

Timber Mesa Fire and Medical District

**Amendments to the International Fire
Code 2018 Edition**

Designated as Public Record In:

**Timber Mesa Fire and Medical District's Fire Marshal's
Office & TMFMD Website**

Resolution 2021-01

Adopted March 22, 2021

Effective July 1, 2021



THE 2018 INTERNATIONAL FIRE CODE IS HEREBY AMENDED IN THE FOLLOWING RESPECTS:

For the purposes of this amendment only the items listed below are effected changes to the 2018 IFC. All other verbiage in the code shall remain as written as in the original publication of the 4th edition of the 2018 International Fire Code with all Fire Code Errata as published.

CHAPTER 1 ADMINISTRATION

SECTION 101 SCOPE AND REQUIREMENTS

Section 101.1. Is amended to read:

These regulations shall be known as the *Fire Code* of the **Timber Mesa Fire and Medical District**, hereinafter referred to as “this code.”

Section 102.2.1. Is amended to read:

All appendices are to be adopted, including amendments to any appendices.

Section 106 FEES

Section 106.2 Schedule of permit fees. Is AMENDED to read:

A fee for each permit shall be paid, as required, in accordance with the schedule as established by the Timber Mesa Fire and Medical District fee schedule.

Section 110.4 Violation penalties. Is AMENDED to read:

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this

code, shall be guilty of a [CIVIL OFFENSE], punishable by a fine of not more than [\$2,500] dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

CHAPTER 2 DEFINITIONS

Driveway. Is added to read:

Driveway. A vehicular ingress and egress route that serves no more than two buildings or structures, not including accessory structures, or no more than five dwelling units.

Fire Adapted Community. Is added to read:

A Fire Adapted Community is any platted and approved subdivision or development that meets the minimum requirements of Appendix O of this code.

Institutional Group I-1. The first sentence is amended to read:

This occupancy shall include buildings, structures, or parts thereof for more than 10 persons who reside on a 24-hour basis in a supervised environment and receive custodial care.

Institutional Group I-1, Six to Sixteen persons receiving care. Is amended to read:

A facility such as above, housing at least six and not more than 10 persons receiving such care, shall be classified as Group R-4.

CHAPTER 5 FIRE SERVICE FEATURES

SECTION 507 FIRE PROTECTION WATER SUPPLIES

Section 507.5.4 Obstruction. Is amended by adding a second paragraph:

Vehicles shall not be placed, parked, or kept within 15 feet (4,572 mm) of a fire hydrant.

CHAPTER 9

FIRE PROTECTION SYSTEMS

SECTION 901

GENERAL

Section 901.2 Construction Documents. Is amended by adding a second paragraph:

Automatic fire protection system hydraulic calculations shall be based upon 90 percent of the available water supply as determined by the local water purveyor or flow test information.

Section 901.4.2.1 Discontinuance of use. Is added to read:

All non-required fire protection systems shall be approved for discontinuance upon written approval of both the fire code official and the building official after inspection of the premises and system.

Section 901.4.6. Is AMENDD to read:

Fire pump and *automatic sprinkler system* riser rooms shall be located in a dedicated room and have a door directly accessible from the exterior of the building in new construction (any construction not to an existing structure). New *automatic sprinkler systems* that are installed in existing buildings are to have the riser room located within 100 feet of a door leading to the exterior of the buildings. The room shall be designed with adequate space for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working space around the stationary equipment. Clearances around the equipment to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow for inspection, service, repair, or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and *automatic sprinkler system* riser rooms shall be provided with a door(s) and an unobstructed passageway large enough to allow for the removal of the largest piece of equipment.

Section 901.6.3 Records. Is amended to read:

Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years. All individuals or businesses performing inspections, tests or maintenance required by the referenced standards shall forward itemized reports of such work to the fire code official within 30 days of activity performed.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

Section 903.2 Where Required. Is amended to read:

Approved Automatic Sprinkler systems shall be installed in all new Group A occupancies.

