# 2022 City of Hollister Fire Code Amendments

Presented by the Monterey County Fire Prevention Officers Association and The San Benito County Fire Prevention Officers.

- 101.1 Title. These regulations shall be known as the Fire Code for the City of Hollister, hereinafter referred to as "Fire Code."
- 101.2.1 Appendices. Provisions in all appendices to the 2022 California Fire Code are hereby adopted in their entirety and shall apply.
- 102.1 Construction and design provisions. The construction and design provisions of this Code shall apply to:
- 1. Structures, facilities and conditions arising after the adoption of this Code.
- 2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this Code.
- 3. Existing structures, facilities and conditions when identified in specific Sections of this Code.
- 4. Existing structures, facilities and conditions, which, in the opinion of the Fire Code Official, constitute a distinct hazard to life and property.
- 5. Existing Structures Alterations and repairs.
- a. All new work performed in alterations and/or repairs to existing structures shall comply with the current provisions of this Chapter.
- b. When alterations and/or repairs result in the removal, alteration, modification, replacement and/or repair of fifty percent (50%) or more of the external walls of a building, or result in the removal, modification, replacement and/or repair of fifty percent (50%) or more of the existing internal structural and/or non-structural framework, independently or in combination thereof, within a five year period, the entire building shall be made to conform to the current provisions of this Chapter.
- c. Calculations of linear wall measurements shall be shown on all plans submitted for building permits, on the cover page in the project description of said plans.
- d. The determination under this section of the requirement for upgrading any existing structure to full conformance with current provisions of this Chapter shall be at the sole discretion of the Fire Code Official.
- 103.0 Responsibility for enforcement.
- 103.0.1 Within established fire protection districts and community services districts, responsibility for enforcement of this Code shall be under the direction of the Fire Chief within each district.
- 103.0.2 In areas of Hollister outside incorporated cities or organized special districts or fire districts, responsibility for enforcement of this Code shall be under the direction of the Chief Building Official with Code Enforcement of the AHJ.
- 104.1.1 Police powers. The fire code official and his deputies shall have the powers of police officers in performing their duties under this Code. When requested to do so by the fire code official, the chief of police of the jurisdiction is authorized to assign such available police officers as necessary to assist the fire code official in enforcing the provisions of this Code.
- 105.5.0 Agricultural Explosive Devices. An operational permit is required for storage or use of any agricultural explosive device including "bird bombs".

- 112.2 Owner/occupant responsibility. Correction and abatement of violations of this Code shall be the responsibility of the owner. If an occupant creates, or allows to be created, hazardous conditions in violation of this Code, the occupant shall be held responsible for the correction and abatement of such hazardous conditions.
- 112.4 Violation penalties. Persons who shall violate any provision of this Code or shall fail to comply with any of the requirements thereof or shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this Code, shall be guilty of an infraction, punishable by a fine in conformance with the City of Hollister.
- 113.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of an infraction as specified in Section 112.4 of this Code.

#### 202 Definitions

ALL WEATHER SURFACE. A hard paved road surface constructed to the minimum standards adopted by the jurisdiction.

BRIDGE. A structure to carry a roadway over a depression or obstacle.

IDLE PALLET. A pallet or similar product storage and/or lifting device not currently in use and empty of product.

- 503.2.6.1 Private bridge engineering. Every private bridge hereafter constructed shall meet the following engineering requirements:
- 1. The weight shall be designed for a minimum of HS-20 loading as prescribed by the AASHTO.
- 2. The unobstructed vertical clearance shall be not less than fifteen (15) feet clear.
- 3. The width shall be a minimum of twenty (20) feet clear. The Fire Code Official may require additional width when the traffic flow may be restricted or reduce the width to a minimum of twelve (12) feet for Occupancy Group U or R-3 occupancies.
- 4. The maximum grade change of the approach to and from any private bridge shall not exceed eight percent for a minimum distance of ten (10) feet.
- 503.2.6.2 Private bridge certification. Every private bridge hereafter constructed shall be engineered by a licensed professional engineer knowledgeable and experienced in the engineering and design of bridges. Certification that the bridge complies with the design standards required by this Code and the identified standards, and that the bridge was constructed to those standards, shall be provided by the licensed engineer, in writing, to the Fire Code Official. Every private bridge, including existing and those constructed under this Code, shall be certified as to its maximum load limits every ten (10) years or whenever deemed necessary by the fire code official. Such recertification shall be by a licensed professional engineer knowledgeable and experienced in the engineering and design of bridges. All fees charged for the purpose of certification or recertification of private bridges shall be at the owner's expense.

