

ORDINANCE NO. 5686

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MESA,  
MARICOPA COUNTY, ARIZONA, AMENDING MESA CITY CODE  
TITLE 4, CHAPTER 2, SECTION 1 ENTITLED "INTERNATIONAL  
BUILDING CODE ADOPTED".

Text written in <b>BOLD ALL CAPS</b> indicates new language. <del>Strikethrough</del> fonts indicates deletions
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WHEREAS, the City Council adopted the 2018 International Building Code on February 9, 2019, entitled the Mesa Building Code; and

WHEREAS, from time to time it may be determined that the Mesa Building Code is in need of revision to provide clarification and consistency with the other local and regional codes.

WHEREAS, it is in the best interest of the citizens of the City of Mesa to approve this Ordinance.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MESA, MARICOPA COUNTY, ARIZONA, AS FOLLOWS:

SECTION 1: Title 4, Chapter 2, Section 1, subsection C of the Mesa City Code is hereby amended as follows:

(3) Chapter 3 Occupancy Classification and Use is amended to read as follows:

308.5 Institutional Group I-4, day care facilities. Institutional Group I-4 shall include buildings and structures occupied by more than ten persons, including ~~not~~ more than 5 infants 2 ½ years of age or less, who receive custodial care for less than 24 hours by persons other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

Adult day care  
Child day care

SECTION 2: Title 4, Chapter 2, Section 1, of the Mesa City Code is hereby amended by adding a new amendment to Chapter 9 as subsection E and re-lettering the rest of the Section as follows:

**(E) CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS is amended to read as follows:**

- (1) Delete Section 903.2 through 903.2.11.5 in its entirety.**
- (2) Section 903.2 is added and reads as follows:**

**903.2 WHERE REQUIRED. APPROVED AUTOMATIC SPRINKLER SYSTEMS SHALL BE PROVIDED IN THE LOCATIONS DESCRIBED IN THIS SECTION.**

**903.2.1 NEW BUILDINGS OR STRUCTURES. ALL AREAS OF NEW BUILDINGS OR STRUCTURES, AND OTHER LOCATIONS REQUIRED BY THIS CHAPTER OR THE MESA FIRE CODE, SHALL BE PROVIDED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM COMPLYING WITH SECTION 903.3.1.1, 903.3.1.2 OR 903.3.1.3 AS APPLICABLE.**

**EXCEPTIONS: UNLESS THE USE OF THE FACILITY OTHERWISE REQUIRES AUTOMATIC FIRE SPRINKLER PROTECTION, FIRE SPRINKLER SYSTEMS SHALL NOT BE REQUIRED FOR THE FOLLOWING:**

- 1. R-3 AND R-5 NOT INCLUDING RESIDENTIAL CARE OR ASSISTED LIVING FACILITIES.**
- 2. DETACHED, NON-RESIDENTIAL BUILDINGS NOT EXCEEDING 500 SQUARE FEET (152.4 M<sup>2</sup>) IN FLOOR AREA AND NOT CLOSER THAN 5 FEET (1524 MM) TO ANY BUILDING OR PROPERTY LINE.**
- 3. DETACHED, GAZEBOS, RAMADAS, AND CANOPIES NOT GREATER THAN 5,000 SQUARE FEET (1524 M<sup>2</sup>) IN ROOF AREA, NO COMBUSTIBLE STORAGE, OR COOKING BENEATH, AND NOT CLOSER THAN FIVE FEET TO ANY BUILDING, PROPERTY LINE, OR OTHER SHADE CANOPY.**
- 4. OTHER BUILDINGS OR STRUCTURES ACCESSORY TO AND LOCATED ON THE SAME LOT WITH R-3, R-4, OR R-5 OCCUPANCIES.**
- 5. PORTABLE STORAGE CONTAINERS USED FOR STORAGE PURPOSES AND NOT CLOSER THAN 5 FEET (1524 MM) TO ANY BUILDING, PROPERTY LINE OR OTHER CONTAINER.**
- 6. EXTERIOR COVERED/ENCLOSED WALKWAYS OF TYPE I, II OR III CONSTRUCTION, NOT GREATER THAN 12 FEET (3657.6 MM) IN WIDTH, NO COMBUSTIBLE STORAGE BENEATH, AND WITH ENCLOSING WALLS THAT ARE AT LEAST 50 PERCENT OPEN.**