Exception: Spaces or areas that meet the requirements or criteria of a Business Group B occupancy as defined per the 2018 International Building Code, Section 303.1.1 and 303.1.2.

Section 903.2.8.5 Group R-3 or R-4 congregate residencies. Is ADDED to read:

Existing Group R-3 or R-4 congregate residencies shall be retrofitted with an *automatic fire sprinkler system* in accordance with Section 903.1.2 or 903.1.3 within 24 months of discovery or annexation into the Fire District boundaries.

Section 903.2.8.6 One and two-family dwellings. Is ADDED to read:

An *approved automatic fire sprinkler system* shall be installed in all one and two-family dwellings.

Exceptions:

1. One and two-family dwellings being constructed in an approved, platted subdivision with an approved fire flow per **Appendix B** of this code; or,
2. Any one and two-family dwelling constructed on a single parcel where the requirements of **Appendix B** and **Appendix D** of this code are met; or,
3. Meet the requirements as specified in NFPA 1142 as well as the requirements of *Detection and Notification* per **Section 907.2.10.2** and *Monitoring* per **Section 907.6.6** of this code.

Section 903.2.13 Multiple Occupancy Structures. Is ADDED to read:

All new buildings or structures, exceeding 3,000 square feet designated as a multiple tenant occupancy structure(s) (a strip mall, for example) shall have an *automatic fire sprinkler system* installed throughout. Existing buildings or structures, where a change of occupancy occurs, separation requirements shall comply with Table 508.4 of the *International Building Code 2018* and Section 1103.5.5 of this code.

Section 903.4.2.1 Water-flow notification devices. Is ADDED to read:

An approved audible/visual notification appliance shall be installed in a normally occupied interior area of each building or each individual tenant space at the time of a tenant improvement. ADA restrooms within the same area shall have a visual notification appliance located within the room. Such fire sprinkler water-flow notification devices shall be activated by the water flow of a single fire sprinkler of the smallest size installed in the system. This section will be retroactive as deemed necessary by the *fire code* or *building code official*.

**SECTION 905
DRY STANDPIPES**

Section 905.8 Dry standpipes. Is amended to read:

Dry Standpipe. When required by the fire code official, dry standpipes shall be installed when fire apparatus access roads do not meet the requirements as outlined in Appendix D.

**SECTION 907
FIRE ALARM AND DETECTION SYSTEMS**

Section 907.2.1 Group A. Is AMENDED to read:

An automatic fire alarm system (to include detection and initiation devices) that activates the occupant notification system in accordance with Section 907.5 shall be installed in all new Group A occupancies.

Section 907.2.3 Group E. Is AMENDED to read:

An automatic fire alarm system (to include detection and initiation devices) that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies.

Exception #2 shall remain, all others to be removed entirely.

Section 907.2.6 Group I. Is AMENDED to read:

An automatic fire alarm system (to include detection and initiation devices) that activates the occupant notification system in accordance with Section 907.5 shall be installed in all new Group I occupancies.

Section 907.2.7 Group M. Is AMENDED to read:

An automatic fire alarm system (to include detection and initiation devices) that activates the occupant notifications system in accordance with Section 907.5 shall be installed in all new Group M occupancies where the occupant load of the fire area is greater than 50 people.

Exception #1 to be removed

SECTION 912 FIRE DEPARTMENT CONNECTIONS

Section 912.2 Locations. Is amended to read:

With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that the fire apparatus and hose connected to the water supply system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be *approved* by the fire chief, or their designated fire code official.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS

Section 1103.5.5 Fire area increase. Is ADDED to read:

Buildings or residential occupancies where the additional square footage is added and the fire flow requirement(s), as per Appendix B, was not or cannot be met prior to the additional new square footage, the additional construction shall meet current code in such ways as to comply with all the fire code requirements, including fire flow requirements as set forth in Appendix B of this code. Single family residences (as built per the IRC), where the fire flow requirements listed in Appendix B of this code are unachievable, will be subject to the requirements as set forth in NFPA 1142.

