements for Premises Identification

1. Address numbers shall meet the following minimum dimensions:
 - Single family residences – four inches in height with a one-quarter inch stroke.
 - Commercial and multifamily buildings – six inches in height with a one-quarter inch stroke.
 - Industrial buildings – twelve inches in height with a one-inch stroke.



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2. Rear access doors. Additional numbers shall be provided on rear access doors to commercial or industrial building where required by the fire chief.
3. Approved numbers or addresses shall be placed on the front elevation of all new or existing buildings in such a position that is plainly visible and legible from the street or road on which the property is addressed.
4. Illumination of address or numbers shall be provided.

Gates and Barrier Locks

1. Approved type of locking/unlocking device ("Knox" key switch or "Knox" padlock, or strobe, or "Knox weather resistant lock box). Authorization/order forms may be obtained at the Oceanside Fire Department or by accessing the Knox web site at www.knoxbox.com.
2. Location of the "Knox" key switch. The key switch shall be mounted on the drivers side and accessible without leaving the vehicle.
3. Upon activation of the key switch, the gates (egress and ingress) shall open and remain open until returned to normal operation by means of the key switch.
4. The key switch shall be labeled with a permanent red sign with not less than ½ " contrasting letters reading "FIRE DEPT' or with a "Knox" decal.

Gates and Barriers

1. The Oceanside Fire Department shall approve new or existing access gates and/or barriers prior to installation. In order to facilitate the review process, the applicant must provide the site plans of the project or development and indicate the following information:
 - Indicate Fire Department access road including the width.
 - Method of emergency release during a power failure shall be shown on the plans.
 - Manual gates shall have a knox pad lock provided.
 - Openings for egress and ingress of vehicles shall not be less than 13 feet minimum clear width. The vertical clearance shall not be less than 14 feet including landscaping and/or trees.
 - A 27 foot minimum unobstructed setback is required from a gate to the first right turn to allow apparatus clearance.



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2. Permanent signage (constructed of 18 gauge steel or equivalent) shall be attached. Letters shall be red on white background and a minimum of three (3) inches high with a ½ inch width. Sign shall read: "FIRE LANE – NO PARKING" on both faces.

Fire Apparatus Access Roads

1. Fire apparatus access roads are required for every building when any portion of an exterior wall of the first story is located more than 150 feet from fire access as measured by an approved route around the exterior of the building.
2. More than one road may be required when in the option of the Fire Marshal access by a single road may be impaired by vehicle congestion, condition of terrain, weather conditions which could result in dangerous situations or other factors that could limit access.
3. Plans for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction or modification
4. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus (55,000 pounds) and shall be paved to meet the standards of the City of Oceanside, but in no case shall fire access roads consist of less than 3" asphalt concrete (AC) pavement and 6" Class II aggregate base or equivalent. Structural section equivalency shall be based upon a formal design submittal, prepared by a licensed geotechnical engineer, supporting the imposed load for a fire apparatus with a gross vehicle weight of 55,000 lbs. This submittal must be reviewed and approved by the Engineering division as part of City acceptance and prior to site implementation.
5. Apparatus access roads shall have a minimum unobstructed width of 28 feet. A minimum vertical clearance of 14 feet shall be provided for the apparatus access roads.
6. Buildings or portions of buildings more than 35 feet in height, as defined by the California Building Code of the city of Oceanside, shall be provided with a street, driveway, or designated fire lane not less than 35- feet -wide which shall be able to accommodate fire department aerial apparatus and designed in a manner so that ladder truck operations can be affected on at least one side of the building which has openings into its interior. Such street, alley, driveway, or designated fire lane shall be located not more than 15 feet from buildings at a point adjacent to the highest building or portion thereof.



