



SAN BERNARDINO COUNTY FIRE PROTECTION DISTRICT COMMUNITY SAFETY DIVISION

598 South Tippecanoe Ave.
San Bernardino, CA 92415
(909) 386-8400

Standard Number

A - 3

Revision Date:
July 1, 2023

FIRE PREVENTION STANDARD

GATES AND OTHER OBSTRUCTIONS TO FIRE APPARATUS ACCESS

AUTHORITY

Sections 102.9, 103 and 104.1 of the 2022 California Fire Code (CFC) and Sections 4 and 8 of Ordinance 23-01 of the San Bernardino County Fire Protection District Fire Code (Fire Code) state that the Fire Code Official of the San Bernardino County Fire Protection District (SBCFPD) shall have the authority to adopt policies, procedures, rules, and regulations in order to clarify the application of the Fire Code and to determine requirements not specifically provided for by the Fire Code. For further requirements on this subject, see sections 503.5 of the 2022 California Fire Code. This Standard may be modified with the approval of the Fire Code Official.

PURPOSE

The purpose of this Standard is to provide guidance for the approved methods of installation and maintenance of gates and other obstructions to fire apparatus access.

SCOPE

This Standard shall apply to all obstructions, access control devices, traffic calming devices, or other similar systems within any roadways that serve as fire access in all new or existing residential, commercial, and industrial development. This standard does not apply to obstructions within parking aisles that do not serve as fire apparatus access roads.

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.

SUBMITTALS

- 1) Detailed plans shall be submitted to the SBCFPD for approval and permit prior to the installation of any obstructions, security gates or other vehicle access control device or system. The applicant shall submit the plans and all required documentation online through the San Bernardino County EZOP website, <https://wp.sbcounty.gov/ezop>.

NOTE: If the project is in the City of Fontana please contact (909) 428-8890 for submittal information.

- 2) All pages of plans shall have a three-inch (3) by three-inch (3) box labeled "FOR FIRE DEPARTMENT USE ONLY" located in the bottom right corner of every page for approval stamp.



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- 3) Provide a scaled site plan or plot plan the following information at a minimum:
 - a) Plot plan showing the locations of all fire apparatus access roads, nearby buildings, fire protection equipment and appliances, means of emergency operation, and location(s) of any proposed gates or other obstructions.
 - b) Elevations and cross sections of all gates or other obstructions, with dimensions.
 - c) Details of the installation and manufacturer's specifications sheets for all materials and associated equipment.
 - d) Proposed signage and/or striping on all fire apparatus access roadways as required by SBCFPD Standard A-1.
 - e) Any other important details and information as required by this Standard.
- 4) Once approved for installation, the work shall be inspected by the Fire Code Official prior to placing the system into operation.

Note: Please see SBCFPD Standard A-4 pertaining to Knox[®] key boxes.

DEFINITIONS

EMERGENCY VEHICLE ACCESS (EVA) - A road or other passageway developed to allow the passage of fire apparatus. An emergency vehicle access is not necessarily intended for vehicular traffic other than fire apparatus.

SPEED BUMP - A raised portion of roadway that is out of conformance with the minimum criteria in this Standard and not approved by the Fire Code Official

SPEED HUMP - A raised portion of roadway that meets the minimum criteria as specified in this Standard as well as that of a City or County Traffic Engineering Department

TRAFFIC CALMING FEATURES - Roadway devices such as bottlenecks, curves, and roundabouts which are designed to slow the speed of traffic

GENERAL

- 1) All obstructions to fire apparatus access shall be installed to provide both emergency ingress and egress. Direction-limiting devices with no override provision, such as fixed tire spikes, shall be prohibited.
- 2) The total number of obstructions to fire apparatus access or associated systems, through which emergency responders must pass through to reach any address, shall not exceed one unless specifically approved by the Fire Code Official.



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- 3) The placement of gates or obstructions shall not interfere with the use of fire protection equipment; i.e. fire hydrants, fire department connections, fire sprinkler valves etc.
- 4) All access control devices must be operable to emergency responders with no prior special knowledge, or effort, such as access codes, key cards, push buttons, or other methods.
- 5) All obstructions to fire apparatus access which require electrical, hydraulic, or pneumatic power or force for normal operation shall automatically retract into an open position ("fail open") when there is a malfunction or power loss and shall stay secured in an open position until normal operation is restored.

