

SEDONA
FIRE DISTRICT

REFERENCE MANUAL



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SEDONA FIRE DISTRICT

Community Risk Reduction
Reference Manual



The purpose of this reference manual is to assist contractors and architects with the construction and design of current and future projects within the Sedona Fire District.

This reference manual is a quick reference of the Sedona Fire District's adopted codes and standards:

- International Fire Code, 2024 Edition (IFC)
- Sedona Fire District Resolution #2026-03, adopted Second Amendments to the 2024 IFC
- National Fire Protection Association (NFPA)
- Requirements and specifications of the Sedona Fire District's Fire Code Official
- International Wildland Urban Interface Code, 2018 Edition

The intent of this reference manual is to simplify the review and application of construction and design requirements.

Any comments or questions regarding the manual may be submitted to:

Community Risk Reduction Division

2860 Southwest Drive, Sedona, AZ 86336

crr@sedonafire.org



SEDONA FIRE DISTRICT

Community Risk Reduction Reference Manual

Color Code Key

- Submitting Plans
- General
- WUI
- Sprinklers
- Fire Department Access & Addressing
- Fire Alarms
- Kitchen
- Compliance
- Appeals

Code Reference Manual

Community Risk Reduction Division

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Submitting Plans**
Title:	**Submitted Plans and Issued Permits**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

105.1.1 Permits required. A property *owner* or *owner's* authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the *fire code official* and obtain the required permit.

The following shall apply to any plans submitted to, and/or permits issued by Sedona Fire District:

Plans and permit applications submitted to SFD shall contain all pertinent information required by the currently adopted IFC and NFPA standards. Plans and permit applications may be returned for correction and/or clarification. Plans and permit applications are not complete until the appropriate review and permit fees have been received by Sedona Fire District. The review process shall not begin until the application is complete. Any additional fees due to the Sedona Fire District shall be paid in full before plans or permits will be released to the applicant to begin construction.

Plans Submitted to the Sedona Fire District

All designs, drawings, or other ideas submitted on paper or other physical or electronic form to Sedona Fire District remain the sole property of the designer and/or contractor. Plans, designs, or ideas submitted by the designer and/or contractor shall not be reproduced, shared, or discussed with any third party without the express written consent of the designer and or contractor.

Permits Issued by the Sedona Fire District

Permits issued to a plans designer and/or contractor are specific to that designer and/or contractor for that proposed project. New projects using the same design will require a separate permit. New contractors hired to finish existing projects started by another contractor, shall require a new permit application. If permission is not granted to use the existing, approved plans, a new submittal and review shall be required.

Non-Permitted Work

Non-permitted work shall be invoiced at a rate of double the regular permit fee. See the Sedona Fire District Fee Schedule.

105.4 Revocation. (2024 IFC) The fire code official is authorized to revoke a permit issued under the provisions of this code where it is found by inspection or otherwise that there has been a false statement or misrepresentation as to the material facts in the application or construction documents on which the permit or approval was based including, but not limited to, any one of the following:

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

1. The permit is used for a location or establishment other than that for which it was issued.
2. The permit is used for a condition or activity other than that listed in the permit.
3. Conditions and limitations set forth in the permit have been violated.
4. There have been any false statements or misrepresentations as to the material fact in the application for permit or plans submitted or a condition of the permit.
5. The permit is used by a different person or firm than the name for which it was issued.
6. The permittee failed, refused or neglected to comply with orders or notices duly served in accordance with the provisions of this code within the time provided therein.
7. The permit was issued in error or in violation of an ordinance, regulation or this code.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Submitting Plans**
Title:	**Kitchen Hood Suppression System Construction Permits**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

105.1.1 Permits required. A property owner or owner's authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the fire code official and obtain the required permit.

Sedona Fire District Specifications

Maintenance (including replacement of existing parts) is not considered to be a modification to a system and therefore does not require a construction permit.

Permit requirements:

1. Any addition (nozzles, piping, mechanical gas valves, etc.) to an existing hood suppression system SHALL require a construction permit (e.g. adding 1 nozzle to protect new cooking appliance).
2. Any modification/change (nozzles, piping, mechanical gas valves, etc.) to an existing hood suppression system SHALL require a construction permit. This would be changing something on the system (e.g. exchanging one nozzle for a different nozzle to protect a change in cooking media).
3. Any identical replacement (nozzles, piping, mechanical gas valves, etc.) of a device on an existing hood suppression system shall NOT require a construction permit. This would be a one-for-one replacement (e.g., replacing a defective nozzle with the exact same type of nozzle).
4. Any construction of a new hood suppression system (regardless of size) SHALL require a construction permit (e.g. installation of a new hood suppression system).
5. Upgrading a non-UL 300 compliant system to a UL 300 compliant system SHALL require a construction permit.
6. Changes to the hood suppression system shall not initiate required upgrades to the mechanical portion of the hood (e.g. upgrading the hood suppression system to UL 300 compliance will not necessitate an evaluation of fire wrapping or mechanical exhaust).

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**General**
Title:	**Fire Restriction Stages**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The boundary of the Sedona Fire District (SFD) encompasses lands managed by many different agencies. The SFD works closely with Yavapai County, Coconino County, United States Forest Service (USFS), Arizona Department of Forestry, and other land managers to determine the appropriate level of fire restrictions in place within the district. Due to the wide variety of conditions and climate zones present in our fire district, SFD will typically implement the most restrictive fire restrictions being utilized by a partner agency. While SFD mirrors the US Forest Service's Staged Fire Restrictions, enforcement may differ depending on jurisdictional boundaries and the location of the individuals.

The fire code delegates broad authority to the Sedona Fire District to regulate certain activities:

307.1.1 Prohibited open burning.

Open burning shall be prohibited when atmospheric conditions or local circumstances make such fires hazardous.

Note: *Open burning does not include the use of enclosed charcoal or wood devices used for cooking and certain exceptions in other sections of the fire code specifically allow this activity at one and two family dwellings*.

308.1.6 Open-flame devices in wildfire risk areas.
Torches and other devices, machines or processes liable to start or cause fire shall not be operated or used in or on wildfire risk areas, except by a permit in accordance with Section 105.5 secured from the fire code official.

307.3 Extinguishment authority.
Where open burning creates or adds to a hazardous situation, or a required permit for open burning has not been obtained, the fire code official is authorized to order the extinguishment of the open burning operation.

308.1.2 Throwing or placing sources of ignition.
A person shall not throw or place, or cause to be thrown or placed, a lighted match, cigar, cigarette, matches, or other flaming or glowing substance or object on any surface or article where it can cause an unwanted fire.

102.9 Matters not provided for.

Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code, shall be determined by the fire code official.

Sedona Fire District has the authority to order the extinguishment of a fire that is deemed unsafe. The fire code official cannot enforce fire restrictions on private property, e.g. smoking, cooking, chainsaw use, or contractors hired to perform work during restricted hours.

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Telephone: (928) 204-8926
crr@sedonafire.org

Sedona Fire District encourages citizens to follow all fire restrictions. The safety of our community and first responders, as well as the preservation of property and natural resources, is the intent behind instituting fire restrictions when needed. Public education and understanding of the enacted fire restrictions are critical to reducing the risk of unintentional fires.

The following guidelines have been created to inform the public of the restrictions imposed by Sedona Fire District, city, and county governments, and federal and state land managers when those restrictions are enacted:

STAGE I FIRE RESTRICTIONS

What is PROHIBITED:

- No building, maintaining, attending, or using a fire, campfire, or stove fire except in Forest Service developed recreation sites (not including dispersed camping areas).
- No smoking except in an enclosed vehicle or building on USFS managed forestlands, or in specific developed recreation sites.

What is ALLOWED:

- Petroleum-fueled stoves, lanterns, or heating devices providing such devices meet the fire underwriter's specification for safety.
- The use of commercially manufactured charcoal grills or wood smokers is allowed on private property as long as a tight-fitting lid is in place during use and sparks and fire brands are contained within the device. Devices fueled solely by liquid petroleum, LPG, or LNG are always allowed so long as the flame may be immediately extinguished without residual combustion.
- Shooting firearms is allowed. Just make sure to follow all federal, state & local regulations: No shooting within 150 yards of a campsite, developed recreation site or occupied area, residence or building. No shooting across a road, trail or body of water, or in any manner or place whereby any person property is exposed to injury or damage as a result of such discharge. No shooting in a cave.

NOTE:

Yavapai County prohibits the discharge of firearms during fire restrictions.

Violating these restrictions on the Coconino National Forest is a violation that carries a mandatory appearance in federal court.

Additional information can be found at:
https://www.fs.usda.gov/detail/coconino/home/?cid=stelprdb5423784#stageI

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Telephone: (928) 204-8926
crr@sedonafire.org

STAGE II FIRE RESTRICTIONS

What is PROHIBITED:

- **No fires, campfires, charcoal, coal, and wood stoves.** (except using a device that is solely fueled by liquid petroleum, LPG, or LNG fuels and that can be immediately turned off, extinguishing the flame without residual combustion, are allowed in areas that are barren or cleared of all overhead and surrounding flammable materials within three feet of the device). The use of wood and charcoal in an enclosed device for the purpose of cooking at one- and two-family dwellings and at fixed restaurant sites is allowed.
- **No smoking** (except within an enclosed vehicle or building on USFS managed forestlands). Smoking outside on private property at one- and two-family dwellings, while not advisable, is allowed.
- **No using an explosive.**
- **No possessing, discharging, or using any type of firework by pyrotechnic device.** Fireworks are always prohibited.
- **No operating a chainsaw or any other equipment powered by an internal combustion engine from the hours of 9 a.m. to 8 p.m. on public lands** (except generators with an approved spark arresting device within an enclosed vehicle or building or in an area that is barren or cleared of all overhead and surrounding flammable materials within three feet of the generator). The use of these items on private property, while not advisable, is not regulated. Please see CRM Policy 1317 for best practices regarding the use of power equipment on private property.
- **No welding or operating an acetylene or other torch with open flame.** The Fire Marshal will evaluate jobs on a case-by-case basis and if certain criteria are met, may elect to issue a hot work permit. See CRM Policy 1318.
- **No operating or using any internal or external combustion engine without a spark arresting device properly installed, maintained, and in effective working order** (this does not include motor vehicles. This restriction is directed at items such as landscaping tools).
- **No discharging firearms, air rifles, or gas guns** (except while engaged in a lawful hunt pursuant to state, federal or tribal laws and regulations).
- **No possessing or using a motor vehicle off National Forest System roads.** Vehicles must follow Travel Management Rule regulations and cannot drive/park over any vegetation at any time.

What is ALLOWED:

- **Common generators with working spark arresting device may be operated between 8 p.m. and 11 a.m.**, as long as you have cleared flammable material at least 3 feet around it or it is enclosed in your vehicle (such as the rear portion of an RV).
- **Liquid petroleum or LPG fueled stoves, grills, lanterns, decorative devices or heating devices** as long as you have:
- Cleared flammable material at least 3 feet around it.
- It is placed in an area that has no overhead flammable materials.

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Telephone: (928) 204-8926
crr@sedonafire.org

- It produces a flame that can ***immediately*** be turned off and there is no element continuing to burn after it has been turned off.

NOTE:

Yavapai County prohibits the discharge of firearms during fire restrictions.

Violating these restrictions on the Coconino National Forest is a violation that carries a mandatory appearance in federal court.

Additional information can be found at:
https://www.fs.usda.gov/detail/coconino/home/?cid=stelprdb5423784#stageI

Code Reference Manual

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2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Chainsaw and Fuel-Powered Equipment Use During Fire Restrictions

During periods of elevated fire danger, it may be necessary to implement fire restrictions to reduce the risk of unwanted fire starts. One such limitation is the restriction of chainsaws and other fuel-powered equipment during certain hours. This restriction is imposed by the United States Forest Service and applies only to land it manages. These restrictions may interfere with property owners and licensed professionals conducting operations such as vegetation removal and maintenance to enhance the health of trees and vegetation or reduce excess fuels. These practices increase fire safety around structures and populated areas.

Sedona Fire District has determined that this type of work, on private property, does **NOT** require a variance or permit from the fire code official. Sedona Fire District encourages anyone performing this type of work to follow accepted safety practices and to limit the work to the hours specified below, when temperatures are lower and relative humidity is higher.

Should a fire occur due to the actions or negligence of people performing this type of work, the operator of such equipment may be criminally and civilly liable for any damage caused.

People using a chainsaw or other powered equipment on private property should follow the recommended safety practices outlined below:

1. Perform all work before 9:00 am or after 8:00 pm when relative humidity is higher, and temperatures are lower. Commercial operators, as outlined above, engaged in the removal and maintenance of vegetation to promote healthy plants, removal of accumulated detritus, fire prescribed cutting, or utility easement right of way maintenance; and other activities that work to reduce fuel load may operate outside these hours when all other safety guidelines are followed.
2. All fuel-powered equipment must be in good working order and be equipped with a spark arrester.
3. No work shall be performed on days when a "Red Flag" warning or alert is in effect. Visit https://www.weather.gov/fire/ for the latest information on alerts.
4. A lookout should be posted during times when work is being performed. The lookout must have a means to contact 9-1-1, watch for unintentional fire starts, stop all work immediately, and extinguish the fire should one occur. If an unintentional fire occurs, it shall be reported to 9-1-1 so that Sedona Fire personnel can respond to verify the fire is extinguished and conduct an investigation.
5. All operators must be equipped with a fire extinguisher and be trained in its operation.
6. A fire watch shall be implemented on site for a period of one-half hour after the completion of work utilizing chainsaws, or other equipment that produces sparks to monitor the area for unintentional fires.

Code Reference Manual

Community Risk Reduction Division

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Hot Work Permits

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Hot work permits are required, not to prohibit work, but to ensure that all work is performed in accordance with the current fire code and does not present an undue fire safety hazard.

Definitions

HOT WORK. Operations include cutting, welding, Thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, installation of torch-applied roof systems or any other similar activity (CP 2, 2024 IFC).

105.5.25 Hot work operations.
An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside a structure.
   Exception: Work that is conducted under a construction permit.
3. Fixed-site hot work equipment, such as welding booths.
4. Hot work conducted within a wildfire risk area.
5. Application of roof coverings with the use of an open-flame device.
6. Where approved, the fire code official shall issue a permit to carry out a hot work program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 35. These permits shall be issued only to their employees or hot work operations under their supervision.

NOTE: *The use of chainsaws and other portable fuel fire appliances is not considered hot work and is addressed by CRR Code Reference Manual #1317*.