- 503.2.7 Grade. The grade of fire apparatus access roads shall be no greater than fifteen (15) percent unless specifically approved by the Fire Code Official.
- 503.2.7.1 Paving. All fire apparatus access roads over eight (8) percent shall be paved with a minimum 0.17 feet of asphaltic concrete on 0.34 feet of aggregate base. All fire apparatus access roads over fifteen (15) percent where approved shall be paved with perpendicularly grooved concrete.
- 503.7 Fire apparatus access road names. All fire apparatus access road names shall be issued or approved by the appropriate governmental agency.
- 506.1 Required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box or other approved emergency access device to be installed in an approved location. The key box or other approved emergency access device shall be of an approved type and shall contain keys or other information to gain necessary access as required by the fire code official. Where a key box is used, it shall be listed in accordance with UL 1037. This jurisdiction utilizes the KNOX Box Security Systems.
- 507.5.2 Inspection, testing and maintenance. Fire hydrant systems shall be subject to periodic tests as required by the Fire Code Official. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards. When required by the Fire Code Official, hydrants shall be painted in accordance with the most current edition of NFPA 291.
- 605.3.1 Spark arresters.
- 605.3.1.1 An approved spark arrester shall be installed on all chimneys, incinerators, smokestacks or similar devices using solid fuel for conveying smoke or hot gases to the outer air. 605.3.1.2 Spark arresters shall have openings in accordance with Section 2113.9.2(3) of the California Building Code and Section 1003.9.2 of the California Residential Code with minimum openings of 3/8" and maximum openings of ½".
- 901.1.1 Responsibility. The owner of the protected premises shall be responsible for all fire protection systems within the protected premises, whether existing or installed under this code.
- 901.2.2 Additional documentation. Additional documentation as required by the Fire Code Official shall be provided to the Fire Code Official in an acceptable format.
- 901.4 Installation. Fire protection systems shall be maintained in accordance with the original installation standards for that system. All systems shall be extended, altered, or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to fire protection systems shall be done in accordance with applicable standards.

- 901.4.8 Nonoperational equipment. Any fire protection equipment that is no longer in service shall be removed.
- 901.6.4 Qualifications of Inspection, Testing and Maintenance Personnel. All personnel performing any inspection, testing or maintenance of any fire protection system shall be qualified. Where such inspection, testing and maintenance is performed by an outside service company, the company shall be appropriately licensed by the California Contractors State License Board in accordance with the California Business & Professions Code or by the California State Fire Marshal.
- 901.6.5 Additional records. All documentation generated during any scheduled inspection or test of any fire protection system, whether required or voluntarily installed, shall be forwarded to the Fire Code Official within fifteen (15) calendar days after the date of the inspection or test.
- 901.11 Fire Protection Features for Plant Processing and Extraction Facilities
- 901.11.1 Scope. This section applies to occupancies regulated by Chapter 39 of this Code.
- 901.11.2 Definitions.
- 901.11.2.1 Plant processing. Plant processing shall include all plant post-harvest operations, excluding retail sales of plant and related products.
- 901.11.2.2 Indoor cultivation. Indoor cultivation shall be defined as all nursery or cultivation conducted in other than Group U occupancies (greenhouses).
- 901.11.3 Fire Protection Systems. All buildings or portions thereof housing plant post-harvest or indoor cultivation operations shall be protected as defined in this section.
- 901.11.3.1 Fire Sprinklers. Fire sprinklers shall be installed in accordance with 901.11.3.1.1, 901.11.3.1.2, or 901.11.3.1.3
- 901.11.3.1.1 Fire sprinklers shall be installed in all buildings or portions thereof; such fire sprinkler systems shall be designed to Ordinary Group II design standards in the latest adopted edition of NFPA 13 and Section 903 of this code.
- 901.11.3.1.2 If the occupancy is classified as a Group H Occupancy the fire sprinkler system may be required to be designed and installed as an Extra Hazard fire sprinkler system
- 901.11.3.1.3 Where permitted by the fire code official and not otherwise required by this code or the CBC, fire sprinklers may be eliminated in approved buildings less than 500 square feet.
- 901.11.3.2 Fire Alarm Systems. Fire alarm systems shall be installed in all buildings or portions thereof; such fire alarm systems shall include both fire sprinkler system monitoring and complete occupant notification as specified in the latest adopted edition of NFPA 72 and Section 907 of this code.
- 901.11.3.3 Special Hazard Systems. Where specified by appropriate UL listings for extraction booths utilizing volatile solvents, dry chemical fire protection systems shall be installed according to the latest adopted edition of NFPA 17. If there is no UL listing for the extraction booth, a dry chemical fire protection system shall be installed.

