

ORDINANCE 2025-14

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE, ARIZONA, ADOPTING THE FOLLOWING 2024 INTERNATIONAL CODES: BUILDING, RESIDENTIAL, FIRE, MECHANICAL, PLUMBING, ENERGY CONSERVATION, FUEL GAS, AND EXISTING BUILDINGS, AND THE CORRESPONDING LOCAL AMENDMENTS THERETO; THE 2023 NATIONAL ELECTRICAL CODE AND THE CORRESPONDING LOCAL AMENDMENTS THERETO; AND AMENDING SURPRISE MUNICIPAL CODE CHAPTER 105, ARTICLE II, DIVISION 1, SECTION 105-19; THEREBY ESTABLISHING THESE ADOPTIONS, INCLUDING SEVERABILITY; ESTABLISHING AN EFFECTIVE DATE; AND REPEALING CONFLICTING ORDINANCES.

WHEREAS, this Ordinance was properly noticed for public hearing, and the necessary hearings and opportunities for public input were completed;

WHEREAS, the Mayor and City Council deem it necessary, in order to protect the public health, safety, and welfare, and public and private property, to adopt certain updates to the rules and regulations regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area, and maintenance of all buildings, structures, or premises;

WHEREAS, the Building Safety Division of the Community Development Department and the Fire-Medical Department are recommending the adoption of the codes contained in the public records titled 2024 International Building Code, 2024 International Residential Code, 2024 International Fire Code, 2024 International Mechanical Code, 2024 International Plumbing Code, 2024 International Energy Conservation Code, 2024 International Fuel Gas Code, 2024 International Existing Buildings Code, and the 2023 National Electrical Code, of which 3 copies are on file in the office of the Surprise City Clerk;

WHEREAS, the 2024 International Codes are meant to replace the 2018 International Codes previously adopted by the Mayor and City Council;

WHEREAS, the 2023 National Electrical Code is intended to replace the 2017 National Electrical Code previously adopted by the Mayor and City Council; and

WHEREAS, the Building Safety Division of the Community Development Department and the Fire Medical Department are also recommending amendments to these codes which amendments are contained in that certain public record entitled "Local Amendments to the 2024 International Codes and the 2023 National Electrical Code" dated January 1, 2026, three copies of which are on file in the office of the Surprise City Clerk.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of the City of Surprise, Arizona, as follows:

Section 1. The International Codes and appendices as published by the International Code Council as contained in the public records entitled 2024 International Building Code, 2024 International Residential Code, 2024 International Fire Code, 2024 International Mechanical Code, 2024 International Plumbing Code, 2024 International Fuel Gas Code, 2024 International Energy Conservation Code, 2024 International Existing Buildings Code, and 2023 National Electrical Code, as well as the local amendments thereto dated January 1, 2026, are hereby adopted by this reference.

Section 2. The Surprise Municipal Code Chapter 105, Article II, Division 1, Section 105-19 is hereby amended as follows:

Sec. 105-19. - Construction codes.

2024 International Building Code.
2024 International Residential Code.
2023 National Electrical Code.
2024 International Mechanical Code.
2024 International Plumbing Code.
2024 International Fuel Gas Code.
2024 International Energy Conservation Code.
2006 International Property Maintenance Code.
2024 International Existing Building Code.
2024 International Fire Code.

A certain public record entitled Local Amendments to the 2024 International Codes and the 2023 National Electrical Code dated January 1, 2026, specifically amends the 2024 Building, Residential, Fire, Mechanical, Plumbing, Energy Conservation, Fuel Gas, Existing Buildings Codes, and the 2023 National Electrical Code.

Section 3. All ordinances, resolutions, or codes in conflict with the provisions of this Ordinance or Code adopted by this Ordinance are repealed.

Section 4. If any section, subsection, sentence, clause, phrase, or portion of this Ordinance or any part of these amendments to the municipal code adopted herein is for any reason held to be invalid or unconstitutional by decision of any court of competent jurisdiction, such decision will not be read to affect the validity of the remaining portions thereof.

Section 5. This Ordinance shall become effective at the time and in the manner prescribed by law. The City's Chief Building Official shall be responsible for enforcing the provisions of this Ordinance.

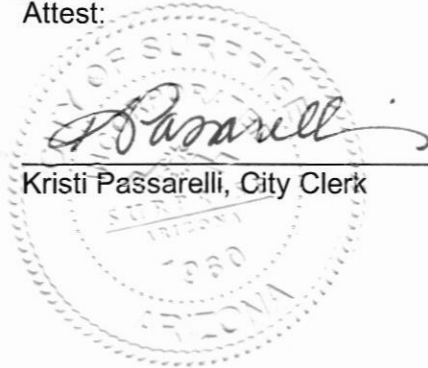
[SIGNATURES ON FOLLOWING PAGE]

PASSED AND ADOPTED this 2nd day of December, 2025.



Kevin D. Sartor, Mayor

Attest:



Kristi Passarelli, City Clerk

Approved as to form:



Jeffrey Murray, City Attorney



**City of Surprise
Local Amendments to the
2024 International Codes and the
2023 National Electrical Code
January 1, 2026**

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2024 International Building Code

Local Amendments

The following Appendices of the 2024 International Building Code are hereby adopted in their entirety: appendices C, H and O.

The 2024 International Building Code Local Amendments are as follows:

101.1 Title. These regulations shall be known as the Building Code, as amended by the City of Surprise, hereinafter referred to as “this code.”

[A] 101.2 Scope.

The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every *building* or *structure* or any appurtenances connected or attached to such *buildings* or *structures*.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the International Residential Code. Where A.R.S. § 9-462.13, as amended from time to time, prohibits the City of Surprise from requiring triplexes and fourplexes to comply with a commercial building code or to contain a fire sprinkler system, such structures shall comply with the provisions of the 2024 International Residential Code as adopted and amended by the City of Surprise.

[A] 104.2.4.1 Flood hazard areas.

~~The building official shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 unless a determination has been made that:~~

- ~~1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.~~
- ~~2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.~~
- ~~3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense; cause fraud on or victimization of the public; or conflict with existing laws or ordinances.~~
- ~~4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.~~
- ~~5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.~~

~~[A] 104.3.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.~~

~~For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the building official shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the building official determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the building official shall require the building to meet the requirements of Section 1612, or Section R306 of the International Residential Code, as applicable.~~

105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory *structures used as tool and storage sheds, playhouses and similar uses*, provided the floor area is not greater than ~~420~~ 200 square feet (~~44~~ 18.58 m²).
2. Fences, other than swimming pool barriers, not over ~~7~~ 6 feet (~~2134 mm~~ 1829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Platforms, sidewalks, and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or *story* below and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television, and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than ~~24~~ 18 inches (610 mm) deep, are not greater than 5,000 gallons (18 925L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family *dwellings*.
12. Window awnings in Group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

13. Non-fixed and movable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches (1753 mm) in height.
14. Ground or roof supported structures, such as radio and television antenna towers and flagpoles which do not exceed 200 pounds (90 kg) in weight or 30 feet (13,700 mm) in height above the ground surface.
15. Re-roofing with the same type of material as the original roofing and provided not more than two layers of asphalt shingles are applied over an existing asphalt shingle roof.
16. Replacement windows and doors that do not alter the rough frame opening width or height.
17. Installation of a nonstructural weatherproof exterior covering over an existing weatherproof covering on an existing structure so long as the new covering will not affect the fire-resistive classification of the existing structure.
Exception: Installation of an Exterior Insulation and Finish System (EIFS).
18. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Electrical:

4. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Gas:

3. Replacement of gas water heating appliances, by a licensed contractor, of equal or lesser BTU/CFH rating and without modification to electrical, mechanical, and plumbing connections necessary to serve the new appliance.
4. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Mechanical:

8. Repair or replacement in kind, by a licensed contractor, of refrigeration units not over 5 tons (17.5 kW) of refrigeration capacity, when located outdoors. Replacement equipment shall be in the same location and equal to or less than the weight and height of that which is replaced.
9. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Plumbing:

3. Replacement of electric water heating appliances, by a licensed contractor, of equal or less amperage rating and without modification to electrical, mechanical, and plumbing connections necessary to serve the new appliance.
4. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

105.5 Expiration. Every *permit* issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days after the time the work is commenced. The *building official* is authorized to grant, in writing, one or more extension of time, for periods not more 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. A permit shall be considered expired if more than 180 days has passed between approvals of inspections listed in Section 110. When a permit expires and has become null and void, and the *building official* has not been notified in writing by the permit applicant that no work was done under the permit, the *building official* may file a “Notice of Non-Compliance” with the Maricopa County Recorder’s Office for failure to obtain the required inspections.

105.5.1 Completing Work and Final Inspection. Every permit issued by the building official shall expire 24 months after the date of permit issuance. If the building or work authorized by such permit has not received final inspection approval prior to the permit expiration date, all work shall stop until a new permit is obtained for the remaining unfinished work.

Exception: The building official may approve a period exceeding 24 months for completion of work when the permit holder can demonstrate that the complexity or size of the project makes completing the project within 24 months unreasonable. Any such request shall be prior to permit expiration date.

109.4 Work commencing before permit issuance. Any person who commences any work before obtaining the necessary *permits* shall may be subject to a fee established by the *building official* that shall be in addition to the required permit fees.

111.3.1 Certificate of Completion. The Building Official is authorized to issue a Certificate of Completion as proof that a structure or system is complete and for certain types of permits is released for use and may be connected to a utility system. This certificate does not grant authority to occupy a building prior to the issuance of a Certificate of Occupancy.

SECTION 113 BOARD OF APPEALS

[A] 113.1 General. Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals or orders, decisions or determinations made by the Building 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 *building official*.

[A] 113.2 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 have not authority to waive requirements of this code.~~

~~**[A] 113.3 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 who are not employees of the jurisdiction.~~

~~**[A] 113.4 Administration.**~~

~~The *building official* shall take action without delay in accordance with the decision of the board.~~

SECTION 202 DEFINITONS

ASSISTED LIVING CENTER An assisted living facility that provides resident rooms or residential units to eleven or more residents.

ASSISTED LIVING FACILITY A residential care institution, including an adult foster care home, that provides or contracts to provide supervisory care services, personal care services, or directed care services on a continuing basis.

ASSISTED LIVING HOME An assisted living facility conducted within a single-family dwelling unit that provides resident rooms to ten (10) or fewer residents.

DIRECTED CARE SERVICE Programs and services, including supervisory and personal care services, that are provided to persons who are incapable of recognizing danger, summoning assistance, expressing need, or making basic care decisions.

PERSONAL CARE SERVICE ~~The care of persons who do not require medical care. Personal care involves responsibility for the safety of persons while inside the building. Assistance with activities of daily living that can be performed by persons without professional skills or professional training and includes the coordination or provision of intermittent nursing services and administration of medications and treatments by a nurse who is licensed pursuant to Arizona Revised Statutes title 23, chapter 15 or as otherwise provided by law.~~

SUPERVISORY CARE SERVICE General supervision, including daily awareness of resident functioning and continuing needs, the ability to intervene in a crisis and assistance in the self-administering prescribed medications.

308.2 Institutional Group I-1. This occupancy shall include buildings, structures or portions thereof for more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised environment, and receive *custodial care*, and the persons receiving care are capable of self-preservation, except as provided for assisted living centers. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living facilities centers

Congregate care facilities

Convalescent facilities
Group homes
Halfway houses
Residential board and *custodial care* facilities
Social rehabilitation facilities

308.2.3 Six to ~~16~~ ten persons receiving care. A *facility such as above*, housing not fewer than six and not more than ~~16~~ 10 persons receiving ~~custodial~~ such care, shall be classified as Group R-4, except as provided for *assisted living homes*.

308.3 Institutional Group I-2. Institutional group I-2 occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for one or more ~~than five~~ *persons* who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

Foster care facilities
Detoxification facilities
Hospitals
Nursing homes
Assisted Living Centers
Psychiatric hospitals

~~**308.3.2 Five or fewer persons receiving medical care.** A facility with five or fewer persons receiving medical care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 of this code or Section P2904 of the *International Residential Code*.~~

310.4.1 Care facilities within a dwelling. Licensed care facilities for ~~five~~ 10 or fewer *persons* receiving care that are within a single-family dwelling are permitted to ~~comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 of this code or Section P2904 of the *International Residential code*~~ provided that the requirements of Section 429.5 of this code are met.

