Resolution 2023R-001

East Fork Fire Protection District Regulations - Amendments to the 2018 International Wildland-Urban Interface Code

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East Fork Fire Protection District Amendments to the 2018 International Wildland-Urban Interface Code Regulations

101.2 Scope. The provisions of this code the International Wildland-Urban Interface Code shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure or premises and to the management of fuels on undeveloped lots and on unmodified portions of large lots within the wildland-urban interface areas in this jurisdiction.

Buildings or conditions in existence at the time of the adoption of this code are allowed to have their use or occupancy continued, if such condition, use or occupancy was legal at the time of the adoption of this code, provided such continued use does not constitute a distinct danger to life or property.

Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new buildings or structures.

105.3 Alternative materials, design, and methods. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method shall be approved where the fire chief or their designee finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Where the alternative material, design or method is not approved, the fire chief or their designee shall respond in writing, stating the reasons why the alternative was not approved.

Alternative means and methods for Sections 504.7 and 505.7:

As an alternative means and methods, we will allow the following to be used in lieu of "heavy timber" as prescribed:

- 1. Minimum 6" x 6" columns
- 2. 4" x 8" floor joists
- 3. 4" x 10" or 6" x 8" beams
- 4. 3" x n" ledgers
- 5. 2" x n" decking

This shall be allowed when the 5' non-combustible criteria are met per Section 604.5. Areas under decks shall be kept free of combustibles as amended.

106.1 General. To determine the suitability of alternative materials and methods and to provide for reasonable interpretations of the provisions of this code see *International Fire Code* Section 109 as adopted by the District.

106.2 Limitations of authority. The East Fork Fire Board of Directors shall have authority to interpret the administrative provisions of this code but shall not have authority to waive requirements of this code. The East Fork Fire Board of Directors is prohibited from granting waivers, variances, or approvals of alternate methods, or materials differing from the regulations or adopted codes and standards of the State Fire Marshal. All requests for variances must be reviewed and approved by the State Fire Marshal through the use of the State Fire Marshal's Variance Request procedure in accordance with NAC 477.287. Variances shall be approved only if the State Fire Marshal concurs that the request provides an acceptable alternate means to achieve a comparable level of safety. The State Fire Marshal may, within its discretion, seek input from East Fork Fire in the review of variance requests related, but not limited to, fire apparatus access and water supply, however, the final decision to approve, approve with conditions or reject the variance request remains solely with the State Fire Marshal.

107.2 Permits required. Unless otherwise exempted, buildings or structures regulated by this code shall not be erected, constructed, altered, repaired, moved, removed, converted, demolished or changed in use or occupancy unless a separate permit for each building or structure has first been obtained from the code official.

For buildings or structures erected for temporary uses, see Appendix A, Section A108.3, of this code.

Where required by the code official, a permit shall be obtained for the following activities, operations, practices or functions within a *wildland-urban interface area* within the East Fork Fire Protection District:

15. Residential generator

Fire hazard severity in accordance with Section 503.1: moderate. The fire hazard rating of moderate (Number 5) shall include moderate ratings according to the wildfire risk assessment map as designated by the Nevada Division of Forestry https://nevadaresourcesandwildfireinfo.com/Map/Pro/#whats-your-risk.

Fire hazard severity in accordance with Section 503.1: high. The fire hazard rating of high shall include moderate -high and high (Numbers 6 and 7) ratings according to the wildfire risk assessment map as designated by the Nevada Division of Forestry https://nevadaresourcesandwildfireinfo.com/Map/Pro/#whats-your-risk .

Fire hazard severity in accordance with Section 503.1: extreme. The fire hazard rating of extreme shall include very high and extreme (Numbers 8 and 9) ratings according to the wildfire risk assessment map as designated by the Nevada Division of Forestry https://nevadaresourcesandwildfireinfo.com/Map/Pro/#whats-your-risk.