- 901.11.3.4 Portable Fire Extinguishers. Portable fire extinguishers shall be installed in accordance with NFPA 10 and Section 906 of this code.
- 903.2 Where required. Approved automatic sprinkler systems shall be provided in all new buildings and structures constructed, moved into or relocated within the jurisdiction. Exceptions:
- (1) Structures not classified as Group R occupancies and not more than five hundred (500) square feet in total floor area.
- (2) Detached agricultural buildings, as defined by this code and the CBC, located at least one hundred feet (100) from any other structure or the property line, whichever is closer.
- (3) Accessory structures not classified as R occupancies associated with existing non-sprinklered R-3 occupancies (one- or two-family dwellings) and less than one thousand five hundred (1500) square feet in total fire area.
- (4) Where an insufficient water supply exists to provide for an automatic fire sprinkler system and where the Fire Code Official permits alternate protection.

The following Sections are amended by changing requirements to five hundred (500) square feet for fire sprinkler installation, as follows (the complete text of the section is not provided):

- 903.2.1.1 Group A-1. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.1.2 Group A-2. Change five thousand (5,000) square feet to five hundred (500) square feet.
- 903.2.1.3 Group A-3. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.1.4 Group A-4. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.1.5 Group A-5. Change one thousand (1,000) square feet to five hundred (500) square feet.
- 903.2.3 Group E. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.4 Group F-1. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.4.1 Group F-1. Change two thousand five hundred (2,500) square feet for woodworking operations to five hundred (500) square feet.
- 903.2.7-1 Group M. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.7-3 Group M. Change twenty-four thousand (24,000) square feet to five hundred (500) square feet.
- 903.2.9 Group S-1. Change twelve thousand (12,000) square feet to five hundred (500) square feet.
- 903.2.9.1 Repair Garages. Change ten thousand (10,000) square feet (2 story buildings) and twelve thousand (12,000) square feet (1 story buildings) to five hundred (500) square feet.
- 903.2.9.2 Bulk storage of tires. Change twenty thousand (20,000) cubic feet to five hundred (500) square feet.
- 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided in all buildings with a Group R fire area, including, but not limited to, one- and two-family dwellings, townhomes, and manufactured homes and mobile homes located outside of licensed mobile home parks hereafter constructed, moved into or relocated within the jurisdiction, including all additions to buildings already equipped with automatic fire sprinkler systems. (Exceptions remain per 2022 California Fire Code)
- 903.3.1.1.1 -7 Passenger elevator shafts or associated passenger elevator mechanical rooms, where elevator shafts are constructed with a 2–hour fire resistive method.

Section 903.3.1.1.2 of the California Fire Code is deleted.

- 903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies up to and including four stories in height shall be permitted to be installed throughout in accordance with NFPA 13R as amended in Chapter 47 of this Code.
- 903.3.1.2.1 Balconies and decks. Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units were the building is of Type V construction, provided there is a roof or deck above. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch to 6 inches below the structural members and a maximum distance of fourteen (14) inches below the deck of the exterior balconies and decks that are constructed of open wood joist construction.
- 903.3.1.2.3 Attics. Where NFPA 13R sprinkler systems are installed, all attic areas shall be provided with sprinkler protection in accordance with NFPA 13.
- 903.3.1.2.4 Sprinkler control valves. Where NFPA 13R sprinkler systems are installed, sprinkler system control valves shall be installed in accordance with NFPA 13.
- 903.3.1.2.5 Bathrooms. Automatic sprinklers shall be installed in all bathrooms, regardless of square footage, where an electrical receptacle is installed.
- 903.3.1.2.6 Accessible storage areas. Automatic sprinklers shall be installed in all accessible storage areas.
- 903.3.1.2.7 Under-stair spaces. Automatic sprinklers shall be installed in all under-stair spaces including all under-stair closets.
- 903.3.1.3 NFPA 13D sprinkler systems. Automatic fire sprinkler systems installed in one and two-family dwellings, Group R-3 and R-4 congregate living facilities and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D. The requirements of this section supersede the requirements of the California Residential Code.
- 903.3.1.3.1 All fire sprinkler systems installed in one- and two-family dwellings shall be tested for leakage by undergoing a hydrostatic test made at 200 psi for two-hour duration.
- 903.3.1.3.2 Each water system supplying both domestic and fire protection systems shall have a single indicating-type control valve, arranged to shut off both the domestic and sprinkler systems. A separate shut-off valve for the domestic system only shall be permitted to be installed. The location of the control valve shall be approved by the Fire Code Official.
- 903.3.1.3.3 Automatic sprinklers shall be installed in all bathrooms, regardless of square footage, where an electrical receptacle is installed.
- 903.3.1.3.4 Automatic sprinklers shall be installed in all attached garages and other accessory structures.
- 903.3.1.3.5 Automatic sprinklers shall be installed in all accessible storage areas.
- 903.3.1.3.5.1 Automatic sprinklers shall be installed in all under-stair spaces including all closets.
- 903.3.1.3.6 Local water flow alarms shall be provided on all sprinkler systems. Local water flow alarms shall be powered from the main kitchen refrigerator circuit. The local water flow alarm shall be clearly audible from within the master bedroom at an audibility level of not less than 75 dBa.
- Where no kitchen exists in the building, the water flow alarm shall be powered from the bathroom lighting circuit. As required by the fire code official, interior audible notification appliances or additional water flow alarms are required to be installed at locations specified by the fire code official
- 903.3.1.3.7 Automatic fire sprinklers shall be installed to protect all furnaces and heating system appliances.
- 903.3.1.3.8 A passive purge shall be installed in the master bathroom if served by a public water system per local water purveyor. A placard must be posted adjacent to the fire sprinkler riser.