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7. Turnouts for vehicular passing shall be required at approximately 150 foot intervals along restricted access of single-entry design, and for multiple-entry designs of extreme length.
8. The gradient for access roads shall not exceed 15 percent.
9. Cul-de-sacs shall be shown on the site plan with a minimum 40-foot radius.
10. All streets less than 32 feet wide shall be posted "NO PARKING FIRE LANE" per City Vehicle Code Section 22500.1.
11. Private drives serving one dwelling unit, or two dwelling units within 150' of the street, shall be constructed with a minimum 16-foot- wide pavement section.
12. Private drives serving three dwelling units, or two units more than 150 feet of the street, shall be constructed with a minimum 20-foot- wide pavement section.
13. Private drives serving more than three to a maximum of 9 dwelling units, shall be constructed with a minimum 24-foot- wide pavement section.
14. Private drives serving more than 9 dwelling units shall be considered and meet the criteria for private streets.
15. Drives for commercial and industrial uses shall be 28 foot minimum, unless otherwise approved by the city Engineer. An additional 3 feet shall be provided in all cases where drives are directly adjacent to buildings and any obstructions greater than 30-feet in height.
16. There shall be No Parking within 15 feet of either side of a fire hydrant in accordance with CVC 22514.

Parking Restrictions

- For required access where no parking is allowed or probable, private driveways shall be a minimum of 28 feet in width.
- For required access where parking on one side is allowed, and no parking is allowed or probable on the other side, private driveways shall be a minimum of 32 feet in width.
- For required access where parking on both sides is allowed and probable, private driveways shall be a minimum of 36 feet in width.



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Inside and Outside Turning Radius

- The Fire Department access roadway shall be provided with adequate turning radius for Fire Department apparatus. A 50-foot outside and 30- foot inside radius. (See Attachment)
- Cul-de-sacs with center obstructions will require larger turning radius as approved by the Oceanside Fire Department. (See Attachment)

Dead-End Access Roads

- Dead-end roads in excess of 150 feet shall be designed and constructed to accommodate turning radii of fire apparatus. (See Attachment)
- The minimum cul-de-sac radius is 40 feet with no parking allowed. (See Attachment)

Temporary Fire Access Roads

Temporary access roads may be permitted for single-family residential model construction with the following conditions:

1. A letter requesting permission for approval of temporary access shall be submitted to the Oceanside Fire Department. The letter shall be accompanied by plans drawn to scale for the proposed project showing permanent (existing) roadways, proposed roadway locations, location of models, and construction areas.
2. All other access requirements shall apply, i.e. locks, gates, barriers, etc.
3. A licensed civil engineer stating that the temporary access road can support 55,000 pounds of vehicle weight in all weather conditions shall stamp plans.
4. A copy of an approved plan to the temporary all-weather road and water supply plan shall be available on-site prior to starting construction using combustible materials.

Fire Lane Identification

California Vehicle Code (CVC) Section 22500 specifies rules of the road for stopping, standing and parking. CVC Section 22500.1 states that no person shall stop, park, or leave standing any vehicle, whether it is attended or unattended, except when necessary to avoid conflict with other traffic or in compliance with the directions of a peace officer or official traffic control device along the edge of any highway, at any curb, or in any location in a publicly or



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privately owned or operated off-street parking facility, designated as a fire lane by the fire department or fire district with jurisdiction over the area in which the place is located. The designation shall be indicated by:

1. A sign posted immediately adjacent to, and visible from the designated location clearly stating in letters not less than one inch in height that the location is a fire lane.
2. Outlining or painting the place in red and, in contrasting color, marking the place with the words "FIRE LANE", which are clearly visible from a vehicle.
3. A red curb or red paint on the edge of the roadway upon which is clearly marked the words "FIRE LANE".