Chapter 35 of the International Fire Code 2024 edition may be accessed at:
https://codes.iccsafe.org/content/IFC2024V2.1/chapter-35-welding-and-other-hot-work

Businesses can implement an internal *Hot Work Program* and issue their own *Hot Work Permits* without seeking approval from the Fire Code Official, *except in certain cases.* Businesses electing to implement their own hot work permit program are also not required to pay the fee for each permit. Businesses wishing to implement a ***Hot Work Program*** must complete the applicable application and submit it to the Sedona Fire CRR Division. Businesses

implementing their own *Hot Work* Program shall follow all requirements of Chapter 35 of the International Fire Code 2024 edition, and any additional applicable requirements of Sedona Fire District.

For businesses with a *Hot Work Program*, the following situations require special approval by the fire code official:

- In areas where the installed sprinkler system is impaired
- Areas with the potential of an explosive atmosphere, such as locations where flammable gases, liquids, or vapors are present.
- Areas with readily ignitable materials, such as storage of large quantities of bulk Sulphur, baled paper, cotton lint, dust, or loose combustible materials.
- Other situations as determined by the Fire Code Official.
- Hot work shall not be undertaken on days when a ***Red Flag Warning*** is in effect.

  Visit https://www.weather.gov/fire/ *to get the latest information*.

For businesses without a hot work program, the following conditions shall apply:

- Chapter 35 of the International Fire Code sets forth the requirements for performing hot work.
- Those performing hot work shall adhere to the requirements of the current fire code.
- Permits shall be obtained through Sedona Fire CRR Division.
- Hot work in urban locations with reduced risk of fire may be approved.
- Hot work in suburban settings with reduced risk of fire starts may not be approved.
- Hot work in suburban and rural settings with elevated risk of fire starts *NOT* be approved.
- The Fire Code Official may approve hot work permits with conditions. If the permit is issued with conditions, all conditions must be met by the person performing the hot work for the permit to be valid.

Contractors shall be responsible for ensuring that all employees performing hot work comply with all fire safety requirements as required by the Sedona Fire District and the fire code.

Code Reference Manual

Community Risk Reduction Division

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**General**
Title:	**Open Burning**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Definitions

BONFIRE. An outdoor fire utilized for ceremonial purposes.

BURN SEASON. The time of year when open burning is allowed within Sedona Fire District. Burn Season may be shortened during periods of high fire danger.

- Spring Burn Season – Typically March 1st through May 31st between the hours of 08:00 and 15:00.
- Fall Burn Season – Typically September 1st through November 30th between the hours of 08:00 and 15:00.

OPEN BURNING. The burning of materials wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. Open burning does not include road flares, smudgepots and similar devices associated with safety or occupational uses typically considered open flames, recreational fires or use of portable outdoor fireplaces. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues or chimneys necessary to provide combustion air and permit the escape of exhaust gas are open.

PERMIT. An official document or certificate issued by the fire code official which authorizes performance of a specified activity.

PROHIBITED ITEMS. Rubber and plastic products, tires, garbage, petroleum and petroleum-treated materials, asphalt or industrial waste, pesticides, heavy metals, batteries, ammunition, explosives, paint products, spray cans, flammable liquids, construction waste, any material that creates dense smoke or noxious odors, oleander or poison oak, sumac or ivy.

RECREATIONAL FIRE. An outdoor fire burning materials other than rubbish where the fuel being burned is not contained in an incinerator, outdoor fireplace, portable outdoor fireplace, barbeque grill or barbeque pit and has a total fuel area of 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height for pleasure, religious, ceremonial, cooking, warmth or similar purposes.

YARD WASTE. The part of solid waste composed of grass clippings, leaves, twigs, branches, and other garden refuse. The burning of yard waste requires a permit and shall only be burned during either the spring or fall burn seasons on days when burning is permitted.

A burn permit shall be required for the following:

- open burning of yard waste
- bonfires

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Telephone: (928) 204-8926
crr@sedonafire.org

Prohibited Items are never allowed to be burned and are subject to fines and penalties as determined by the Arizona Department of Environmental Quality.

The use of an outdoor fireplace (with chimney), portable outdoor fireplace (without chimney), and barbecue grill or barbecue pit is allowed as outlined below.

Recreational Fires:

- Do not require a burn permit.
- Are allowed at any time of day, throughout the year EXCEPT during periods of "STAGE II" fire restrictions.

Propane (LPG) and **Natural Gas (LNG)** barbeques and fire pits are allowed to be operated during all times of the year without restrictions, as long as they are installed and operated in a manner consistent with the manufacturer's directions.

Charcoal briquette and wood fired barbeques are allowed to be operated during all times of the year without restrictions. However, during periods of **STAGE II** fire restrictions the use of charcoal briquette and wood fired barbeques are restricted to private property. The appliance shall be constantly monitored by a responsible adult, with a readily available means to extinguish a fire, and shall be equipped with a tight-fitting lid while the appliance is in use.

Weed-burning devices, such as fueled torches, are **NOT PERMITTED** within the Sedona Fire District.

See Sedona Fire District's website for open burn permits: https://vv.burnpermits.com/

Code Reference Manual

Community Risk Reduction Division

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**General**
Title:	**Construction & Use of Recreational Fire Pits, Fire Bowls, Chimineas or Similar Appurtenances**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

307.1 General. A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with Sections 307.1.1 through 307.5.

The following requirements are pertinent to the construction and use of recreational fire pits, fire bowls and similar appurtenances located within the boundaries of the Sedona Fire District.

1. The Sedona Fire District shall not be liable for damages resulting from the installation, construction, use and/or misuse of fire pits.
2. This interpretation does not absolve the user of said fire pits from complying with other applicable laws, rules, regulations or ordinances.
3. Recreational burning shall comply with all seasonal fire restrictions (fire pits fueled solely by Liquefied Propane Gas (LPG) or Liquefied Natural Gas (LNG) shall be exempt from this provision).
4. When a fire pit is in use, it shall be constantly attended by a competent person at least 18 years of age. The attendant shall monitor the use of the fire pit until the fire is fully extinguished. Disposal of ashes shall be in a metal container with a tight-fitting lid and the container shall be placed on a non-combustible surface.
5. For wood burning fire pits, only dry seasoned firewood shall be used as fuel. Firewood shall not be stacked higher than 24 inches in the fire pit. The burning of trash, yard debris, or construction materials shall be prohibited.
6. The installation and use of fire pits require the permission of the landowner.
7. The installation of permanent fire pits may require the issuance of a city or county permit. Check with your local building and planning department for requirements.
8. The installation and use of fire pits shall be in accordance with all manufacturer's guidelines.
9. The burn area of a fire pit shall not exceed 36 inches in diameter.
10. Fire pits shall be no less than 25 feet from any building or structure. Exceptions shall be approved by Sedona Fire District Community Risk Reduction Division.
11. A clear area, free of combustibles, no less than 36 inches wide shall be maintained in the immediate vicinity of the fire pit at all times.
12. An approved means of fire suppression shall be available at all times that the fire pit is in use. Approved means may include but are not limited to portable fire extinguisher, garden hose or other water supply, shovel and dirt.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Use of Flame Effects Before a Proximate Audience (Fire Performers)

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

105.1.1 Permits required.
A property *owner* or *owner's* authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the *fire code official* and obtain the required permit.

Permits:

105.5.37 Open flames and torches.
An operational permit is required to remove paint with a torch, or to use a torch or open-flame device in a wildfire risk area.

105.5.38 Open flames and candles.
An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.

105.5.44 Pyrotechnic special effects material.
An operational permit is required for use and handling of pyrotechnic special effects material. (2026 NFPA 160, 2026 NFPA 1126)

Flame Classification for Fire Performers is:

Group I Flame Effect. An attended, manually controlled flame effect. (2026 NFPA 160; Chapter 3, 3.3.20.1).

Fire Performers. Any person active in a performance during in which flame effects are used and who is not part of the audience or support personnel. (2026 NFPA 160; Chapter 3, 3.3.24)

Proximate Audience. is an audience closer to a fire performer display than would be for a standard fireworks display; NFPA 1126 requires no less than 15 feet or twice the fallout radius of the device, whichever is greater, except where otherwise approved by the fire code official (2026 NFPA 1126: Chapter 8, 8.4.1).

Fire Effects (Fire Performer) Requirements:

The application for the use of flame effects shall be submitted in writing or other acceptable means to the Sedona Fire District CRR Division, not less than 14 calendar days prior to the event. If submitted less than 14 days, an expedited plan review fee shall be assessed as outlined in the Sedona Fire District CRR Fee Schedule.

The completed application shall include the following:

1. Property name, address, APN and location of the show.
2. The name of the person (Flame Performer and Apprentice/Assistant) performing the effect.

3. The specific date and times of the show.
4. A site plan showing the following:
   a. A narrative description of the flame affects.
   b. The location of the flame effect performance showing buildings, combustibles, property lines, and construction materials of stages.
   c. The location of the audience and physical barriers to the performance area.
   d. The type and quantity of fuels being used. (NOTE: Fuels must be kept in their original containers at all times.)
   e. Storage and holding areas for the fuels being consumed.
   f. Emergency response procedures including evacuation procedures.
   g. Pictures of all devices used for the performance (torches, batons, fans, etc.) with a description of how they are all constructed and method of operation.
   h. A detailed list of all fire extinguishers (must have current inspection tag affixed).
   i. Provide proof of insurance of one million dollars ($1,000,000) each time you apply for a fire permit. The insurance form shall list Sedona Fire District as additional insured.
   j. Provide a Hold Harmless Agreement.
   k. Provide a list of references for the last two (2) years of shows.
   l. Provide a video or demonstration prior to the show.

Prior testing requirements:
The fire code official may elect to witness the performance devices with the fire performer prior to issuing the permit for the show.

Cancellations/revocation of the permit:
Any deviations from the issued permit shall constitute grounds for revocation of the permit, e.g., a different person or location.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Luminarias and Farolitos

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

This establishes requirements for the use of luminarias and farolitos in public displays. Luminarias and farolitos hold significant cultural and religious importance in the Southwestern United States. Often misused, the term Luminaria has come to represent a small paper lantern in the current social lexicon. Traditionally, the term luminaria was a type of small bonfire, and a farolito is a small paper lantern. For the purposes of this policy, the term **"**luminaria**"** shall follow common modern usage and refer to a small paper lantern containing a candle or other open-flame source. Any open flame associated with luminarias, farolitos, or similar devices shall be classified and regulated according to applicable definitions of recreational fires, bonfires, or other fire types. All such uses must comply with relevant fire safety standards and regulations.

105.1.1 Permits required. (2024 IFC) A property *owner* or *owner's* authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the *fire code official* and obtain the required permit.

Requirements for Luminarias (Farolitos)

1. Aerial luminarias or "sky lanterns" shall be prohibited in any setting, public or private.
2. Luminarias utilizing candles are prohibited:
   a. During "Red Flag" warnings.
   b. During periods of staged fire restrictions.
   c. During periods when winds are forecast to exceed 10-mph.
   d. At any other time, the Fire Code Official deems unsafe to ignite them.
3. Luminarias may not be placed:
   a. Within 5-feet of curtains, combustible decorative materials, or required exit paths.
   b. On stairs.
   c. Within 12-inches of non-combustible walls or well-hydrated, live, natural vegetation.
4. Paper bags luminarias shall utilize:
   a. No less than 2 cups of dry sand for weight in the bottom of the bag with the candle placed into the sand in equidistance from the edges of the bag.
   b. A votive candle with a burn time of no greater than 4-hours.
   c. Folding of the top edge of the bag to provide rigidity.
5. Luminaria displays at public assemblages require:
   a. Review and approval through Sedona Fire District Community Risk Reduction Division

b. One fire watch attendee, each with a minimum rated 2A water fire extinguisher preferred (or 3A 40BC fire extinguisher, or water hose with spray nozzle capable of reaching all points of the display), for every 1,000 luminarias.

6. Luminaria arrangements shall not exceed 250 luminarias grouped together and groupings of luminarias shall be separated by not less than five (5) feet.
7. All luminarias shall be fully extinguished at the conclusion of the event and shall not be left to burn out of their own accord.
8. Permit applications shall include:
   a. Name and contact information of event organizer
   b. Date of the event
   c. Location of the event
   d. Proposed layout
      - Including distances to exits, structures, decorative materials, vegetation, etc.
      - Number of total luminarias
      - Number and location of proposed fire watch attendees and their method of extinguishment.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Ash Management and Disposal Plan

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to all commercial residential operations with wood-burning fireplaces, stoves, fire pits, etc., and is intended as a guideline for all others in Sedona Fire District of acceptable ash management and disposal practices:

102.9 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code, shall be determined by the *fire code official.*

305.2 Hot ashes and spontaneous ignition sources. Hot ashes, cinders, smoldering coals or greasy or oily materials subject to spontaneous ignition shall not be deposited in a combustible receptacle, within 10 feet (3048 mm) of other combustible material including combustible walls and partitions or within 2 feet (610 mm) of openings to buildings.

> **Exception:** The minimum required separation distance to other combustible materials shall be 2 feet (610 mm) where the material is deposited in a covered, noncombustible receptacle placed on a noncombustible floor, ground surface or stand.

A106.2 Ashes and coals. (2024 IFC) Ashes and coals shall not be placed, deposited or dumped in or on wildland-urban interface areas.

> **Exceptions:**
>
> 1. In the hearth of an established fire pit, camp stove or fireplace.
> 2. In a noncombustible container with a tightfitting lid, which is kept or maintained in a safe location not less than 10 feet (3048 mm) from nonfire-resistive vegetation or structures.
> 3. Where such ashes or coals are buried and covered with 1 foot (305 mm) of mineral earth not less than 25 feet (7620 mm) from nonfire-resistive vegetation or structures.

Safety Guidelines

1. Carefully empty the hot ashes into a metal container that can be closed tightly with a metal lid.
2. Douse the ashes with water and cover the lid securely.
3. Store the covered container in a safe place outside of your house or business and away from wind and other ignitable or combustible items. ***Do not*** dispose of hot ashes in plastic, paper, or cardboard. ***Do not*** place the container containing the ashes on decks, patios, or porches.
4. Leave ashes in the container until they have completely cooled.

5. Once the ashes have completely cooled, place them in a plastic bag, tie it securely, and dispose of it in your curbside trash can or dumpster.

Best Practice

Businesses that regularly dispose of hot ashes and embers are responsible for implementing an ash-disposal management plan and training their employees on appropriate procedures.

Example: Ash-Disposal Management Plan

1. Acquire seven metal cans with tight-fitting lids. Label each can with a day of the week.
2. Collected ashes may be placed into the metal can that corresponds with the day of the week collected.
3. Place the ash can in a safe location at least two (2) feet from buildings and other combustibles.
4. After the lid is put in place, the ashes should be left to cool for the next six days.
5. The following week, the daily collection can be dumped into the dumpster or curbside collection receptacle.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Use Of Portable Unvented Fuel-Fired Heating Appliances

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

4103.1 Portable unvented heaters. Portable unvented fuel-fired heating equipment shall be prohibited in occupancies in Groups A, E, I, R-1, R-2, R-3 and R-4 and ambulatory care facilities.