- 903.4.1 Monitoring. Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved central station, remote supervising station or proprietary supervising station as defined in NFPA 72, or, when approved by the Fire Code Official, shall sound an audible signal at a constantly attended location. The fire alarm system installed to transmit such signals shall be considered a building fire alarm system. (Exceptions remain unchanged)
- 903.4.2 Alarms. One exterior approved audible appliance shall be connected to every automatic sprinkler system in an approved location. Sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a building fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Interior alarm notification appliances shall be installed as required by Section 903.4.2.1.
- 903.4.2.1 Where an automatic fire sprinkler system is installed in a building with more than one tenant or with over one hundred (100) sprinkler heads, audible and visible notification appliances shall be installed throughout the building as follows:
- a. Audible notification appliances shall be installed so as to be audible at fifteen (15) dBa above average sound pressure level throughout the building.
- b. Visible notification appliances shall be installed in all public and common use areas, restrooms and corridors in accordance with the spacing requirements of NFPA 72.
- c. Visible notification appliances can be eliminated in normally unoccupied portions of buildings where permitted by the Fire Code Official.
- EXCEPTION: The requirements of this section do not apply to Group R-3 Occupancies.
- 903.4.3 Floor control valves. Approved indicating control valves and water flow switches shall be provided at the point of connection to the riser on each floor in all buildings over one story in height and shall be individually annunciated as approved by the Fire Code Official.
- 904.13.2 System interconnection. The actuation of the fire extinguishing system shall automatically shut down all fuel and electrical power located under the hood, except for the electrical power to the exhaust air supply. The fuel and electrical supply reset shall be manual.
- 904.13.5.2 Extinguishing system service. Automatic fire extinguishing systems shall be serviced by a CSLB licensed C-16 contractor or a CSFM licensed "A" licensee at least every six months and after any activation of the system. Inspection shall be performed by the owner at least monthly in accordance with the currently adopted edition of NFPA 17-A. The service contractor shall review the records of monthly inspections every six months, and deficiencies shall be reported to the fire code official. A service report shall be forwarded to the fire code official by the licensed service contractor within 15 days after every service on the appropriate AES form.
- 907.1.6 Multiple Fire Alarm Systems. Multiple fire alarm systems within a single protected premise are not permitted, unless specifically authorized by the Fire Code Official.
- 907.2 Exception 1. The manual fire alarm box is not required for fire alarm control units dedicated to elevator recall control.

- 907.6.5 Access. Access shall be provided to each fire alarm system component for periodic inspection, maintenance and testing.
- 907.6.6.5 Zone transmittal. Where required by the fire code official, fire alarm signals shall be transmitted by zone to the supervising station and retransmitted by zone to the public fire service communications center.
- 907.6.6 Monitoring. Fire alarm systems, whether required by this Chapter or the California Building Code or voluntarily installed, shall be monitored by an approved supervising station in accordance with NFPA 72 and this Section.
- 907.6.6.6 Means of communication. The use of either POTS or cable telephone lines with a digital alarm communicator transmitter shall not be permitted.
- EXCEPTION. Where no other communications methods are available, the use of telephone lines shall be permitted to be used on a temporary basis not to exceed one year from the date of final acceptance test or until permitted alternate means of communications are available.
- 907.7.2 Completion documents. The following documentation shall be provided at the time of acceptance testing for all fire alarm system installations:
- 1. A record of completion in accordance with NFPA 72.
- 2. A contractor's statement verifying that the system has been installed in accordance with the approved plans and specifications and has been 100% tested in accordance with NFPA 72.
- 3. A contractor's affidavit of personnel qualifications, indicating that all personnel involved with the installation of the fire alarm system meet the qualification requirements of the Fire Code Official.
- 1205.1.1 Signing and Marking. In addition to signing and marking requirements of the California Building Code and the California Residential Code, the following signing and marking is required:
- 1205.1.1.1 Main Panel Exterior Marking. A placard is required to be permanently affixed to the main service disconnect panel. The placard shall be red in color with white capital letters at least 1/2" in height and in a non-serif font, to read "SOLAR DISCONNECT INSIDE PANEL." The placard shall be constructed of weather-resistant, durable plastic with engraved letters, or other approved material.
- 1205.1.1.2 Circuit Disconnecting Means Marking. A permanent label is to be affixed adjacent to the circuit breaker controlling the inverter or other photovoltaic system electrical controller. The label shall have contrasting color capital letters at least 3/8" in height and in a non—serif font, to read "SOLAR DISCONNECT." The label shall be constructed of durable adhesive material or other approved material.
- 1205.1.1.3 Secondary Power Sources. Where photovoltaic systems are interconnected to battery systems, generator backup systems, or other secondary power systems, additional signage acceptable to the fire code official shall be required indicating the location of the secondary power source shutoff switch.