**903.2.2 ONE AND TWO-FAMILY DWELLING SPRINKLER OPTION (R5). ALL HOME BUILDERS OF ONE AND TWO-FAMILY DWELLINGS (R5 OCCUPANCIES) SHALL PROVIDE AN OPTION FOR RESIDENTIAL FIRE SPRINKLERS. THE CONTRACTOR OR THEIR AGENT SHALL PROVIDE AN INFORMATIONAL PACKET CONTAINING EDUCATIONAL MATERIALS APPROVED BY THE FIRE CODE OFFICIAL, INCLUDING A FORM EXPLAINING THE OPTION FOR RESIDENTIAL SPRINKLERS, TO ALL PROSPECTIVE BUYERS AND SHALL OBTAIN A SIGNED RECEIPT FOR THE EDUCATIONAL MATERIAL FROM THE PROSPECTIVE BUYER. COPIES OF THE SIGNED FORMS SHALL BE KEPT ON FILE AND AVAILABLE FOR REVIEW UPON REQUEST BY THE MESA FIREDEPARTMENT. UPON THE REQUEST AND EXECUTION OF A PURCHASE AGREEMENT BY THE HOMEBUYER, THE HOME BUILDER SHALL INSTALL THE RESIDENTIAL FIRE SPRINKLERS. SUCH FIRE SPRINKLER SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 903.3.1.1 OR 903.3.1.3.**

**903.2.3 GROUP H-5 OCCUPANCIES. AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT BUILDINGS CONTAINING GROUP H-5 OCCUPANCIES. THE DESIGN OF THE SPRINKLER SYSTEM SHALL BE NOT LESS THAN THAT REQUIRED UNDER THE MESA BUILDING CODE FOR THE OCCUPANCY HAZARD CLASSIFICATIONS IN ACCORDANCE WITH TABLE 903.2.3.**

**WHERE THE DESIGN AREA OF THE SPRINKLER SYSTEM CONSISTS OF A CORRIDOR PROTECTED BY ONE ROW OF SPRINKLERS, THE MAXIMUM NUMBER OF SPRINKLERS REQUIRED TO BE CALCULATED IS 13.**

**TABLE 903.2.3  
GROUP H-5 SPRINKLER DESIGN CRITERIA**

<b>LOCATION</b>	<b>OCCUPANCY HAZARD CLASSIFICATION</b>
<b>FABRICATION AREAS</b>	<b>ORDINARY HAZARD GROUP 2</b>
<b>SERVICE CORRIDORS</b>	<b>ORDINARY HAZARD GROUP 2</b>
<b>STORAGE ROOMS WITHOUT DISPENSING</b>	<b>ORDINARY HAZARD GROUP 2</b>
<b>STORAGE ROOMS WITH DISPENSING</b>	<b>EXTRA HAZARD GROUP 2</b>
<b>CORRIDORS</b>	<b>ORDINARY HAZARD GROUP 2</b>

**903.2.4 CHANGE OF OCCUPANCY. AN EXISTING BUILDING OR PORTION THEREOF UNDERGOING A CHANGE OF OCCUPANCY SHALL PROVIDE AN AUTOMATIC SPRINKLER SYSTEM COMPLYING WITH THE REQUIREMENTS OF THIS CHAPTER.**

**903.2.5 ADDITIONS. ALL ADDITIONS TO EXISTING BUILDINGS SHALL BE PROVIDED WITH AN AUTOMATIC FIRE PROTECTION SYSTEM THROUGHOUT THE EXISTING BUILDING AND ADDITION COMPLIANT WITH SECTION 903.3 AS APPLICABLE.**

**EXCEPTIONS:**

- 1. ADDITIONS OF 1,000 SQUARE FEET (304.8 M<sup>2</sup>) OR LESS. THE AGGREGATE OF MULTIPLE ADDITIONS SHALL NOT EXCEED 1,000 SQ.FT. (304.8 M<sup>2</sup>).**
- 2. ADDITIONS TO R-3 AND R-5 OCCUPANCIES, NOT INCLUDING RESIDENTIAL CARE OR ASSISTED LIVING FACILITIES.**

**903.2.6 RUBBISH AND LINEN CHUTES. AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED AT THE TOP OF RUBBISH AND LINEN CHUTES AND IN THEIR TERMINAL ROOMS. CHUTES SHALL HAVE ADDITIONAL SPRINKLER HEADS INSTALLED AT ALTERNATE FLOORS AND AT THE LOWEST INTAKE. WHERE A RUBBISH CHUTE EXTENDS THROUGH A BUILDING MORE THAN ONE FLOOR BELOW THE LOWEST INTAKE, THE EXTENSION SHALL HAVE SPRINKLERS INSTALLED THAT ARE RECESSED FROM THE DROP AREA OF THE CHUTE AND PROTECTED FROM FREEZING IN ACCORDANCE WITH SECTION 903.3.1.1. SUCH SPRINKLERS SHALL BE INSTALLED AT ALTERNATE FLOORS BEGINNING WITH THE SECOND LEVEL BELOW THE LAST INTAKE AND ENDING WITH THE FLOOR ABOVE THE DISCHARGE. ACCESS TO SPRINKLERS IN CHUTES SHALL BE PROVIDED FOR SERVICING.**