Exceptions:

1. Portable unvented fuel-fired heaters listed and labeled in accordance with UL 647 are permitted to be used in one and two-family dwellings, where operated and maintained in accordance with manufacturers' instructions.
2. Portable outdoor gas-fired heating appliances in accordance with Section 4103.1.2.

4103.1.1 Prohibited locations. Unvented fuel-fired heating equipment shall not be located in, or obtain combustion air from, any of the following rooms or spaces: sleeping rooms, bathrooms, toilet rooms or storage closets.

4103.1.2 Portable outdoor gas-fired heating appliances. Gas-fired heating appliances located outdoors shall be in accordance with Sections 4103.1.2.1 through 4103 Portable .1.2.3.4.

4103.1.2.1 Location. Portable outdoor gas -fired heating appliances shall be used and located in accordance with Sections 4103.1.2.1.1 through 4103.1.2.1.4.

Prohibited locations. The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations:

1. Inside of any occupancy where connected to the fuel gas container.
2. Inside of tents, canopies and membrane structures.
3. On exterior balconies.

Exception: As permitted in Chapter 61.

4103.1.2.1.2 Clearance to buildings. Portable outdoor gas-fired heating appliances shall be located not less than 5 feet (1524 mm) from buildings.

4103.1.2.1.3 Clearance to combustible materials. Portable outdoor gas-fired heating appliances shall not be located beneath, or closer than 5 feet (1524 mm) to combustible decorations and combustible overhangs, awnings, sunshades or similar combustible attachments to buildings.

4103.1.2.1.4 Proximity to exits. Portable outdoor gas-fired heating appliances shall not be located within 5 feet (1524 mm) of exits or exit discharges.

4103.1.2.2 Use and operation. Portable outdoor gas-fired heating appliances shall be used and operated in accordance with Sections 4103.1.2.2.1 through 4103.1.2.2.4.

4103.1.2.2.1 Listing and approval. Only listed and approved portable outdoor gas-fired heating appliances utilizing a fuel gas container that is integral to the appliance shall be used. Portable outdoor gas-fired heating appliances shall be listed and labeled in accordance with ANSI Z83.26/CSA 2.37.

4103.1.2.2.2 Use and maintenance. Portable outdoor gas-fired heating appliances shall be used and maintained in accordance with the manufacturer's instructions.

4103.1.2.2.3 Tip-over switch. Portable outdoor gas-fired heating appliances shall be equipped with a tilt or tip-over switch that automatically shuts off the flow of gas if the appliance is tilted more than 15 degrees (0.26 rad) from the vertical.

4103.1.2.2.4 Guard against contact. The heating element or combustion chamber of portable outdoor gas-fired heating appliances shall be permanently guarded so as to prevent accidental contact by persons or material.

4103.1.2.3 Gas containers. Fuel gas containers for portable outdoor gas-fired heating appliances shall comply with Sections 4103.1.2.3.1 through 4103.1.2.3.4.

4103.1.2.3.1 Approved containers. Only approved DOTn or ASME gas containers shall be used.

4103.1.2.3.2 Container replacement. Replacement of fuel gas containers in portable outdoor gas-fired heating appliances shall not be conducted while the public is present.

4103.1.2.3.3 Container capacity. The maximum individual capacity of gas containers used in connection with portable outdoor gas-fired heating appliances shall not exceed 20 pounds (9 kg).

4103.1.2.3.4 Indoor storage prohibited. Gas containers shall not be stored inside of buildings except in accordance with Section 6109.9.

6109.9 Storage within buildings open to the public. Department of Transportation (DOTn) specification cylinders with maximum water capacity of 2.7 pounds (1.2 kg) used in completely self-contained hand torches and similar applications are allowed to be stored or displayed in a building open to the public. The quantity of LP-gas shall not exceed 200 pounds (91 kg) except as provided in Section 6109.11.

The use of these devices is never allowed:

- Inside of buildings, tents, or enclosures of any type
- Under roofs, awnings, sunshades, patios, or canopies of any type
- Within 5 feet of buildings, structures, or combustibles
- Within 5 feet of exits or exit discharges

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	General
Title:	Decorative Materials in Educational Buildings

References: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Definitions

DECORATIVE MATERIALS.
All materials applied over the building interior finish for decorative, acoustical or other effect, including but not limited to curtains, draperies, fabrics, streamers and all other materials utilized for decorative effect, including but not limited to bulletin boards, artwork, posters, photographs, paintings, batting, cloth, cotton, hay, stalks, straw, vines, leaves, trees, moss and similar items, foam plastics and materials containing foam plastics. Decorative materials do not include wall coverings, ceiling coverings, floor coverings, ordinary window shades, interior finish and materials 0.025 inch (0.64 mm) or less in thickness applied directly to and adhering tightly to a substrate.

The following shall apply to decorative materials in new and existing educational buildings:

807.2: Combustible decorative materials.

In Groups A, B, E, I, M and R-1 and in dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.3 and shall not exceed 10 percent of the specific wall or ceiling area to which such materials are attached.

807.5.2.1 Storage in corridors and lobbies.

Clothing and personal effects shall not be stored in corridors and lobbies.

Exceptions:

1. Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Corridors protected by an approved fire alarm system installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

807.5.2.2 Artwork in corridors.

Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**WUI**
Title:	**Building in the Wildland Urban Interface (WUI)**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Resources

Am I in the Wildland Urban Interface (WUI)? Follow this link for an interactive map searchable by your address**:** Sedona Wildland (WUI) MAP

Amendments to the 2018 WUI as adopted by Sedona Fire District**:** 2018 International Wildland-Urban Interface Code

Definitions

Wildland Urban Interface (WUI). Any property contiguous to United States Forest Service, Bureau of Land Management, Department of State Forestry or other managed forest lands as defined in the WUI MAP.

FIRE HAZARD SEVERITY CLASSIFICATION [Adopted]. Sedona Fire District is deemed to be "HIGH" fire hazard severity per Appendix C of the 2018 International Urban-Wildland Interface Code. The HIGH fire hazard severity in conjunction with limited water supplies and typically NON-CONFORMING defensible spaces puts typical construction projects into the Class 1 Ignition-Resistant Construction group. As such, all construction occurring in the Wildland Urban Interface shall meet the requirements of **Section 504 Class 1 Ignition-Resistant Construction**.

Requirements

In addition to the installation of automatic fire sprinklers, all structures constructed in the defined WUI shall meet all of the following criteria:

504.2 Roof covering.

Roofs shall have a roof assembly that complies with a Class A rating when tested in accordance with ASTM E 108 or UL 790. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers, or have one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D 3909 installed over the combustible decking.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry or an exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on noncombustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.

3. Class A roof assemblies include minimum 16 oz/sq. ft. (0.0416 kg/m^2) copper sheets installed over combustible decks.

504.3 Protection of eaves. Combustible eaves, and soffits shall be enclosed with solid materials with a minimum thickness of 3/4 inch (19 mm). Exposed rafter tails shall not be permitted unless constructed of heavy timber materials. Combustible fascias shall be constructed a minimum of 1-inch nominal fire-resistant treated lumber rated for exterior use and meeting the requirements of Section 2303.2 of the International Building Code, or 2-inch nominal dimension lumber.

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter.

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with one of the following methods:

1. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side.
2. Approved noncombustible materials such as fiber-cement siding; metal sheeting; brick & stone veneers or other.
3. masonry products; cement plaster (veneer one-coat stucco); as approved by the fire code official.
4. Heavy timber or log wall construction.
5. Fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use.
6. and meet the requirements of Section 2303.2 of the International Building Code.
7. Ignition-resistant materials complying with Section 503.2 on the exterior side.
8. Such material shall extend from the top of the foundation to the underside of the roof sheathing.

504.6 Underfloor enclosure. Buildings or structures shall have underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5.

Exception: Complete enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.

504.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be not less than 1-hour fire- resistance-rated construction, heavy timber construction or constructed of one of the following:

1. *Approved noncombustible* materials.
2. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code*.
3. Ignition-resistant building materials in accordance with Section 503.2.

504.7.1 Underfloor areas. Where the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5.

504.8 Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes.

504.9 Exterior doors. Exterior doors shall be approved noncombustible construction, solid core wood not less than 13/4 inches thick (44 mm), or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 504.8.

Exception: Vehicle access doors.

504.10 Vents. Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m2) each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/4 inch (6.4 mm), or shall be designed and approved to prevent flame or ember penetration into the structure.

504.11 Detached accessory structures. [Amended] Detached accessory structures located less than 30 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for not less than 1-hour fire-resistance-rated construction, heavy timber, log wall construction, or constructed with approved noncombustible materials or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.

504.11.1 Under floor areas. Where the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the International Building Code.

507.1 General. The roof covering on buildings or structures in existence prior to the adoption of this code that are replaced or have 25 percent or more replaced in a 12-month period shall be replaced with a roof covering required for new construction based on the type of ignition-resistant construction specified in accordance with Section 503.

605.1 General. Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid or liquid fuel is used, shall be provided with a spark arrester. Spark arresters shall be constructed of woven or

welded wire screening of 12 USA standard gage wire (0.1046 inch) (2.66 mm) having openings not exceeding $^1/_2$ inch (12.7 mm).

605.2 Net free area. The net free area of the spark arrester shall be not less than four times the net free area of the outlet of the chimney.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**WUI**
Title:	**Exterior Roofs, Canopies, and Porte-Cocheres**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to sprinkler coverage underneath exterior roofs, canopies, and porte-cocheres in accordance with NFPA 13:

9.2.3.1 Exterior Projections.

Sprinklers shall be permitted to be omitted where the exterior canopies, roofs, porte-cocheres, balconies, decks, and similar projections are constructed with materials that are noncombustible, limited-combustible, or fire retardant–treated wood as defined in NFPA 703, or where the projections are constructed utilizing a noncombustible frame, limited-combustibles, or fire retardant–treated wood with an inherently flame-resistant fabric overlay as demonstrated by Test Method 2 in accordance with NFPA 701.

9.2.3.2

Sprinklers shall be permitted to be omitted from below the exterior projections of combustible construction, provided the exposed finish material on the exterior projections are noncombustible, limited-combustible, or fire retardant–treated wood as defined in NFPA 703, and the exterior projections contain only sprinklered concealed spaces or any of the following unsprinklered combustible concealed spaces:

(1) Combustible concealed spaces filled entirely with noncombustible insulation.

(2) Light or ordinary hazard occupancies where noncombustible or limited-combustible ceilings are directly attached to the bottom of solid wood joists so as to create enclosed joist spaces 160 ft^3 (4.5 m^3) or less in volume, including space below insulation that is laid directly on top or within the ceiling joists in an otherwise sprinklered attic *[see **19.2.3.1.5.2(4)**]*.

(3) Concealed spaces over isolated small exterior projections not exceeding 55 ft^2 (5.1 m^2) in area.

9.2.3.2.1

Sprinklers shall be required for porte-cocheres that are located directly below floors intended for occupancy.

9.2.3.3

Sprinklers shall be permitted to be omitted from an exterior exit corridor where the exterior wall of the corridor is at least 50 percent open and where the corridor is entirely of noncombustible construction

9.2.3.4

Sprinklers shall be installed under all exterior projections greater than 4 ft (1.2 m) where combustibles are stored.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

903.3.1.2.1 Balconies and decks. (2024 IFC)

Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of *dwelling units* and *sleeping units* where either of the following conditions exists:

1. The building is of Type V construction, provided that there is a roof or deck above.
2. Exterior balconies, decks and ground floor patios of *dwelling units* and *sleeping units* are constructed in accordance with Section 705.2.3.1, Exception 3 of the *International Building Code*.

Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**WUI**
Title:	**Wildland Urban Interface - Alterations and Additions to Structures with Habitable Spaces**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to existing, non-sprinklered residential structures and accessory buildings located in the Wildland Urban Interface (WUI). An NFPA approved automatic fire sprinkler system will be required throughout the entire structure when the following applies:

- The existing gross square footage and the new gross square footage combined equals 3600 square feet or greater.

Plans and permit applications submitted to the Sedona Fire District shall contain all pertinent information required by the fire code and NFPA. Plans and permit applications may be returned for correction and/or clarification. Plans and permit applications are not complete until the appropriate review and permit fees have been received by the Sedona Fire District. The review process shall not begin until the application is complete. Any additional fees due to the Sedona Fire District shall be paid in full before plans or permits will be released to the applicant to begin construction.

The issuance of a permit or the release of plans for construction does not relieve the applicant, designer, or contractor from their obligation to comply with all applicable codes and standards and shall not be construed as such. Every effort is made to provide a thorough review; however, there may be omissions, irregularities, or field changes, which do not become apparent until a final field inspection is conducted. We strongly encourage contractors to consult with this office to make the needed corrections in the field at the time of discovery.

Plans Submitted to the Sedona Fire District

Whether intended for construction or abstract discussion of conceptual ideas, all designs, drawings, or other ideas submitted on paper or other physical or electronic form to the Sedona Fire District remain the sole property of the designer and/or contractor. Plans, designs, or ideas submitted by the designer and/or contractor shall not be reproduced, shared, or discussed with any third party without the expressed written consent of the designer and/or contractor.

Permits Issued by the Sedona Fire District

Permits issued to a specific designer and/or contractor are specific to that designer and/or contractor for that specific project. New projects using the same design will require a separate permit.

A new permit application shall be required for existing projects where a new contractor is hired to finish a job started by another contractor. If the new contractor is unable to secure permission to use the existing approved plans, a new submittal and review may be required.

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Telephone: (928) 204-8926
crr@sedonafire.org

Permits issued by the Sedona Fire District are the sole property of the Sedona Fire District and may be recalled or revoked at any time by the Sedona Fire District.

Work performed Without a Permit

Permits issued "after the fact" are charged at a rate of two times the original permit fee. Sprinkler modifications and kitchen hood suppression system (KHSS) modifications are exempt from this requirement.

Working without a permit is prohibited, unless prior approval is granted by the fire code official. Any person or company beginning construction or work prior to obtaining a permit does so at their own risk and expense. This practice is discouraged, as the requirements of the code remain in place and shall be met even if the work performed to that point must be altered or removed to do so.

Working without a permit is subject to a ***"stop work"*** order and the contractor or company will be reported to the Arizona Registrar of Contractors.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**NFPA 13D Sprinkler System Requirements**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

903.3.1.3 NFPA 13D sprinkler systems.

Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.

903.3.5 Water supplies.

Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the International Plumbing Code. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official .

Caution: This information is needed early in the design process so that corrections are not made after the water meter and service lines are installed. Water meter, service tap sizes, and service line length & size shall be shown on the civil and/or construction plans.