1205.1.1.4 Installer Information. Signage acceptable to the fire code official indicating the name and emergency telephone number of the installing contractor shall be required to be installed adjacent to the main disconnect.

Section 1205.2.1, Exceptions 1 and 2 of the California Fire Code are deleted in their entirety.

1205.2.1.4 Hip and Valley Layout. Hip and Valley Layouts. Modules shall be located no closer than one and one-half feet (1-1/2') to a hip or valley if modules are to be placed on both sides of a hip or valley. Where modules are located on only one side of a hip or valley that is of equal length, the modules shall be permitted to be placed directly adjacent to the hip or valley.

1206.15 Signage acceptable to the fire code official shall be required indicating the location of the stationary fuel cell power system.

3905.3. Fire Protection Systems. Fire protection systems in occupancies regulated by this chapter shall be in accordance with Section 901.11 of this Code.

D103.2 Grade. Fire apparatus access roads shall not exceed fifteen (15) percent in grade with a maximum side slope of five (5) percent.

EXCEPTION: Grades steeper than fifteen (15) percent, if approved by the Fire Code Official, shall be paved with perpendicularly grooved concrete.

## APPENDIX Q: STANDARD FIRE CONDITIONS FOR SINGLE FAMILY DWELLINGS

# **SECTION Q101 GENERAL**

**Q101.1 Scope**. Applications for the construction or remodel of single family dwellings, including one- and two-family dwellings, townhomes, modular and manufactured homes, and mobile homes outside of established mobile home parks, shall be subject to the fire conditions in this appendix when conditioned by the Fire Code Official.

**Q101.2** Conflicting sections. Where provisions in this appendix conflict with other sections of this Code or other appendices, the provisions of this appendix shall prevail unless otherwise directed by the Fire Code Official.

# **SECTION Q102 ROADS**

**Q102.1 General.** These conditions will be used primarily when conditioning a subdivision or other project that requires roads. Roads identified in this Section are vehicular access to more than two (2) parcels; more than four (4) residential units; or access to any industrial or commercial occupancy. Includes public and private streets and lanes.

Q102.2 Road access. (FIRE 001). Access roads shall be required for every building when any portion of the exterior wall of the first story is located more than one hundred fifty (150) feet from fire department access. All roads shall be constructed to provide a minimum of two (2) ten (10) feet wide traffic lanes with an unobstructed vertical clearance of not less than fifteen (15) feet. The roadway surface shall provide unobstructed access to conventional drive vehicles including sedans and fire apparatus and shall be an all-weather surface designed to support the imposed load of fire apparatus (75,000 pounds). Each road shall have an approved name.

Q102.3 Roadway engineering. (FIRE 002). The grade for all roads shall not exceed fifteen percent (15%) with a maximum side slope of five percent (5%). Where road grades are 8 percent (8%) or less, an all-weather aggregate base is required at a minimum or as required in other sections of the Monterey County Code. Where road grades exceed eight percent (8%), a minimum structural roadway surface of 0.17 feet of asphaltic concrete on 0.34 feet of aggregate base shall be required. The length of vertical curves in roadways, exclusive of gutters, ditches and drainage structures designed to hold or divert water, shall not be less than one hundred (100) feet. No roadway turn shall have a horizontal inside radius of less than fifty (50) feet. A roadway turn radius of fifty (50) to one hundred (100) feet is required to have an additional four (4) feet of roadway surface. A roadway turn radius of one hundred (100) to two hundred (200) feet is required to have an additional two (2) feet of roadway surface. Roadway turnarounds shall be required on dead-end roads in excess of one hundred fifty (150) feet of surface length. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length.

Q102.4 Dead end roads.