**903.2.7 OTHER HAZARDS. AUTOMATIC SPRINKLER PROTECTION SHALL BE PROVIDED FOR THE HAZARDS INDICATED IN SECTIONS 903.2.8.1 AND 903.2.8.3.**

**903.2.7.1 DURING CONSTRUCTION. AUTOMATIC SPRINKLER SYSTEMS REQUIRED DURING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 3313.**

**903.2.7.2 DUCTS CONVEYING HAZARDOUS EXHAUSTS. WHERE REQUIRED BY THE MESA MECHANICAL CODE, AUTOMATIC SPRINKLERS SHALL BE PROVIDED IN DUCTS CONVEYING HAZARDOUS EXHAUST, FLAMMABLE OR COMBUSTIBLE MATERIALS.**

**EXCEPTION: DUCTS IN WHICH THE LARGEST CROSS-SECTIONAL DIAMETER OF THE DUCT IS LESS THAN 10 INCHES (254 MM).**

**903.2.7.2.1 PROTECTION OF SPRINKLERS. AUTOMATIC SPRINKLERS INSTALLED IN FLAMMABLE VAPOR AREAS SHALL BE PROTECTED FROM THE ACCUMULATION OF RESIDUE FROM SPRAYING OPERATIONS IN AN APPROVED MANNER. BAGS USED AS A PROTECTIVE COVERING SHALL BE 0.003-INCH-THICK (0.076 MM) CELLOPHANE OR SHALL BE THIN PAPER BAG. AUTOMATIC SPRINKLERS CONTAMINATED BY OVERSPRAY PARTICLES SHALL BE REPLACED WITH NEW AUTOMATIC SPRINKLERS.**

**903.2.7.3 COMMERCIAL COOKING OPERATIONS. AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED IN COMMERCIAL KITCHEN EXHAUST HOOD AND DUCT SYSTEM WHERE AN AUTOMATIC SPRINKLER SYSTEM IS USED TO COMPLY WITH SECTION 904.**

**903.2.8 OTHER REQUIRED SUPPRESSION SYSTEMS. IN ADDITION TO THE REQUIREMENTS OF SECTION 903.2, THE PROVISIONS INDICATED IN TABLE 903.2.11.6 ALSO REQUIRE THE INSTALLATION OF A SUPPRESSION SYSTEM FOR CERTAIN BUILDINGS AND AREAS.**

**(3) RENUMBERED TABLE 903.2.11.6 TO TABLE 903.2.9**

**(4) Section 903.3.1.1 is added and reads as follows:**

**903.3.1.1 NFPA 13 SPRINKLER SYSTEMS. WHERE THE PROVISIONS OF THIS CODE REQUIRE THAT A BUILDING OR PORTION THEREOF BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH THIS SECTION, SPRINKLERS SHALL BE INSTALLED THROUGHOUT IN ACCORDANCE WITH NFPA 13 EXCEPT AS PROVIDED IN SECTION 903.3.1.1.1 AND 903.3.1.1.2.**

**903.3.1.1.1 EXEMPT LOCATIONS. AUTOMATIC SPRINKLERS SHALL NOT BE REQUIRED IN THE FOLLOWING ROOMS OR AREAS WHERE SUCH ROOMS OR AREAS, WHEN APPROVED BY THE FIRE CODE OFFICIAL, ARE PROTECTED WITH AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM IN ACCORDANCE WITH SECTION 907.2 THAT WILL RESPOND TO VISIBLE OR INVISIBLE PARTICLES OF COMBUSTION. SPRINKLERS SHALL NOT BE OMITTED FROM ANY ROOM MERELY BECAUSE IT IS DAMP, OF FIRE-RESISTANCE RATED CONSTRUCTION OR CONTAINS ELECTRICAL EQUIPMENT.**

- 1. ANY ROOM WHERE THE APPLICATION OF WATER, OR FLAME AND WATER, CONSTITUTES A SERIOUS LIFE OR FIRE HAZARD.**
- 2. ANY ROOM OR SPACE WHERE SPRINKLERS ARE CONSIDERED UNDESIRABLE BECAUSE OF THE NATURE OF THE CONTENTS, WHEN APPROVED BY THE FIRE CODE OFFICIAL.**

3. GENERATOR AND TRANSFORMER ROOMS SEPARATED FROM THE REMAINDER OF THE BUILDING BY WALLS AND FLOOR/CEILING OR ROOF/CEILING ASSEMBLIES HAVING A FIRE-RESISTANCE RATING OF NOT LESS THAN 2 HOURS.
4. ROOMS OR AREAS THAT ARE OF NONCOMBUSTIBLE CONSTRUCTION WITH WHOLLY NONCOMBUSTIBLE CONTENTS.
5. FIRE SERVICE ACCESS ELEVATOR MACHINE ROOMS AND MACHINERY SPACES.
6. MACHINE ROOMS, MACHINERY SPACES, CONTROL ROOMS AND CONTROL SPACES ASSOCIATED WITH OCCUPANT EVACUATION ELEVATORS DESIGNED IN ACCORDANCE WITH SECTION 3008 OF THE MESA BUILDING CODE.