Exceptions:

1. Family Foster Homes and Foster Group Homes licensed by the State of Arizona Department of Child Safety.
2. Behavioral Health Group Homes (BHGH) that serve five or fewer residents and are licensed by the State of Arizona Department of Health Services.

310.5 Residential Group R-4. Residential group R-4 occupancy shall include buildings, structures, or portions thereof for more than five but not more than 10 *persons*, excluding staff, who reside on a 24-hour basis in a supervised residential

environment and receive *custodial care*. Buildings of group R-4 shall be classified as one of the occupancy conditions specified in section 310.5.1 or 310.5.2. The persons receiving care are capable of self-preservation, except as provided for *assisted living homes*. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living facilities homes

Congregate care facilities

Convalescent facilities

Group homes

Halfway houses

Residential board and *custodial care* facilities

Social rehabilitation facilities

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code and Section 429.

310.5.1 Condition 1. ~~This occupancy condition shall include *buildings* in which all *persons* receiving *custodial care*, without any assistance, are capable of responding to an emergency situation to complete *building evacuation*.~~ This occupancy condition shall include facilities licensed to provide supervisory care services, in which occupants are capable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 1 facilities housing more than 10 persons shall be classified as Group I-1

310.5.2 Condition 2. ~~This occupancy condition shall include *buildings* in which there are any *persons* receiving *custodial care* who require *limited verbal or physical assistance* while responding to an emergency situation to complete *building evacuation*.~~ This occupancy condition shall include facilities licensed to provide personal or directed care services, in which occupants are incapable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 2 facilities housing more than 10 persons shall be classified as Group I-2.

Exceptions:

1. Family Foster Homes and Foster Group Homes licensed by the State of Arizona Department of Child Safety.
2. Behavioral Health Group Homes (BHGH) that serve five or fewer residents and are licensed by the State of Arizona Department of Health Services.

SECTION 429 ASSISTED LIVING HOMES

429.1 Applicability. The provisions of this section shall apply to a building or part thereof housing not more than 10 persons, excluding staff, on a 24-hour basis, who

because of age, mental disability or other reasons, live in a supervised residential environment, which provides licensed care services. Except as specifically required by this division, R-4 occupancies shall meet all the applicable provisions of Group R-3.

429.2 General. Building or portions of buildings classified as R-4 may be constructed of any materials allowed by this code, shall not exceed two stories in height nor be located above the second story in any building and shall not exceed two thousand (2,000) square feet above the first story, except as provided in Section 506.

429.3 Special Provisions. R-4 occupancies having more than two thousand (2,000) square feet above the first story shall be of not less than one-hour fire-resistive construction throughout.

429.3.1 Mixed Uses. R-4 occupancies shall be separated from other occupancies as provided in Table 508.4.

429.4 Access and Means of Egress Facilities

429.4.1 Accessibility. R-4 occupancies shall be provided with a concrete landing and ramp outside of the main entrance to comply with sections 1010.1.5, 1012.2, 1012.6.1, and 1012.10 of this code. Thresholds at the main entrance shall comply with section 1010.1.6 of this code.

429.4.2 Exits

429.4.2.1 Number of Exits. Every story, basement, or portion thereof shall have not less than two exit doors. A sliding glass door, in a common area, may serve as one of the required exits.

Exception: Basements and stories above the first floor containing no sleeping rooms used by residents may have only one means of egress as provided in Chapter 1.

429.4.2.2 Distance to Exits. The maximum travel distance from the center point of any sleeping room to an exit shall not exceed seventy-five (75) feet.

429.4.2.3 Emergency Exit Illumination. In event of a power failure, exit illumination shall be automatically provided from an emergency system powered by storage batteries or an onsite generator set installed in accordance with the National Electric Code.

429.4.2.4 Emergency Escape and Rescue. R-4 occupancies shall comply with the requirements of Section 1031 of this code, except that Exception #1 to 1031.2 does not apply to R-4 occupancies.

429.4.2.5 Delayed Egress Locks. In R-4 Condition 2 occupancies, delayed egress locks shall be permitted in accordance with 1010.2.12.1 of this code, Items 1, 2, and 4.

429.5 Smoke Alarms and Sprinkler Systems.

429.5.1 Smoke Alarms. R-4 occupancies shall be provided with smoke alarms installed in accordance with IFC Section 907.2.11.2, and such alarms shall be installed in all habitable rooms.

429.5.2 Sprinkler Systems. R-4 occupancies shall be provided with a sprinkler system installed in accordance with IFC Section 903.3.1.3. Sprinkler systems installed under this section shall be installed throughout, including attached garages, and in Condition 2 facilities, and shall include concealed spaces of or containing combustibles. Such systems may not contain unsupervised valves between the domestic water riser control valve and the sprinklers. In Condition 2 occupancies, such systems shall contain water flow switches electrically supervised by an approved supervising station, and shall sound an audible signal at a constantly attended location.

CHAPTER 9

FIRE PROTECTION SYSTEMS

DELETE the entire Chapter. All Fire Protection systems standards will be those stated in the 2024 International Fire Code Chapter 9 as amended by this ordinance.

1112.1 Signs. Required *accessible* elements shall be identified by the International Symbol of Accessibility at the following locations

1. *Accessible* parking spaces required by Section 1106.2.
 - a. *Accessible* parking spaces may also be identified by the use of the Accessibility Icon.

Exception: Where the total number of parking spaces provided is four or less, identification of *accessible* parking is not required.
2. *Accessible* parking spaces required by Section 1106.3.

Exception: In Group I-1, R-2, R-3 and R-4 facilities, where parking spaces are assigned to specific *dwelling units* or *sleeping units*, identification of *accessible* parking spaces is not required.
3. *Accessible* passenger loading zones.
4. *Accessible* rooms where multiple single-user toilet or bathing rooms are clustered at a single location.
5. *Accessible* entrances where not all entrances accessible.
6. *Accessible* check-out aisles where not all aisles are accessible. The sign, where provided, shall be above the check-out aisle in the same location as the check-out aisle number or type of check-out identification.

7. Family or assisted-use toilet and bathing rooms.
8. *Accessible* dressing, fitting and locker rooms where not all such rooms are *accessible*.
9. *Accessible* areas of refuge in accordance with Section 1009.9.
10. Exterior areas for assisted rescue in accordance with Section 1009.9.
11. In recreational facilities, lockers that are required to be *accessible* in accordance with Section 1109.9.

1112.3 Directional signage. Directional signage indicating the route to the nearest like *accessible* element shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility or the Accessibility Icon and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an *accessible route*.
4. At each separate-sex toilet and bathing room indicating the location of the nearest family or assisted-use toilet or bathing room where provided in accordance with Section 1109.2.1
5. At *exits* and *exit stairways* serving a required *accessible* space, but not providing an *approved accessible means of egress*, signage shall be provided in accordance with Section 1009.10.
6. Where drinking fountains for persons using wheelchairs and drinking fountains for standing persons are not located adjacent to each other, directional signage shall be provided indicating the location of the other drinking fountains.

1203.1 Equipment and systems. Interior spaces intended for human occupancy shall be provided with active or passive space-heating and space-cooling systems capable of maintaining a minimum indoor temperature between 68°F (20°C) and 90°F (32°C) at a point 3 feet (914 mm) above the floor on the design heating day.

Exception: Space heating and cooling systems are not required for:

1. Interior spaces where the primary purpose of the space is not associated with human comfort.
2. Group F, H, S or U occupancies.

1612.1 General.

~~Within flood hazard areas as established in Section 1612.3, all new construction of buildings, structures and portions of buildings and structures, including substantial improvement and restoration of substantial damage to buildings and structures, shall be designed and constructed to resist the effects of flood hazards and flood loads. For buildings that are located in more than one flood hazard area, the provisions associated with the most restrictive flood hazard area shall apply.~~

1612.2 Design and construction.

~~The design and construction of buildings and structures located in flood hazard areas, including coastal high hazard areas and coastal A zones, shall be in accordance with Chapter 5 of ASCE 7 and ASCE 24. Elevators, escalators, conveying systems and their components shall conform to ASCE 24 and ASME A17.1/CSA B44 as applicable.~~

~~Exception: Temporary structures complying with Section 3103.6.1.3.~~

1612.3 Establishment of flood hazard areas.

The Special Flood Hazard Areas (SFHAs) documented in the Federal Emergency Management Agency's (FEMA) current and subsequent amendments publications, entitled "Flood Insurance Study (FIS) for Maricopa County, Arizona and Incorporated Areas" and "Flood Insurance Rate Maps (FIRMs) for Maricopa County, Arizona and Incorporated Area", are the minimum area of applicability of the floodplain management regulations and may be supplemented by studies for the other areas as allowed in the regulations. These references have been adopted via Floodplain Ordinance, Ord 2016-05.

~~To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled The Flood Insurance study for Maricopa County, Arizona and Incorporated Areas revised on July 18, 2001 as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.~~

1612.3.1 Design flood elevations.

~~Where design flood elevations are not included in the flood hazard areas established in Section 1612.3, or where floodways are not designated, the building official is authorized to require the applicant to do one of the following:~~

- ~~1. Obtain and reasonably utilize any design flood elevation and floodway data available from a federal, state or other source.~~
- ~~2. Determine the design flood elevation or floodway in accordance with accepted hydrologic and hydraulic engineering practices used to define special flood hazard areas. Determinations shall be undertaken by a registered design professional who shall document that the technical methods used reflect currently accepted engineering practice.~~

1612.3.2 Determination of impacts.

~~In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed work will not increase the design flood elevation~~

more than 1 foot (305 mm) at any point within the jurisdiction of the applicable governing authority.

1612.4 Flood hazard documentation.

The following documentation shall be prepared and sealed by a registered design professional and submitted to the building official:

1. For construction in flood hazard areas other than coastal high hazard areas or coastal A zones:
 - 1.1 The elevation of the lowest floor, including the basement, as required by the lowest floor elevation inspection in Section 110.3.3 and for the final inspection in Section 110.3.12.1.
 - a. For fully enclosed areas below the design flood elevation where provisions to allow for the automatic entry and exit of floodwaters do not meet the minimum requirements in Section 2.7.2.1 of ASCE 24, construction documents shall include a statement that the design will provide for equalization of hydrostatic flood forces in accordance with Section 2.7.2.2 of ASCE 24.
 - b. For dry floodproofed nonresidential buildings, construction documents shall include a statement that the dry floodproofing is designed in accordance with ASCE 24 and shall include the flood emergency plan specified in Chapter 6 of ASCE 24.
 - c. For dry floodproofed nonresidential buildings, the elevation to which the building is dry floodproofed as required for the final inspection in Section 110.3.12.1.
2. For construction in coastal high hazard areas and coastal A zones:
 - 2.1 The elevation of the bottom of the lowest horizontal structural member as required by the lowest floor elevation inspection in Section 110.3.3 and for the final inspection in Section 110.3.12.1.
 - 2.2 Construction documents shall include a statement that the building is designed in accordance with ASCE 24, including that the pile or column foundation and building or structure to be attached thereto is designed to be anchored to resist flotation, collapse and lateral movement due to the effects of wind and flood loads acting simultaneously on all building components, and other load requirements of Chapter 16.
 - 2.3 For breakaway walls designed to have a resistance of more than 20 psf (0.96 kN/m²) determined using allowable stress design or a resistance to an ultimate load of more than 33 pounds per square foot (1.58 kN/m²), construction documents shall include a statement that the breakaway wall is designed in accordance with ASCE 24.
 - 2.4 For breakaway walls where provisions to allow for the automatic entry and exit of floodwaters do not meet the minimum requirements in Section 2.7.2.1 of ASCE 24, construction documents shall include a statement that the design will provide for equalization of hydrostatic

~~flood forces in accordance with Section 2.7.2.2 of ASCE 24.~~

1704.1 General. Special inspections and tests, statements of special inspections, responsibilities of contractors, submittals to the building official and structural observations shall meet the applicable requirements of this section. The building official may also require other special inspections not prescribed in this section as needed.

2106.1 Seismic design requirements for masonry.

Masonry structures and components shall comply with the requirements in Chapter 7 of TMS 402 depending on the structure's seismic design category. All new participating and nonparticipating masonry elements, regardless of seismic design category, shall meet the following minimum reinforcement requirements:

Exception: Masonry veneer does not require this minimum reinforcement.