Q102.4.1 Parcels less than one acre. (FIRE 003). For parcels less than one acre, the maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed eight hundred (800) feet. All dead-end road 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 furthest point. Where a dead-end road serves parcels of differing sizes, the shortest allowable length shall apply. Each dead-end road shall have a turnaround constructed at its terminus. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length.

Q102.4.2 Parcels greater than one acre and not exceeding five acres (FIRE 004). For parcels greater than one acre and not exceeding five acres, the maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed one thousand three hundred twenty (1,320) feet. All dead-end road 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 furthest point. Where a dead-end road serves parcels of differing sizes, the shortest allowable length shall apply. Each dead-end road shall have a turnaround constructed at its terminus. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length

Q102.4.3 Parcels greater than five acres and not exceeding twenty (20) acres. (FIRE 005). For parcels greater than five acres and not exceeding twenty (20) acres, the maximum length of a deadend road, including all dead-end roads accessed from that dead-end road, shall not exceed two thousand six hundred forty (2,640) feet. All dead-end road 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 furthest point. Where a dead-end road serves parcels of differing sizes, the shortest allowable length shall apply. Each dead-end road shall have turnarounds at its terminus and at no greater than one thousand three hundred twenty (1,320) foot intervals. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length.

Q102.4.4 Parcels greater than twenty (20) acres. (FIRE 006). For parcels greater than twenty (20) acres, the maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed five thousand two hundred eighty (5,280) feet. All dead-end road 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 furthest point. Where a dead-end road serves parcels of differing sizes, the shortest allowable length shall apply. Each dead-end road shall have turnarounds at its terminus and at no greater than one thousand three hundred twenty (1,320)-foot intervals. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length.

## SECTION Q103 DRIVEWAYS, GATES, AND BRIDGES

**Q103.1 Driveways.** (FIRE 007). Driveway identified in this Section is defined as a vehicle access that serves up to two (2) parcels with no more than two (2) residential units and any number on non-commercial or industrial buildings on each parcel. Driveways shall not be less than twelve (12) feet wide traffic lane and minimum fourteen (14) feet wide unobstructed clearance, with an unobstructed vertical clearance of not less than fifteen (15) feet. The grade for all driveways shall not exceed fifteen percent (15%) with a maximum side slope of five percent (5%). Where driveway grades are

eight percent (8%) or less, an all-weather surface such as an aggregate base shall meet minimum fire requirements. Other types of material for driveways may be required by the Code. Where the grade exceeds eight percent (8%), a minimum structural roadway surface of 0.17 feet of asphaltic concrete on 0.34 feet of aggregate base shall be required. The driveway surface shall be capable of supporting the imposed load of fire apparatus forty thousand (40,000) pounds, and be accessible by conventional-drive vehicles, including sedans. For driveways with turns ninety (90) degrees and less, the minimum horizontal inside radius of curvature shall be twenty-five (25) feet. For driveways with turns greater than ninety (90) degrees, the minimum horizontal inside radius curvature shall be twenty-eight (28) feet. For all driveway turns, an additional surface of four (4) feet shall be added. All driveways exceeding one hundred fifty (150) feet in length, but less than eight hundred (800) feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds eight hundred (800) feet, turnouts shall be provided at no greater than four hundred (400)-foot intervals. Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum of twenty (25) foot taper at both ends. Turnarounds shall be required on driveways in excess of one hundred fifty (150) feet of surface length and shall be thirty (30) feet long with a minimum twenty-five (25) foot taper at both ends. Turnarounds shall be required on driveways in excess of one hundred fifty (150) feet of surface length and shall be located within fifty (50) feet of the primary building. The minimum turning radius for a turnaround shall be forty (40) feet from the center line of the driveway. If a hammerhead/T is used, the top of the "T" shall be a minimum of sixty (60) feet in length.

Q103.2 Gates. (FIRE 008). 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 the road. Gate entrances shall be at least two (2) feet wider than the width of the traffic lane but in no case be less than fourteen (14) feet wide unobstructed and unobstructed vertical clearance of fifteen (15) feet. Where a one-way road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used. Where gates are to be locked, the installation of a key box or other acceptable means for immediate access by emergency equipment may be required.

Q103.3 Bridges. (FIRE 009). All new and reconstructed bridges shall be at least the width of the roadbed and berms, but in no case less than twelve (12) feet wide. Bridge width on all roads exceeding tertiary standards shall not be less than the width of the two lanes with berms. All bridges shall be designed for HS15-44 loading and have guardrails. Appropriate signage, including but not limited to, weight ratings or vertical clearance limitations, and one-way road or single-lane road conditions, shall be provided at both entrances to any bridge. One-lane bridges may be permitted if there is unobstructed visibility across the entire bridge, and turnouts are provided at both bridge ends. The fire authority may impose more stringent requirements for bridges.