(5) Section 903.3.1.1.3 is added and reads as follows:

**903.3.1.1.3 MINIMUM DESIGN REQUIREMENTS. THE MINIMUM DESIGN REQUIREMENTS FOR FIRE SPRINKLER SYSTEMS SHALL BE AS DETERMINED BY THE MESA FIRE CODE OR AS DEFINED IN SECTION 903.3.1.1.3 WHICHEVER IS GREATER.**

**903.3.1.1.3.1 SHELL BUILDINGS. THE MINIMUM FIRE SPRINKLER SYSTEM DESIGN FOR SHELL BUILDINGS SHALL BE ORDINARY GROUP II AS DEFINED IN 903.3.1.1.**

**903.3.1.1.3.2 BUILDINGS WITH ROOF STRUCTURE OVER 20 FEET (6096 MM). THE MINIMUM DESIGN REQUIREMENTS FOR BUILDINGS WITH THE ROOF STRUCTURE OVER 20 FEET (6096 MM) ABOVE THE FINISHED FLOOR SHALL BE FOR RACK STORAGE OF GROUP IV COMMODITIES AS DEFINED IN CHAPTER 32 AND SECTION 903.3.1.1.**

(6) Section 903.3.1.2.3 is added and reads as follows:

**903.3.1.2.3 ATTICS. ATTIC PROTECTION SHALL BE PROVIDED AS FOLLOWS:**

1. ATTICS THAT ARE USED OR INTENDED FOR LIVING PURPOSES OR STORAGE SHALL BE PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM.

2. WHERE FUEL-FIRED EQUIPMENT IS INSTALLED IN AN UNSPRINKLERED ATTIC, NOT FEWER THAN ONE QUICK-RESPONSE INTERMEDIATE TEMPERATURE SPINKLER SHALL BE INSTALLED ABOVE THE EQUIPMENT.
3. WHERE LOCATED IN A BUILDING OF TYPE III, TYPE IV OR TYPE V CONSTRUCTION DESIGNED IN ACCORDANCE WITH SECTION 510.2 OR 510.4 OF THE MESA BUILDING CODE, ATTICS NOT REQUIRED BY ITEM 1 TO HAVE SPRINKLERS SHALL COMPLY WITH ONE OF THE OLLOWING:
  - 3.1. PROVIDE AUTOMATIC SPRINKLER SYSTEM PROTECTION.
  - 3.2. CONSTRUCT THE ATTIC USING NONCOMBUSTIBLE MATERIALS.
  - 3.3. CONSTRUCT THE ATTIC USING FIRE-RETARDENT-TREATED WOOD COMPLYING WITH SECTION 2303.2 OF THE MESA BUILDING CODE.
  - 3.4. FILL THE ATTIC WITH NONCOMBUSTIBLE INSULATION.

THE HEIGHT OF THE ROOF ASSEMBLY SHALL BE DETERMINED BY MEASURING THE DISTANCE FROM THE LOWEST REQUIRED FIRE VEHICLE ASSESS ROAD SURFACE ADJACENT TO THE BUILDING TO THE EAVE OF THE HIGHEST PITCHED ROOF, THE INTERSECTION OF THE HIGHEST ROOF TO THE EXTERIOR WALL, OR THE TOP OF THE HIGHEST PARAPET, WHICHEVER YIELDS THE GREATEST DISTANCE. FOR THE PURPOSE OF THIS MEASUREMENT, REQUIRED FIRE VEHICLE ACCESS ROADS SHALL INCLUDE ONLY THOSE ROADS THAT ARE NECESSARY FOR COMPLIANCE WITH SECTION 503.

4. GROUP R-4, CONDITION 2 OCCUPANCY ATTICS NOT REQUIRED BY ITEM 1 TO HAVE SPRINKLERS SHALL COMPLY WITH ONE OF THE FOLLOWING:
  - 4.1. PROVIDE AUTOMATIC SPRINKLER SYSTEM PROTECTION.
  - 4.2. PROVIDE A HEAT DETECTION SYSTEM THROUGHOUT THE ATTIC THAT IS ARRANGED TO ACTIVATE THE BUILDING FIRE ALARM SYSTEM.
  - 4.3. CONSTRUCT THE ATTIC USING NONCOMBUSTIBLE MATERIALS.

