FIRE PREVENTION STANDARD

Requirements to meet Board of Forestry and Fire Protection Regulations for State Responsibility Areas within San Bernardino County Fire Protection District

Authority

Sections 102.9 of the 2013 California Fire Code and Sections 4 and 8 of the San Bernardino County Fire Protection District Fire Code (Fire Code) Ordinance provide that the fire code official of the San Bernardino County Fire Department shall have the authority to adopt policies, procedures, rules, and regulations in order to clarify the application of the Fire Code and to specify requirements not specifically provided for by the Fire Code. Additionally, pursuant to Title 14 CA Code of Regulations, State Responsibility Area (SRA) Fire Safe Regulations, Section 1270.03 the county will conform to the requirements set forth in Section 1270.03 within the SRA.

Purpose

The purpose of this standard is to provide the minimum requirements for construction within the SRA in compliance with Title 14 CA Code of Regulations, State Responsibility Area (SRA) Fire Safe Regulations, Section 1270 et seq.

Scope

This standard applies to construction within the SRA.

Disclaimer

These standards may change without notice. Whenever applicable statutes, regulations and standards are updated and adopted, the latest shall apply. Please contact the Community Safety Division at (909) 386-8400 to determine if these standards have changed.

These requirements do not exempt any individual from complying with other applicable state, county, or city codes and standards.
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SUBMITTALS

All submittals for construction in the SRA shall comply with Title 14 CA Code of Regulations, State Responsibility Area (SRA) Fire Safe Regulations, Section 1270 et seq (this standard), the San Bernardino County Fire Code and County Fire Standards as applicable.

REQUESTS FOR EXCEMPTIONS

Title 14, Section 1270.08 states that all requests for exceptions to these regulations shall be made in writing, stating the section(s), material facts, the exception proposed, and a map.

APPEALS

Title 14, Section 1270.09 states that applicants may appeal exception denials. The applicant shall contact the Fire Code Official and request an appeal pursuant to the currently adopted County Fire Code. If an appeal is granted, findings must be made and forwarded to CAL FIRE Unit HQ.

TITLE 14 REQUIREMENTS IN THE SRA

1) All required fire apparatus access roadways shall meet the most restrictive requirements of the currently adopted versions of the Fire Code, Fire Dept Standards A-1, A-2, A-3, and Title 14 Sections 1273.01, 1273.02, 1273.03, 1273.04, 1273.05, 1273.06, 1273.07, 1273.08, 1273.09, 1273.10, 1273.11.

2) 1273.01, Road Width: Per the Fire Code, Fire Dept Access Roads shall have a minimum unobstructed width of 26’ (or as per the exceptions).

3) 1273.02, Roadway Surface: Per the Fire Code, Fire Dept Access Roads shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds, provide an all-weather aggregate base.

4) 1273.03, Roadway Grades: The Fire Code limits the grade of most roadways to 12%, however there are exceptions to a maximum of 16%.
5) 1273.04, Roadway Radius: No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50-100 feet radius; 2 feet to those from 100-200 feet.

6) 1273.05, Roadway Turnarounds: Turnarounds are required on driveways and dead-end roads. The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the following figure. If a hammerhead/T is used instead, the top of the “T” shall be a minimum of sixty (60) feet in length. *(See Diagram SRA-1.1)*

7) 1273.06, Roadway Turnouts: Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

8) 1273.07, Roadway Structures: All driveway, road, street, and private lane roadway structures shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by Vehicle Code Sections 35250, 35550, and 35750 and FD Standard A-1. Signage shall reflect the capability of each bridge. Roadway structures shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained. A bridge with only one traffic lane may be authorized by the local jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

9) 1273.08, One Way Roads: All one-way roads shall be constructed to provide a minimum of one twelve (12)-foot traffic lane (not including shoulders). The local jurisdiction may approve one-way roads. All one-way roads shall connect to a two-lane roadway at both ends, and shall provide access to an area currently zoned for no more than ten (10) dwelling units. In no case shall it exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each one-way road.

10) 1273.09, Dead End Roads: The maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:
Parcels zoned for less than one acre - 800 feet
Parcels zoned for 1 acre to 4.99 acres - 1320 feet
Parcels zoned for 5 acres to 19.99 acres - 2640 feet
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Parcels zoned for 20 acres or larger - 5280 feet
All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply. Where parcels are zoned 5 acres or larger, turnarounds shall be provided at a maximum of 1320 foot intervals. Each dead-end road shall have a turnaround constructed at its terminus.

11) 1273.10, Driveways: Per the Fire Code and this section, all driveways shall be constructed to provide a minimum of one (1) twelve (12) foot traffic lane and fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of fifteen (15) feet. Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart. A turnaround shall be provided to all building sites on driveways over 300 feet in length, and shall be within fifty (50) feet of the building.

12) 1273.11 Gate Entrances: Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of fifteen (15) feet. All gates providing access from a road to a driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that road. Security gates shall not be installed without approval of the Fire Code Official and where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Where a one-way road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be provided.