# **SECTION Q104 SIGNS AND ADDRESSES**

Q104.1 Road signs. (FIRE 010). All newly constructed or approved roads and streets shall be designated by names or numbers, posted on signs clearly visible and legible from the roadway. Size of letters, numbers and symbols for street and road signs shall be a minimum four-inch letter height, ½-inch stroke, and shall be a color that is reflective and clearly contrasts with the background color of the sign. All numerals shall be Arabic. Street and road signs shall be non-combustible and shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet. Height, visibility, legibility, and orientation of street and road signs shall be meet the provisions

of the jurisdiction. 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. Signs required under this section identifying intersecting roads, streets and private lanes shall be placed at the intersection of those roads, streets and/or private lanes. Signs identifying traffic access or flow limitations (i.e., weight or vertical clearance limitations, dead-end road, one-way road or single lane conditions, etc.) shall be placed: (a) at the intersection preceding the traffic access limitation; and (b) not more than one hundred (100) feet before such traffic access limitation. Road, street and private lane signs required by this article shall be installed prior to final acceptance of road improvements by the Fire Code Official.

Q104.2 Addresses for buildings. (FIRE 011). All buildings shall be issued an address in accordance with jurisdictional requirements. Each occupancy, including detached accessory dwelling units (ADU), except accessory buildings, shall have its own permanently posted address. When multiple occupancies exist within a single building, each individual occupancy shall be separately identified by its own address. Letters, numbers and symbols for addresses shall be a minimum of four-inch (4") height, 1/2-inch stroke, contrasting with the background color of the sign, and shall be Arabic. Commercial Occupancy shall have a minimum of 18 inch to 24 inch sized address numbers located at the top corner of the building on approval from the fire official. The sign and numbers shall be reflective and made of a noncombustible material. Address signs shall be placed at each driveway entrance and at each driveway split. Address signs shall be 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. Address signs along one-way roads shall be visible from both directions of travel. Where multiple addresses are required at a single driveway, they shall be mounted on a single sign. Where a roadway provides access solely to a single commercial occupancy, the address sign shall be placed at the nearest road intersection providing access to that site. Permanent address numbers shall be posted prior to requesting final clearance.

## **SECTION Q105 WATER SUPPLY**

**Q105.1** Water systems. (FIRE 012). The provisions of this condition shall apply when new parcels are approved by a local jurisdiction. The emergency water system shall be available on-site prior to the completion of road construction, where a community water system is approved, or prior to the completion of building construction, where an individual system is approved. Approved water systems shall be installed and made serviceable prior to the time of construction. Water systems constructed, extended or modified to serve a new development, a change of use, or an intensification of use, shall be designed to meet, in addition to average daily demand, NFPA Standard 1142 or other adopted standards. The quantity of water required pursuant to this chapter shall be in addition to the domestic demand and shall be permanently and immediately available.

## **Q105.2** (RESERVED) (FIRE 013).

Q105.3 Single parcel fire protection water supply. (FIRE 014). For development of structures totaling less than three thousand (3,000) square feet on a single parcel, the minimum fire protection water supply shall be four thousand nine hundred (4,900) gallons. For development of structures totaling three thousand (3,000) square feet or more on a single parcel, the minimum fire protection water supply shall be nine thousand eight hundred (9,800) gallons. For development of structures totaling more than ten thousand (10,000) square feet on a single parcel, the reviewing authority may require additional fire protection water supply. Other water supply alternatives, including ISO Rural

Class 8 mobile water systems, may be permitted by the fire authority to provide for the same practical effect. The quantity of water required by this condition shall be in addition to the domestic demand and shall be permanently and immediately available.

Q105.4 Fire hydrants and valves. (FIRE 015). A fire hydrant or fire valve is required. The hydrant or fire valve shall be eighteen (18) inches above grade, eight feet from flammable vegetation, no closer than four feet nor further 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 be not less than fifty (50) feet and not more than one thousand (1,000) feet by road from the building it is to serve. Minimum hydrant standards shall include a brass head and valve with at least one 2 1/2-inch National Hose outlet supplied by a minimum four inch main and riser. More restrictive hydrant requirements may be applied by the Reviewing Authority. Each hydrant/valve shall be identified with a reflectorized blue marker, with minimum dimensions of three inches, located on the driveway address sign, non-combustible post or fire hydrant riser. If used, the post shall be within three feet of the hydrant/valve, with the blue marker not less than three feet or greater than five feet above the ground, visible from the driveway. On paved roads or driveways, reflectorized blue markers shall be permitted to be installed in accordance with the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

## **SECTION Q106 SETBACKS**

**Q106.1 Setbacks.** (FIRE 016). Except as permitted by the fire code official, all parcels one acre and larger shall provide a minimum thirty (30) foot setback for new buildings and accessory buildings from all property lines and/or the center of the road. For parcels less than one-acre, alternate fuel modification standards or other requirements may be imposed by the Fire Code Official to provide the same practical effect.