**4.4. CONSTRUCT THE ATTIC USING FIRE-RETARDENT-TREATED WOOD COMPLYING WITH SECTION 2303.2 OF THE MESA BUILDING CODE.**

**4.5. FILL THE ATTIC WITH NONCOMBUSTIBLE INSULATION.**

**(7) Sections 903.3.1.2.4 AND 903.3.1.2.5 are added and read as follows:**

**903.3.1.2.4 REQUIRED FIRE PROTECTION SYSTEMS. FOR THE PURPOSE OF INSPECTION, TESTING, OR MAINTENANCE OF NFPA 13R FIRE PROTECTION SYSTEMS IN R-1 AND R-2 OCCUPANCIES, THERE SHALL BE PROVIDED, AT THE TIME OF CONSTRUCTION, AN EXTERIOR ACCESS DOOR ON THE SIDE OF THE BUILDING NEXT TO THE FIRE SPRINKLER RISER OF ADEQUATE SIZE TO ALLOW FOR VALVES AND GAUGES TO BE ACCESSED, REPAIRED AND VIEWED FROM THE EXTERIOR FOR TESTING AND MAINTENANCE PURPOSES. THE DIMENSIONS OF THE ACCESS DOOR WILL BE DEPENDENT UPON THE DESIGN OF THE RISER AND SYSTEM DEVICES BUT SHALL, IN NO CASE, REQUIRE THAT SERVICE PERSONNEL MUST ENTER A PRIVATE DWELLING OR GARAGE TO REACH THE RISER FOR SERVICE AND/OR REPAIR.**

**903.3.1.2.5. ATTACHED GARAGES AND CARPORTS. ATTACHED GARAGES AND CARPORTS SHALL BE PROVIDED WITH SPRINKLER PROTECTION.**

**(8) Section 903.3.5 is added and reads as follows:**

**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 CITY OF MESA STANDARD DETAIL M-31.06. 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.**

**(9) Section 903.3.5.3 is added and reads as follows:**

**903.3.5.3 DETECTIBLE UNDERGROUND LOCATOR DEVICE. UNDERGROUND NONMETALLIC WATER AND IRRIGATION SYSTEM PIPING LARGER THAN TWO (2) INCHES (50.8 MM) IN DIAMETER SHALL BE INSTALLED WITH INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR LOCATED ADJACENT TO THE PIPING. ACCESS**



**SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT EACH END OF THE NONMETALLIC PIPING. THE TRACER WIRE SIZE SHALL BE NOT LESS THAN 18 AWG AND THE INSULATION TYPE SHALL BE SUITABLE FOR DIRECT BURIAL.**

- (10) Section 903.3.6 is added reads as follows:**

**903.3.6 HOSE THREADS. FIRE HOSE THREADS AND FITTINGS USED IN CONNECTION WITH AUTOMATIC SPRINKLER SYSTEMS SHALL BE NATIONAL STANDARD THREAD.**

- (11) Section 903.3.7.1 is added and reads as follows:**

**903.3.7.1. FIRE DEPARTMENT CONNECTION SIZING. THE SIZE OF THE FIRE DEPARTMENT CONNECTION AND PIPING IS DEPENDENT ON THE AUTOMATIC SPRINKLER DESIGN FLOW. THE MAXIMUM DESIGN FLOW FOR A 2-½ INCH SIAMESE CONNECTION IS 500 GPM (1892.71 LPM). FOR DESIGN FLOWS GREATER THAN 500 GPM (1892.71 LPM) INSTALL A SINGLE 2-½ INCH (63.5 MM) SIAMESE CONNECTION AND A 5-INCH (127 MM) STORZ CONNECTION.**

- (12) Sections 903.3.9 through 903.3.11 are added and read as follows:**

**903.3.9 SAFETY FACTOR. ALL FIRE SPRINKLER DESIGNS SHALL HAVE A 10 PERCENT (PRESSURE) SAFETY MARGIN.**

**903.3.10 REMODEL. FIRE SPRINKLER DESIGN DRAWINGS SHALL BE REQUIRED FOR TENANT IMPROVEMENT OR REMODELING PROJECTS WHEN 10 OR MORE SPRINKLER HEADS ARE RELOCATED AND/OR ADDED.**

**EXCEPTION. GROUP F, H, I, AND S OR AS REQUIRED BY THE FIRE OFFICIAL.**

**903.3.11 FREEZE PROTECTION. EXTERIOR SPRINKLER PIPING WITH A MINIMUM OF 2 INCHES (50.8 MM) MAY BE USED IN LIEU OF FREEZE PROTECTION REQUIRED BY SECTION 903.3.1.1.**

- (13) Section 903.4 through 903.4.1 are added read as follows:**

**903.4 SPRINKLER SYSTEM SUPERVISION AND ALARMS. VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS, PUMPS, TANKS, WATER LEVELS AND TEMPERATURES, CRITICAL AIR PRESSURES AND WATERFLOW SWITCHES ON ALL**