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Section B105.1.1 – One and two-family dwellings, Group R-3 and R-4 buildings and townhouses. Is added to read:

One and two-family dwellings, Group R-3 and R-4 buildings and townhouses constructed that do not meet the fire-flow requirements of as specified in Tables B105.1(1) and B105.1(2) shall be equipped with an *approved automatic fire sprinkler system*.

Exception:

Building or structures constructed per **Section 903.2.8.6 One and two-family dwellings**

APPENDIX D FIRE APPARATUS ACCESS ROADS

SECTION D103 MINIMUM SPECIFICATIONS

Section D103.1.1 Driveways. Is added to read:

Driveways. Driveways exceeding 150 feet (45,720mm) in length providing access to single family dwelling units shall provide a minimum unobstructed width of 14 feet (4,267mm) and a minimum unobstructed height of 13 feet 6 inches (4,511mm). Driveways in excess of 150 feet (45,720mm) in length shall provide turnarounds. Driveways in excess of 200 feet (6,0960mm) in length and less than 20 feet (6,096mm) shall provide turnouts in addition to turnarounds.

Driveway turnout shall be an all-weather road surface at least 10 feet (3,048mm) wide and 30 feet (9,144mm) long. Driveway turnouts shall be located as required by the *fire code official*. Driveway turnarounds shall have an inside turning radius of not less than 30 feet (9,144mm) and an outside turning radius of not less than 45 feet (13,716mm). Driveways that connect with a road or roads at more than one point may be considered as having a turnaround if all changes of

direction meet the radius requirements for driveway turnarounds. A driveway shall not serve in excess of five dwelling units.

Section D103.5 Fire apparatus access road gates. Is AMENDED to read:

Item 1. Is amended to read:

The minimum gate width shall be 20 feet (6,096mm) when serving two or more directions, or 14 feet (4,267mm) when serving a single direction.

Item 5. Is amended to read:

All electric gates shall be equipped with and have installed, approved pre-emptive control opening equipment and key switch compatible with the Timber Mesa Fire and Medical District's existing system. Electric gates serving five or less single-family dwelling units may utilize and approved switch only.

Section D103.5 Fire apparatus access road gates. Item 9. Is added to read:

9. Existing electric gates shall be retrofitted with pre-emptive control opening equipment and key switch in accordance with this section upon discovery or annexation into the Timber Mesa Fire and Medical District boundaries. Compliance with this section shall be completed in a time schedule approved by the fire code official.

Section D103.6 Signs. Is amended to read:

Where required by the fire code official, the fire apparatus access roads shall be marked with permanent NO PARKING - FIRE LANE signs complying with Timber Mesa Fire and Medical District standards. Signs shall have a minimum dimension of 12 inches (305mm) wide by 18 inches (457mm) high and have red letters on white reflective background. Signs shall be posted on one or both sides of the fire apparatus access road as required by Section D103.6.1 through D103.6.2.

Section D103.6.2 Roads more than 26 feet in width. Is amended by adding a second paragraph:

Where parking lanes are provided, they shall have a minimum dimension of 8 feet (2,438mm) in width, measured from the back of a wedge or rolled curb, or from the face of a vertical curb.

APPENDIX O

FIRE ADAPTED COMMUNITIES

Appendix O Fire Adapted Communities. Is added to read:

The provisions contained in this appendix are not mandatory and shall be used as a reference for new construction and development seeking to be considered Fire Adapted Communities.

SECTION O101 GENERAL

O101.1 Scope

New construction of subdivisions or other planned developments meeting the minimum requirements of this appendix shall be considered as Fire Adapted Communities.

SECTION 0102 REQUIRED ACCESS

O102.1 Access

Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road as defined by this code or as defined in NFPA 1142.