MANUALLY OPERATED SECURITY GATES

- 1) Access roads designated for Emergency Vehicle Access (EVA) use only may be gated with manually operated gates which are marked with a sign reading "EMERGENCY AND AUTHORIZED VEHICLES ONLY" per **Diagram A-3.1**, with red letters contrasting from their background and visible from all directions of approach and must meet other applicable requirements of the California Fire Code and San Bernardino County SBCFPD Standards.
- 2) Manual gates shall have a means of emergency operation that allows manual operation by one person. Manually operated gates shall be equipped with an approved "Knox ®" padlock or an equivalent locking system acceptable to the Fire Code Official.
- 3) Manual gates shall either slide open horizontally or swing inward in the direction of emergency vehicle ingress.
- 4) For developments other than single family dwellings, fire apparatus access openings or driveway approaches serving two-way vehicular traffic shall provide a minimum width of twenty (20) feet of clearance when fully open. When medians or center dividers are present, and openings or approaches serve one-way traffic, a minimum of twelve (12) feet of clearance shall be required when gates are fully open. One-way openings or approaches shall be within fifteen (15) feet of each other and shall meet all the requirements of this Standard.
- 5) For private driveways serving single family dwellings, gates shall have a minimum clear open width of twelve (12) feet and shall meet all other applicable requirements of this Standard.
- 6) Gates that provide emergency access to fuel modification zones or wildland areas shall have a minimum clear open width of the access road and shall meet all other applicable requirements of this Standard.
- 7) Parking of vehicles shall not obstruct any entrance, or the operation of any gate installed per the requirements of this Standard. "NO PARKING" signs designed and installed in accordance with SBCFPD Standard A-2 may be required as directed by the Fire Code Official.

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- 8) When required by the Fire Code Official, entry gates shall be installed to provide a minimum of forty feet (40') of fire apparatus stacking from the intersecting road. **(See Diagram A-3.2)**

ELECTRICALLY OPERATED SECURITY GATES

- 1) Electrically operated security gates shall meet all the requirements of the "MANUALLY OPERATED SECURITY GATES" section above and must meet other applicable requirements of the California Fire Code and this section, as well as all other SBCFPD Standards.
- 2) Electric gates at multifamily residential properties (apartments, gated housing tracts, etc.) shall be equipped with an emergency preemption device, or an automatic means of opening the gate for emergency access by Fire Protection District personnel. The location and type of emergency opening devices shall be approved by the Fire Code Official and may include Opticom® or equivalent sensors and/or Knox® key switches as deemed necessary by the Fire Code Official. **(See Diagram A-3.3)**
- 3) Any preemption devices on electric gates shall override all normal gate operations and completely open the gate(s). After preemption devices are activated, gates shall be maintained in an open position for a minimum of twenty (20) minutes, after which the gate controller shall automatically reset and close the gate.
- 4) All electric motors operating security gates that obstruct fire apparatus access roadways or systems shall be listed in accordance with ASTM F2200 and UL 325, and shall reach the fully open position within a total time not to exceed one second for each one foot of obstructed required width.
- 5) A safety loop or device that prevents the gate from closing on vehicles going through the gate shall be installed on all electric gates.
- 6) An automatic exit loop that activates the gate in the direction of egress shall be installed on all electric gates, or an additional preemption device/Knox® switch may be installed in the direction of emergency vehicle egress when approved by the Fire Code Official.
- 7) Electric gates without battery backup power shall be provided with a manual release to allow the gate to be operated manually when electrical service is interrupted.

REMOVABLE OR RETRACTABLE BOLLARDS AND BARRICADES

- 1) Bollards and barricades of any type that are installed across fire apparatus access roads shall be either automatically retractable into an open position or manually removable. The location, type and design of such obstructions shall be approved by the Fire Code Official prior to installation.
- 2) Bollards or barricades that are automatically retractable shall have an approved means of emergency operation for SBCFPD use, installed in a highly visible location.

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- 3) Manually removable bollards or barricades shall not exceed forty pounds (40 lbs.) per bollard or barricade. Any padlocks or other security devices installed on removable bollards or barricades shall be a "break-away" type that can be easily forced open.
- 4) Bollards and barricades shall be painted with bright colored reflective yellow paint and have reflective decals installed for high visibility during the hours of darkness.