1. Vertical wall reinforcement of at least 0.20 square inch (129 mm²) in cross-sectional area shall be provided continuously from support to support at each corner, at each side of each opening, at the ends of walls, at each side of movement joints, and at a maximum spacing of 4 feet (1219 mm) apart horizontally throughout the wall.
2. Horizontal wall reinforcement not less than 0.20 square inch (129 mm²) in cross-sectional area shall be provided (1) at the bottom and top of wall openings and extend at least 24 inches (610 mm) but not less than 40 bar diameters past the opening, (2) continuously at structurally connected roof and floor levels and at the top of walls, (3) at the bottom of walls or in the top of foundations when doweled in walls, and (4) at a maximum spacing of 10 feet (3048 mm) unless uniformly distributed joint reinforcement is provided. Nonparticipating horizontally spanning masonry elements shall also comply with the minimum requirements per TMS 420 7.4.3.1.1.
3. Where anchor bolts are used to connect horizontal elements to the tops of columns, anchor bolts shall be placed within lateral ties. Lateral ties shall enclose both the vertical bars in the column and the anchor bolts. There shall be a minimum of two No. 4 (M #13) or three No. 3 (M #10) in the top 5 inches (127 mm) of the column

2902.6 Small occupancies.

Drinking fountains shall not be required for an occupant load of ~~45~~ 50 or fewer.

SECTION 3109 SWIMMING POOLS, SPAS AND HOT TUBS

DELETE section in its entirety

Swimming pools, spas and hot tubs are governed by Maricopa County Environmental Services Department, including its established standards.

SECTION 3113 RELOCATABLE BUILDINGS.

DELETE this section in its entirety and REPLACE as follows:

Section 3113 circumstances are governed by the State of Arizona Office of Manufactured Housing, including its established regulations.

2024 International Residential Code Local Amendments

The following Appendices of the 2024 International Residential Code are hereby adopted in their entirety: appendices, BF, BI, BJ, BL, BM, BO, CA, CB, CD, CE, and CF.

The following Appendices of the 2024 International Residential Code, are hereby adopted in their entirety and amended per the Local Amendments: Appendices AC, BA, BB, BG and CH.

The 2024 International Residential Code Local Amendments are as follows:

101.1 Title.

These provisions shall be known as the Residential Code for One and Two-Family Dwellings of as amended by the City of Surprise and shall be cited as such and will be referred to herein as “this code.”

R101.2 Scope.

The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height. Where A.R.S. § 9-462.13, as amended from time to time, prohibits the City of Surprise from requiring duplexes, townhouses, triplexes, and fourplexes to comply with a commercial building code or to contain a fire sprinkler system, such structures shall comply with the provisions of the 2024 International Residential Code as adopted and amended by the City of Surprise.

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

Building:

1. Other than storm shelters, one-story detached *accessory structures*, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 6 feet (~~2134 mm~~ 1829 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.

6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finishwork.
7. Prefabricated swimming pools, accessory to a Group R-3 occupancy that are less than 24 18 inches (610 457 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling or townhouse* and do not serve the exit door required by Section R318.4.
11. Ground or roof supported structures, such as radio and television antenna towers and flagpoles which do not exceed 200 pounds (90 kg) in weight or 30 feet (13,700 mm) in height above the ground surface.
12. Re-roofing with the same type of material as the original roofing and provided not more than two layers of asphalt shingles are applied over an existing asphalt shingle roof.
13. Installation of a nonstructural weatherproof exterior covering over an existing weatherproof covering on an existing structure so long as the new covering will not affect the fire-resistive classification of the existing structure.

Exception: Installation of an Exterior Insulation and Finish System (EIFS).
14. Installation or replacement of skylights or tubular daylighting devices (TDD) which does not structurally alter the roof rafters or trusses.

Prohibited: in garages attached to a dwelling unit, unless a 5/8" type X gypsum liner is used to maintain the fire separation.
15. Traditional horse shades, used for agricultural purposes only, constructed of metal poles and metal decking which do not exceed 400 square feet (37.16 m²) in area.
16. Replacement windows and doors that do not alter the rough frame opening width or height.
17. Special cases as allowed by the Building Official for work of a similar nature to those items listed above.

Electrical:

6. Installation or replacement of a ceiling fan/light that is installed on an electric box that is "approved for fan support" and which was installed with a valid permit.
7. Replacement of receptacles or light fixtures in a dwelling unit which does not change the wiring, and the electric box is rated for the weight of the fixture.
8. Installation or replacement of solar attic fans.
9. Installation or replacement of an electric circuit to a landscape timer.
10. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Gas:

4. Replacement of existing water heaters which are of the same size, type, and method of operation and were previously installed with a valid building permit.
5. Replacement of gas pool or spa heating equipment where the replacement equipment is of equal or lesser BTU capacity and is placed in the same location as the existing equipment.
6. Replacement of Gas air-conditioning equipment, direct vent equipment, furnaces, and log lighter where the replacement equipment is of equal or lesser BTU capacity and is placed in the same location as the existing equipment.
7. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Mechanical:

9. Replacement of air-conditioning/heating equipment that is of equal or lesser size, same method of operation, and is placed in the same location as the existing equipment.
10. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

Plumbing:

3. Hot water re-circulators.
4. Water Softeners and Soft Water Loops.
5. Replacement of existing water heaters which are of the same size, type, and method of operation and were previously installed with a valid building permit.
6. Installation or replacement of solar pool and spa heating equipment.
7. Water filtration/purification systems.
8. Water lines associated with landscape irrigation systems.
9. Special cases as allowed by the Building Official for work of a similar nature and complexity to those items listed above.

105.5 Expiration. Every *permit* issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or after commencement of work if more than 180 days pass between inspections. The *building official* is authorized to grant, in writing, one or more extension of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

105.5.1 Completing Work and Final Inspection. Every permit issued by the building official shall expire 24 months after the date of permit issuance. If the building or work authorized by such permit has not received final inspection approval prior to the permit expiration date, all work shall stop until a new permit is obtained for the unfinished work.

Exception: The building official may approve a period exceeding 24 months

for completion of work when the permit holder can demonstrate, prior to expiration of the permit, that the complexity or size of the project makes completing the project within 24 months unreasonable.

SECTION R112 MEANS OF APPEALS

R112.1 General. Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303.

~~In order to hear and decide appeals of orders, decisions or determinations made by the *building 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 *building official*.~~

~~R112.2 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.~~

~~R112.3 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*.~~

~~R112.4 Administration.~~

~~The building official shall take action without delay in accordance with the decision of the board.~~

SECTION R202 DEFINITIONS

[RB] FIRE SEPARATION DISTANCE. The distance measured from the building face of the wall framing to one of the following:

1. To the closest interior *lot line*.
2. To the centerline of a street, an alley, or a public way.
3. To an imaginary line between two buildings or townhouse units on the lot.

The distance shall be measured at a right angle from the face of the wall framing.

R301.2 Climatic and geographic design criteria. *Buildings* shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local *jurisdiction* and set forth in Table R301.2.

Table R301.2 (Due to space limitations the table could not be reproduced; only the values are listed)

Ground snow load: 0

Wind speed (mph): 105 Exposure B (unless otherwise designated by the Building Official)

Topographic Effects: No

Special Wind Region: No

Windborne Debris Zone: No

Seismic design category: B

Weathering: Negligible

Frost line depth: 0"

Termite: Moderate to heavy

Winter design temperature: 34°F

Ice shield underlayment required: No

Flood hazards: MCFCD requirements

Air freezing index: N/A

Mean annual temperature: 72.3°F

MANUAL J DESIGN CRITERIA

Refer to Section M1401.3 and N1103.7 of the 2024 IRC

~~Elevation:-~~

~~Latitude:-~~

~~Winter heating:~~

~~Summer cooling:-~~

~~Altitude correction factor:~~

~~Indoor temperature design:~~

~~Design temperature cooling:-~~

~~Heating temperature difference:-~~

~~Cooling temperature difference:-~~

~~Wind velocity heating:-~~

~~Wind velocity cooling:-~~

~~Coincident wet bulb:~~

~~Daily range:-~~

~~Winter humidity:~~

~~n. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b form ACCA Manual J or established criteria determined by the jurisdiction.~~

R301.2.4 Floodplain construction.

~~Buildings and structures constructed in whole or in part in flood hazard areas as established in Table R301.2, and substantial improvement and repair of substantial damage of buildings and structures located in whole or in part in flood hazard areas, shall be designed and constructed in accordance with Section R306 the Floodplain Regulations for Maricopa County as published by the Flood Control District of Maricopa County. Buildings and structures that are located in more than one flood hazard area, including A Zones, Coastal A Zones and V Zones, shall comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.~~

R301.9 Suction entrapment avoidance.

Suction entrapment avoidance for pools and spas shall be provided in accordance with APSP 7 (ANSI/PHTA/ICC 7).

Exception:

Portable spas and portable exercise spas listed and labeled in accordance with UL 1563 or CSA C22.2 No. 218.1.

R302.1 Exterior walls.

Construction, projections, openings and penetrations of exterior walls of dwellings, townhouses and accessory buildings shall comply with Table R302.1(1) based on fire separation distance; or dwellings and townhouses equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table R302.1(2) based on fire separation distance.

For the purposes of determining fire separation distance, dwellings and townhouses on the same lot shall be assumed to have an imaginary line between them. Where a new dwelling or townhouse is to be erected on the same lot as an existing dwelling or townhouse, the location of the assumed imaginary line with relation to the existing dwelling or townhouse shall be such that the existing dwelling or townhouse meets requirements of this section.

Where a lot line exists between adjacent townhouse units, fire separation distance of exterior walls shall be measured to the lot line. Where a lot line does not exist between adjacent townhouse units, an imaginary line shall be assumed between the adjacent townhouse units and fire separation distance of exterior walls shall be measured to the imaginary line. Fire separation distance and requirements of Section R302.1 shall not apply to walls separating townhouse units that are required by Section R302.2.

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of individual dwelling units and their accessory buildings located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling unit located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.
6. Where the building setback for adjacent structures is three feet (3') or greater, metal awnings or metal patio covers may be built to within three feet (3') of the property line or imaginary property line without fire protection. In this case, roof eave projections shall not exceed four inches (4").
7. Decks and porches integral to a park model or manufactured home with a one-hour exterior wall may be located three feet (3') from the property line or imaginary property line without fire protection. In this case, roof eave projections shall not exceed four inches (4").
8. Metal patio covers that meet the following conditions:
 - 8.1 Attached to the dwelling;
 - 8.2 The exterior wall of the dwelling unit is less than three feet (3') from the property line;
 - 8.3 The adjacent dwelling unit is six feet (6') or greater from the property line or imaginary property line; and
 - 8.4 Shall not extend beyond the exterior wall when that wall is parallel to the lot line.

R302.2 Townhouses.

Walls separating *townhouse units* shall be constructed in accordance with Section R302.2.1 or R302.2.2 and shall comply with Sections R302.2.3 through R302.2.5 of this code. No plumbing, mechanical, electrical, piping, or other services in any form are allowed to traverse from one side to the other side of the wall or walls separating *townhouse units*.

R302.3 Two-family dwellings.

Where A.R.S. § 9-462.13, as amended from time to time, prohibits the City of Surprise from requiring triplexes and fourplexes to comply with a commercial building code or to contain a fire sprinkler system, triplexes and fourplexes shall comply with the provision of this section. Dwelling units in two-family dwellings shall be separated from each other in accordance with Sections 302.3.1 through 302.3.5, regardless of whether a lot line exists between the two dwelling units.

TABLE R302.3.6 – DWELLING-SHARED ACCESSORY ROOM SEPARATION	
SEPARATION	MATERIAL
From the dwelling units and attics	Not less than 4/2 5/8-inch Type X gypsum board or equivalent applied to the accessory room side wall
From habitable rooms above or below the shared accessory room	Not less than 5/8-inch Type X gypsum board or equivalent
Structures supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
For SI: 1 inch + 25.4mm	

R302.6 Dwelling unit garage fire separation.

The garage shall be separated as required by Table R302.6. Openings in garage walls shall comply with Section R302.5. Attachment of *gypsum board* shall comply with Table R702.3.5. The wall separation provisions of Table R302.6 shall not apply to garage walls that are perpendicular to the adjacent *dwelling unit* wall.

**Table R302.6
DWELLING/GARAGE SEPARATION**

SEPARATION	MATERIAL
From the dwelling unit and attics	Not less than 1/2" gypsum board applied to the garage side <u>Minimum 5/8" Type X gypsum board applied to the garage side</u>

(No other changes to Table)

SECTION R306

FLOOD-RESISTANT CONSTRUCTION

DELETE section in its entirety.