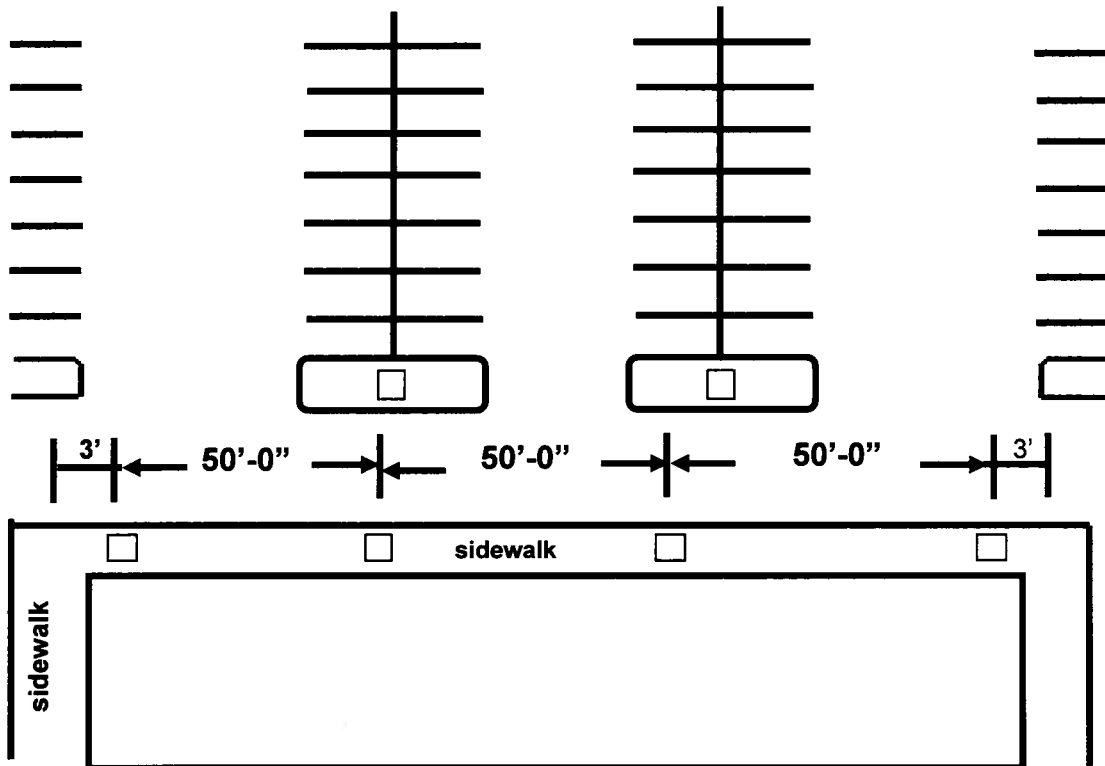
There shall be no parking within 15 feet of either side of a fire hydrant in accordance with CVC 22514.



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FIRE LANE SIGN LOCATIONS

☐ sign with post



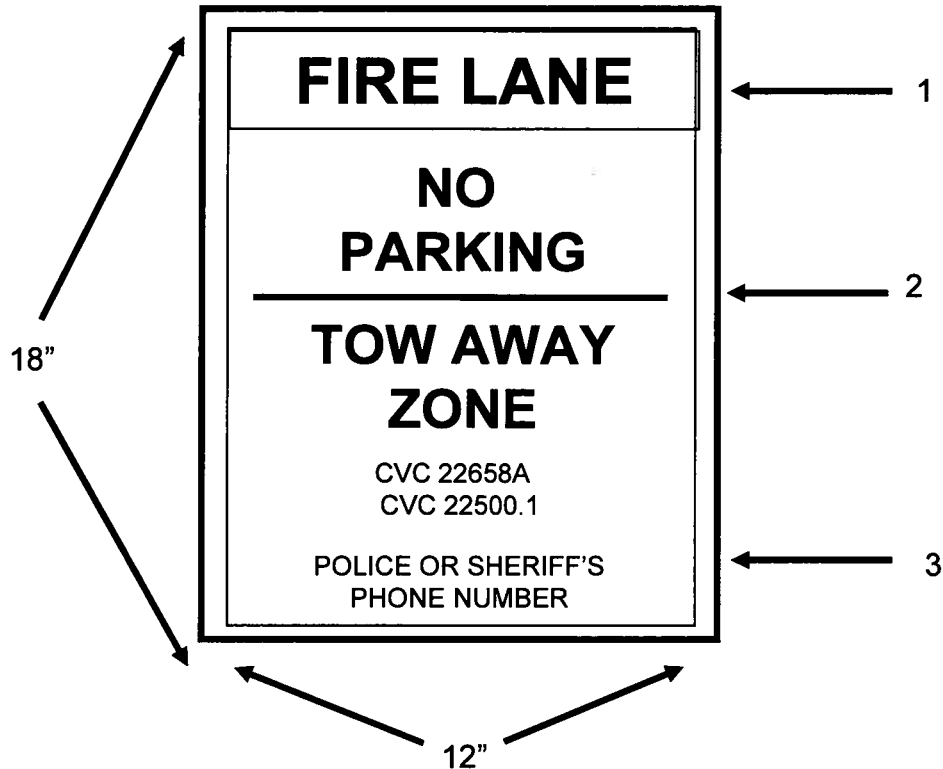
1. Signs are required within 3 feet of the end of each designated fire lane and spaced a minimum of 50 feet along the entire designated lane.
2. One sign is required for each island adjacent to the fire lane.
3. Signs shall face oncoming traffic.
4. In small alleys where sign posts are not practical, signs may be mounted on a wall. Field inspectors will determine if signs or sign locations are appropriate.
5. Signs may be required to be less than 50' apart if signs are not visible from all portions of the designated fire lane.