SPEED HUMPS

- 1) Speed humps installed within fire access roadways shall be designed pursuant to this Standard or other recognized equivalent specification; and if installed on public streets, shall be approved by the County or City. In general, speed humps shall be designed for vehicles with a travel speed of twenty-five (25) mph, a minimum width of twelve feet (12'), a maximum height of four inches (4") and a minimum taper of 24 inches (24") (**See Diagram A-3.4**)
- 2) Speed humps shall be spaced no closer than three-hundred (300') feet apart. Speed humps shall not be placed within five feet (5') of an intersection or driveway, or within twenty feet (20') of a fire hydrant.
- 3) Warning signs as well as reflective pavement marking shall be required per SBCFPD Standards if speed humps are placed on public streets. Speed humps placed on private property shall have signage and diagonal pavement "hash" markings as shown in **Diagram A-3.5**.
- 4) Other speed hump or speed bump designs may be considered when approved by the City or County and the Fire Code Official.
- 5) Existing, non-conforming speed humps (such as speed bumps) will be subject to removal when deemed by the Fire Code Official as a hazard to emergency response vehicles.

OTHER TRAFFIC CALMING FEATURES

- 1) Traffic calming features designed to slow the speed of traffic may be utilized subject to approval by the Fire Code Official. At no time will traffic calming features or devices be allowed to restrict the minimum width or turning radius within a fire apparatus access route.
- 2) When approved, traffic calming devices shall be constructed and maintained as per appropriate Standards. Plans shall be submitted to the SBCFPD for review and approval prior to any construction taking place.

MAINTENANCE OF OBSTRUCTIONS

- 1) In order to ensure proper maintenance, a copy of a maintenance contract for automatic devices and systems is required to be supplied to the SBCFPD for review. Regular inspections of equipment, on a minimum of a bi-annual basis, shall be performed and a record kept on file for SBCFPD review.

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- 2) The property owner and/or property owner's association shall be responsible to maintain all equipment. All system components shall be maintained in an operable condition at all times and shall be replaced or repaired when defective.
- 3) The SBCFPD shall have the authority to perform inspections to ensure proper maintenance and integrity of any systems or equipment on an as-needed basis.

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DIAGRAM A 3.1: "EMERGENCY VEHICLES ONLY" SIGN DETAIL

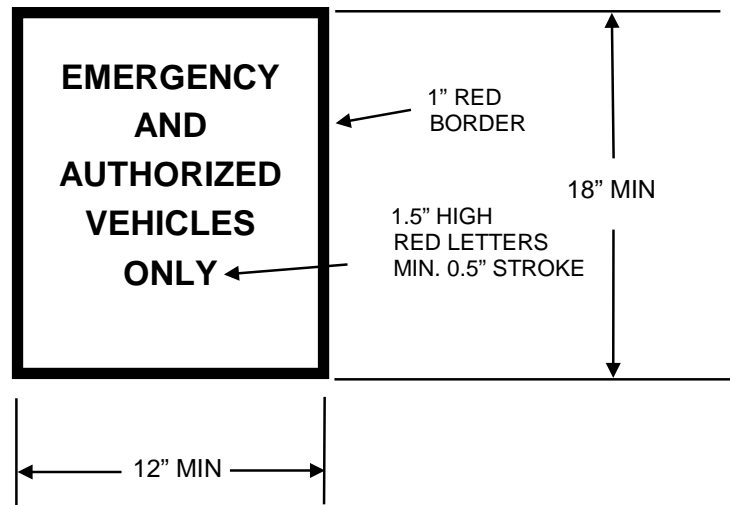
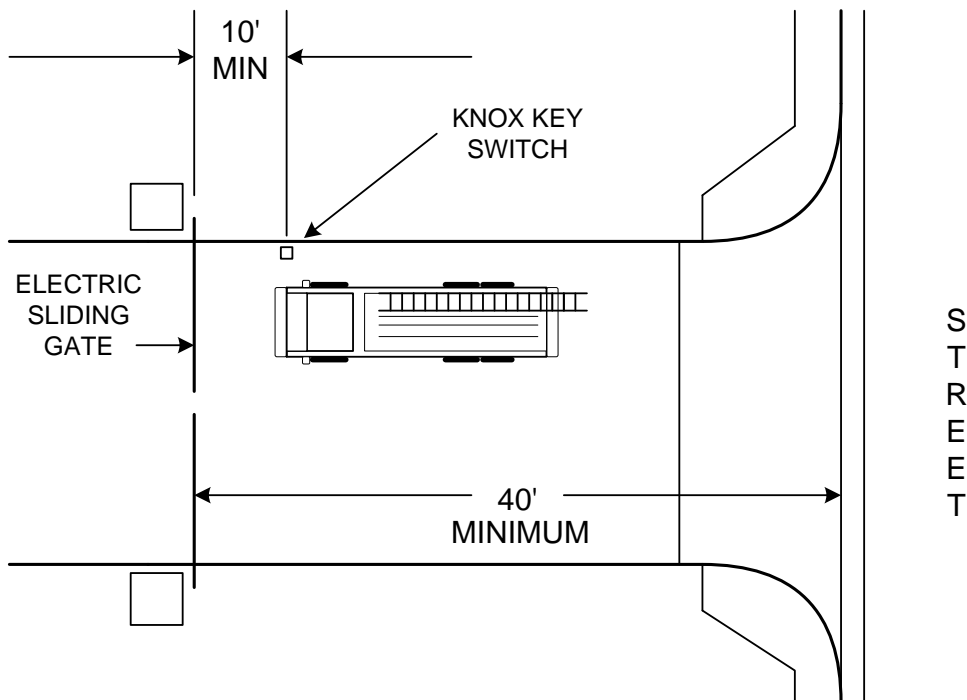