**SECTION R309
AUTOMATIC FIRE SPRINKLERS**

R309.1 Townhouse automatic sprinkler systems. An automatic sprinkler system shall be installed in townhouses, except where A.R.S. § 9-462.13, as amended from time to time, prohibits the City of Surprise from requiring townhouses to comply with a commercial building code or to contain a fire sprinkler system. In those locations, fire sprinkler systems shall not be required.

Exception: An automatic sprinkler system shall not be required where additions or

alterations are made to existing townhouses that do not have an automatic sprinkler system installed.

R309.1.1 Design and installation. Automatic sprinkler systems for townhouses shall be designed and installed in accordance with Section P2904 or NFPA 13D.

~~**R309.2 One- and two-family dwellings automatic sprinkler systems.** An automatic sprinkler system shall be installed in one- and two-family dwellings.~~

~~**Exception:** An automatic sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with a sprinkler system.~~

~~**R309.2.1 Design and installation.** Automatic sprinkler systems shall be designed and installed in accordance with Section P2904 and NFPA 13D.~~

R319.1 Emergency escape and rescue opening required. Basements, habitable attics, the room to which a sleeping loft is open, and every sleeping room shall have not less than one operable *emergency escape and rescue opening*. Where *basements* contain one or more sleeping rooms, an *emergency escape and rescue opening* shall be required in each sleeping room. *Emergency escape and rescue openings* shall open directly into a *public way*, or to a *yard or court* having a minimum width of 36 inches (914 mm) that opens to a *public way*.

Exceptions:

1. Basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m²).
2. *Storm shelters* constructed in accordance with ICC 500.
3. Where the *dwelling unit* or *townhouse unit* is equipped with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in *basements* shall not be required to have *emergency escape and rescue openings* provided that the *basement* has one of the following:
 - 3.1 One means of egress complying with Section R318 and one emergency escape and rescue opening.
 - 3.2 Two means of egress complying with Section R318.
4. A *yard* shall not be required to open directly into a public way where the *yard* opens to an unobstructed path from the *yard* to the *public way*. ~~Such path shall have a width of not less than 36 inches (914 mm).~~

R325.8 Required heating and cooling. When the winter and summer design temperature in Table R301.2 is below 60°F (16°C) or above 90°F (50°C). Every *dwelling unit* shall be provided with heating and cooling facilities capable of maintaining a minimum

room temperature between 68°F (20°C) and 90°F (50°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms at the design temperature. The installation of one or more portable space heaters or portable space coolers shall not be used to achieve compliance with this section.

R328.1 General.

~~The design and construction of pools and spas shall comply with the International Swimming Pool and Spa Code.~~

SECTION R333 FIREPLACE RESTRICTIONS

Section R333 is governed by the Maricopa County, Arizona, Air Quality Department Standards.

R403.1.1 Minimum size.

The minimum width, W, and thickness, T, for concrete footings shall be in accordance with Tables R403.1(1) through R403.1(3) and Figure R403.1(1) or R403.1.3, as applicable, but not less than 12 inches (305 mm) in width and 6 inches (152 mm) in depth. The footing width shall be based on the load-bearing value of the soil in accordance with Table R401.4.1(1). Footing projections, P, shall be not less than 2 inches (51 mm) and shall not exceed the thickness of the footing. Footing thickness and projection for fireplaces shall be in accordance with Section R1001.2. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1(1). Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1(2) and R403.1(3). Footings for precast foundations shall be in accordance with the details set forth in Section R403.4, Table R403.4, and Figures R403.4(1) and R403.4(2). Crushed stone footings for cast-in-place concrete foundations shall be in accordance with Section R403.5.

Exception: For the enclosure of existing carport and patio covers, non-bearing wood framed exterior walls within the projection of the existing roof may be supported on an existing, uncracked concrete slab. The minimum slab thickness shall be three and one half inches (3.5”), and the construction shall comply with the requirements of R304 for protection against decay.

R606.12 Seismic requirements.

All new masonry elements shall meet the minimum reinforcing requirements of R606.12.2.2.3, R606.12.2.3.2, and R606.12.2.3.3. In addition, the seismic requirements of this section shall apply to the design of masonry and the construction of masonry building elements located in Seismic Design Category D0, D1 or D2. Townhouses in Seismic Design Category C shall comply with the requirements of Section R606.12.2. These requirements shall not apply to glass unit masonry conforming to Section R607, anchored masonry veneer conforming to Section R703.8 or adhered masonry veneer conforming to Section R703.12.

N1101.4.1 RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating

System Standards (MINHERS) for third party testing and inspections shall be deemed to meet the requirements of sections N1102.5.1, N1102.5.1.2 and N1103.3.7 and shall meet the following conditions:

1. Third Party Testing & Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review Procedures;
2. Sampling in accordance with Chapter 6 of the MINHERS Standards shall be performed by Raters or Rating Field Inspectors Working under a RESNET Accredited Sampling Provider;
3. Third Party Testing is required for the following items:
 - a. N1102.5.1– Building Envelope – Thermal Air Barrier Checklist
 - b. N1102.5.1.2 – Testing – Air Leakage Rate
 - c. N1103.3.7 – Sealing – Duct Tightness
 - d. Any other testing and inspections required under the code;
4. Alternate testing and inspection programs and protocols shall be allowed when approved by the Building Code Official.

**TABLE N1102.5.1.1
AIR BARRIER, AIR SEALING AND INSULATION INSTALLATION**

COMPONENT	AIR BARRIER CRITERIA INSULATION	INSTALLATION CRITERIA
Rim joists	Rim joists shall include an air barrier. The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed.	Rim joists shall be insulated so that the insulation maintains permanent contact with the exterior rim board.

No changes to footnotes.

N1102.5.1.2 (R402.5.1.2) Air leakage testing.

The building or each dwelling unit or sleeping unit in the building shall be tested for air leakage. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779, ASTM E1827 or ASTM E3158 and reported at a pressure differential of 0.2 inch water gauge (50 Pascals). Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope have been sealed.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, where installed at the time of the test, shall be open.
4. Exterior or interior terminations for continuous ventilation systems shall be sealed.
5. Heating and cooling systems, where installed at the time of the test, shall be turned off.
6. Supply and return registers, where installed at the time of the test, shall be fully open.

Exceptions:

1. For heated, attached private garages and heated, detached private garages accessory to one- and two-family dwellings and townhouses not more than three stories above grade plane in height, building thermal envelope tightness and insulation installation shall be considered acceptable where the items in Table N1102.5.1.1, applicable to the method of construction, are field verified. Where required by the code official, an approved third party independent from the installer shall inspect both air barrier and insulation installation criteria. Heated, attached private garage space and heated, detached private garage space shall be thermally isolated from all other habitable, conditioned spaces in accordance with Sections N1102.2.13 and N1102.4.5, as applicable.
2. Additions, alterations, renovations, or repairs to existing structures.
3. Conditioned garages.

N1104.1 Lighting equipment. ~~All~~ Not less than ninety percent (90%) of the permanently installed luminaires shall be capable of operation with an efficacy of not less than 45 lumens per watt or shall contain lamps capable of operation with an efficacy of not less than 65 lumens per watt.

Exceptions:

1. Appliance lamps
2. Antimicrobial lighting used for the sole purpose of disinfecting
3. General service lamps complying with DOE 10 CFR, Part 430.32
4. Luminaires with a rated electric input of not greater than 3.0 watts

N1104.2 Interior lighting controls. All permanently installed luminaires shall be controlled as required in Sections N1104.2.1 and N1104.2.2.

Exception: Lighting controls shall not be required for safety or security lighting.

N1104.2.1 (R404.2.1) Habitable spaces.

All permanently installed luminaires in *habitable spaces* shall be controlled with a *manual dimmer* or with an *automatic shutoff control* that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a *manual* control to allow occupants to turn the lights on or off.

N1104.2.2 (R404.2.2) Specific locations.

All permanently installed luminaires in garages, unfinished *basements*, laundry rooms and utility rooms shall be controlled by an *automatic shutoff control* that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a *manual* control to allow occupants to turn the lights on or off.

N1104.3 (R404.3) Exterior lighting controls.

Exterior lighting controls shall comply with Section N1104.3.1.

N1104.3.1 (R404.3.1) Controls for individual dwelling units.

Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

1. Lighting shall be controlled by a *manual* on and off switch that permits automatic shutoff actions.
2. Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
3. Controls that override *automatic* shutoff actions shall not be allowed unless the override automatically returns *automatic* control to its normal operation within 24 hours.

N1104.1.5 (R404.1.5) Gas lighting.

Gas-fired lighting appliances shall not be equipped with a continuous pilot and shall be equipped with an on-demand pilot, intermittent ignition or interrupted ignitions as defined by ANSI Z21.20.

TABLE N1106.5 (R406.5)

TABLE R1106.5

MAXIMUM ENERGY RATING INDEX

MAXIMUM ENERGY RATING INDEX		
CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX WITH OPP
0 and 1	51	35
2	51 <u>57</u>	34
3	50	33
4	53	40
5	54	43
6	53	43
7	52	46
8	52	46

N1111.1.1 (R503.1.1) Building thermal envelope.

Alterations of existing building thermal envelope assemblies shall comply with this section. New building thermal envelope assemblies that are part of the alteration shall comply with Section N1102. The R-value of insulation shall not be reduced nor the U-factor of a building thermal envelope assembly be increased as part of a building thermal envelope alteration, except where the building after the alteration complies with Section N1105 or N1106.

Exception: The following alterations shall not be required to comply with the requirements for new construction ~~provided that the energy use of the building is not increased:~~

5. Storm windows installed over existing fenestration.
6. Roof recover.
7. Surface-applied window film installed on existing single-pane fenestration assemblies to reduce solar heat gain provided that the code does not require the glazing or fenestration assembly to be replaced.
8. Roof replacement where roof assembly insulation is integral to or located below the structural roof deck.
9. For existing finished garages, air conditioning units may be installed if not intended for continuous human comfort without requiring the garage to comply with Chapter 11 of the IRC.

G2415.12 (IFGC 404.12) Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade, ~~except as provided for in Section G2415.12.1~~ for metal piping and 18 inches (457 mm) for plastic piping.

~~**P2905.3 Hot water supply to fixtures.** The developed length of hot water piping, from the source of the hot water to the fixtures that require hot water, shall not exceed 100 feet (30.48 mm). Water heaters and recirculating system piping shall be considered to be sources of hot water.~~

~~**E3606.5 Surge protection.**~~

~~All services supplying one- and two-family dwelling units shall be provided with a surge-protective device (SPD) installed in accordance with Sections E3606.5.1 through E3606.5.3.~~

~~**E3606.5.1 Location.**~~

~~The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.~~

~~**Exception:** The SPD shall not be required to be located in the service equipment if located at each next-level distribution equipment downstream toward the load.~~

~~**E3606.5.2 Type.**~~

~~The SPD shall be a Type 1 or Type 2 SPD.~~

~~**E3606.5.3 Replacement.**~~

~~Where service equipment is replaced, all of the requirements of this section shall apply. [230.67]~~

E3704.4 Lighting and general use receptacle load.

A load of not less than 3 volt-amperes shall constitute the minimum unit load for each square foot of floor area (33 VA for each square meter of floor area). The floor area for each floor shall be calculated from the outside dimensions of the building. The calculated floor area shall not include open porches, garages, or unfinished spaces not adaptable for future use as a habitable room or occupiable space. The minimum lighting load shall be determined using the minimum unit load and floor area as specified in this section. Motors rated less than 1/8 horsepower and connected to a lighting circuit shall be considered part of the minimum lighting load. [220.5(C) and 220.41]

E3704.7 Townhouses.

Dwelling Unit Feeders. Feeder circuits in each dwelling unit of attached one-family dwellings (townhouses) shall supply only loads within that dwelling unit or loads associated with that dwelling unit. Feeders serving adjoining townhouse dwelling units shall not pass through, above, below, or be attached to other townhouse dwelling units, regardless of ownership of the individual townhouse units.

E3901.4.2 Island and peninsular countertops and work surfaces.

~~Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with Section E3901.4.3. If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.~~

At least one (1) receptacle shall be installed at each island and peninsular countertop space with a long dimension of 24 inches (600 mm) or greater and a short dimension of 12 inches (300 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall.

E3901.4.3 Receptacle outlet location.

Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in the exception to Section E3901.4.1, or appliances occupying assigned spaces shall not be considered as these required outlets. Required receptacle outlets shall be located in one or more of the following:

1. On or above, but not more than 20 inches (508 mm) above, the countertop or work surface.
2. In a countertop using receptacle outlet assemblies listed for the use in countertops.
3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops.

Exception: To comply with the following conditions, receptacle outlets shall be mounted not more than 12 inches (300 mm) below the countertop or work surface. Receptacles mounted below a countertop or work surface in accordance with this exception shall not be located where the countertop or work surface extends more than 6 inches (150 mm) beyond its support base:

1. Construction to meet accessibility requirements; and
2. On island and peninsular countertops or work surface where the surface is flat across its entire surface (no backsplashes, dividers, etc.) and there are no means to mount a receptacle within 20 inches (500 mm) above the countertop or work surface, such as an overhead cabinet.

E3901.9 Basements, garages and accessory buildings.

Not less than one receptacle outlet, in addition to any provided for specific equipment, shall be installed in each separate unfinished portion of a basement; in each vehicle bay at not less than eighteen inches (18") (457 mm) and not more than 5.5 feet (1676 mm) above the floor in attached garages; in each vehicle bay at not less than eighteen inches (18") (457 mm) and not more than 5.5 feet (1676 mm) above the floor in detached garages that are provided with electric power and in accessory buildings that are provided with electric power. Receptacles supplying only a permanently installed premises security system shall not be considered as meeting these requirements. [210.52(G)(1), (2), and (3)]

R3902.2 Garage and accessory building receptacles. 125-volt through 250-volt receptacles installed in garages and grade-level portions of unfinished accessory buildings used for storage or work areas and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel. [210.8(A)(2)]

Exception: Garage door opener receptacles, which are not readily accessible.

E3902.14 Outdoor outlets.

All outdoor outlets, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

1. Garages that have floors located at or below grade level
2. Accessory buildings
3. Boathouses

Exceptions:

1. GFCI protection shall not be required on lighting outlets other than those covered in Section 210.8(F) of NFPA 70.
2. GFCI protection shall not be required for receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment where such equipment is protected as required by NFPA 70.
3. GFCI protection shall not be required for listed HVAC equipment. ~~This exception shall expire September 1, 2026. [210.8(F)]~~

E3905.6.2 Ceiling outlets.

For outlets used exclusively for lighting, the box shall be designed or installed so that a luminaire or lampholder can be attached. Such boxes shall be capable of supporting a luminaire weighing up to 50 pounds (22.7 kg). A luminaire that weighs more than 50 pounds (22.7 kg) shall be supported independently of the outlet box, unless the outlet box is listed for not less than the weight to be supported. The interior of the box shall be marked by the manufacturer to indicate the maximum weight that the box is permitted to support. [314.27(A)(2)]

Outlet boxes mounted in the ceilings of family rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, and similar areas of dwelling occupancies, and located in an area of the ceiling typical for the installation of a ceiling-suspended (paddle) fan shall be installed to accommodate a ceiling-suspended (paddle) fan in accordance with section E3905.8.

E3905.8 Boxes at fan outlets.

Outlet boxes and outlet box systems used as the sole support of ceiling-suspended fans (paddle) shall be marked by their manufacturer on the interior of the box as suitable for this purpose and shall not support ceiling-suspended fans (paddle) that weigh more than 70 pounds (31.8 kg). For outlet boxes and outlet box systems designed to support ceiling-suspended fans (paddle) that weigh more than 35 pounds (15.9 kg), the required marking shall include the maximum weight to be supported.

~~Outlet boxes mounted in the ceilings of habitable rooms in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:~~

Where a ceiling-suspended (paddle) fan is not installed, the outlet box shall comply with one of the following:

1. Listed for sole support of ceiling-suspended (paddle) fans.
2. An outlet box complying with the applicable requirements of Section E3905.6 and installed so as to allow direct access through the box to structural framing capable of supporting of a ceiling-suspended (paddle) fan bracket or equipment. [314.27(C)]

E3908.9 Types of equipment grounding conductors.

The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

1. A copper, aluminum, or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and in the form of a wire or a busbar of any shape.
2. Rigid metal conduit.
3. Intermediate metal conduit.
4. Electrical metallic tubing with an additional equipment grounding conductor sized in accordance with Table E3908.13.

E4002.11 Bathtub and Shower Space.

~~Receptacles shall not be installed inside of the tub or shower or within a zone measured 900 mm (3 ft) horizontally from any outside edge of the within or directly over a bathtub or shower stall, including the space outside the bathtub or shower stall space below the zone.~~

~~The zone also includes the space measured vertically from the floor to 2.5 m (8 ft) above the top of the bathtub rim or shower stall threshold. The identified zone is all-encompassing and shall include the space directly over the bathtub or shower stall and the space below this zone, but not the space separated by a floor, wall, ceiling, room door, window, or fixed barrier.~~

Exceptions:

1. ~~Receptacles installed in accordance with 680.73 shall be permitted.~~
2. ~~In bathrooms with less than the required zone, the receptacle(s) required by 210.52(D) shall be permitted to be installed opposite the bathtub rim or shower stall threshold on the farthest wall within the room.~~
3. ~~Weight supporting ceiling receptacles (WSCR) shall be permitted to be installed for listed luminaires that employ a weight supporting attachment fitting (WSAF) in damp locations complying with 410.10(D).~~

- ~~4. In a dwelling unit, a single receptacle shall be permitted for an electronic toilet or personal hygiene device such as an electronic bidet seat. The receptacle shall be readily accessible and not located in the space between the toilet and the bathtub or shower.~~

Appendix AC Local Amendment

DELETE this Appendix AC in its entirety and REPLACE it with the following:

SWIMMING POOLS, SPAS, AND HOT TUBS

SECTION AC101 GENERAL

AC101.1 General.

The provisions of this appendix shall control the design and construction of swimming pools, spas, and hot tubs installed in or on the lot of one- and two-family dwellings.

SECTION AC 102 DEFINITIONS

AC102.1 General.

For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2:

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall, or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating, and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 18 inches (457 mm) deep at any point, and, other than hot tubs and spas, is wider than 8 feet (2400 mm) at any point. This includes in-ground, above ground, and on-ground swimming pools and, other than the width, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AC103 SWIMMING POOLS

AC103.1 In-ground swimming pools.

In-ground swimming pools shall be designed and constructed in conformance with ANSI/APSP/ICC-5 2011.

AC103.2 Above-ground and on-ground swimming pools.

Aboveground and on-ground swimming pools shall be designed and constructed in conformance with ANSI/APSP/ICC-4 2012.

SECTION AC104 SPAS AND HOT TUBS

AC104.1 Permanently installed spas and hot tubs.

Permanent spas and hot tubs shall be designed and constructed in conformance with ANSI/PHTA/ICC-3 2014.

AC104.2 Portable spas and hot tubs.

Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/APSP/ICC-6 2013.

SECTION AC105 BARRIER REQUIREMENTS

AC105.1 Application.

The provisions of this chapter shall control the design of barriers for residential swimming pools, spas, and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas, and hot tubs.

AC105.2 Outdoor swimming pool.

An outdoor swimming pool, including in-ground, above-ground, or on-ground swimming pools, hot tub, or spa shall have a barrier which shall comply with the following:

1. The top of the barrier shall be at least forty-eight inches (48") (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be two inches (2") (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the swimming pool structure is above grade, such as an above-ground swimming pool, the barrier may be at ground level, such as the swimming pool structure, or mounted on top of the swimming pool structure. Where the barrier is mounted on top of the swimming pool structure, the maximum vertical clearance between the top of the swimming pool structure and the bottom of the barrier shall be four inches (4") (102 mm). Any decorative design work on a barrier located entirely upon the subject parcel, and on the side away from the swimming pool, such as protrusions, indentations, cutouts, or other fixed or moveable, attached or unattached, objects within twenty-four inches (24") of the pool barrier which render the barrier easily climbable, are prohibited. The wall, fence, or barrier shall be at least twenty inches (20") from the water's edge.
2. Openings in the barrier shall not allow passage of a four-inch (4") (102mm) diameter sphere.

3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members, and the distance between the tops of the horizontal members is less than forty-five inches (45") (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed one and three quarters inches (1.75") (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed one and three quarters inches (1.75") (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is forty-five inches (45") (1143 mm) or more, spacing between vertical members shall not exceed four inches (4") (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed one and three quarters inches (1.75") (44 mm) in width.
6. Chain link fencing shall not be used as a barrier.
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be no more than one and three quarters inches (1.75") (44 mm).
8. Access gates shall comply with the requirements of Section AC105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the swimming pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than fifty-four inches (54") (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - 8.1 The release mechanism shall be located on the pool side of the gate at least five inches (5") (125 mm) below the top of the gate, and
 - 8.2 The gate and barrier shall have no opening greater than one half inch (0.5") (12.7 mm) within eighteen inches (18") (457 mm) of the release mechanism.
 - 8.3 All pedestrian access gates and any other access gates shall have a sign attached to both sides of the gate stating the following: "Protect your children, Keep Gate Closed". Details of minimum sign size, letter type, and color and other specifications of the sign shall be provided by the Building Safety Division.
9. Where a wall of a dwelling or garage serves as part of the barrier, one of the following conditions shall be met:
 - 9.1 The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
 - 9.2 Openings in the wall of the residence or living area which constitute part of the barrier will be protected in the following ways:
 - 9.2.1 Doors will be protected in one of the following ways:

- 9.2.1.1 Add self-closing, self-latching devices installed on all doors with direct access to the pool area, with the release mechanism located minimum of fifty-four inches (54") above the floor.
- 9.2.1.2 An alarm shall be installed on all doors with direct access to the pool. The alarm shall sound continuously for a minimum of 30 seconds within seven seconds after the door is opened, and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(s) shall be located at least fifty-four inches (54") (1372 mm) above the threshold of the door.
- 9.2.1.3 Pet doors which provide direct access to the pool prohibited.
- 9.2.2 Windows with access to the pool area shall be protected in the following ways:
 - 9.2.2.1 Emergency escape or rescue windows from sleeping areas with access to the swimming pool will be equipped with a latching device not less than fifty-four inches (54") above the floor.
 - 9.2.2.2 All other openable windows with similar access will also be equipped with a latching device not less than fifty-four inches (54") above the floor or shall be equipped with a key-lock device that prevents opening the window more than 4 inches.
- 9.3 Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
- 10. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then:
 - 10.1 The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
 - 10.2 The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AC105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.

AC105.3 Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section AC105.2, Item 9.

AC105.4 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

AC105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346-1991(2018), shall be exempt from the provisions of this appendix.

AC 105.6 Retroactivity. The owner of every dwelling with an existing swimming pool or spa which was constructed prior to the effective date of this Appendix AC (amended) and to which this Appendix would otherwise apply, must comply with this Appendix not later than one year after the effective date of this Appendix.

AC105.7 Duty to comply. Every person who owns, rents, occupies, or controls a swimming pool or spa to which this Appendix AC (amended) applies, shall comply with all the provisions of this Appendix at all times.

AC105.7.1 No person shall construct a swimming pool or spa to which this Appendix applies in a manner, which is not in compliance with this Appendix. No person shall remove, alter, disable, render inoperable, or change, either temporarily or permanently, any device or structure installed or constructed in accordance with this Appendix, in such a manner that the device or structure or the barrier to which it is attached or of which it is a part, is no longer in compliance with this Appendix.

AC105.7.2 Every person who contracts to build a swimming pool or spa to which this Appendix applies, or who contracts to sell, lease or rent a dwelling with a swimming pool or spa to which this Appendix applies, shall, at the time of executing the contract, give to the buyer, lessee, or renter, a copy of this Appendix.

AC105.8 Violations and Penalties. Every person who violates any provision of this Appendix AC (amended) is guilty of a misdemeanor, and upon conviction shall be punished by imprisonment for up to six months, or by a fine of not more than two thousand five hundred dollars, or both such fine and imprisonment.

Appendix BA Local Amendment

DELETE this appendix in its entirety and REPLACE as follows:

Appendix BA circumstances are governed by the State of Arizona Office of Manufactured Housing, including its established Regulations.

APPENDIX BB TINY HOUSES

SECTION BB102

DEFINITIONS

BB102.1 General.

TINY HOUSE. A dwelling that is no more than 400 square feet (37 m²) and no less than 200 square feet (18.567 m²) ~~or less~~ in floor area excluding lofts.