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FIRE LANE SIGNS

This sign shall be posted and visible from all portions of a designated fire lane and in no case shall signs be greater than 50' apart.



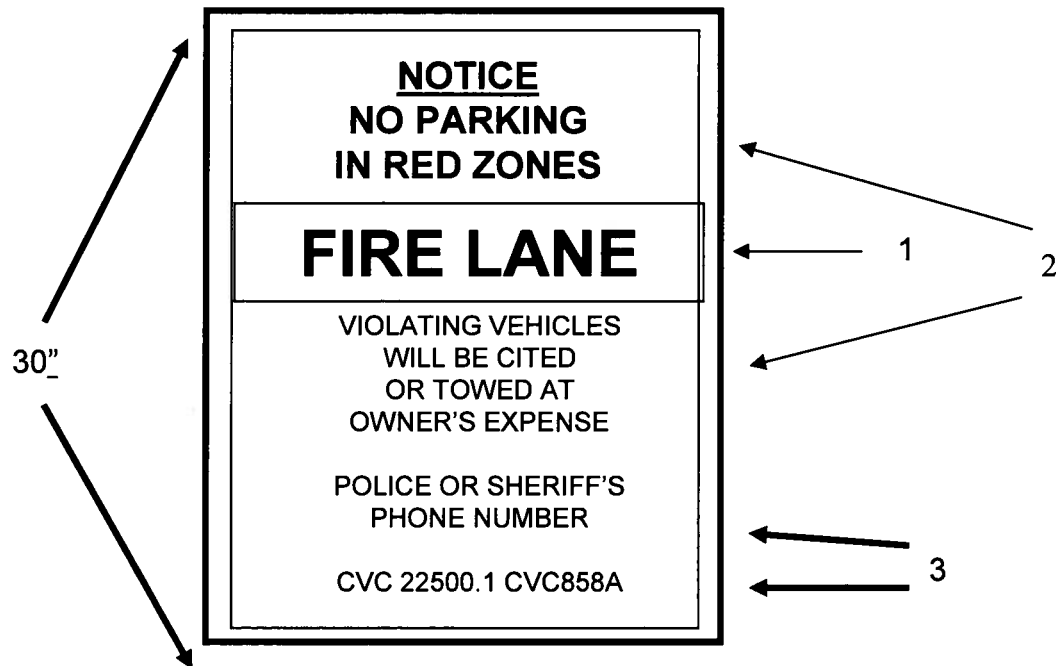
1. The words FIRE LANE shall be white reflective on red background and no smaller than 2 inches in height.
2. Lettering shall be red on white reflective background, no smaller than 2 inches in height.
3. Lettering shall be red on white reflective background, no smaller than 1 inch in height.
4. The sign shall be no smaller than 12 inches wide by 18 inches high.
5. The sign shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be of durable material and installed as noted in "Guidelines for Sign Mounting."



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FIRE LANE ENTRANCE SIGN

This sign shall be posted and visible from all portions of a designated fire lane and in no case shall signs be greater than 50' apart.