The following requirements are pertinent to the installation of fire sprinklers in accordance with NFPA 13D, Chapter 7:

1. The building(s) shall have an exterior bell to alert occupants and neighbors of water flows. (Wirsbo systems require a “Wirsbo Regulator” installed in the sprinkler by-pass piping to prevent the false activation of bells).
2. A sprinkler control valve shall be installed, sealed open, and labeled.
3. A main drain shall be installed and labeled.
4. An Inspectors Test Valve (ITV) shall be installed at the most hydraulically remote area of the system and be included in the hydraulic calculations as a single head remote area. Inspector’s test valves shall be located in a readily accessible location on an interior wall and plumbed to the building exterior. the test pipe outlet.
5. All sprinkler piping must be protected from freezing conditions. All wet sprinkler piping shall be installed in interior walls. Design limitations which make the installation of wet pipes in interior walls problematic will be evaluated and approved by the Fire Marshal on a case by case basis. Due to our cold winters and periods of extended hard freezing, it is highly desirable to limit the use of wet piping in exterior walls when possible.
6. Sprinkler piping installed in attic spaces above living spaces shall be on the conditioned side of and insulated with a minimum R value rating as required by city and county building code requirements. When blown in insulation is used, sprinkler piping must be “tented” over with batted insulation or other means to prevent the insulation from settling below the pipe so as to trap rising heat in the void space around the pipe. If the batting

has a lesser than required by city and county codes, blown-in insulation can be applied over the batted insulation in order to achieve the minimum R value insulation rating. Note: Blown-in insulation which settles around the pipes, effectively insulates the piping from heat rising from below and allows sprinkler pipes to freeze.

7. Wet sprinkler piping installed in unheated areas shall not be allowed. Anti-freeze may be used to protect small areas only and not entire buildings.
8. Anti-freeze systems: (Anti- freeze "mixed" solution protected to –20 degrees F.) A reduced pressure back flow device and an expansion chamber are required. CPVC pipe – (glycerin only).
9. Anti-freeze systems are required to be flow tested and without wasting the antifreeze solution. One method to accomplish this is with the installation of an U.L. approved flow switch tester.
10. Attached garages are required to have sprinkler protection. This is a local Sedona Fire District requirement. The purpose of providing sprinkler coverage to attached garages is to provide early notification to occupants of the structure, delay flashover in the garage should a fire occur, and provide a minimum level of protection to openings in the common wall separating the garage from living spaces. Acceptable methods for providing coverage include:
    a. Standard sprinkler coverage and spacing in the garage via wet pipe pendants sprinkler heads. This method requires that the garage be maintained above 40 degrees Fahrenheit and all pipes be insulated with a minimum R value insulation as required by city and/or county building codes for conditioned space to protect from freezing.
    b. Sidewall sprinklers installed in the common wall separating the dwelling unit and the attached garage with appropriate freeze protection.

    EXCEPTION: Garages with living space above shall require standard sprinkler coverage and spacing and wet sprinkler piping shall be protected from freezing.
11. A permit is required from the Sedona Fire District for fire sprinkler systems.
12. The plans review submittal package shall include a completed permit application, all associated fees, one (1) set of plans (NICET III or IV stamped), one (1) set of hydraulic calculations (each remote area included) and cut sheets for all equipment and hardware including the backflow prevention device. The review submittal package shall be electronically submitted. Plan review will not begin until this office receives all components of the submittal package. The hydraulics calculations must show a 10% pressure cushion and shall be based on a flow date of not more than 2 years old.

    Note: The permit submittal plans for the fire protection system(s) shall be separate from any other plans and is to be sent directly to this office for review.
13. Drawings shall include but are not limited to; pipe hangar locations, riser location, riser detail, nodes, pipe sizes and location, sprinklers, water meter size, architect's scale. Plans must also be drawn at a scale that is clear and readable.
14. A fire inspector must witness all phases of the sprinkler system installation, which includes but is not limited to the aboveground piping, rough-in piping, hydrostatic testing, insulation inspection and system final inspection and test. Call this office at least 24 hours in advance for all on-site inspections.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
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15. Wet sprinkler piping freeze protection is vital. The fire inspector must visually inspect all sprinkler system piping insulation before sheet rock or any other covering is installed.
16. All inspections will require the sprinkler contractor or fitter to be on site and have on site an approved set of plans.
17. The sprinkler contractor is encouraged to contact the Fire Inspector for specific information before, and during the sprinkler system installation.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Criteria Requiring the Installation of NFPA 13D Automatic Fire Sprinkler Systems in 1 & 2 Family Dwellings**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

This policy pertains to the criteria that trigger the installation of NFPA 13D automatic fire sprinkler systems in 1- and 2-family dwellings.

903.1.3 Building Additions. [Amended] All additions to existing buildings or structures and all buildings or structures that are expanded by an addition(s) shall be provided with an automatic fire protection system complying with Section 903.3 as applicable.

Exceptions:

1. Existing non-sprinklered one- and two-family dwelling units and R-3 occupancies complying with the Sedona Residential Code, but not including residential care facilities, having a gross floor area less than 3,600 square feet including the addition.
2. An existing residential, non-sprinklered building or structure and additions to such existing building, provided the occupancy of the existing building is not changed, the addition is the same occupancy, and the resultant gross area of all such additions and building do not exceed 3,600 square feet.

903.2.8.1.1 Group R Division 3 Occupancies. [Amended] All Group R Division 3 occupancies shall be equipped with an NFPA 13D compliant fire sprinkler system when any one of the following conditions are present:

1. The building has a gross floor area greater than 3,600 square feet (344.5 m2)
2. The building is more than 500 feet (152.4 m) from a fire hydrant capable of producing the required fire flow
3. The required fire flow is not available through approved means
4. Fire apparatus access roadways are obstructed by any of the following:
   a. Low water crossing(s)
   b. Security gate(s)
   c. Speed bump(s)
5. The building is located in a sub-division having a single fire apparatus access point
6. The fire apparatus access roadway has a grade greater than 12%
7. The building is located more than five road miles (8.04km) from the nearest fire station on an approved route as measured by the Fire Marshal
8. The building is located on a cul-de-sac which exceeds 1000 feet (304.8m) from the nearest thoroughfare's intersection
9. The building is located more than 150 feet (45.72m) from the closest point of fire apparatus access
10. The building is located within the established urban-wildland interface area.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

903.1.3 Building additions. **[Amended]** All additions to existing buildings or structures and all buildings or structures that are expanded by an addition(s) shall be provided with an automatic fire protection system complying with Section 903.3 as applicable.

Exceptions:

1. Existing non-sprinklered one- and two-family dwelling units and R-3 occupancies complying with the Sedona Residential Code, but not including residential care facilities, having a gross floor area less than 3,600 square feet including the addition.
2. An existing residential, non-sprinklered building or structure and additions to such existing building, provided the occupancy of the existing building is not changed, the addition is the same occupancy, and the resultant gross area of all such additions and building do not exceed 3,600 square feet.

903.2.8.1.1 Group R Division 3 occupancies. [Amended] All Group R Division 3 occupancies shall be equipped with a residential style automatic fire sprinkler system installed in accordance with the National Fire Protection Association's Standard #13D when any of the following conditions are present:

1. The building has a gross floor area greater than 3,600 square feet (344.5 m^2).
2. The building is more than 500 feet (152.4 m) from a fire hydrant capable of producing the required fire flow.
3. The required fire flow is not available through approved means.
4. Fire apparatus access roadways are obstructed by any of the following:
    a. Low water crossing(s)
    b. Security gate(s)
    c. Speed bump(s)
5. The building is located in a sub-division having a single fire apparatus access point.
6. The fire apparatus access roadway has a grade greater than 12%.
7. The building is located more than five road miles (8.04 km) from the nearest fire station on an approved route as measured by the Fire Marshal.
8. The building is located on a cul-de-sac which exceeds 1000 feet (304.8 m) from the nearest thoroughfare's intersection.
9. The building is located more than 150 feet (45.72 m) from the closest point of fire apparatus access.
10. The building is located within the established urban-wildland interface area.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Determine Gross Square Footage for NFPA 13D Fire Sprinkler Systems**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA); 2024 International Building Code (2024 IBC).

The following shall apply to the "Gross Square Footage" calculations used to determine whether an NFPA 13D fire sprinkler system is required:

DEFINITIONS

Floor area, gross. (2024 IBC)

The floor area within the inside perimeter of the *exterior walls* of the *building* under consideration, exclusive of vent *shafts* and *courts* without deduction for *corridors, stairways, ramps,* closets, the thickness of interior *walls*, columns or other features. The floor area of a *building*, or portion thereof, not provided with surrounding *exterior walls,* shall be the usable area under the horizontal projection of the roof or floor above. The *gross floor area* shall not include *shafts* with no openings or interior *courts*.

903.2.8.1.1 Group R Division 3 occupancies. All Group R Division 3 occupancies shall be equipped with a residential style automatic fire sprinkler system installed in accordance with the National Fire Protection Association's Standard #13D when any of the following conditions are present:

1. The building has a gross floor area greater than 3,600 square feet (344.5 m^2).
2. The building is more than 500 feet (152.4 m) from a fire hydrant capable of producing the required fire flow.
3. The required fire flow is not available through approved means.
4. Fire apparatus access roadways are obstructed by any of the following:
    a. Low water crossing(s)
    b. Security gate(s)
    c. Speed bump(s)
5. The building is located in a sub-division having a single fire apparatus access point.
6. The fire apparatus access roadway has a grade greater than 12%.
7. The building is located more than five road miles (8.04 km) from the nearest fire station on an approved route as measured by the Fire Marshal.
8. The building is located on a cul-de-sac which exceeds 1000 feet (304.8 m) from the nearest thoroughfare's intersection.
9. The building is located more than 150 feet (45.72 m) from the closest point of fire apparatus access.
10. The building is located within the established urban-wildland interface area.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Building Additions Triggering Automatic Fire Sprinkler System Requirements**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to all additions to buildings within the Sedona Fire District.

903.1.3 [Amended] Building Additions. All additions to existing buildings or structures and all buildings or structures that are expanded by an addition(s) shall be provided with an automatic fire protection system complying with Section 903.3 as applicable.

Exceptions:

1. Existing non-sprinklered one and two family dwelling units and R-3 occupancies complying with the Sedona Residential Code, but not including residential care facilities, having a gross floor area less than 3,600 square feet including the addition.
2. An existing non-sprinklered building or structure and additions to such existing building, provided the occupancy of the existing building is not changed, the addition is the same occupancy, and the resultant gross area of all such additions and building do not exceed 3,600 square feet.

903.1.2 [Amended]. An automatic fire sprinkler system shall be installed in all new building construction. Automatic sprinkler systems shall be installed in accordance with Section 903.1 and National Fire Protection Association's 13. Group R Division 3 Occupancies shall have fire sprinkler systems installed in accordance with Section 903.2.8 - 903.2.8.2.

Exception 1: Group R Division 3 Occupancies, not including residential care or assisted living care facilities located in Group R Division 3 occupancies, having a gross floor area equal to or less than 3,600 square feet (344.5 m^2).

Exception 2: Group R Divisions 1, 2 and 4 Occupancies shall have an automatic fire sprinkler system installed in accordance with NFPA 13R.

Exception 3: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries not required to have an automatic sprinkler system by Section 1207 for energy storage systems and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.

Exception 4: Permissible sprinkler omissions may include the following locations:

1. Manufactured homes built on a permanent chassis, designed and constructed as a dwelling unit and not having any of the listed conditions of Section 903.2.8.1.1.
2. Recreational vehicles that are not site built and are mobile or portable.
3. Detached gazebos and ramadas.
4. Detached restroom facilities associated with golf courses, parks and similar uses.
5. Detached guard houses less than 300 square feet in gross floor area.
6. Detached carports less than 5,000 square feet in roof area.
7. Detached non-residential buildings less than 360 square feet in floor area.
8. Detached non-combustible canopies less than 5,000 square feet in roof area used exclusively for vehicle washing facilities or vehicle fuel dispensing stations.
9. Other buildings or structures accessory to and located on the same lot with one and two family dwellings or R-3 occupancies not including residential care or assisted living facilities in R-3 occupancies.
10. Shade canopies less than 5,000 square feet; not closer than 5 feet to any building, property line or other shade canopy and shading one of the following: vehicles for sale at a dealership, playground equipment or outdoor eating areas without cooking.
11. Shipping containers used for storage purposes and not closer than 5 feet to any building, property line or other container.
12. Exterior roofs, overhangs or canopies of Type I, II or III construction with no combustible storage beneath.
13. Exterior covered/enclosed walkways of Type I, II or III construction with enclosing walls that are at least 50% open.
14. Airport control towers.
15. Occupancies in Group F-2.

903.2.8.1.1 [Amended] Group R Division 3 Occupancies. All Group R Division 3 occupancies shall be equipped with a residential style automatic fire sprinkler system installed in accordance with the National Fire Protection Association's Standard #13D when any of the following conditions are present.

1. The building has a gross floor area greater than 3,600 square feet (344.5 m^2).
2. The building is more than 500 feet (152.4 m) from a fire hydrant capable of producing the required fire flow.
3. The required fire flow is not available through approved means.
4. Fire apparatus access roadways are obstructed by any of the following:
    a. Low water crossing(s)
    b. Security gate(s)
    c. Speed bump(s)

5. The building is located in a sub-division having a single fire apparatus access point.
6. The fire apparatus access roadway has a grade greater than 12%.
7. The building is located more than five road miles (8.04km) from the nearest fire station on an approved route as measured by the Fire Marshal.
8. The building is located on a cul-de-sac which exceeds 1000 feet (304.8m) from the nearest thoroughfare's intersection.
9. The building is located more than 150 feet (45.72m) from the closest point of fire apparatus access.
10. The building is located within the established wildland urban interface area.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Sprinklers
Title:	Sprinkler System Installations in New Manufactured Homes

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

903.2.8.1.1 Group R Division 3 occupancies. All Group R Division 3 occupancies shall be equipped with a residential style automatic fire sprinkler system installed in accordance with the National Fire Protection Association's Standard #13D when any of the following conditions are present:

1. The building has a gross floor area greater than 3,600 square feet (344.5 m^2).
2. The building is more than 500 feet (152.4 m) from a fire hydrant capable of producing the required fire flow.
3. The required fire flow is not available through approved means.
4. Fire apparatus access roadways are obstructed by any of the following:
   a. Low water crossing(s)
   b. Security gate(s)
   c. Speed bump(s)
5. The building is located in a sub-division having a single fire apparatus access point.
6. The fire apparatus access roadway has a grade greater than 12%.
7. The building is located more than five road miles (8.04 km) from the nearest fire station on an approved route as measured by the Fire Marshal.
8. The building is located on a cul-de-sac which exceeds 1000 feet (304.8 m) from the nearest thoroughfare's intersection.
9. The building is located more than 150 feet (45.72 m) from the closest point of fire apparatus access.
10. The building is located within the established urban-wildland interface area.