**Appendix BG
Local Amendment**

SOUND TRANSMISSION

DELETE this appendix in its entirety and REPLACE as follows:

BG 102.2. Sound Attenuation - General. Construction outside the areas designated as having a day-night average sound level 65 decibels or higher as determined by the use of the 1988 noise contour lines developed by the Maricopa County Association of Governments (MAG) shall be deemed to have achieved the interior noise level of 45 decibels specified in ARS 28-8482 when the residences are constructed using one of the following methods:

1. Prescriptive Method:

- 1.1 Exterior wall penetrations by pipe ducts or conduits shall be sealed.
- 1.2 Mailboxes shall not be used through the door or wall.
- 1.3 Windows shall have two (2) panes of glass and a sound transmission rating of STC- 22. All operable windows shall be weather stripped and air tight in accordance with ASTM E-283-04 Standard. Perimeter window frames shall be sealed.
- 1.4 All exterior side hinge doors shall be solid core wood or insulated hollow metal, at least one inch (1") thick and fully weather stripped. All exterior doors other than side hinge doors shall be solid wood, foam filled fiberglass or metal construction.
- 1.5 Fireplaces shall be provided with well-fitting dampers.
- 1.6 Exterior walls shall achieve a minimum overall thermal resistance rating of eighteen (18). (Exterior walls shall be at least four inches (4") in nominal thickness and shall be finished on the outside with block, siding, sheathing, or stucco on one inch (1") Styrofoam. A minimum of R-13 fiberglass or cellulose insulation shall be installed continuously throughout the cavity space within the wall.)
- 1.7 All roof spaces shall achieve a minimum overall thermal resistance rating of thirty (30).

2. Performance Method:

- 2.1 A certified statement by a licensed architect or engineer certifying that the residence achieves the requirement of a maximum interior noise level of forty-five (45) decibels. The certified statement shall include testing and analysis documentation supporting the statement.

BG 102.2.1 Sound Attenuation within the 65 decibel contour. Construction inside the areas designated as having a day-night average sound level sixty-five (65) decibels as determined by the use of the 1988 noise contour lines developed by the Maricopa County Association of Governments shall be deemed to have

achieved the interior noise level of forty-five (45) decibels specified in A.R.S. § 28-8482 when the residences are constructed using one of the following methods:

1. Prescriptive Method:

Building systems and components that comply with the Maricopa County Association of Governments 2013 Building Code Amendments and Standards Manual, Section 1229, Appendix A.

2. Performance Method:

A certified statement by a licensed architect or engineer certifying that the residence achieves the requirement of a maximum interior noise level of forty-five (45) decibels. The certified statement shall include testing and analysis documentation supporting the statement.

**Appendix CH
Local Amendment**

CH101.1 Scope. Private sewage disposal systems are governed by the State of Arizona Department of Environmental Quality, including its established regulations.

2024 International Fire Code Local Amendments

2024 International Fire Code PROPOSED Local Amendments

The following Appendices of the International Fire Code, 2024 Edition, are hereby adopted in their entirety:

- Appendix H - Hazardous Materials Management Plan (HMMP)
and Hazardous Materials Inventory Statement (HMIS) Instructions
- Appendix L - Requirements for Fire Fighter Air Replenishment Systems
- Appendix N - Indoor Trade Shows and Exhibits

The following Appendices of the International Fire Code, 2024 Edition, are hereby adopted in their entirety and amended in accordance with the Local Amendments below:

- Appendix B - Fire-Flow Requirements for Buildings
- Appendix C - Fire Hydrant Location and Distribution
- Appendix D - Fire Apparatus Access Roads

The 2024 International Fire Code Local Amendments are as follows:

[A] 101.1 Title. These regulations shall be known as the Fire Code of the City of Surprise, hereinafter referred to as "this code".

[A] 101.2 Scope. The provisions of this Code shall supplement all adopted City of Surprise Ordinances relating to fire safety and shall apply to all entities without restriction, unless specifically exempted. This code establishes regulations affecting or relating to buildings, processes, premises and safeguards regarding all of the following:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices.
2. Conditions hazardous to life, property or public welfare in the occupancy of buildings or premises.
3. Fire hazards in the buildings or on the premises from occupancy or operation.
4. Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.
5. Conditions affecting the safety of fire fighters and emergency responders during emergency operations.

[A] 104.10.2 Suspicious Origin. If the Fire Investigator determines the origin of a fire is suspicious, or if a fire involves a loss of life, the Fire Investigator shall notify the City of

Surprise Police Department and shall secure the scene until the City of Surprise Police Department assumes control of the scene and the investigation.

[A] 106.2.2 Fire protection system shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate compliance with this code and the construction documents, and shall be approved prior to the start of installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9. Construction documents (shop drawings) for fire protection systems shall be reviewed and stamped by a design professional with a minimum of NICET level III or equivalent certification.

~~**[A] 112.1 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*. Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303.~~

~~**[A] 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.~~

~~**[A] 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.~~

~~**[A] 112.4 Administration.** The *fire code official* shall take action without delay in accordance with the decision of the board.~~

[A] 113.4 Violation penalties. 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 or criminal violation and could result in civil judgement or referral for a Class 1 misdemeanor charge. [specify offense], punishable by a fine of not more than [amount] dollars or by imprisonment not exceeding [number of days], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

308.1.7 Sky lanterns. A person shall not release or cause to be released an untethered or tethered sky lantern.

503.1.2.1. Maximum distance. If the hose lay distance measured from the fire apparatus to the farthest point on the building exceeds 150 feet (45720 mm), additional fire apparatus access is required.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than ~~20 feet (6096 mm)~~ 26 feet (7925 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)~~ 15 feet from grade (4572 mm).

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be specified 2018 American Association of State Highway and Transportation Officials (AASHTO) SU-40.

503.3 Marking. Where required by the *fire code official*, approved City of Surprise 'No Parking – Fire Lane' signs with red painted curbs that include the words "NO PARKING—FIRE LANE" shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which *fire lanes* are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

Exception: Fire apparatus roads serving only Occupancy Group R-3 are required to have signs and red painted curbs installed when the road width is 20 feet (6096 mm) or less.

503.3.1 Fire Lane sign. Fire lane signs shall be placed every 75 feet (22860 mm) and starting 15 feet (4572 mm) from street corners and intersections, or as approved by the *fire code official*.

1. Signs shall be attached to an approved stationary pole set in concrete at a minimum depth of 18 inches (457 mm).
2. The bottom of the sign shall be 7 feet (2137 mm) above grade.
3. Signs shall be plainly visible at all times and unobstructed with a minimum of 3-foot (914 mm) clearance along line of sight.
4. The signs shall face oncoming traffic.

503.3.2 Fire Lane No Parking-Fire Lane stencil. 'NO PARKING-FIRE LANE' shall be spaced equal distance between the fire lane no parking signs.

1. The curb shall be painted red with white lettering.
2. Lettering shall be a minimum of 4 inches (102 mm) high with ½-inch (13 mm) brush stroke.

503.6 Security gates. ~~The installation of security gates across a fire apparatus access road shall be approved by the *fire code official*.~~ Where security gates are installed across fire access roads, they shall be electric with battery backup and shall be provided with electronic preemption equipment, controls, electronic Knox key switches, and equipped with a manual release mechanism approved by the *fire code official*. 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 F2200.

Exceptions:

1. Where approved by the *fire code official*, manually operated gates and barricades may be used and shall be installed with Knox Padlocks.
2. Construction site gates shall be manually operated and secured with the construction company's padlock. During construction operations, the gate shall be kept open at all times.
3. Fire apparatus access roads serving three or fewer Occupancy Group R-3 one and two-family dwellings.

503.6.1 Existing security gates. Existing gates at entry points into gated communities shall be electric with battery backup, and shall be provided with electronic preemption equipment, controls, electronic Knox key switches, and manual release mechanisms approved by the *fire code official*.

503.6.2 Gate setback. To allow responding personnel the ability to safely operate the gate access, the minimum gate set back from the public right-of-way shall be at least 40 feet.

503.6.3 Gate clear width. Clear width of the roadway shall be a minimum of 20 feet (6096 mm) clear width at all entrance gates. Exit Only roadways shall be a minimum of 20 feet (6096 mm) clear width at all exit gates, unless otherwise required by the *fire code official*.

505.3 Commercial and Public Building Address Identification. Commercial address identification shall be illuminated either externally or internally with the number height and stroke approved by the *fire code official*.

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or firefighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be an approved Knox box and shall contain keys to gain necessary access as required by the *fire code official*.

506.1.1 Locks. An approved Knox Padlock shall be installed on manual gates or similar barriers where required by the *fire code official*.

506.1.3 Swimming pool gates. All pedestrian gates in residential and commercial occupancies that provide access to swimming pools open to the public or controlled by Homeowners Associations shall have Knox Boxes mounted near the gate containing a key providing access to the pedestrian gate. If a card reader or fob system is used, a Knox Box with a toggle switch shall be installed.

507.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises prior to combustibles

being stored on site on which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the *fire code official*.

Exceptions:

- ~~1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).~~
- ~~2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).~~

509.3 Fire Equipment Room. Each new building with a fire sprinkler riser or fire pump shall provide an enclosed fire equipment room. The fire equipment room shall incorporate the following:

1. The fire equipment room shall be located within the building footprint and shall be separated from the rest of the building by permanent construction;
2. The fire equipment room shall also house the fire alarm control panel;
3. The fire equipment room shall be used for fire protection equipment only;
4. The fire sprinkler riser shall be provided with a minimum of 36 inches of clearance on three sides and 18 inches on the rear side. The fire alarm control panel shall also have 36 inches of clearance;
5. The fire equipment room shall have an exterior access door approved by the *fire code official*. For rooms housing a fire sprinkler riser, the exterior door shall be a minimum of 36 inches wide and 80 inches tall. For rooms housing a fire pump, the door shall be adequately sized to remove the largest piece of equipment; and
6. Fire equipment rooms housing fire pumps shall include the design requirements of the 2022 Edition of National Fire Protection Association (NFPA) 20. The designing architect or engineer shall show these requirements on the applicable architectural, plumbing, mechanical, or other sheets for plan review.

Exception:

1. Fire sprinkler risers for canopies shall be installed in an approved enclosure or cabinet.

510.1 Emergency responder communications enhancement systems in new buildings. *Approved* in-building emergency responder communications enhancement system (“ERCES”) for emergency responders shall be provided in all new buildings. In-building ERCES within the building shall be based on the existing coverage levels of the public safety communications systems utilized by the jurisdiction, measured at the exterior

of the building. The ERCES, where required, shall be of a type determined by the *fire code official* and the ~~frequency license holder(s)~~ Regional Wireless Cooperative (RWC). This section shall not require improvement of the existing public safety communications systems.

510.6.1 Testing and proof of compliance. The *owner* of the building, or the *owner's* authorized agent, shall have the in-building ERCES inspected and tested by qualified personnel (i) annually and (ii) where structural or RWC radio system changes occur, including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building coverage test as described in Section 510.5.4;
2. Signal boosters shall be tested to verify that the gain is the same as upon initial installation and acceptance or set to optimize the performance of the system;
3. Backup batteries and power supplies shall be tested under load of a period of 1-hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined; and
4. All active components shall be checked to verify operation within the manufacturer's specifications.

At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.4, shall be submitted to the *fire code official*.

510.6.2 Additional frequencies; system upgrades. The building owner shall modify or expand the in-building emergency responder communications enhancement system at their expense in the event frequency changes are required by the FCC or ~~other radio licensing authority~~ RWC, or additional frequencies or repeater locations are made available by the FCC or ~~other radio licensing authority~~ RWC. Prior approval of an in-building emergency responder communications enhancement system on previous frequencies does not exempt this section.

901.5.2 Stocking and loading. No portion of the building may be stocked or loaded with combustible regular stock, furnishings, or fixtures until:

1. The automatic sprinkler system has been tested and approved;
2. When required, the fire alarm system shall be approved and monitored, or a fire watch shall be provided before stocking or loading; and
3. A temporary certificate of occupancy has been issued.