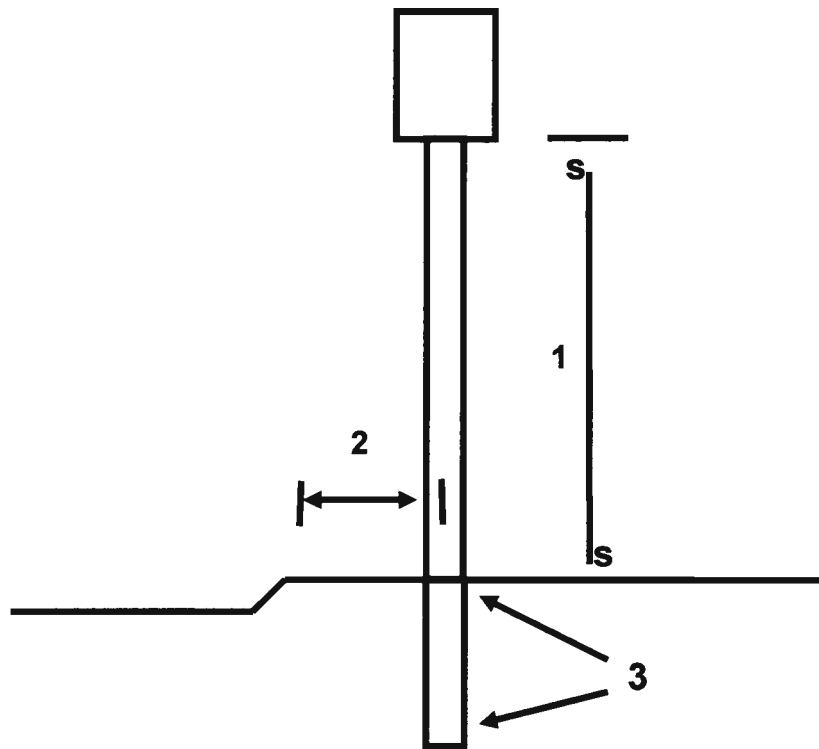


1. The words **FIRE LANE** shall be white reflective on red background and no smaller than 4 inches in height.
2. Lettering shall be red on white reflective background, no smaller than 2 inches in height. For areas with Fire Lane signs only and no red curbing. It may read "**NO PARKING IN MARKED ZONES.**"
3. Lettering shall be red on white reflective background, no smaller than 1 inch in height.
4. The sign shall be no smaller than 18 inches wide by 30 inches high.
5. The sign shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be of durable material and installed as noted in "Guidelines for Sign Mounting."



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FIRE LANE SIGN MOUNTING



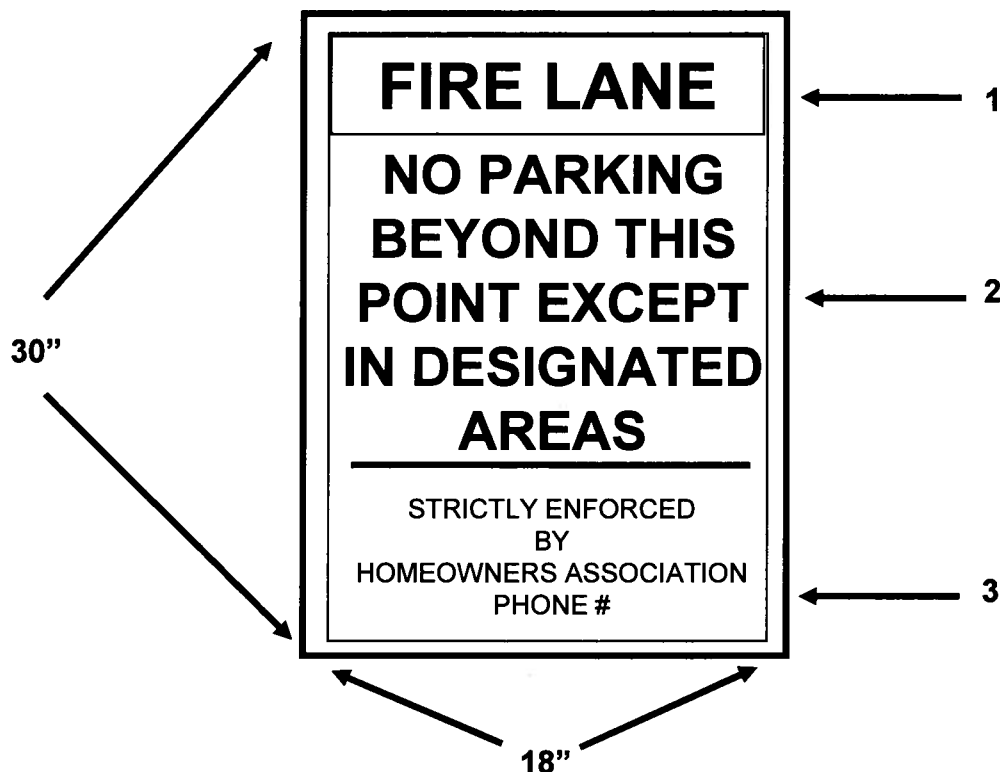
1. Height of sign in sidewalk or pedestrian areas shall be 7 feet and 5 feet in all other areas.
2. Depth of sign shall be 18 inches from standard curb and 24 inches with rolled curb to center of post.
3. Bury depth shall be a minimum of 24 inches.