Modification. The addition to a structure of greater than or equal to 25% of the existing square footage in accordance with Section 503.1 and Table 503.1. If the existing structure is located in the high, very high or extreme hazard zone in accordance with the Nevada Division of Forestry wildfire risk assessment map

https://nevadaresourcesandwildfireinfo.com/Map/Pro/#whats-your-risk .

Wildland-Urban Interface Area. That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels. Within the East Fork Fire Protection District, the Wildland-Urban Interface area is defined as all areas not within the boundaries of the Minden, Gardnerville and Genoa townships.

302.3 Review of wildland-urban interface areas. The code official shall reevaluate and recommend modification to the *wildland-urban interface areas* in accordance with Section 302.1 as deemed necessary by the code official.

Section 402.2.2 Water Supply. Individual structures hereinafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

- 1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 for a nonconforming water supply.
- 2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).
- 3. Agricultural buildings constructed for the storage limited to harvested commodities, without electrical or fuel gas services.

404.1 General. Where provided in order to qualify as a conforming water supply for the purpose of Table 503.1 or as required for new subdivisions in accordance with Section 402.1.2, an *approved* water source shall have an adequate water supply for the use of the fire protection service to protect buildings and structures from exterior fire sources or to suppress structure fires within the *wildland-urban interface area* of the jurisdiction in accordance with this section.

Exception: Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²), and agricultural buildings constructed for the storage of harvested crops or agricultural commodities without electrical or fuel gas services.

- **404.2** Water sources. The point at which a water source is available for use shall be located not more than 1,000 feet (305 m) from the building and be *approved* by the code official. The distance shall be measured along an unobstructed line of travel. Water sources shall comply with the following:
 - 1. Water tanks shall have a minimum usable water volume as determined by the adequate water supply needs in accordance with Section 404.5. Water tanks shall be equipped with an *approved* hydrant. The water level of the water tanks shall be maintained full by, water pumped from a well or water hauled by a tanker to maintain the required water supply. The design, construction, location, water level maintenance, access and access maintenance of water tanks shall be *approved* by the code official. The water tank shall have a dedicated supply for fire suppression. If the tank is to be

used for domestic purposes, the domestic average daily use shall be in addition to the fire suppression gallonage required.

- **404.3 Draft sites.** *Approved* draft sites shall be equipped with an *approved* hydrant. The use, design, construction, location, access and access maintenance of draft sites shall be *approved* by the code official.
- **404.5 Adequate water supply.** Adequate water supply shall be calculated as required in the most current Edition of NFPA 1142 as adopted by the Nevada State Fire Marshal. Prior to calculating the minimum water supply for any structure, the structure shall be surveyed to obtain the following information:
 - (1) Occupancy hazard
 - (2) Type of construction
 - (3) Structure dimensions (length, width, and height)
 - (4) Exposures, if any

For new construction, plans shall be submitted to the District for determination of the minimum water supply required before construction is started. See NFPA 1142 Sections 4.2.2 and 4.3.2 for minimum water supply requirements.

Exception: A reduction in required flow rate of 50 percent, as approved by the fire code official, is allowed where the building is provided with an approved automatic sprinkler system.

501.2 Objective. The objective of this chapter is to establish minimum standards to locate, design and construct buildings and structures or portions thereof for the protection of life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels.

The minimum standards set forth in this chapter vary with the critical *fire weather*, slope and fuel type to provide increased protection, above the requirements set forth in the *International Building Code* and the *International Residential Code*, from the various levels of hazards.

502.1 General. The fire hazard severity of building sites for all buildings hereafter constructed, modified or relocated into *wildland-urban interface areas* shall be established in accordance with Table 503.1 and the wildfire risk assessment map

https://nevadaresourcesandwildfireinfo.com/Map/Pro/#whats-your-risk

Table 503.1 Ignition-Resistant Construction

Table 503.1

IGNITION-RESISTANT CONSTRUCTION a,g

DEFENSIBLE	FIRE HAZARD SEVERITY					
SPACE C	Moderate Hazard		High Hazard		Extreme Hazard	
	Water supply ^d		ly ^d Water supply ^b		Water supply ^b	
	Conformingd	Nonconforminge	Conformingd	Nonconforminge	Conformingd	Nonconforming ^e
Nonconforming	IR 2	IR 1	IR 1	IR 1	IR 1	Not
				N.C.	N.C.	Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1
						N.C.
1.5 x Conforming ^f	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1