**SPRINKLER SYSTEMS SHALL BE ELECTRICALLY SUPERVISED BY A LISTED FIRE ALARM CONTROL UNIT.**

**EXCEPTIONS:**

- 1. AUTOMATIC SPRINKLER SYSTEMS PROTECTING ONE- AND TWO-FAMILY DWELLINGS, OTHER THAN R-4 AND R-5 ASSISTED LIVING HOMES PROVIDING DIRECTED CARE SERVICES, WITH 5 OR FEWER RESIDENTS THAT ARE NOT CAPABLE OF SELF-PRESERVATION OR RESPONDING TO AN EMERGENCY SITUATION WITHOUT PHYSICAL ASSISTANCE FROM STAFF.**
- 2. GROUP R OCCUPANCIES CONTAINING 15 OR LESS DWELLING OR SLEEPING UNITS AND NOT EXCEEDING AN AGGREGATE AREA OF 12,000 SQUARE FEET.**
- 3. JOCKEY PUMP CONTROL VALVES THAT ARE SEALED OR LOCKED IN THE OPEN POSITION.**
- 4. TRIM VALVES TO PRESSURE SWITCHES IN DRY, PREACTION AND DELUGE SPRINKLER SYSTEMS THAT ARE SEALED OR LOCKED IN THE OPEN POSITION.**

**903.4.1 MONITORING. ALARM, SUPERVISORY AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED UNDERWRITERS LABORATORY LISTED OR FACTORY MUTUAL SUPERVISING STATION OR, WHERE APPROVED BY THE FIRE CODE OFFICIAL, SHALL SOUND AN AUDIBLE SIGNAL AT A CONSTANTLY ATTENDED LOCATION.**

**EXCEPTIONS:**

- 1. UNDERGROUND KEY OR HUB VALVES IN ROADWAY BOXES PROVIDED BY THE MUNICIPALITY OR PUBLIC UTILITY ARE NOT REQUIRED TO BE MONITORED.**
- 2. BACKFLOW PREVENTION DEVICE TEST VALVES LOCATED IN LIMITED ARE SPRINKLER SYSTEM SUPPLY PIPING SHALL BE LOCKED IN THE OPEN POSITION. IN OCCUPANCIES REQUIRED TO BE EQUIPPED WITH A FIRE ALARM SYSTEM, THE BACKFLOW PREVENTER VALVES SHALL BE ELECTRICALLY SUPERVISED BY A TAMPER SWITCH INSTALLED IN ACCORDANCE WITH NFPA 72 AND SEPARATELY ANNUNCIATED.**

- (14) **Section 905.13 is added and reads as follows:**

**905.13 STANDPIPE HOSE. THE FIRE HOSE AND NOZZLE AS PART OF CLASS II OR CLASS III WET STANDPIPE SYSTEM(S) MAY BE REMOVED OR ELIMINATED WITH WRITTEN APPROVAL OF THE FIRE CODE OFFICIAL.**

- (15) **Section 912.3 is added and reads as follows:**

**912.3 FIRE HOSE THREADS. FIRE HOSE THREADS USED IN CONNECTION WITH STANDPIPE SYSTEMS SHALL BE NATIONAL STANDARD THREAD (NST).**

- (16) **Section 912.6 is added and reads as follows:**

**912.6 BACKFLOW PROTECTION. THE POTABLE WATER SUPPLY TO AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS SHALL BE PROTECTED AGAINST BACKFLOW AS REQUIRED BY THE MESA STANDARD DETAILS.**

- (EF)** Chapter 10 Means of Egress is amended as follows:

- (1) Section 1004.5 Areas without fixed seating is amended as follows: )

1004.5 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.5. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant per unit of area factor assigned to the occupancy as set forth in Table 1004.5. Where an intended use is not listed in Table 1004.5, the Building Official shall establish a use based on a listed use that most nearly resembles the intended use.

Exception: Where approved by the Building Official, through the Code Modification Process, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

- (2) Section 1010.1.2 Door swing is amended by revising exception 4 to read as follows:

1010.1.2 Door swing. Egress doors shall be of the pivoted or side-hinged swinging type.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less
2. Group I-3 occupancies used as a place of detention.

3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2, R-3 and R-5, as applicable in the Mesa Administrative Code, Chapter 1.
5. In other than Group H occupancies, revolving doors complying with Section 1010.1.4.1.
6. In other than Group H occupancies, special purpose horizontal sliding, accordion or folding door assemblies complying with Section 1010.1.4.3.
7. Power-operated doors in accordance with Section 1010.1.4.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.