NOTE: Signs may be mounted on existing posts or buildings if centerline of sign is no more than 24 inches from edge of roadway.



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FIRE LANE ALTERNATIVE RESIDENTIAL SIGNS



This sign may be installed at the entrances to streets or courts that are no longer than 150 feet.

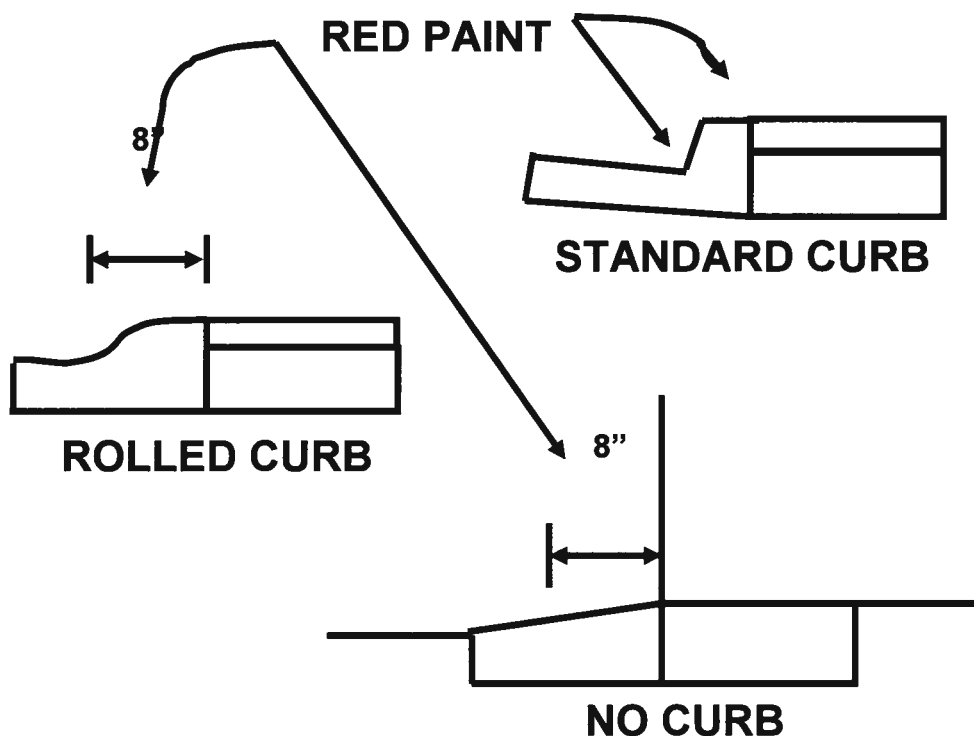
1. The words FIRE LANE shall be white reflective on red background and no smaller than 2 inches in height.
2. Lettering shall be red on white reflective background, no smaller than 2 inches in height.
3. Lettering shall be red on white reflective background, no smaller than 1 inch in height.
4. The sign shall be no smaller than 18 inches wide by 30 inches high.
5. The sign shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be of durable material and installed per "Guidelines for Sign Mounting."



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FIRE LANE CURB PAINTING

In addition to signage the curbs on outside edges of fire lanes shall be marked as shown below.