903.2 Where required. *Approved automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Exception:-

~~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.~~

903.2.1 Group A. An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section.

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided throughout stories containing Group A-1 occupancies and throughout all stories from the Group A-1 occupancy to and including the levels of exit discharge serving that occupancy. ~~where one of the following conditions exists:~~

- ~~1. The fire area exceeds 12,000 square feet (1115 m²).~~
- ~~2. The fire area has an occupant load of 300 or more.~~
- ~~3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.~~
- ~~4. The fire area contains a multiple-theater complex.~~

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided throughout stories containing Group A-2 occupancies and throughout all stories from the Group A-2 occupancy to and including the levels of exit discharge serving that occupancy. ~~where one of the following conditions exists:~~

- ~~1. The fire area exceeds 5,000 square feet (464 m²).~~
- ~~2. The fire area has an occupant load of 100 or more.~~
- ~~3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.~~

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy. ~~where one of the following conditions exists:~~

- ~~1. The fire area exceeds 12,000 square feet (1115 m²).~~
- ~~2. The fire area has an occupant load of 300 or more.~~
- ~~3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.~~

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy. ~~where one of the following conditions exists:~~

- ~~1. The fire area exceeds 12,000 square feet (1115 m²).~~
- ~~2. The fire area has an occupant load of 300 or more.~~
- ~~3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.~~

903.2.1.5 Group A-5. An *automatic sprinkler system* shall be provided for all enclosed Group A-5 accessory use areas. ~~in excess of 1,000 square feet (93 m²).~~

903.2.1.5.1 Spaces under grandstands or bleachers. Enclosed spaces under grandstands or bleachers shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1. ~~where either of the following exist:~~

- ~~1. The enclosed area is 1,000 square feet (93 m²) or less and is not constructed in accordance with Section 1030.1.1.1.~~
- ~~2. The enclosed area exceeds 1,000 square feet (93 m²).~~

903.2.1.7 Multiple fire areas. An *automatic sprinkler system* shall be provided where multiple *fire areas* of Group A-1, A-2, A-3 or A-4 occupancies share *exit* or *exit access* components. ~~and the combined occupant load of these fire area is 300 or more.~~

903.2.2 Group B. An automatic sprinkler system shall be provided for Group B occupancies. ~~as required in Sections 903.2.2.1 and 903.2.2.2.~~

903.2.2.1 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility. ~~where either of the following conditions exist at any time:~~

- ~~1. Four or more care recipients are incapable of self-preservation.~~
- ~~2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility. In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest level of exit discharge, the level of exit discharge, and all floors below the level of exit discharge.~~

~~Exception: Floors classified as an open parking garage are not required to be sprinklered.~~

903.2.3 Group E. An *automatic sprinkler system* shall be provided for Group E occupancies. ~~as follows:~~

- ~~1. Throughout all Group E *fire areas* greater than 12,000 square feet (1115 m²) in area.~~
- ~~2. The Group E *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.~~

~~Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an *automatic sprinkler system* is not required in any area below the lowest *level of exit discharge* serving that area.~~

- ~~3. The Group E *fire area* has an *occupant load* of 300 or more.~~

903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 or Group F-2 Occupancy, ~~where one of the following conditions exists:~~

- ~~1. A Group F-1 fire area exceeds 12,000 square feet (1115 m²).~~
- ~~2. A Group F-1 fire area is located more than three stories above grade plane.~~

~~3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).~~

~~4. A Group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.~~

~~5. A Group F-1 occupancy is used to manufacture vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.~~

903.2.4.1 Woodworking operations. An *automatic sprinkler system* shall be provided throughout all Group F-1 occupancy *fire areas* that contain woodworking operations in excess of 2,500 square feet (232 m²) or in areas that generate finely divided combustible waste or use finely divided combustible materials.

903.2.4.3 Group F-1 upholstered furniture or mattresses. An automatic sprinkler system shall be provided throughout a Group F-1 fire area that exceeds 2,500 square feet (232 m²) used for the manufacture of upholstered furniture or mattresses.

903.2.5.3 Pyroxylin plastics. An *automatic sprinkler system* shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 20 pounds (9.071 kg). ~~100 pounds (45 kg).~~

903.2.6 Group I. An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exceptions:

~~1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.~~

~~2. An *automatic sprinkler system* is not required where Group I-4 day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior *exit door*.~~

~~3. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the *level of exit discharge* and all floors below the *level of exit discharge* other than areas classified as an open parking garage.~~

903.2.7 Group M. An *automatic sprinkler system* shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

~~1. A Group M *fire area* exceeds 12,000 square feet (1115 m²).~~

~~2. A Group M *fire area* is located more than three stories above *grade plane*.~~

~~3. The combined area of all Group M *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).~~

903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted required in Group R-3 occupancies and attached garages where there is inadequate water supply in accordance with Section 507.5.1, for the use of the fire protection service to protect buildings and structures. The system shall be equipped with a swing check valve approved for use in a residential automatic fire sprinkler systems.

903.2.8.1.1 One- and two-family dwellings in areas without adequate water supply. Dwellings and attached garages shall have approved automatic sprinkler systems.

Exceptions:

1. Dwellings that have a fire flow of at least 1,500 gallons per minute (95 LIS) for a minimum duration of 30 minutes.

903.2.8.4.1 Residential Group R-4. An NFPA 13D sprinkler system shall be installed in dwellings and attached garages in accordance with Section 903.3.1.3 and shall be equipped with a swing check valve approved for use in a residential automatic fire sprinkler system. If any portion of a patio has habitable space directly above the patio, all of the patio ceiling shall be equipped with (i) sprinkler protection consisting of an electronically supervised valve located between the domestic water riser control valve and the sprinklers, (ii) an electronically supervised water-flow switch and monitored by an approved monitoring company, and (iii) an operational alarm at a constantly attended location inside the facility. The minimum listed electronic components for the required alarm system shall consist of:

1. Auto Dialer;
2. Primary and secondary phone line or wireless digital alarm; communications transmitter with primary and secondary communications ports;
3. Interior horn-strobe and exterior horn-strobe connected to the fire sprinkler riser water-flow switch;
4. Interconnected smoke alarms; and
5. Carbon monoxide devices with a signal different from the smoke alarm.

Exceptions:

1. Family foster homes and group foster homes licensed by the State of Arizona.
2. Behavioral-Supported Group Homes (BHGH) which serve five (5) or fewer residents and are licensed by the State of Arizona Department of Health Services.

903.2.9 Group S-4. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 or Group S-2 occupancy and shall include canopies used to store RVs, boats, or hazardous materials. ~~where one of the following conditions exists:~~

1. ~~A Group S-1 fire area exceeds 12,000 square feet (1115 m²).~~
2. ~~A Group S-1 fire area is located more than three stories above grade plane.~~
3. ~~The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).~~

- ~~4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).~~
- ~~5. A Group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet (46.4 m²).~~

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the *International Building Code*, as shown:

- ~~1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m²).~~
- ~~2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet (1115 m²).~~
- ~~3. Buildings with repair garages servicing vehicles parked in basements.~~
- ~~4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).~~
- ~~5. A Group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet (46.4 m²).~~

903.2.10 Group S-2 parking garages. An automatic sprinkler system shall be provided throughout buildings classified as parking garages, where any of the following conditions exist:

- ~~1. 1. Where the fire area of the enclosed parking garage, in accordance with Section 406.6 of the *International Building Code*, exceeds 12,000 square feet (1115 m²).~~
- ~~2. 2. Where the enclosed parking garage, in accordance with Section 406.6 of the *International Building Code*, is located beneath other groups.~~

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

- ~~3. 3. Where the fire area of the open parking garage, in accordance with Section 406.5 of the *International Building Code*, exceeds 48,000 square feet (4460 m²).~~

903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas 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 a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

- ~~1. A room or space where sprinklers constitute a serious life or fire hazard because of the nature of the contents, where approved by the fire code official.~~

- ~~2. 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.~~
- ~~3. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
- ~~4. Fire service access elevator machine rooms and machinery spaces.~~
- ~~5. Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.~~

903.3.5.3 Sprinkler Design Safety Factor. Sprinkler systems for NFPA 13, 13R, and 13D systems shall be designed with a minimum safety factor as follows:

1. When the static pressure exceeds 90 psi (621 kPa), the maximum design static pressure shall be 80 psi (552 kPa), regardless of actual test pressure. The slope of the original water supply curve shall be used even though the design pressure is reduced to 80 psi (552 kPa). The actual flow test pressures shall be used to determine the need for sizing fire pumps, pressure reducing valves, and hanger requirements in accordance with NFPA 13, 13D, and 13R.
2. When the static pressure is less than 90 psi (621 kPa), a minimum 10 psi (69 kPa) safety factor shall be provided between the available water supply and the system flow and pressure demand and shall include hose stream allowances required by NFPA 13, 13D, and 13R.

907.2 Where required—new buildings and structures; new tenant spaces and shell buildings regardless of use. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5, ~~unless other requirements are provided by another section of this code.~~

907.2.1 Group A. ~~A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies, where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.~~

907.2.2 Group B. A manual fire alarm system, which activates the occupant notification system in accordance with Section 907.5, shall be installed in Group B occupancies. ~~where one of the following conditions exists:~~

- ~~1. The combined Group B occupant load of all floors is 500 or more.~~

- ~~2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.~~
- ~~3. The fire area contains an ambulatory care facility.~~

907.2.3 Group E. A ~~manual fire alarm system~~ 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. ~~Where automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.~~

Exceptions:

- ~~1. A manual fire alarm system shall not be required in Group E occupancies with an occupant load of 50 or less.~~
- ~~2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.~~
- ~~3. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
 - ~~3.1. Interior corridors are protected by smoke detectors.~~
 - ~~3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.~~
 - ~~3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.~~
 - ~~3.4. Manual activation is provided from a normally occupied location.~~~~
- ~~4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
 - ~~4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.~~
 - ~~4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.~~
 - ~~4.3. Manual activation is provided from a normally occupied location.~~~~

907.2.4 Group F. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:

- ~~1. The Group F occupancy is two or more stories in height.~~
- ~~2. The Group F occupancy has a combined occupant load of 500 or more above or below the lowest level of exit discharge.~~

Exception: ~~Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.~~

907.2.5 Group H. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group H-5 occupancies.

and in occupancies used for the manufacture of organic coatings. An automatic smoke detection system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 60, 62 and 63, respectively.

907.2.6 Group I. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group I occupancies. ~~An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.~~

Exceptions:

- ~~1. Manual fire alarm boxes in sleeping units of Group I-1 and I-2 occupancies shall not be required at exits if located at all care providers' control stations or other constantly attended staff locations, provided that such manual fire alarm boxes are visible and provided with ready access, and the distances of travel required in Section 907.4.2.1 are not exceeded.~~
- ~~2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is approved by the fire code official and staff evacuation responsibilities are included in the fire safety and evacuation plan required by Section 404.~~

907.2.7 Group M. ~~Fire alarm systems shall be required in Group M occupancies in accordance with Sections 907.2.7.1 and 907.2.7.2. A fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies.~~

907.2.8.1 Manual Fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-1 occupancies.

Exceptions:

- ~~1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, egress court or yard.~~
- ~~2. Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:
 - ~~2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~
 - ~~2.2. The notification appliances will activate upon sprinkler water flow.~~
 - ~~2.3. Not fewer than one manual fire alarm box is installed at an approved location.~~~~

907.2.9.1 Manual Fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies, where any of the following conditions apply:

- ~~1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge.~~

- ~~2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit.~~
- ~~3. The building contains more than 16 dwelling units or sleeping units.~~

Exceptions:

- ~~1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by not less than 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, egress court or yard.~~
- ~~2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.~~
- ~~3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1027.6, Exception 3.~~

907.2.10 Group S. A fire alarm system shall be installed in a Group S occupancy as required by Sections 907.2.10.1 and 907.2.10.2 that activates the occupant notification system in accordance with Section 907.5.

907.2.10.1 Public – and self-storage occupancies. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public and self-storage occupancies three stories or greater in height for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.3.

Exceptions:

- ~~1. Visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.~~
2. Visible alarm notification appliances shall not be required in exits as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances shall not be required in critical care areas of Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.

5. A visible alarm notification appliance installed in a nurse's control station or other continuously attended staff location in a Group I-2, Condition 2 suite shall be an acceptable alternative to the installation of visible alarm notification appliances throughout the suite or unit in Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
6. Visible alarm notification appliances shall be required in all employee work areas except when the public use and common use area visible notification appliance can be seen with the employee work area door closed.

1207.8.3 Clearance to exposures.

ESS located outdoors shall be separated by a minimum of 40 150 feet (3048 mm) from the following exposures:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Other exposure hazards.