Manufactured homes are built off-site. Installed sprinkler systems are not available for inspection and testing during the construction and installation process. The Sedona Fire District Community Risk Reduction Division has set forth the following requirements for the installation of NFPA 13D sprinkler systems in new manufactured homes.

The following requirements apply to all sprinkler system installations in manufactured homes:

1. Sprinkler system installations shall be in accordance with NFPA 13D, 2024 Edition.
2. There shall be no exposed sprinkler piping on the exterior of the manufactured home.
3. Sprinkler piping shall be protected from freezing in the following manner:
   a. Piping placed in interior walls
   b. Insulation tenting

c. All inspection panels shall be placed on the interior of the structure

4. Where sprinkler pipes from the sections of the manufactured home connect, a visual insulation inspection and a pressure test is required by Sedona Fire District prior to covering the connection.
5. The sprinkler installer shall supply a Contractor's Material & Test Certificate for Aboveground Piping (NFPA "A"-Form)
6. The sprinkler installer shall provide a letter stating that the insulation piping is protected from freezing in accordance with NFPA 13D, 2025 Edition.
7. A final inspection of the sprinkler system shall be conducted by Sedona Fire District prior to the issuance of the certificate of occupancy.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**NFPA 13R Sprinkler System Requirements**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following requirements are pertinent to the installation of fire sprinklers in accordance with NFPA 13R, Chapter 6:

1. Building(s) meeting the NFPA 13R fire sprinkler requirements of the adopted Fire Code shall be protected throughout with an approved automatic sprinkler system designed and installed in accordance with the 2025 edition of NFPA 13R and the 2024 edition of the International Fire Code and local regulations.
2. A permit is required from Sedona Fire District for fire sprinkler systems and the FACP monitoring equipment installations.
3. Sectional control valves, and all valves controlling water supply, shall be indicating type valves listed for use with sprinkler systems. When supplying more than twenty (20) sprinkler heads, these valves shall be monitored with an electronic tamper switch.
4. Flow switches shall be of the type with retard capability.
5. Inspector's test valves shall be located in conspicuous readily accessible locations and plumbed to the building exterior. A sprinkler orifice of the smallest size used in the building shall be installed in the test pipe outlet.
6. A reduced pressure back-flow prevention device is required (not required in dry systems). Show friction loss for such a device in the hydraulic calculations. The contractor is responsible for contacting the appropriate water purveyor for their requirements.
7. The backflow prevention device shall be installed and tested prior to the introduction of any water into the sprinkler system. This includes water used for hydrostatic testing. Backflow assembly's valves must be electronically monitored.
8. Penetrations through walls shall be caulked with an approved fire caulking, when required by the building code.
9. Wet sprinkler piping in the attic spaces shall be insulated with batted insulation with a minimum R-38 rating or, tented over with batted insulation and blown-in insulation with a combination minimum rating of R-38.
10. Sprinkler piping installed in unheated areas shall be protected with approved freeze protection such as: batted insulation (tented), dry sprinkler heads, anti-freeze.
11. Anti-freeze systems are intended to protect small areas only. Ex: small unheated room, porte cochere, etc.
12. Due to extreme cold weather and past problems with freezing sprinkler piping in our fire district, wet sprinkler piping is not required/allowed in areas subject to freezing such as in: the porte cochere, outside store rooms and closets, open balconies and patios.
13. Anti-freeze systems are required to be flow tested and without wasting the antifreeze solution. One method to accomplish this is with the installation of an U.L. approved flow switch tester.

14. Anti-freeze system(s) must be completely drained and tested at regular intervals in accordance with its listing and NFPA requirements. This is the property owner's responsibility.
15. Ample horn/strobe devices connected to the water flow devices shall be installed so as to alert all occupants of the building should the sprinkler system be activated. All horn/strobe devices will be located in the breezeway(s) on the exterior of the building only. A bell or exterior horn/strobe shall be located on the portion of the building nearest the FDC. Location of devices may not be changed without approval of the Fire Marshal.
16. Each building shall have its own, separate fire sprinkler riser. More than one (1) building may share the same underground water supply as long as the water tap for the combined systems can meet the sprinkler system supply and pressure needs, with a minimum 10% pressure cushion.
17. The sprinkler riser shall be accessible only via an exterior door immediately adjacent to the control valves. NFPA 13R 4.5 (2025) requires that sprinkler risers serving multiple units be located outside of the dwelling units or in a common area.
18. Building mounted FDC's are allowed for NFPA 13R fire sprinkler systems. Remote fire department connections (FDC) shall be located in the area outside of the building collapse zone (a distance of not less than 150% the height of the building) and within 150 feet of, and on the same side of the street as a fire hydrant. The size of the FDC shall be 2 ½", or sized for the system, with National Standard threads and fitted with approved, locking FDC caps. FDC placement shall be approved by Sedona Fire Community Risk Reduction division.
19. Remote FDC's may serve more than one sprinkler riser.
20. A KNOX BOX is required to be mounted immediately to the left of the of the riser room access door, six feet above finished grade. Occupant shall provide a key for placement inside of the box(s). An additional Knox Box is required at the main entrance to the building if the main entrance is greater than 300-feet travel distance from the riser room as measured around the outside of the building. You may order KNOX® BOX key boxes at www.knoxbox.com.
21. The sprinkler system shall be monitored by a U.L. listed Central Monitoring Company when there are 20 or more heads. The fire alarm system shall be capable of receiving and identifying alarm and/or trouble signals from the exact zone of origin. The approved company shall then be able to relay that same information, in plain language, to the Cottonwood Dispatch Center at 928-649-1397. Final zoning descriptions will be approved by the Fire Inspector at the time of the final acceptance testing.
22. A full set of sprinkler "as-built" plans are required to be placed in an approved storage receptacle in the sprinkler riser room. The preferred method for this is an appropriately sized PVC pipe with end caps mounted to the wall near the sprinkler riser. The fire sprinkler system will not receive final approval until this condition has been met.
23. The plans review submittal package shall include a completed permit application, all associated fees, one (1) set of plans (NICET III or IV stamped), one (1) set of hydraulic calculations (each remote area included), flow data for hydraulic calculations shall be no more than two (2) years old, and cut sheets for all equipment and hardware including the backflow prevention device. Plan review will not begin until this office has received all components of the submittal package. The hydraulics calculations must show a 10% pressure cushion. **Note: The permit submittal plans for the fire protection system(s) shall be separate from any other plans and is to be sent directly to this office for review.**

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Telephone: (928) 204-8926
crr@sedonafire.org

24. Drawings shall include but are not limited to, pipe hangar locations, riser location, riser detail, nodes, pipe sizes and location, sprinklers, water meter size, architect's scale. Plans must also be drawn at a scale that is clear and readable.
25. A fire inspector must witness all phases of the sprinkler system installation, which includes but is not limited to the underground and aboveground piping, hydrostatic testing, insulation inspection and system final inspection and test. Call this office a minimum of 1 business day in advance for all on-site inspections. Sedona Fire District is committed to providing on-site inspections for all commercial contractors in a timely manner, however the more lead-time you can give us the better we can serve you and other contractors.
26. For the final acceptance testing, the contractor must coordinate with the fire sprinkler contractor and the fire alarm contractor to ensure that both have a representative onsite for the duration of the final acceptance testing. It is preferable to schedule both the fire sprinkler final and the fire alarm final to run concurrently.
27. Wet sprinkler piping freeze protection is vital. The fire inspector must visually inspect all sprinkler system piping insulation before sheet rock, or any other covering is installed.
28. We strongly encourage the sprinkler contractor to work closely with the general contractor in preventing the premature hanging of sheet rock and other building materials that would hide sprinkler piping before hydrostatic testing is completed.
29. All inspections will require the sprinkler contractor to be on site and have an approved set of plans in their possession.
30. The sprinkler contractors are encouraged to contact the Fire Inspector for specific information before design, and during the sprinkler system installation, if there are questions.
31. A sign indicating the location of FDC is required. Consult with the general contractor as to who will be responsible for providing and installing the signs and required KNOX® locking FDC caps. KNOX® locking FDC caps can be purchase at www.knoxbox.com.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Plan Submittals for Less Than 21 Sprinkler Heads**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to plan submittal requirements for automatic sprinkler systems:

901.2 Construction documents.

The fire code official shall have the authority to require construction documents and calculations for all fire protection and life safety systems and to require permits be issued for the installation, rehabilitation or modification of any fire protection and life safety systems. Construction documents for fire protection and life safety systems shall be submitted for review and approval prior to system installation.

Any addition/modification involving **less than 21 sprinkler heads** to an **EXISTING** automatic sprinkler system shall **NOT** require a complete plan submittal as long as the following is provided:

1. A completed permit application.
2. A check for the appropriate fee.
3. A letter from the Arizona licensed fire sprinkler contractor stating:
    a. The hydraulic water supply will be sufficient, and the work being performed will not negatively impact the existing hydraulics.
    b. The added or modified sprinklers are not adding to nor are they creating a new remote area.
    c. The exact number of sprinklers being added/moved/modified and why.
    d. Time schedules for the work (start date and projected completion).
    e. The system will be installed in accordance with all applicable codes and standards
4. Any addition/modification involving flexible sprinkler hose to an EXISTING automatic sprinkler system shall NOT require a complete plan submittal, provided that the system was originally designed with flexible sprinkler hose and all the requirements in item #1 are fulfilled.
5. Any addition/modification involving paint booths, pipe-schedule designed systems, and other special application sprinkler systems SHALL require a complete plan submittal, no exceptions.
6. There shall be a limit of ONE “less than 21 sprinkler head” construction permit per sprinkler system without a complete plan submittal being required.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Painted Fire Sprinkler Heads**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

In accordance with NFPA 13 requirements, as outlined below, sprinkler heads SHALL be replaced when non-factory finishes have been applied to a fire sprinkler head.

7.2.5.2 Painting (NFPA 13, 2022)

Sprinklers shall only be painted by the sprinkler manufacturer.

Attempting to remove the paint from a sprinkler by scraping or by using chemical paint removers could cause unseen damage that could adversely affect the operation of the sprinklers.

Exhibit 7.7 Sprinkler Subjected to Paint Overspray.

Any sprinkler subject to loading of materials that cannot be readily vacuumed or blown away with compressed air without touching the sprinkler must be replaced. Loading of a sprinkler occurs when there is a buildup of foreign material on the sprinkler that acts to delay or prevent proper sprinkler activation. Examples of loading include the dust that accumulates on a sprinkler near an HVAC diffuser or the buildup of rubber particles on a sprinkler in a tire manufacturing plant.

7.2.5.3 Ornamental Finishes

7.2.5.3.1 Ornamental finishes shall only be applied to sprinklers and, if applicable, their concealed cover plates, by the sprinkler manufacturer.

This restriction also applies to the cover plate assembly of a listed concealed sprinkler. Many sprinkler manufacturers will custom paint the cover plate to match the surrounding area or Evan apply a wood grain pattern for aesthetic appeal.

7.2.5.3.2 Sprinklers with ornamental finishes shall be specifically listed.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Fire Flow Reductions in Sprinklered Buildings**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Appendix B: Section B105 Fire-Flow Requirements for Buildings

B105.1 One-and two-family dwellings, Group R-3 and R-4 buildings and townhomes. The minimum fire flow and flow duration requirements for one and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1 (1) and B105.1(2). (Appendix B 2024 IFC)

TABLE B105.1(1) REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0–3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0–3,600	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	500	1/2
3,601 and greater	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	1/2 value in Table B105.1(2)	1
For SI: 1 square foot = 0.0929 m2, 1 gallon per minute = 3.785 L/m.			

TABLE B105.1(2) REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Types IA and IB[a]	Types IIA and IIIA [a]	Types IV and V-A[a]	Types IIB and IIIB [a]	Type V-B[a]		
0–22,700	0–12,700	0–8,200	0–5,900	0–3,600	1,500	2
22,701–30,200	12,701–17,000	8,201–10,900	5,901–7,900	3,601–4,800	1,750	
30,201–38,700	17,001–21,800	10,901–12,900	7,901–9,800	4,801–6,200	2,000	
38,701–48,300	21,801–24,200	12,901–17,400	9,801–12,600	6,201–7,700	2,250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7,701–9,400	2,500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9,401–11,300	2,750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3,000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3,250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3,500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3,750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4,000	4

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Telephone: (928) 204-8926
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FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Types IA and IB[a]	Types IIA and IIIA [a]	Types IV and V-A[a]	Types IIB and IIIB [a]	Type V-B[a]		
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4,250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4,500	
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4,750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5,000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5,250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5,500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5,750	
295,901–Greater	166,501–Greater	106,501–115,800	77,001–83,700	47,401–51,500	6,000	
—	—	115,801–125,500	83,701–90,600	51,501–55,700	6,250	
—	—	125,501–135,500	90,601–97,900	55,701–60,200	6,500	
—	—	135,501–145,800	97,901–106,800	60,201–64,800	6,750	

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Types IA and IB[a]	Types IIA and IIIA [a]	Types IV and V-A[a]	Types IIB and IIIB [a]	Type V-B[a]		
—	—	145,801–156,700	106,801 – 113,200	64,801–69,600	7,000	
—	—	156,701–167,900	113,201 – 121,300	69,601–74,600	7,250	
—	—	167,901–179,400	121,301 – 129,600	74,601–79,800	7,500	
—	—	179,401–191,400	129,601 – 138,300	79,801–85,100	7,750	
—	—	191,401–Greater	138,301 – Greater	85,101–Greater	8,000	

For SI: 1 square foot = 0.0929 m2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the International Building Code.

b. Measured at 20 psi residual pressure.

B105.2 Buildings other than one and two-family dwellings, Group R-3 and R-4 buildings and townhomes. The minimum fire-flow and flow duration for buildings other than one and two-family dwellings, Group R-3 and R-4 buildings, and townhomes shall be as specified in Table B105.1 (2) and B105.2. (Appendix B 2024 IFC)

TABLE B105.2 REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the *International Fire Code*	25% of the value in Table B105.1(2)[a]	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the *International Fire Code*	25% of the value in Table B105.1(2)[b]	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire flow shall be not less than 1,000 gallons per minute.
b. The reduced fire flow shall be not less than 1,500 gallons per minute.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Underground Fire Line Plan Submittals**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to all plan submittals for the installation or modification of underground fire lines.

Sedona Fire District requires that underground fire line plans submitted for review shall contain pertinent engineering details and shall also bear the wet-stamp and signature of an Arizona registered engineer. Additionally, NFPA 24, Chapter 4 states:

4.1.1 Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or remodeled.