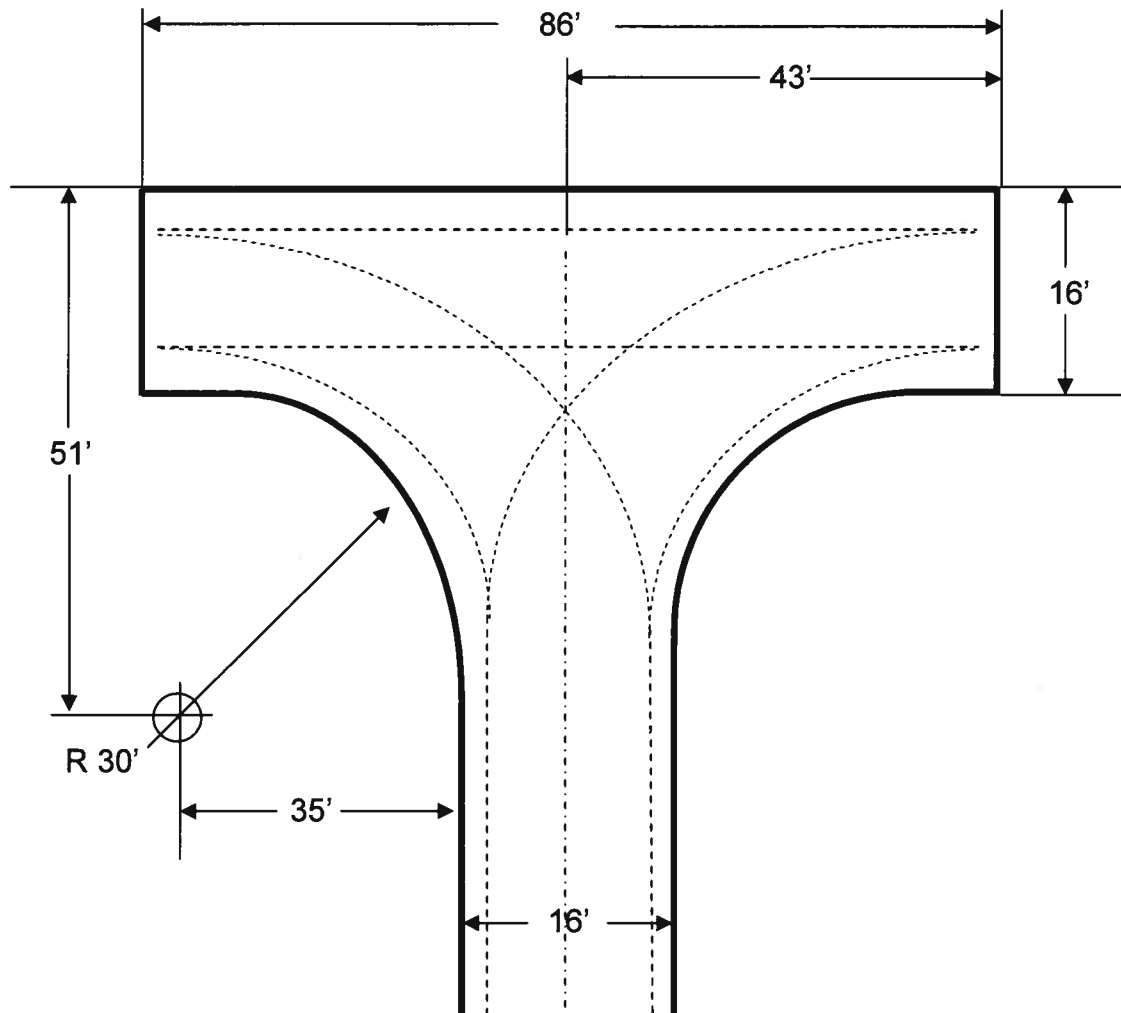


1. Curbs or straight edge lines along fire lanes shall be painted OSHA Safety Red.
2. "FIRE LANE NO PARKING" shall be painted on top of the red curbs or stripes in white lettering 3 inches high and shall be spaced 30 feet on center of portion thereof.



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Standard Requirements for a Hammerhead Turn-Around



The distances indicated on the drawings are the minimum requirements



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Fire Apparatus Turn Out