(GF) Chapter 11 Accessibility is amended as follows:

- (1) Section 1101 GENERAL is amended by adding the following Exceptions and subsections:

1101.1 Scope. The provisions of this chapter and Arizona Revised statutes, ARS sections 41-1492 through 41-1492.12 shall control the design and construction of facilities for accessibility for individuals with disabilities.

Exceptions:

1. This Chapter shall not apply to private clubs or establishments exempted from coverage under Title II of the Civil Rights Act of 1964 (42 United States Code Section 2000[a][e]).
2. This Chapter shall not apply to religious functional areas of religious facilities owned, operated, and maintained by religious organizations or entities controlled by religious organizations, including altar areas, baptismal fonts and areas, choir lofts, etc., but not including main assembly areas such as naves and sanctuaries.

1101.2 Where the requirements of this Chapter or the ICC/ANSI A117.1 are at variance from the requirements set forth in Title 41, Chapter 9, Article 8, Arizona Revised Statutes and its implementing rules, the State Statute and implementing rules shall govern.

1101.3 Provisions for Children. Facilities and areas of facilities intended primarily for occupancy by children ages three through twelve (3-12) shall be permitted to be designed and constructed as an equivalent facilitation in accordance with ADA guidelines for accessible design for children as promulgated in the Federal Register, Vol. 63, No. 8, Tuesday, January 13, 1998. Such equivalent facilitation shall be permitted without requiring approval of a modification.

1101.4 Copy of Laws and Standards. A copy of all laws, rules, guidelines, and standards cited by this Chapter shall be available in the office of the City Clerk in order to allow persons an adequate opportunity to be informed of the applicable requirements.

(2) Section 1102.1 Design is amended by adding the following:

1102.1 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1 and in accordance with provisions State of Arizona Attorney General Administrative Rules R10-3-401 through R-10-3-404 (2010 ADA Standards for Accessible Design, referred to as "2010 Standards", adopted by the U.S. Department of Justice), whichever standard provides the greatest degree of accessibility.

(3) Section 1103.2.5 Construction sites is amended and reads as follows:

Section 1103.2.5 Construction sites. Structures, sites and equipment directly associated with the actual processes of construction including, but not limited to, scaffolding, bridging, materials hoists, materials storage or construction trailers are not required to comply with this chapter. The public portions of temporary sales offices/trailers are required to be accessible. There shall be accessible parking and an accessible route from the accessible parking aisle to the sales office/trailer and throughout the public portion of the sales office/trailer, including the design center. Accessible toilet rooms shall be provided according to this code.

(HG) Chapter 16 Structural Design is amended as follows:

Section 1609.3 Basic design wind speed is amended to read as follows:

1609.3 Basic design wind speed. The basic design wind speed,  $V$ , in mph, for the determination of the wind loads shall be determined by Figures 1609.3(1) through (8) or by using the following wind speeds: Risk Category I - 100 mph; Risk Category II - 105 mph; Risk Category III - 110 mph; and Risk Category IV - 115 mph. The basic design wind speed,  $V$ , for use in the design of Risk Category II buildings and structures shall be obtained from Figures 1609.3(1) and 1609.3(5) or 105 mph. The basic design wind speed,  $V$ , for use in the design of Risk Category III building and structures shall be obtained from Figures 1609.3(2) and 1609.3(6) or 110 mph. The basic design wind speed,  $V$ , for use in the design of Risk Category IV buildings and structures shall be obtained from Figures 1609.3(3) and 1609.3(7) or 115 mph. The basic design wind speed,  $V$ , for use in the design of Risk Category I buildings and structures shall be obtained from Figures 1609.3(4) and 1609.3(8) or 100 mph. The basic design wind speed,  $V$ , for the special wind regions

indicated near mountainous terrain and near gorges shall be in accordance with local jurisdiction requirements. The basic design wind speeds, V, determined by the local jurisdiction shall be in accordance with Chapter 26 of ASCE 7.

(H) Chapter 17 Special Inspections and Tests is amended as follows:

- (1) Section 1704.6.1 Structural observations for structures is amended by adding additional conditions.

1704.6.1 Structural observations for structures. Structural observations shall be provided for those structures where one or more of the following conditions exist:

1. The structure is classified as Risk Category IV.
2. The structure is a high-rise building.
3. Such observation is required by the registered design professional responsible for the structural design.
4. Such observation is specifically required by the building official.
5. The height of the structure is greater than 75 feet (22.860mm) above the grade plane.
6. The structure has more than three stories above the grade plane.
7. Elevated post-tensioned concrete structures.
8. Prefabricated deferred units and their connections when such units are utilized structurally in the lateral force-resisting systems of a structure.

- (2) A new section, 1705.19 Plumbing special inspections, is added at the end of section 1705 and reads as follows:

Section 1705.19 Plumbing special inspections. The types of equipment or installations noted below shall be tested or inspected by a special inspector.