4.1.2 Deviation from approved plans shall require permission of the authority having jurisdiction.

4.1.3 Working plans shall be drawn to an indicated scale on sheets of uniform size, with a plan of each floor as applicable, and shall include the following items that pertain to the design of the system:

1. Name of owner
2. Location, including street address
3. Point of compass
4. A graphic representation of the scale used on all plans
5. Name and address of contractor
6. Size and location of all water supplies
7. Size and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment.
8. The following items that pertain to private fire service mains:
    a. Size
    b. Length
    c. Location
    d. Weight
    e. Material
    f. Point of connection to city main
    g. Sizes, types, and locations of valves, valve indicators, regulators, meters, and valve pits
    h. Depth at which the top of the pipe is laid below grade
    i. Method of restraint
9. The following items that pertain to hydrants:

a. Size and location, including size and number of outlets and whether outlets are to be equipped with independent gate valves
b. Thread size and coupling adapter specifications if different from NFPA 1960
c. Static and residual hydrants used in flow
d. Method of restraint

10. Size, location, and piping arrangement of fire department connections

4.1.4 The working plan submittal shall include the manufacturer's installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any devices, piping, or fittings.

4.2.1 Installation work shall be performed by fully experienced and responsible persons.

4.2.2 The authority having jurisdiction shall always be consulted before the installation or remodeling of private fire service mains.

General Requirements

10.1.1 All piping used in private fire service mains shall be in accordance with 10.1.1.1, 10.1.1.2, or 10.1.1.3.

- All underground lines shall begin at the point of connection to the underground circulating public/private water main. A valve shall be provided at the point of connection such that the fire sprinkler underground service line can be isolated from the public/private water distribution system.
- All underground lines shall terminate at the top of the spigot no more than 5-feet inside the building and 1-foot above finished floor.
- All ductile iron, retaining rods, and other non-corrosive resistant components shall be externally coated for corrosion or poly wrapped.
- The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings.
- Provide an embedment detail for piping. (See details)

Fire Department Connection (FDC)

5.9.1 General.

Where the AHJ requires a remote fire department connection for systems requiring one by another standard, a fire department connection shall be provided as described in Section 5.9. (NFPA 24 Chapter 5)

- FDC shall be a separate and independent service main from the underground water line
- FDC's for automatic sprinkler systems and/or standpipe systems for new buildings shall be equipped with a 2 ½" Siamese connection.
- All FDC's shall be equipped with locking Knox FDC Caps. Knox products may be ordered online at www.knoxbox.com.

- Check valves shall be accessible for 5-year inspection. If located underground, shall be installed within a meter can/valve box.
- FDC shall be facing and visible from the fire lane.
- FDC must be within 150-feet of a fire hydrant.
- FDC installed in a "yard" should have 12” x 12” x 4” concrete pad placed at the base to provide additional stability.
- The FDC shall be clear and unobstructed with a minimum of a 3-feet clear all-weather path from fire lane access.
- The FDC shall be installed 18-48 inches above grade.
- Fire hose threads shall be national standard hose thread.
- Underground piping shall be designed and constructed as required for an underground fire main using NFPA 24, Standard for the Installation of Private Fire Service Mains and Their Appurtenances, as the installation standard.
- The FDC shall discharge into the system on the discharge side of the pump if a pump is present.
- Where the FDC is subject to vehicular damage, the connection shall be protected. Protection components shall not be closer than 36-inches to the connection and shall not interfere with the operation of the connection.
- The pipe size and arrangement of the FDC should conform to the latest edition of NFPA 13, Standard for the Installation of Sprinkler Systems.

Inspection Requirements

- Installer shall provide a completed Underground Piping Materials & Certification “U” form at the beginning of the inspection.
- **Visual:** All underground piping, joints, and thrust blocks must be uncovered and exposed, with labeling of the pipe legible from grade. All ductile iron, retaining rods, and other nonplastic components shall be externally coated for corrosion and poly wrapped.
- **Hydrostatic Test:** Visual inspection must be approved prior to hydrostatic test. The test will be at 200 psi or at 50-psi pressure in excess of the maximum static pressure when the maximum static pressure exceeds 150 psi, for a minimum of two hours. Testing to be from the gate valve to the top of the spigot, no pressure drop or gain allowed.
- **Flush:** Upon completion of the underground hydrostatic test, the underground piping will be flushed, witnessed by the Fire Department. All piping used to flush must be properly secured or restrained. The flushing must be completed prior to stacking the riser to the overhead piping.

Submittal Requirements

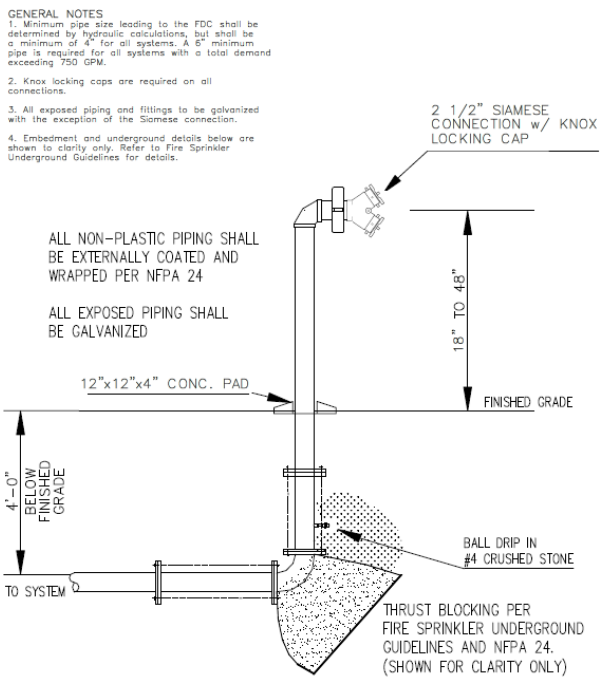
Plans shall be clear and legible and all sheets shall be in a common and appropriate scale (preferably computer generated). A minimum of three (3) sets of plans and minimum of one (1) set of specifications/cut sheets shall be submitted. Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review. Plans that do not conform to the submittal requirements or are not clearly legible will be rejected and require a re-submittal.

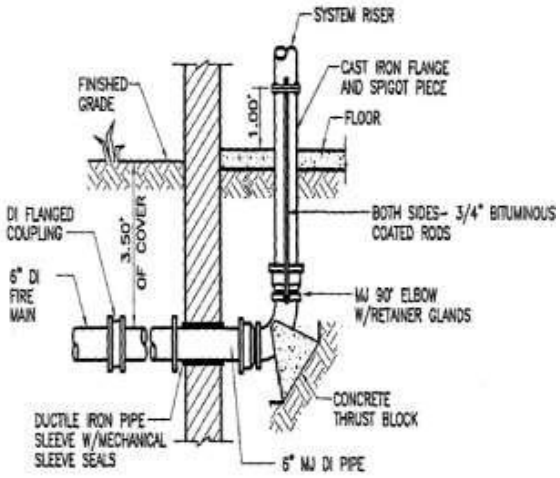
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Plans shall include all items required by NFPA 24 (Chapter 4) in addition to the following:

a. Standard details (see attached pages for standard detail sets).
b. Location and size of all thrust blocks.
c. Thrust block details. (See detail)
d. Detail of spigot piece and/or in building riser turn. (See detail)
e. Embedment detail to include depth of bury and backfill specifications. (See detail)
f. Type of fittings/joints, method of connection and rod size.
g. Remote FDC detail if applicable.

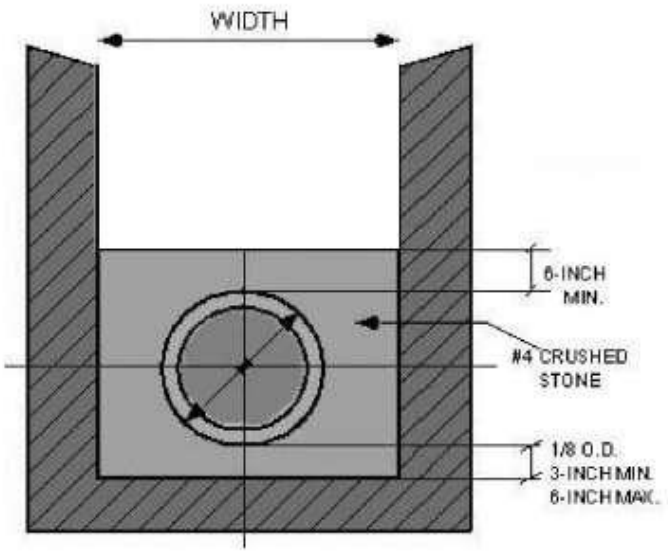
The following details are provided as examples <u>ONLY</u>.
Actual details may vary based on engineering requirements, manufacturer's instructions, and/or other factors.

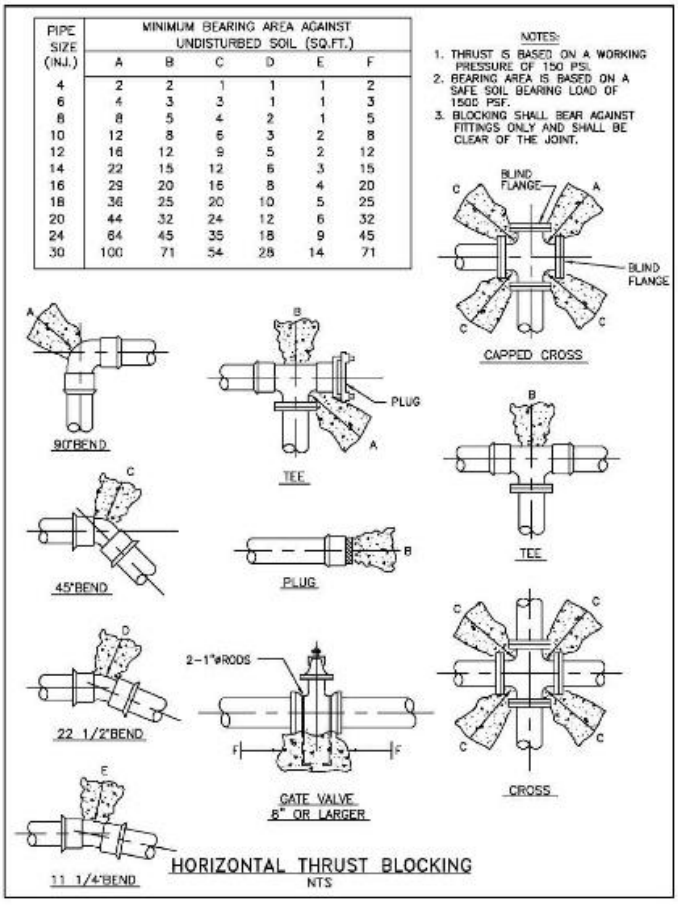




DETAIL – FIRE PROTECTION SYSTEM RISER
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2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org





2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Sprinklers
Title:	Installation of Water Supply Lines Serving Fire Protection Systems

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to all water supply lines and Fire Department Connections (FDC's) serving fire protection systems:

Plans for underground fire lines shall be submitted for review and approval to the Sedona Fire District CRR Office.

Fire Department Connections

912.1 Installation. (2024 IFC) Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with Sections 912.2 through 912.7.

Sedona Fire District Specification:

FDC's are required for NFPA 13, NFPA 13R, and standpipe systems. All FDC's shall be of brass construction with single or double clapper and 2 ½" NST female threads. FDC's shall be plainly marked with the type of system that they supply. Building owner shall provide Knox brand locking FDC caps. Pipe size shall be a 4" minimum. *NOTE: For risers 3 inches or smaller in diameter, a single 2 ½" inlet is permitted.*

912.2 Location. (2024 IFC) With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be *approved* by the *fire code official*.

Sedona Fire District Specification:

FDC's serving NFPA 13 fire sprinkler systems shall be remotely located outside of the buildings collapse zone (1 ½ times the height of the building). Remote FDC's shall be in an accessible area no greater than 50 feet from the nearest fire apparatus access road and be visible and recognizable from the street or nearest fire department access or on the street side of buildings, shall be on the same side of the road and located within 100 feet of the nearest fire hydrant. This may require installing additional fire hydrants.

912.2.1 Visible location. (2024 IFC) Fire department connections shall be located on the street side of buildings or facing *approved* fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise *approved* by the *fire code official*.

Sedona Fire District Specification:

FDC's supplying NFPA 13R fire sprinkler systems may be wall mounted. Wall-mounted FDCs shall be located at building corners in an accessible location that is no greater than 35 feet from the nearest point of fire apparatus access.

912.4 Access. (2024 IFC) Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. Access to fire department connections shall be *approved* by the *fire code official*.

> **Exception:** Fences, where provided with an access gate equipped with a sign complying with the legend requirements of Section 912.5 and a means of emergency operation. The gate and the means of emergency operation shall be *approved* by the *fire code official* and maintained operational at all times.

912.4.2 Clear space around connections. (2024 IFC) A working space of not less than 36 inches (914 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections, except as otherwise required or *approved* by the *fire code official*

912.5 Signs. (2024 IFC) A metal sign with raised letters not less than 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: "AUTOMATIC SPRINKLERS," "STANDPIPES," "TEST CONNECTION," "STANDPIPE AND AUTOSPKR" or "AUTOSPKR AND STANDPIPE," or a combination thereof as applicable.

912.5.1 Lettering. (2024 IFC) Each fire department connection (FDC) shall be designated by a sign with letters not less than 1inch (25.4mm) in height. For manual standpipe systems, the sign shall also indicate that the system is manual and that it is either wet or dry

> **Sedona Fire District Specification:**
>
> All FDC's shall have approved signage per IFC (2024) requirements stating the building or portions of buildings served.

Underground Fire Water Supply Lines

6.1 Valves (NFPA 24)

6.1.1 All valves controlling connections to water supplies and to supply pipes to water-based fire protection systems shall be listed indicating valves, except as permitted by **6.1.1.3** and **6.1.1.4**.

6.1.1.1 A listed underground gate valve equipped with a listed indicator post shall be permitted.

6.1.1.2 A listed water control valve assembly with a position indication connected to a remote supervisory station shall be permitted.

6.1.1.3* A listed, nonindicating valve, such as an underground gate valve, including a T-wrench, shall be permitted to be installed in a roadway box when acceptable to the AHJ.

6.1.1.3.1 For new installations, where more than one nonindicating underground gate valve is installed in a water system, all underground gate valves shall be of the same opening direction.

6.1.1.4* A new connection to a municipal water supply shall be permitted to utilize a nonlisted, nonindicating valve, including a T-wrench as part of a tapping assembly.

6.1.1.4.1 For new installations, where more than one nonindicating underground gate valve is installed in a water system, all underground gate valves shall be of the same opening direction.

6.1.2 (NFPA 24)
Indicating valves shall not close in less than 5 seconds when operated at maximum possible speed from the fully open position.