O102.2 Signage

All street signage shall be constructed of *approved* fire resistive materials and lettering shall be no less than 6" in height for capital letters and 4.5" in height for lower case letters. Signs shall be constructed so that signs shall have a white message and border on a green background. All messages, borders, and legends shall be retroreflective, and all backgrounds shall be retroreflective or illuminated. Structural supports shall be of *approved* non-combustible materials.

O102.3 Premises Identification

Address identification shall meet the requirements of Section 505.1 of this code and shall be posted visible from a *public way* from either direction of approach.

SECTION O103

BUILDING CONSTRUCTION (As outlined in the 2015 IWUC)

O103.1 General.

Ignition-resistant construction shall be in accordance with Sections O103.2 through O105.11.

O103.2 Roof covering.

Roofs shall have at least a roof assembly that complies with a Class B rating when tested in accordance with ASTM E 108 or UL 790 or an approved noncombustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire stopped 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.

O103.2.1 Roof valleys.

Where provided, valley flashings shall be not less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D 3909 running the full length of the valley.

O103.3 Protection of eaves.

Combustible eaves, fascias, 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.

O103.4 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.

O103.5 Exterior walls.

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

1. Materials approved for a minimum of 1-hour fire-resistance- rated construction on the exterior side.

2. Approved noncombustible materials.
3. Heavy timber or log wall construction.
4. 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.
5. Ignition-resistant materials on the exterior side. Such material shall extend from the top of the foundation to the underside of the roof sheathing.

O103.6 Underfloor enclosure.

Buildings or structures shall have underfloor areas enclosed to the ground, with exterior walls in accordance with Section O103.5.

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.

O103.7 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 O103.2.

O103.7.1 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 O103.5.

O103.8 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.

O103.9 Exterior doors.

Exterior doors shall be approved noncombustible construction, solid core wood not less than 1 3/4 inches thick (45 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 O103.8.

Exception: Vehicle access doors.

O103.10 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.

O103.10.1 Vent locations.

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

O103.11 Detached accessory structures.

Detached accessory structures located less than 50 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.

O103.11.1 Underfloor areas.

Where the detached accessory 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 O103.5 or underfloor protection in accordance with Section O103.6.

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.

**SECTION O104
AUTOMATIC SPRINKLER SYSTEMS**

O104.1 General.

An *approved automatic sprinkler system* shall be installed in all residential structures. Areas intended for non-habitable space shall be separated as required in the International Building Code. Detached, non-residential structures shall meet the requirements of Section O103 and the International Building Code.

**SECTION O105
DEFENSIBLE SPACE**

O105.1 Objective.

Provisions of this section are intended to modify the fuel load in areas adjacent to structures to create a defensible space.

O105.2 Fuel modification.

Buildings or structures constructed shall comply with the *fuel modification* distances contained in Table O105.2. For all other purposes the fuel modification distance shall not be less than 30 feet (9144 mm) or to the lot line, whichever is less. Distances specified in Table O105.2 shall be measured on a horizontal