- a. Access shall be in accordance with Section 403.
- b. Subdivisions shall have a conforming water supply in accordance with Section 402.1. IR 1= Ignition-resistant construction in accordance with Section 504.
 - IR 2= Ignition-resistant construction in accordance with Section 505. IR 3= Ignition-
 - resistant construction in accordance with Section 506.
 - N.C.= Exterior walls shall have a fire-resistance rating of not less than 1 hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.
- c. Conformance based on Section 603.
- d. Conformance based on Section 404 and EFFPD regulations.
- **e.** A nonconforming water supply is any water system or source that does not comply with Section 404 and EFFPD regulations, including situations where there is not water supply for structure protection or fire suppression.
- f. A fire protection plan in accordance with the requirements specified in Section 405 shall be submitted for approval by the fire code official.
- g. If required, the fire sprinkler system shall be installed throughout the fire area, including garages.

504.2 Roof covering. Roofs shall have a roof assembly that complies with a Class A rating when tested in accordance with ASTM E108 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 and ridge line 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 D3909 installed over the combustible decking. Roof coverings consisting of shakes or shingles made of wood are not approved as part of any Class A roof assembly.

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/m2) copper sheets installed over combustible decks.
- **504.7.1 Underfloor areas.** When 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 all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5.

Exception: When approved by the code official, unenclosed underfloor areas are allowed and are to be kept free of all combustible materials.

504.10.1 Vent locations. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Ember-resistant gable end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to grade as practical.

Exceptions:

- 1. Listed vents complying with ASTM E2886.
 - a. The Ember Intrusion Test shall have no flaming ignition of the cotton material.
 - b. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test. The maximum temperature of the unexposed side of the vent shall not exceed 662 degrees Fahrenheit (350 degrees Celsius).
- 2. The fire code official may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.
- **505.2 Roof Covering.** Roofs shall have a roof assembly that complies with not less than a Class A rating when tested in accordance with ASTM E108 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 and ridge line shall be fire stopped to preclude entry of flames or embers, or have one layer of 72-pound mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking. Roof coverings consisting of shakes or shingles made of wood are not approved as part of any Class A roof assembly.
- **505.10.1 Vent locations.** Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Ember-resistant gable end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to grade as practical.

Exceptions:

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- 2. The fire code official may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.

Table 602.1.1 Required Automatic Sprinklers IBC Structures.

Table 602.1^(a) (Commercial Structures)

Required Automatic Sprinklers by Fire Area and Height For A, B, E, F, H, I, M, S and U Occupancies

Sprinklers are required when any one of the listed conditions is met, or when otherwise required by this Code.

Fire Jurisdiction	Fire Area ^(a,b,d,e)	Height (c)
East Fork Fire Protection District	≥5000 square feet	> 2 stories

- a. This table is in addition to any other automatic sprinkler requirements in this code.
- b. Fire areas may be separated according to IBC 707.3.10.
- c. Airport towers and open parking garages complying with IBC 406.5 are exempt from this table.
- d. Any addition or remodel that increases the fire area to $\geq 5,000$ square feet.
- e. Fire area as defined in the IFC and IBC

Table 602.1.1 Required Automatic Sprinklers IRC Structures.

$\begin{array}{c} \textbf{Table 602.1.1}^{(a,b,c,d,e,f)} \\ \textbf{(Residential Structures)} \end{array}$

Required Automatic Sprinklers by Fire Area and Response Location for Structures Designed and Constructed with the International Residential Code. Sprinklers are required when any one of the listed conditions is met, or when otherwise required by this Code.