6.8 Check Valves. (NFPA 24)
Check valves shall be permitted to be installed in a vertical or horizontal position in accordance with their listing

Sedona Fire District Specification:

A *listed* check valve shall be installed in each fire department connection and shall be located in an accessible location with an automatic drain valve where subject to freezing.

At least one, listed, monitored, and indicating valve shall be installed in the underground fire water supply line.

903.4.1 Electronic supervision. (2024 IFC) Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all automatic sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area sprinkler systems in accordance with Section 903.3.8, provided that backflow prevention device test valves located in limited area sprinkler system supply piping shall be locked in the open position unless supplying an occupancy required to be equipped with a fire alarm system, in which case the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.
8. Underground key or hub gate valves in roadway boxes.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Sprinklers**
Title:	**Underground Fire Line Inspection and Testing**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to underground fire line acceptance testing and flushing in accordance with NFPA 24, Chapter 10:

1. Installation of underground fire line shall not commence until the Sedona Fire District has reviewed and released plans for construction.
2. Contractor shall have approved plans onsite.
3. Contractor shall have a "Competent Person" onsite.
4. Prior to beginning the hydrostatic and flush testing the contractor shall provide an Underground Contractor's Material and Test Certificate. Immediately after the conclusion of the hydrostatic test and flushing of the pipe, the contractor shall complete the Underground Contractor's Material and Test Certificate satisfactorily and provide it to the inspector. Failure to have this form onsite at the beginning of the inspection or to provide the completed form to the inspector at the conclusion of the inspection shall be grounds for failure of the inspection.

   NOTE: The Underground Contractor's Material and Test Certificate is found in NFPA 24 (2025).
5. Installation of the piping shall be compared against the approved plans to ensure the following:
   a. Size of piping.
   b. Type of piping.
   c. Depth of piping.
   d. Proper pipe configuration of:
      i. Thrust blocks.
      ii. Protective wrap (poly wrap) of piping, including fire riser flange spigot. (Applies to ductile piping only).
      iii. Direction changes.
      iv. Location of:
         (1) Double Backflow Assembly.
            a. Correct direction.
            b. Monitored tamper switches installed on control valves on double backflow assembly.
         (2) Remote Fire Department Connection (FDC).
            a. Remote Fire Department Connection shall be located within one hundred and fifty (150) feet of and on same side of road as a fire hydrant.

b. Remote Fire Department Connection shall be located outside of the collapse zone of the structure (a minimum one and one half times the height of the structure).

c. If remote Fire Department connection services only one building, then paint supply piping red and stencil the address with four-inch white characters.

d. If Fire Department Connection serves more than one building, then provide a 12-inch by 18-inch RED background sign with the addresses the Fire Department Connection serves in three-inch reflective WHITE characters.

e. Verify three-foot diameter clearance around Fire Department Connection.

f. Fire Department Connection shall be installed between 18 and 48 inches above finish grade and the 2.5-inch ports shall face fire lane.

g. Verify that KNOX® Box™ locking 2.5-inch caps are installed.

h. Verify that swing check valve is installed as close to Fire Department Connection as possible and is installed in correct direction.

(3) Fire Hydrants

a. The large (4.5 inch) port shall be facing directly towards the Fire Lane.

b. The bottom of the 4.5-inch port shall be installed between 18 inches and 24 inches above finish grade.

c. Verify three (3) foot diameter clearance around fire hydrants.

6. Verify that all valves within the system are in the open position, including fire hydrant sectional valves.
7. Observe hydrostatic test of all piping at 200 psi for 2 hours or 50 psi in excess of system working pressure, whichever is greater.
8. Relieve pressure after hydrostatic test and confirm the test gauge returns to zero. (A gauge that does not return to zero could be an indication that the gauge is broken or pegged).
9. Observe flush of all piping with city water until clear and free of all debris.

NOTE: Fire lines shall be visible during hydrostatic testing. Center loading of the pipe is acceptable; however, all joints, valves, thrust blocks, and fittings shall be visible. The inspection of fire line consists of the fire line supply piping from the inside/outside of the building(s) to the point of connection to the supply water main at street, or to water main loop. If a remote FDC is installed, the fire line supply piping from the building to the remote FDC is also required.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Fire District Access to Structures**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Definitions

ALL WEATHER SURFACE. (2024 IFC) Means a vehicular use and/or parking area that shall be surfaced with one of the following: asphalt, concrete, chip seal, graded and compacted gravel, or other stabilized system.

APPROVED. **(2024 IFC)** Acceptable to the fire code official.

D102.1 Access and loading. (2024 IFC) Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

D103.2 Grade. (2024 IFC) Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as *approved* by the *fire code official*.

D103.3 Turning radius. (2024 IFC) The minimum turning radius shall be determined by the *fire code official*.

D103.4 Dead ends. (2024 IFC) Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

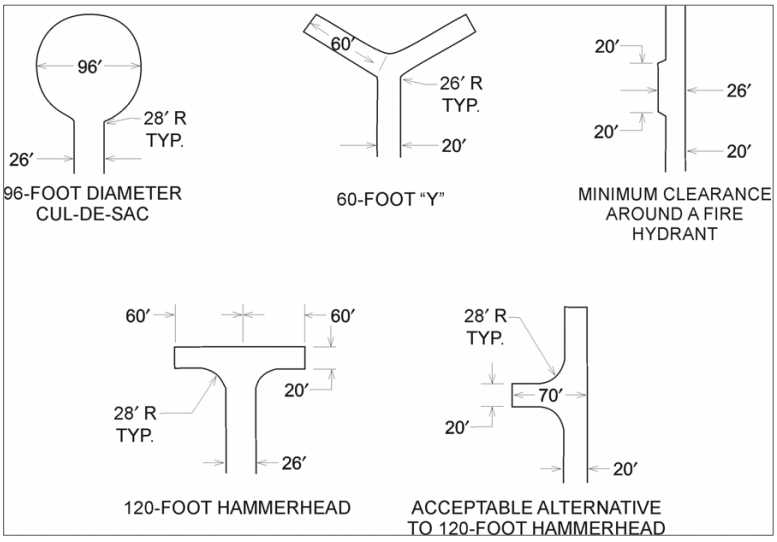
Table D103.4

Requirements for Dead-End Fire Apparatus Access Roads

Length (feet)	Width (feet)	Turnarounds Required
0-150	**20**	None Required
151-500	**20**	120-foot hammerhead, 60-foot “Y”, or 96-foot diameter cul-de-sac in accordance with figure D103.1
501-750	**26**	120-foot hammerhead, 60-foot “Y”, or 96-foot diameter cul-de-sac in accordance with figure D103.1
Over 750	Special approval required	

Figure D103.1 (2024 IFC)

Dead-End Fire Apparatus Access Road Turnarounds



D103.5 Fire apparatus access road gates. **(2024 IFC)** All gates shall meet the requirements of this section.

503.2.6 Bridges and elevated surfaces. (2024 IFC) Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. 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 *fire code official.* Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, *approved* barriers, *approved* signs or both shall be installed and maintained when required by the *fire code official.*

Sedona Fire District minimum requirements for fire apparatus access roads:

1. Fire apparatus access roads shall be constructed of an *all-weather surface* in accordance with section D102.1.
2. Fire apparatus access roads, including graded and compacted gravel and/or other stabilized systems, shall require engineering prior to acceptance by the fire code official.
3. An engineer shall provide a letter of attestation bearing the wet stamp and signature of the engineer indicating the roadway has been installed as designed and is capable of the design loads required by the code.

Sedona Fire District minimum requirements for apparatus turning radius:

1. Based on the turning requirements of our apparatus, the fire code official has determined the minimum acceptable turn radii for fire department access is 28 feet inside-turn radius and 48 feet outside-turn radius.
2. Approach and departure angles shall be limited to a maximum of seven (7) degrees.

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3. Fire department access roads that exceed 12% grade shall install an NFPA 13-compliant (2025) automatic fire sprinkler system.
4. Turnarounds and intersections shall be level (maximum 5% grade) with the exception of crowning for water run-off.

Fire Department Access Roads serving more than four (4) single-family dwellings, or multi-family dwellings with greater than 30 units and all roads serving commercial occupancies and developments including, in addition to the above requirements, shall meet the following:

1. No fire department access roadway shall exceed 6% unless the entire roadway is paved hard and smooth with materials such as pavement.

Fire Department Access Roads serving more than 30 single-family dwellings, or multi-family dwellings with greater than 30 units, or commercial occupancies and developments, in addition to the above requirements, shall meet the following:

1. No fire department access roadway shall exceed 12% unless those portions of the roadway are constructed of textured concrete for improved tire traction.
2. Grades shall not exceed 15% unless written request is made to and approved by the fire code official.

In addition to the above requirements, the following code sections shall apply to the respective development types:

1. Commercial and industrial developments shall meet all the requirements section D104 (2024 IFC).
2. Developments requiring aerial fire apparatus roads shall meet all the requirements of section D105 (2024 IFC).
3. Multi-family developments shall meet all the requirements of section D106 (2024 IFC).

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Community Risk Reduction Division

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Key Box Location**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to the location for installation of lock boxes:

Section 506.1 Where required. (2024 IFC) 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 to be installed in an approved location. The key box shall be of an *approved* type *listed* in accordance with UL 1037 and shall contain keys to provide the necessary access required by the fire code official.

Sedona Fire District Specifications

Sedona Fire District requires "***KNOX® Box***" as the acceptable lock box for structures requiring a lock box within the Sedona Fire District. *KNOX® Boxes* can be purchased at www.knoxbox.com

An approved *KNOX® Box* shall be installed on every building containing a required fire and/or life safety system and any other building as required. The location of the lock box on all buildings should be consistent throughout the Sedona Fire District.

The following are the Sedona Fire District's KNOX® Box installation requirements:

1. The lock box shall be installed immediately to the left of the main entrance to the building, 4 to 6 feet above finished grade.
2. Where construction or other features prohibit the lock box from being installed as required above, the lock box location shall be approved by the Fire Code Official.
3. Where a travel distance of greater than 300' (as measured by the Fire Code Official) exists between the lock box located at the main entrance, and the access entrance for fire sprinkler riser room and/or the Fire Alarm Control Panel (FACP), an additional lock box may required in accordance with #1 above.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Premises Identification (Addressing) at Commercial & Multi-Family Occupancies**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

This reference pertains to addressing all commercial occupancies and multi-family dwellings. New and existing buildings shall have approved address numbers, suite identification, and building numbers, or approved building identification. Where required by the fire code official, address numbers shall be provided at additional approved locations to facilitate emergency response.

505.1 Address identification. (2024 IFC)

New and existing buildings shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the *fire code official*, address identification shall be provided in additional *approved* locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Address numbers shall be posted in a conspicuous location plainly visible from the street or road fronting the property in the following manner:

- Sites containing multi-building complexes shall have one street address per APN.
- Address numbers shall be no less than 6 feet above finished grade.
- Address numbers shall not be posted below awnings, covered porches, porte cochères, or any other projection from the building.
- Address numbers shall be posted on a contrasting background.
- If numbers are placed on glass, the numbers shall have a contrasting background that is integral to the address number sign/sticker.
- The preferred location for address numbers is near the top of the structure or parapet at a building corner
- Address numbers shall be a minimum of 6 inches in height with a minimum stroke width of 0.75 inch. For buildings more than 60 feet from the street, number size shall be determined by the distance of the building from the street. The number height shall be no less than one inch in height for each 10 feet of distance that the structure is set back from the street or public way.

Example: If the building is 100 feet from the street, the minimum number height shall be 10 inches.

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Telephone: (928) 204-8926
crr@sedonafire.org

Suite numbers shall be posted at all front and rear doors with a minimum size of 4 inches on a contrasting background.

The following table shall be utilized to address each unit within a multi-building complex:

	Building A	Building B	Building C	Building D	Building E
Ground/1st Floor	100-109	110-119	120-129	130-139	140-149
2nd Floor	200-209	210-219	220-229	230-239	240-249
3rd Floor	300-309	310-319	320-329	330-339	340-349

Each successive floor and building will follow the above pattern. If a building will have more than 10 units per floor, then the sequence of unit numbers can combine two ranges such as 100-119 in Building A and then to continue on in the sequence with Building B. The purpose of this numbering scheme is so that no two units in separate buildings shall share the same number (i.e. there should be no D101 and B101).

In multi-building complexes under the same address, the address number shall be posted on the monument sign at the entrance to the complex. Buildings shall be identified by a unique letter designation. Letter designations shall be posted at the corners at the highest point possible and each building in the complex shall be identifiable from any point in the complex. Letter designations shall be no less than 16 inches in height with a stroke width of not less than 4 inches on a contrasting background.

Buildings that contain dwelling units shall meet all of the above requirements and the following:

- Entrances to walk-ups, corridors, breezeways and the like that serve more than one dwelling unit shall be posted with the range of apartment numbers which they serve.
- Dwelling unit numbers including the building letter shall be posted on the apartment door and shall be a minimum of 4 inches in height with a minimum stroke width of 0.5 inches on a contrasting background.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Premises Identification (Addressing) at 1 & 2 Family Dwellings**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

505.1 Address identification. (2024 IFC)

New and existing buildings shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the *fire code official*, address identification shall be provided in additional *approved* locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Address numbers shall be posted in a conspicuous location on the side of the house fronting the street to which it is addressed. If the home cannot be easily seen or is more than 50 feet from the street, the address numbers shall also be placed on a portion of the site that is visible and no greater than 20 feet from the street.

While placing address numbers on monument signs or painting them on curbs is a useful means of identification, it is only allowed in addition to numbers placed on the house as curbside numbers are easily blocked by parked cars.

For driveways shared by two or more homes:

- Post all house numbers at the entrance to the driveway and on each home in a conspicuous location over or near the front entrance to the home.
- If the driveway splits in different directions, post a directional sign pointing to each address.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Security Gates on Fire Apparatus Access Roads**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

503.6 Security gates. (2024 IFC) The installation of security gates across a fire apparatus access road shall be approved by the fire code official. 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. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

503.4 Obstruction of fire apparatus access roads. (2024 IFC) Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall be maintained at all times.

503.2.1 Dimensions. (2024 IFC) Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

503.2.2 Authority. (2024 IFC) The *fire code official* shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

Sedona Fire District Specifications

Security gate requirements:

1. Gates serving only one single family property or domicile shall be a minimum of width 16 feet.
2. Gates serving two or three single-family properties or domiciles (multi-family dwellings not included) or any combination thereof:
    a. Minimum width 16 feet
    b. Manually operated gates that are locked shall require the installation of a KNOX® padlock keyed to the type presently employed by Sedona Fire District. This lock is available for purchase from www.knoxbox.com.
    c. A KNOX® padlock is not required for manually operated gates that are not locked
    d. Electronically operated security gates shall be equipped with a Sedona Fire District key override cylinder available at www.knoxbox.com. This cylinder shall be keyed to the type presently employed by the Sedona Fire District.