DIAGRAM A-3.2: ENTRY GATE STACKING





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DIAGRAM A-3.3: ELECTRICALLY OPERATED GATE

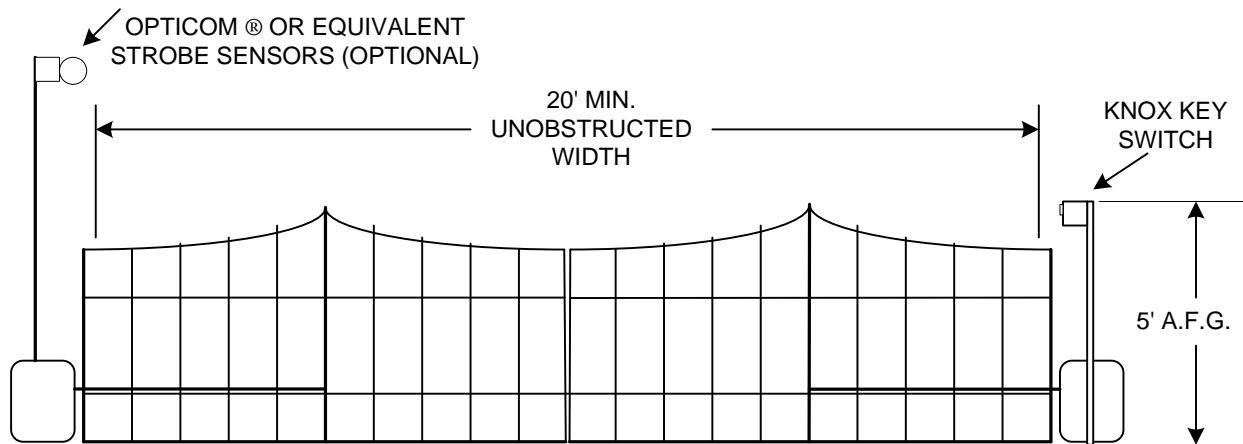


DIAGRAM A-3.4: SPEED HUMP

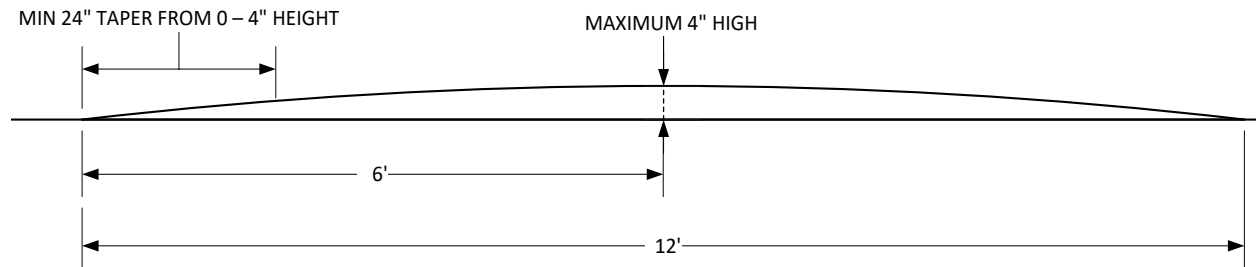


DIAGRAM A-3.5: SPEED HUMP STRIPING