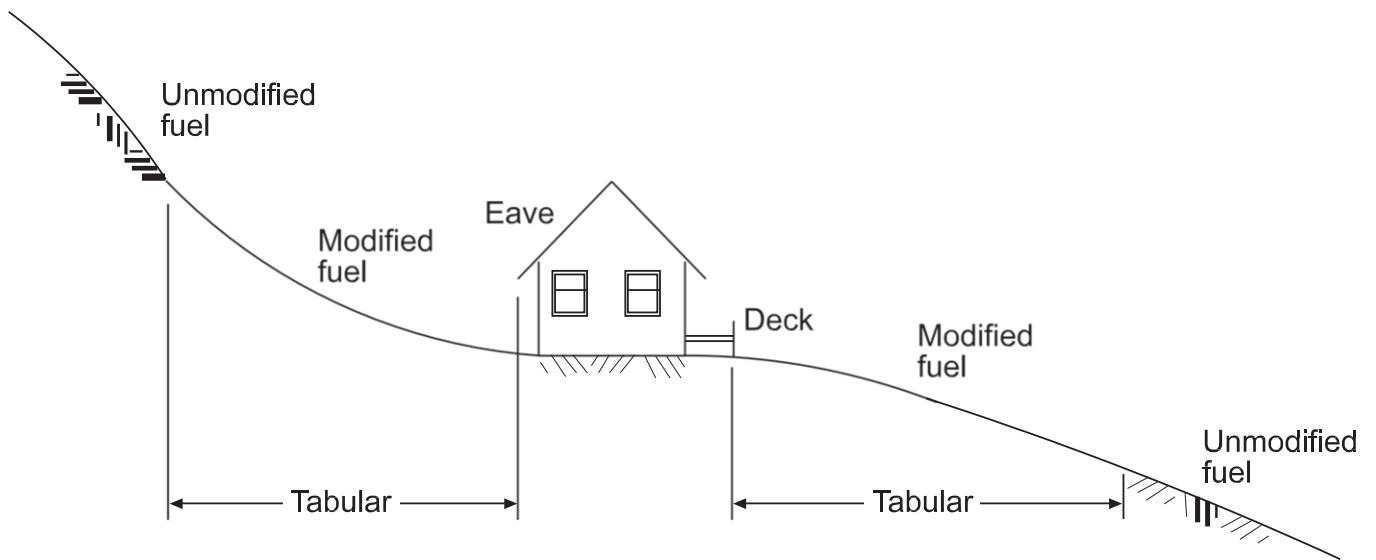
plane from the perimeter or projection of the building or structure as shown in Figure O105.2. Distances specified in Table O105.2 are allowed to be increased by the code official because of a site-specific analysis based on local conditions and the fire protection plan.

Table O105.2 Required Defensible Space

Wildland-Urban Interface area	Fuel Modification Distance (Feet) ^{a, b}
Moderate Hazard	30
High Hazard	50
Extreme Hazard	100

For SI: 1 foot = 304.8 mm.

- a. Distances are allowed to be increased due to site-specific analysis based on local conditions and the fire protection plan.
- b. Where distances cannot be met, additional requirements may be necessary.



**FIGURE O105.2
MEASUREMENTS OF FUEL MODIFICATION DISTANCE**

O105.2.1 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.

O105.2.2 Trees.

Trees are allowed within the defensible space, provided the horizontal distance between crowns of adjacent trees and crowns of trees and structures, overhead electrical facilities or unmodified fuel is not less than 10 feet (3048 mm).

O105.2.3 Groundcover.

Deadwood and litter shall be regularly removed from trees. Where ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents, or similar plants are used as ground cover, they are allowed to be within the designated defensible space, provided they do not form a means of transmitting fire from the native growth to any structure.

**SECTION O106
MAINTENANCE OF DEFENSIBLE SPACE**

O106.1 General.

Defensible spaces required by Section O105 shall be maintained in accordance with Section O106.

O106.2 Modified area.

Non-fire-resistive vegetation or growth shall be kept clear of buildings or structures, in accordance with Section O105, in such a manner as to provide a clear area for fire suppression operations.

O106.3 Responsibility.

Persons owning, leasing, controlling, operating, or maintaining buildings or structures are responsible for maintenance of defensible spaces. Maintenance of the defensible space shall include modifying or removing non-fire-resistive vegetation and keeping leaves, needles and other dead vegetative material regularly removed from roofs of buildings and structures.

O106.4 Trees.

Tree crowns extending to within 10 feet (3048 mm) of any structure shall be pruned to maintain a minimum horizontal clearance of 10 feet (3048 mm). Tree crowns within the defensible space shall be pruned to remove limbs located less than 6 feet (1829 mm) above the ground surface adjacent to the trees.

O106.4.1 Chimney 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 horizontal clearance of 10 feet (3048 mm).

O106.4.2 Deadwood removed.

Deadwood and litter shall be regularly removed from trees.

**SECTION O107
WATER SUPPLIES**

O107.1 General

Water supplies shall conform with the minimum requirements of Appendix B of this code or as prescribed in NFPA 1142 (most current edition).