3. Gates serving four or more single family residential properties or domiciles, multi-family dwellings (triplex or larger) and/or commercial developments or properties or any combination thereof:
   a. Minimum width 20 feet
   b. Manually operated gates that are locked shall require the installation of a KNOX® padlock keyed to the type currently used by Sedona Fire District. This lock is available for purchase from www.knoxbox.com
   c. An KNOX® padlock is not required for manually operated gates that are not locked
   d. Electronically operated security gates shall be equipped with a Sedona Fire District key over-ride cylinder available at www.knoxbox.com. This cylinder shall be keyed to the type presently employed by the Sedona Fire District
   e. In addition to key operation, a TOMAR (TOMAR Industries, http://TOMAR.com) optical sensor 2091-SD or similar, shall be installed.
4. All electronically operated gates require a battery backup system capable of operating the gate during a power outage.
5. All electronically operated gates shall be equipped with a ground-loop activation system or a TOMAR optical sensor and key override cylinder along the path of egress.
6. All gates equipped with a TOMAR optical sensor shall be programmed to remain open for as long as the signal is being transmitted by the emergency apparatus and for a period of not less than 60 seconds after the signal ceases to be sent.
7. Key override sensors shall be programmed to keep the gate open for a period of at least 60 seconds after the cylinder is returned to the momentary operation setting.
8. Gates with multiple fire department approach directions may require multiple TOMAR sensors on the approach side of the gate.
9. Plans shall be submitted to the Sedona Fire Community Risk Reduction Division for review to ensure compliance with the fire code prior to issuance of a permit for the installation of the gate. Please contact this office if you have any questions or concerns regarding this issue.

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Community Risk Reduction Division

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire District Access & Addressing**
Title:	**Traffic Calming Devices**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Definitions

FIRE APPARATUS ACCESS ROAD. (2024 IFC) A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot, lane and access roadway.

TRAFFIC CALMING DEVICE. (2024 IFC) Design elements of fire apparatus access roads such as street alignment, installation of barriers, and other physical measures intended to reduce traffic and cut-through volumes and reduce vehicle speeds.

503.4.1 Traffic calming devices. (2024 IFC) Traffic calming devices shall be prohibited unless approved by the fire code official.

105.1.1 Permits required. (2024 IFC) A property owner or owner's authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the fire code official and obtain the required permit.

Sedona Fire District Specifications

All traffic calming devices shall be submitted to the Sedona Fire District for review and approval prior to installation and shall not be installed without such approval. Approval considerations shall include size, shape, design, and spacing. Applications for the installation of traffic calming devices on city or county-maintained roads shall be directed through the appropriate city or county department.

Requests for the installation of traffic calming devices on roads not maintained by city or county authorities shall be requested by a Neighborhood Association, Homeowners Association, or Property Owners Association. Requests initiated by private citizens without Association support will be denied.

Applications shall include:

1. A highlighted neighborhood map showing all properties affected by the placement of traffic calming devices and the proposed location of such devices with distances between each device.
2. The proposed design of the traffic calming device(s) including height, width, length, and construction type and the manner in which they will be affixed to the roadway.

Applicant Responsibilities

1. Ensure that the neighborhood supports the installation of such devices.

2. Purchase and install the approved devices.
3. Ensure that devices are installed per approved plans

Speed bumps (humps, tables, etc.) shall:

1. Not be installed in tandem (two or more in close proximity)
2. Extend in a single straight-line perpendicular to the route of travel without offset
3. Be spaced not less than 250 feet between each bump, and average spacing of speed bumps shall be not less than 350 feet measured from the first device to the last device
4. Not be installed on streets less than 600-feet in length
5. Not obstruct driveways, hydrants, drain inlets or other water or fire operation infrastructure
6. Not be installed on streets with a speed limit in excess of 25 mph
7. Not be installed within 150 feet of an intersection or near a curve, hill, or other feature that obstructs a driver or pedestrians view from less than 200 feet.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	**Fire Alarms**
Title:	**Battery Load Testing for Fire Alarm Systems**

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to functional testing of new and modified fire alarm systems in accordance with NFPA 72, Chapter 10:

10.6.7.2.1
The secondary power supply for the protected premises system shall have sufficient capacity to operate the system under quiescent load (system operating in a nonalarm condition) for a minimum of 24 hours.

10.6.7.2.2
At the end of the period in **10.6.7.2.1**, the secondary power supply shall be capable of operating all alarm notification appliances used for evacuation or to direct aid to the location of an emergency for 5 minutes, unless otherwise permitted or required by **10.6.7.2.4**.

10.6.7.2.3
The secondary power supply for in-building fire emergency voice/alarm communications service shall be capable of operating the system under quiescent load for a minimum of 24 hours
.
10.6.7.2.4
At the end of the period in **10.6.7.2.3**, the secondary power supply shall be capable of operating the system during a fire or other emergency condition for a period of 15 minutes at maximum connected load.

10.6.7.2.5
The secondary power supply capacity for supervising station facilities and equipment shall be capable of supporting operations for a minimum of 24 hours.

Sedona Fire District requires that fire alarm systems (newly installed, modified, or additions to) shall be subject to a battery test to ensure proper operational capabilities of the system.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Kitchen
Title:	Mobile Food Vendors

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

The following shall apply to any mobile vendors who sell food other than prepackaged items that do not require hot or cold handling procedures:

4106.3 Exhaust Hood. (2024 IFC) A Type I hood (with fire suppression system) shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease laden vapors. Commercial kitchen exhaust hoods shall comply with the requirements of the International Mechanical Code.

4106.4.1 Exhaust system. (2024 IFC) The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with NFPA 96 (2025).

4106.4.2 Fire protection systems and devices. (2024 IFC) Fire protection systems and devices shall be maintained in accordance with Section 901.6 of the 2024 IFC.

10.9 Portable Fire Extinguishers. (NFPA 10, 2022)

10.9.1

Portable fire extinguishers shall be selected and installed in kitchen cooking areas in accordance with NFPA 10 and shall be specifically listed for such use.

10.9.2

Class K fire extinguishers shall be provided for cooking appliance hazards that involve combustible cooking media (vegetable oils and animal oils and fats).

10.9.3

Portable fire extinguishers shall be provided for other hazards in kitchen areas and shall be selected and installed in accordance with NFPA 10.

10.9.4

Carbon dioxide-type extinguishers shall not be permitted.

10.9.5

Portable fire extinguishers shall be inspected, tested, and maintained in accordance with NFPA 10.

606.3.3.1 Inspection. (2024 IFC) Hoods, grease-removal devices, fans, ducts and other appurtenances shall be inspected at intervals specified in Table 606.3.3.1 (2024 IFC) or as *approved* by the *fire code official*. Inspections shall be completed by qualified individuals.

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crr@sedonafire.org

4106.4.3.1 Lp-gas systems. (2024 IFC) LP-gas containers installed on the vehicle and fuel gas piping systems shall be inspected annually by an *approved* inspection agency, person or special expert who is qualified to ensure that system components are free from damage, suitable for the intended service and not subject to leaking.

Liquefied petroleum gas (LP-gas): LP-gas shall be in accordance with Chapter 61 and the International Fuel and Gas Code.

Maximum number and quantity: A maximum of two LP-gas containers with a total aggregate water capacity of 50 gallons (190 L) is permitted at one mobile vendor.

LP-gas cylinder hoses*:* Hoses shall be designed for a working pressure of 350 psig (2413 kPa) with a safety factor of 5 to 1 and shall be continuously marked with LP-GAS, PROPANE, 350 PSI WORKING PRESSURE, and the manufacturer's name or trademark. Hose assemblies, after the application of couplings, shall have a design capability of 700 psig (4826 kPa). Hose assemblies shall be leak tested at the time of installation at not less the operating pressure of the system in which they are installed.

4106.4.3.4 Inspection tag. (2024 IFC) Upon a satisfactory annual inspection, the *approved* inspection agency, person or special expert shall affix a tag on the fuel gas system or within the vehicle indication the name of the inspection agency and the date of the satisfactory inspection.

17.2.1 Relative to Buildings. (2024 NFPA 96)

Mobile or temporary cooking operations shall be separated from the entrances and other exits of buildings or structures, combustible materials, vehicles, and other cooking operations by a clear space distance of 10 ft (3 m) or as prescribed by the AHJ.

17.2.2 Relative to Other Mobile or Temporary Cooking. (2024 NFPA 96)

Mobile or temporary cooking operations shall be separated from other mobile or temporary cooking operations by a clear distance of 10 ft (3 m).

105.1.1 Permits required. (2024 IFC)

A property owner or owner's authorized agent who intends to conduct an operation or business, or install or modify systems and equipment that are regulated by this code, or to cause any such work to be performed, shall first make application to the fire code official and obtain the required permit.

2860 Southwest Drive, Sedona, Arizona 86336
Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Kitchen
Title:	Kitchen Hood Suppression System Contractor Certifications

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Sedona Fire District specifications for fire protection contractors:

904.1.1 Certification of service personnel for fire-extinguishing equipment. (2024 IFC) Service personnel providing or conducting maintenance on *automatic fire-extinguishing systems*, other than *automatic sprinkler systems*, shall possess a valid certificate issued by an approved governmental agency, or other approved organization for the type of system and work performed.

11.1.4 NFPA 17 (2024):

A service technician who performs maintenance on an extinguishing system shall comply with both of the following:

1. Be trained
2. Have passed a written or online test that is acceptable to the authority having jurisdiction

11.1.4.1 NFPA 17 (2024)

The service technician shall possess a certification document confirming the requirements in **11.1.4** NFPA 17 (2024) issued by the manufacturer or testing organization that is acceptable to the authority having jurisdiction.

Qualifications. Only trained persons shall be considered competent to design or lay out, install, and service wet chemical systems.

Requirements for Kitchen Hood Fire Suppression Systems:

In addition to the currently required C-16 license issued by the State of Arizona Registrar of Contractors, all designers, installers, and maintenance personnel performing work on any Kitchen Hood Fire Suppression System within Sedona Fire District shall possess one of the following:

1. The equipment manufacturer's certification for the type of system being designed, installed, or serviced
2. The **CKH2 – Commercial Hood Install & Service** or equivalent certificate, issued by Compliance Services & Assessments LLC https://www.csaexams.com or other certification as approved by the fire code official.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Compliance
Title:	Reporting of Fire System Deficiencies

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

Definitions

DEFICIENCY. Any shortcoming or insufficiency that ***may*** negatively impact the operation of any **fire system**.

FIRE SYSTEM. Fire Alarm, Fire Sprinkler System, Kitchen Hood Suppression System, Standpipe, Water Supply, Automatic Fire Doors, etc.

IMPAIRMENT. Any shortcoming or insufficiency that ***will*** negatively impact the operation of any fire system

SERVICING COMPANY. Any qualified third-party company hired by the building owner/occupant to inspect, test, or maintain any **fire system.**

1. It shall be the responsibility of the **servicing company** to file all service reports with *IROL* at https://www.inspectionreportsonline.net.
2. Service reports shall contain a listing of all findings, deficiencies, impairments, and recommendations.
3. **Critical impairments** shall be submitted by the servicing company to the inspection reporting platform immediately or contact the Sedona Fire District Community Risk Reduction Division at 928-204-8926.

The following shall apply to the reporting of fire system impairments and deficiencies by servicing companies to the Fire Marshal:

110.3 Recordkeeping. (2024 IFC) A record of periodic inspections, tests, servicing and other operations and maintenance shall be maintained on the premises or other *approved* location for not less than 3 years, or a different period of time where specified in this code or referenced standards. Records shall be made available for inspection by the *fire code official*, and a copy of the records shall be provided to the *fire code official* on request.

The *fire code official* is authorized to prescribe the form and format of such record keeping. The *fire code official* is authorized to require that certain required records be filed with the *fire code official*.

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Telephone: (928) 204-8926
crr@sedonafire.org

Category:	Appeals
Title:	Board of Appeals Application Guide

Reference: International Fire Code, 2024 Edition (2024 IFC); International Wildland Urban Interface Code, 2018 Edition (2018 IWUIC); National Fire Protection Association (NFPA).

112.2 General.

In order to hear and decide appeals of orders, decisions or determinations made by the *fire code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *fire code official*.

112.2 Limitations on authority.

An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equivalent or better form of construction is proposed. The board shall not have authority to waive requirements of this code.

112.3 Qualifications.

The board of appeals shall consist of members who are qualified by experience and training on matters pertaining to the provisions of this code and are not employees of the jurisdiction.

The following are guidelines for filing an appeal with the Board of Appeals:

1. Appeals to the Board of Appeals may be made from any written order, plan review correction, inspection correction, written action, application, and interpretation of the International Fire Code, as adopted by Sedona Fire District.
2. Appeals must be initiated within 20 calendar days from the act, decision, or interpretation that is the subject of the appeal. Five (5) copies of all documents to be presented to the Board must be provided when the application is submitted. All documents will be kept in the official file and will not be returned. The appeal must be submitted to the Sedona Fire District Fire Marshal at 2860 Southwest Dr., Sedona, AZ 86336.
3. The Board of Appeals will meet no later than 10 business days after the filing of an appeal.
4. The attached appeal form must be completed and must contain sufficient information for the Board to understand the order or decision being appealed, the basis for the appeal, and the reason why the appeal should be granted. The appeal must be in the form of a written statement delivered to the Sedona Fire District Fire Marshal within the time prescribed in item #2 above. The written appeal must contain the name, address, and telephone number of the applicant and a statement of the act, decision, or interpretation being appealed. The appeal must be based on a claim that the true intent of the applicable code or the rules legally adopted in the code have been incorrectly interpreted, the provisions of the code do not fully apply, or the requirements of the

code are adequately satisfied by other means. Only those grounds stated in the written appeal may be considered by the Board of Appeals.

5. The Board of Appeals does not have the authority related to the interpretation of the administrative provisions of the technical codes or the administrative code, nor is the Board empowered to waive any requirements of the administrative code or the technical codes. The Board will only determine whether to uphold, modify, or reverse the decision of the Sedona Fire District Fire Code Official.
6. The appeal will be heard and considered by the Board of Appeals in a public meeting. At the hearing, the appellant or his representative will be heard by the board. The appellant may present any supporting oral, legal arguments, or evidence. The Board may require an appellant to present the reports of experts on the subject matter of the appeal. The responsibility for, and the expense of obtaining and presenting expert reports, is that of the appellant. The hearing may be continued from time to time as the Board may deem appropriate to reach a just decision on the appeal.
7. At the conclusion of the hearing, the Board will deliberate at a public meeting and reach a decision based on the evidence presented at the hearing. The board will also issue a written decision signed by the Chairman.