## SECTION Q107 VEGETATION AND DEBRIS DISPOSAL

**Q107.1 Disposition of vegetation and debris fuels.** (FIRE 017). Disposal, including chipping, burying, or removal to a landfill site approved by the local jurisdiction, of vegetation and debris caused by site development and construction, road and driveway construction, and fuel modification shall be completed prior to final clearance of the related permit.

## **SECTION Q108 GREENBELTS**

**Q108.1 Greenbelts.** (FIRE 018). Subdivisions and other developments, which propose greenbelts as a part of the development plan, shall locate said greenbelts strategically as a separation between wild land fuels and structures. The locations shall be approved by the Fire Code Official.

## SECTION Q109 DEFENSIBLE SPACE

**Q109.1 Standard defensible space requirements.** (FIRE 019). Defensible space requirements shall meet Section 4291 of the Public Resources Code or the Code, whichever is more restrictive. Additional or alternate fire protection approved by the Fire Code Official may be required to provide

reasonable fire safety. Environmentally sensitive areas may require alternative fire protection, to be determined by the Fire Code Official and other jurisdictional authorities.

Q109.2 (RESERVED) (FIRE 020).

## **SECTION Q110 FIRE PROTECTION SYSTEMS**

**Q110.1 Residential fire sprinkler systems (Standard).** (FIRE 021). The building(s) and attached structure(s) shall be fully protected with automatic fire sprinkler system(s). Installation shall be in accordance with the applicable NFPA standard. A minimum of four sets of plans for fire sprinkler systems must be submitted by a California licensed C-16 contractor and approved prior to installation. This requirement is not intended to delay issuance of a building permit. A rough sprinkler inspection must be scheduled by the installing contractor and completed prior to requesting a framing inspection.

**Q110.2** (RESERVED) (FIRE 022).

**Q110.3** (RESERVED) (FIRE 023).

**Q110.4 Residential fire alarm systems.** (FIRE 024). The residence shall be fully protected with an approved household fire warning system as defined by NFPA 72. Plans and specifications for the household fire warning system shall be submitted by a California licensed C-10 contractor and approved prior to installation. Household fire warning systems installed in lieu of single-station smoke alarms required by the California Residential Code shall meet the requirements of the California Residential Code.

**Q110.5** (RESERVED) (FIRE 025).

APPENDIX R: ROOFS

## **SECTION R101 GENERAL**

**R101.1 Scope.** Applications for the construction or remodel of any buildings shall be subject to the roofing conditions of this Appendix when conditioned by the Fire Code Official.

**R101.2** Conflicting Sections. Where provisions in this Appendix conflict with other sections of this Code or other appendices, the provisions of this Appendix shall prevail unless otherwise directed by the Fire Code Official.

#### **SECTION R102 NEW BUILDINGS**

**R102.1 General.** (FIRE 026). Roofing requirements for all new buildings shall be a minimum Class "B" roof assembly as defined by the International Building Code.

EXCEPTION: Greenhouses shall be exempt from the requirements of this Section.

**R102.2 Very High Hazard Severity Zones.** (FIRE 027). Roofing requirements for all new buildings in Very High Hazard Severity Zones shall be a minimum Class "A" roof assembly as defined by the International Building Code.

#### R102.3 Reserved SBCO EXLUDED

#### SECTION R103 EXISTING BUILDINGS

**R103.1 General.** (FIRE 026). Roofing requirements for existing buildings when fifty percent (50%) or more of the roof area is reroofed within a one-year period after the issuance of a building permit shall be a minimum Class "B" roof assembly as defined by the California Building Code. Where there is no permit issued, this section is applicable to buildings constructed after the effective date of this code and to buildings where fifty percent (50%) or more of the roof area is reroofed within a one-year period after commencing construction.

**R103.2** Very High Hazard Severity Zone. (FIRE 027). Roofing requirements for existing buildings within a very high hazard severity zone when fifty percent (50%) or more of the roof area is reroofed within a one-year period after the issuance of a building permit shall be a minimum Class "A" roof assembly as defined by the International Building Code. Where there is no permit issued, this Section is applicable to such buildings constructed after the effective date of this code and to buildings where fifty percent (50%) or more of the roof area is reroofed within a one-year period after commencing construction.

#### R103.3 RESERVED SBCO EXCLUDED

#### SECTION R104 ADDITIONS TO EXISTING BUILDINGS

**R104.1 General**. The requirements of this Appendix shall apply to all additions to existing buildings, except that only the new portions of the roof shall be required to meet the requirements of this Appendix.