1. Medical Gas and Vacuum Systems as required by International Plumbing Code section 1202 and Uniform Plumbing Code Chapter 13.
2. Special cases - Work which, in the opinion of the building official, involves unusual hazards or conditions.

Exception: The building official may waive the requirement for special inspection if the construction is of a minor nature.

(~~J~~) Chapter 18 Soils and Foundations is amended as follows:

- (1) A new section, 1803.5.13 Post-tensioned slabs on ground, is added at the end of section 1803.5 and reads as follows:

Section 1803.5.13 Post-tensioned slabs on ground. A geotechnical investigation is required for the design of all post-tensioned slabs on ground. The investigation report shall include all soil parameters as outlined in PTI DC-10.5. Information required on the drawings includes, but is not limited to, slab type, soil parameters, bearing value and depth, coefficient of subgrade friction, soil subgrade modulus,  $e_m$  and  $y_m$  for expansive soils and all special inspection requirements.

(~~K~~) Chapter 19 Concrete is amended as follows:

- (1) A new section, 1907.2 Post-tensioned slabs on ground, is added at the end of section 1907 and reads as follows:

Section 1907.2 Post-tensioned slabs on ground. All post-tensioned slabs on ground shall be permanently stamped, marked or otherwise identified in a conspicuous location indicating the slab is a post-tensioned slab. Conspicuous locations include, but are not limited to, entrance porches, slabs at garage doors or patio slabs.

(~~L~~) Chapter 21 Masonry is amended as follows:

- (1) Section 2111 Masonry Fireplaces is amended by adding a new subsection, 2111.15, at the end to read as follows:

Section 2111.15 Fireplace Restrictions. Refer to the Mesa Mechanical Code, Section 930 for additional restrictions on masonry and factory-built fireplaces.

- (2) A new section, 2115 Solid Waste Bin and Barrel Enclosure, is added at the end of the chapter to read as follows:

2115.1 Solid Waste Bin and Barrel Enclosure.

2115.1 General. Enclosures shall be designed and installed in compliance with Mesa Standard Details M62.1-M62.5.

(~~M~~) CHAPTER 29 PLUMBING SYSTEMS is amended to read as follows:

- (1) Table 2902.1 Minimum Number of Required Plumbing Fixtures is amended by deleting "1 Service Sink" from the "Other" column for use groups B and M.

Insert table 2902.1

(2) Section 2902.2 Separate Facilities is amended to read as follows:

2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 20 or less.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or less.
4. Separate facilities shall not be required in F and S occupancies with 20 or less identified work stations.

(3) Section 2902.6 Small occupancies is amended to read as follows:

2902.6 Small occupancies. Drinking fountains shall not be required for an occupant load of 50 or fewer.

(NM) Chapter 31 Special Construction is amended to read as follows:

(1) Section 3109 Swimming Pools, Spas and Hot Tubs is amended to read as follows:

3109 Swimming Pools, Spas and Hot Tubs. The design and construction of swimming pools, spas and hot tubs shall comply with the Mesa Swimming Pool and Spa Code.

(ON) Chapter 32 Encroachments into the public right-of-way is amended as follows:

(1) Section 3201 General is amended to read as follows:

3201.1 Scope. The provisions of the City of Mesa Code, Chapter 9-2 shall govern encroachments into the public right-of-way.

(2) Sections 3201.2 through 3202.4 are deleted in their entirety

(PO) Chapter 35 Referenced Standards has been amended as follows:

NFPA 11 - 19 Low Medium- and High-Expansion Foam

NFPA 13 - 19 Installation of Sprinkler Systems



NFPA 13D - 19 Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

NFPA 13R - 19 Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height

NFPA 14 - 19 Installation of Standpipe, Private Hydrants and Hose Systems

NFPA 20 - 19 Installation of Stationary Pumps for Fire Protection

NFPA 72 - 19 National Fire Alarm Code

NFPA 110 - 19 Emergency and Standby Power Systems

NFPA 111 - 19 Standard on Storage Electrical Energy Emergency and Standby Power Systems

NFPA 211 - 19 Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances

NFPA 409 - 19 Aircraft Hangars

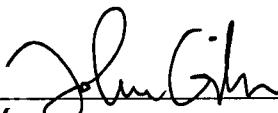
SECTION 3. PENALTY CLAUSE: Any person, firm, or corporation who shall violate any of the provisions of this Chapter of the Mesa City Code as amended shall be subject to all penalties and provisions of Section 4-1-9.

SECTION 4. EFFECTIVE DATE. The effective date of this ordinance shall be 30 days from the date of adoption.

**PASSED AND ADOPTED** by the City Council of the City of Mesa, Maricopa County, Arizona, this 21st day of March, 2022.

APPROVED:



  
\_\_\_\_\_  
Mayor

ATTEST:

  
\_\_\_\_\_  
City Clerk