13) 1274.01, Size of Letters, Numbers and Symbols for Street and Road Signs: Size of letters, numbers, and symbols for street and road signs shall be a minimum 4 inch letter height, .5 inch stroke, reflectorized, contrasting with the background color of the sign.

14) 1274.02, Visibility and Legibility of Street and Road Signs: Street and road signs shall be visible and legible from both directions of vehicle travel for a distance of at least 100 feet.

15) 1274.03, Height of Street and Road Signs: Height of street and road signs shall be uniform county wide, and meet the visibility and legibility standards of this article.

16) 1274.04, Names and Numbers on Street and Road Signs: Newly constructed or approved public and private roads and streets must be identified by a name or number through a consistent countywide system that provides for sequenced or patterned numbering and/or
non-duplicating naming within each county. All signs shall be mounted and oriented in a uniform manner. This section does not require any entity to rename or renumber existing roads or streets, nor shall a roadway providing access only to a single commercial or industrial occupancy require naming or numbering.

17) 1274.05, Intersecting Streets, Roads and Private Lanes: Street signs shall be provided at road intersections.

18) 1274.06, Signs Identifying Traffic Area Limitations: A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end road, one-way road or single lane conditions, shall be placed at the intersection preceding the traffic access limitation, and no more than 100 feet before such traffic access limitation.

19) 1274.07, Installation of Road, Street and Private Lane Signs: Road, street and private lane signs required by this article shall be installed prior to final acceptance by the local jurisdiction of road improvements.

20) 1274.08, Addresses for Buildings: All buildings shall be addressed as per the currently adopted Fire Code and Standard B-1.

21) 1274.09, Size of Letters, Numbers and Symbols for Addresses: Size of letters, numbers and symbols for addresses shall be a minimum 4 inch letter height, .5 inch stroke, reflectorized, contrasting with the background color of the sign. Address identification shall be plainly legible and visible from the street or road fronting the property. Addresses shall be Arabic numbers or alphabetical letters. Where access is by means of a private road and the address identification cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the address.

22) 1274.10, Installation, Location and Visibility of Addresses: As per the currently adopted Fire Code and Standard B-1 and this section, all buildings shall have a permanently posted address, which shall be placed at each driveway entrance and visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter, and the address shall be visible and legible from the road on which the address is located. Address signs along one-way roads shall be visible from both the intended direction of travel and the opposite direction. Where multiple addresses are required at a single driveway, they shall be mounted on a single post. Where a roadway provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest road intersection providing access to that site.
23) 1275.01, Emergency Water Systems: The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the SBCFD. When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the SBCFD.

24) 1275.10, Emergency Water Systems, General Standards: As per the currently adopted Fire Code and Standard B-1 and this section, water systems shall comply or exceed the intent of these regulations including National Fire Protection Association (NFPA) 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting,” 2012 Edition.

25) 1275.15, Hydrant/Fire Valve: The hydrant or fire valve shall be eighteen (18) inches above grade, eight (8) feet from flammable vegetation, no closer than four (4) feet nor farther than twelve (12) feet from a roadway, and in a location where fire apparatus using it will not block the roadway.

The hydrant serving any building shall: (1) be not less than fifty (50) feet nor more than 1/2 mile by road from the building it is to serve, and (2) be located at a turnout or turnaround, along the driveway to that building or along the road that intersects with that driveway. The hydrant head shall be 2 1/2 inch National Hose male thread with cap for pressure and gravity flow systems and 4 1/2 inch draft systems. Such hydrants shall be wet or dry barrel as required by the delivery system. They shall have suitable crash protection as required by the local jurisdiction.

26) 1275.20, Signing of Water Systems: Each hydrant/fire valve or access to water shall be identified as follows: (a) if located along a driveway, a reflectorized blue marker, with a minimum dimension of 3 inches shall be located on the driveway address sign and mounted on a fire retardant post, or (b) if located along a street or road, (1) a reflectorized blue marker, with a minimum dimension of 3 inches, shall be mounted on a fire retardant post. The sign post shall be within 3 feet of said hydrant/fire valve, with the sign no less than 3 feet nor greater than 5 feet above ground, in a horizontal position and visible from the driveway, or (2) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

27) 1276.01, Setback for Structure Defensible Space: All parcels 1 acre and larger shall provide a minimum 30 foot setback for buildings and accessory buildings from all property lines and/or the center of a road. For parcels less than 1 acre, local jurisdictions shall provide for the same practical effect.
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28) 1276.02, Disposal of Flammable Vegetation and Fuels: Disposal of flammable vegetation and fuels shall be completed as per this section and San Bernardino County Ordinance 5048 “Ordinance Pertaining to the Abatement of Fire Hazards and Hazardous Trees and Fire Access Road Obstructions”.

29) 1276.03, Greenbelts: Subdivision and other developments, which propose greenbelts as a part of the development plan, shall locate said greenbelts strategically, as a separation between wildland fuels and structures. The locations shall be approved by the SBCFD and may be consistent with the CAL FIRE Unit Fire Management Plan or Contract County Fire Plan.

Diagram SRA-1.1