Fire Jurisdiction	Fire Flow/Water Source Availability	Type of structure (c,d)	Fire Area In square feet ^(e,f)	High Wildland Fire Hazard Classification Areae	Building Height
East Fork Fire Protection District		New Existing	≥5,000	All	

a. This table is in addition to any other automatic sprinkler requirements in this code. The use of firewalls and fire barriers shall not be allowed to be used to reduce the size of fire areas.

b. See section 907.2.10.2.1 for alarm requirements for existing structures.

c. Accessory structures are exempt from this table for fire sprinklers, but not the IWUIC requirements for construction. Accessory dwellings are not exempt from this table.

- d. Any addition or remodel that increases the fire area to $\geq 5,000$ square feet.
- e. See definitions in the IFC, IBC and IWUIC.
- f. Attached garages within the fire area are required to have fire sprinklers installed.
- **603.2.1 Responsible party.** Persons owning, leasing, controlling, operating or maintaining buildings or structures requiring defensible spaces are responsible for modifying or removing non-fire-resistive vegetation on the property owned, leased or controlled by said person.
- **603.2.1.1 Adjacent land**. Property owners of land that is directly adjacent to property containing buildings or structures requiring defensible space are responsible for modifying or removing non-fire- resistive vegetation on their own property. Nothing in this provision shall be deemed to require an owner of real property to perform any work on land that he or she does not own.
- **604.4 Trees.** Tree crowns extending to within 10 feet (3048 mm) of any structure shall be pruned to maintain a minimum clearance of 10 feet (3048 mm). Tree crowns within the *defensible space* shall be pruned to remove limbs located less than 10 feet (3048 mm) above the ground surface adjacent to the trees.
- **604.4.1Chimney clearance.** Portions of tree crowns that extend to within 10 feet (3048 mm) of the outlet of a chimney shall be pruned to maintain a minimum clearance of 10 feet (3048 mm).
- **604.5** Non-combustible area. The area extending from the base of any structure to 5 feet beyond the base of such structure shall be composed entirely of non-combustible material or fire resistive vegetation.
- **607.1 General.** Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. Where required by the code official, storage of firewood and combustible material stored in the *defensible space* shall be located a minimum of 30 feet (9144 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).
- **608.1 General**. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200. A permit in accordance with Section 107 shall be required. Plans shall be submitted for review and approval. Plan content shall include:
 - 1. Site plan showing access and proposed location
 - 2. Specification sheets
 - 3. Shut-off location

APPENDIX A GENERAL REQUIRMENTS

Appendix A of the 2018 Edition of the *International Wildland-Urban Interface Code* is adopted in its entirety.

A102.3.1 Support clearance. Persons owning, controlling, operating or maintaining electrical transmission or distribution lines shall have an *approved* program in place that identifies poles or towers with equipment and hardware types that have a history of becoming an ignition source, and provides a combustible free space consisting of a clearing of not less than 20 feet (3048 mm) in each direction from the outer circumference of such pole tower during such periods of time as designated by the code official.

Exception: Lines used exclusively as telephone, telegraph, messenger call, alarm transmission or other lines classed as communication circuits by a public utility.

APPENDIX B VEGETATION MANAGEMENT PLAN

Appendix B is adopted in whole in accordance with 2018 Edition of the International Wildland-Urban Interface Code Section 101.2.1.

B101.1 Scope. Where required, vegetation management plans must be submitted to the code official and the State Forester Fire Warden for review and approval as part of the plans required for a permit.

B101.2 Plan content. Vegetation management plans shall describe all actions that will be taken to prevent a fire from being carried toward or away from the building. A vegetation management plan shall include at least the following information:

- 1. A copy of the site plan showing the required *defensible space*.
- 2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
- 3. A plan for maintaining the proposed fuel-reduction measures.

B102 Defensible Space Plans.

B102.1 General. Where required, defensible space plans must be submitted to the code official for review and approval as part of the plans required for a permit.

B102.2 Plan content. A defensible space plan shall include at least the following information:

- 1. Property boundaries.
- 2. Current and proposed structures on the property.
- 3. Location of trees and vegetation taller than 3 feet in height.
- 4. Individual plant or brush fields 20 square feet or larger in area.
- 5. Tree drip lines.
- 6. Roads and driveways accessing the property.