Exceptions: ~~(Material based on NFPA 855 2023 Ed.)~~

- ~~1. Clearances are permitted to be reduced to 3 feet (914 mm) where a 1-hour free-standing fire barrier suitable for exterior use and extending 5 feet (1524 mm) above and 5 feet (1524 mm) beyond the physical boundary of the ESS installation is provided to protect the exposure.~~
- ~~2. Clearances to buildings are permitted to be reduced to 3 feet (914 mm) where noncombustible exterior walls with no openings or combustible overhangs are provided on the wall adjacent to the ESS and the fire resistance rating of the exterior wall is a minimum of 2 hours.~~
- ~~3. Clearances to buildings are permitted to be reduced to 3 feet (914 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the ESS, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure based on large-scale fire testing complying with Section 1207.1.7.~~

5307.2 Ventilation. ~~Indoor storage and use areas and storage buildings shall be provided with ventilation in accordance with Section 5004.3. Where mechanical ventilation is provided, the systems shall be operational during such time as the building or space is occupied.~~

Exceptions:

- ~~1. A gas detection system complying with Section 5307.2.1 shall be permitted in lieu of mechanical ventilation.~~

~~2. Areas containing insulated liquid carbon dioxide systems used in beverage dispensing applications shall comply with Section 5307.3.~~

5307.3 Insulated Liquid eCarbon dioxide systems used in beverage dispensing applications.

~~Insulated liquid eCarbon dioxide systems with more than 50 100 pounds (22.68) (45.4 kg) of carbon dioxide used in beverage dispensing applications shall comply with Section 5307.3.2.~~

~~**5307.3.1 Ventilation.** Where insulated liquid carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing storage tanks, cylinders, piping and equipment, and other areas where a leak of carbon dioxide is expected to accumulate, shall be provided with mechanical ventilation in accordance with Section 5004.3 and designed to maintain the room containing carbon dioxide at a negative pressure in relation to the surrounding area.~~

Exception:

~~A gas detection system complying with Section 5307.3.2 shall be permitted in lieu of mechanical ventilation.~~

~~5307.3.2 Gas detection system. Where ventilation is not provided in accordance with Section 5307.3.1, a~~ gas detection system complying with Section 916 shall be provided in rooms or indoor areas and in below-grade outdoor locations with insulated carbon dioxide systems. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is expected to accumulate or other approved locations. The system shall be designed as follows:

1. Activates an audible and visible supervisory alarm at a normally attended location upon detection of a carbon dioxide concentration of 5,000 ppm (9000 mg/m³).
2. Activates an audible and visible alarm within the room or immediate area where the system is installed upon detection of a carbon dioxide concentration of 30,000 ppm (54 000 mg/m³).

CHAPTER 80 REFERENCED STANDARDS

855 – 20 23: Standard for the Installation of Stationary Energy Storage Systems
1201.1

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.

The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(2) and B105.2.

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

TABLE NOT COPIED

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

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

APPENDIX C FIRE HYDRANT LOCATIONS AND DISTRIBUTION

C102.1 Minimum number of fire hydrants for a building.

The number of fire hydrants available to a building shall be not less than the minimum specified in Table C102.1.b. The reduced fire flow shall be not less than 1,500 gallons per minute.

TABLE C102.1 REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS^h

TABLE NOT COPIED

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

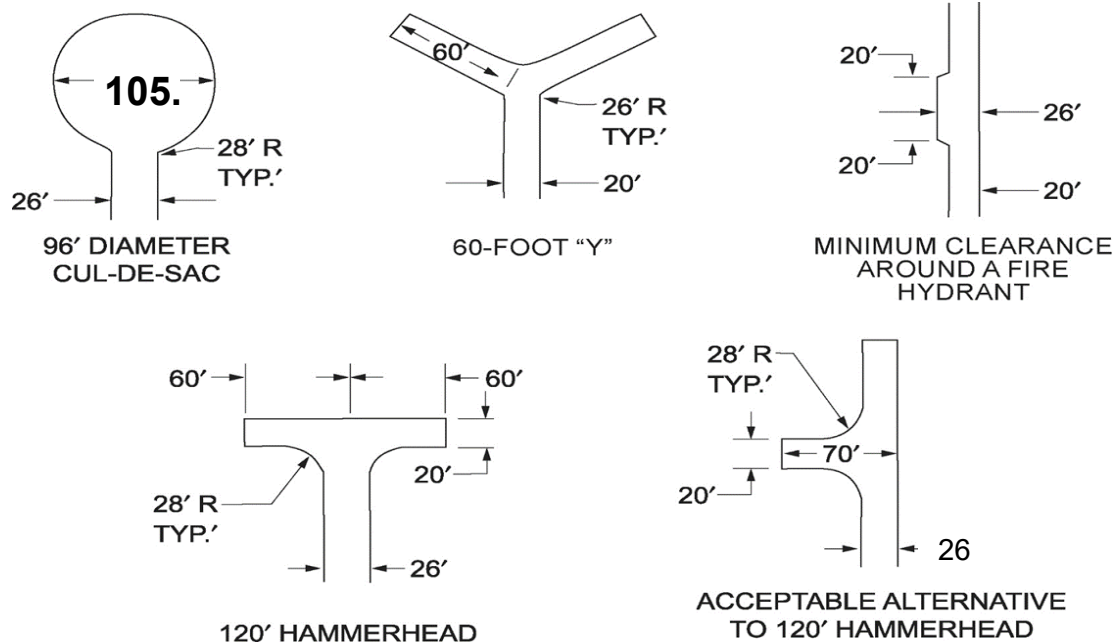
- a. Reduce by 100 feet for dead-end streets or roads.
- b. Where streets are provided with median dividers that cannot be crossed by firefighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.
- c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- d. Reduce by 50 feet for dead-end streets or roads.
- e. One hydrant for each 1,000 gallons per minute or fraction thereof.
- ~~f. A 50-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the International Fire Code.~~
- ~~g. A 25-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the International Fire Code or Section P2904 of the International Residential Code.~~
- h. The fire code official is authorized to modify the location, number and distribution of fire hydrants based on site-specific constraints and hazards.

APPENDIX D FIRE APPARATUS ACCESS ROADS

D106.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with three ~~two~~ separate and approved fire apparatus access roads.

Exception: ~~Projects having up to 200 dwelling units shall have not fewer than one approved fire apparatus access road where all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~

FIGURE D103.1 D



Accessible and Usable Buildings and Facilities ICC/ANSI A117.1-2017

Local Amendments

The Accessible and Usable Buildings and Facilities ICC/ANSI A117.1-2017 Local Amendments are as follows:

SECTION 502 Parking Spaces

502.7 Identification. Where accessible parking spaces are required to be identified by signs, the signs shall include the International Symbol of Accessibility complying with Section 703.6.3.1 or the Accessibility Icon complying with Section 703.6.3.1.1. Signs identifying van parking spaces shall contain the designation "van accessible." Such signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the sign.

SECTION 703 Signs

703.6.3 Symbols.

703.6.3.1 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 703.6.3.1.



FIG. 703.6.3.1 INTERNATIONAL SYMBOL OF ACCESSIBILITY

703.6.3.1.1 Accessibility Icon. The Accessibility Icon shall comply with Figure 703.6.3.1.1



FIG. 703.6.3.1.1 ACCESSIBILITY ICON

2024 International Plumbing Code Local Amendments

The following Appendices of the 2024 International Plumbing Code are hereby adopted in their entirety: appendices B, C and E

The 2024 International Plumbing Code Local Amendments are as follows:

[A] 101.1 Title.

These regulations shall be known as the *Plumbing Code* as amended by the City of Surprise, hereinafter referred to as "this code."

SECTION 112 MEANS OF APPEAL

[A] 112.1 General.

~~Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions or determinations made by the 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 code official.~~

[A] 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~~

[A] 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.~~

[A] 112.4 Administration.

~~The code official shall take action without delay in accordance with the decision of the board.~~

SECTION 113

BOARD OF APPEALS

[A] 113.1 Membership of board.

~~The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed.~~

202 GENERAL DEFINITIONS

GREASE INTERCEPTOR.

Fats, oils and greases (FOG) disposal system. A plumbing appurtenance that reduces nonpetroleum fats, oils and greases in effluent by separation or mass and volume reduction.

Gravity. Plumbing appurtenances of not less than 500 gallons (1893 L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from wastewater discharge. Separation is accomplished by gravity during a retention time of ~~not less than 30 minutes~~ approved by the City of Surprise.

Hydromechanical. Plumbing appurtenances that are installed in the sanitary drainage system to intercept free floating fats, oils and grease from wastewater discharge. Continuous separation is accomplished by air entrainment, buoyancy and interior baffling.

GREASE REMOVAL DEVICE, AUTOMATIC (GRD). A plumbing appurtenance that is installed in the sanitary drainage system to intercept free-floating fats, oils and grease from wastewater discharge. Such a device operates on a time- or event-controlled basis and has the ability to remove free-floating fats, oils and grease automatically without intervention from the user except for maintenance. These devices must perform as a gravity interceptor if mechanical or electrical power is lost and provide continuous separation.

410.2 Small occupancies. Drinking fountains shall not be required for an occupant load of 45 50 or fewer.

410.4 Substitution. In restaurants that provide drinking water in a container free of charge, drinking fountains shall not be required. ~~In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.~~ In other occupancies where drinking fountains are required, bottle water dispensers or water coolers shall be a permissible substitute.

605.25 Non-Metallic Potable Water Pipe, Fittings, and Valves

Non-Metallic potable water pipes, fittings, and valves shall not be exposed in exterior outdoor locations. Components of the exterior exposed potable water system shall be only metallic materials, fittings, and valves as listed in IPC Tables 605.3, 605.4, 605.5, and 605.6.

1003.2 Approval. The size, type and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions and the requirements of ~~this section based on the anticipated conditions of use~~ the City of Surprise. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based

on the 100-year hourly rainfall rate indicated in Figure 1106.1(1) through 1106.1(5) or on other rainfall rates determined from approved local weather data. an hourly rainfall rate of three (3) inches per hour.

2024 International Mechanical Code Local Amendments

The 2024 International Mechanical Code Local Amendments are as follows:

[A] 101.1 Title.

These regulations shall be known as the Mechanical Code as amended by the City of Surprise, hereinafter referred to as “this code.”

Section 112 Means of appeals

[A] 112.1 General

~~Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions or determinations made by the 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 code official.~~

[A] 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 the authority to waive requirements of this code.~~

[A] 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.~~

[A] 112.4 Administration.

~~The code official shall take action without delay in accordance with the decision of the board.~~

Section 113 Board of appeals

[A] 113.1 Membership of board.

~~The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed~~

307.2.2 Drain pipe materials and sizes.

Components of the condensate disposal system shall be ABS, cast iron, copper

and copper alloy, CPVC, cross-linked polyethylene, galvanized steel, PE-RT, polyethylene, polypropylene, PVC or PVDF pipe or rigid tubing. Nonmetallic piping shall not be installed in exposed locations. Components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 7 of the International Plumbing Code relative to the material type. Condensate waste and drain line size shall be not less than 3/4-inch pipe size and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with Table 307.2.2.

[A] 309.1 Space-heating systems. Heating and Cooling systems. Interior spaces intended for human occupancy shall be provided with active or passive space-heating and space-cooling systems capable of maintaining a minimum indoor temperature between 68°F (20°C) and 90°F (32°C) at a point 3 feet (914 mm) above floor on the design heating day. The installation of portable space heaters or coolers shall not be used to achieve compliance with this section.

403.3.1.5 Balancing. The ventilation air distribution system shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow rate as required by Section 403.3. Ventilation systems shall be balanced and comply with section 403.3 and by an approved method. Such ventilation system balancing shall verify the ventilation system is capable of supplying and exhausting the airflow rates required. The final report shall be provided to the engineer of record and the mechanical inspector.

Exception: Residential occupancies shall be exempt from this provision.

407.1 General. Mechanical ventilation for ambulatory care facilities and Group I-2 occupancies shall be designed and installed in accordance with this code and ASHRAE/ASHE 170 and NFPA 99.

407.1.1 Mechanical systems designed and installed in accordance with IMC 407.1 and ASHRAE/ASHE 170 and NFPA 99 shall be verified by a qualified third party Special Inspector. The Special Inspector shall be an independent third party individual or firm and shall not be the installing contractor. A report shall be generated by the Special Inspector. Special inspections shall be conducted as specified in Chapter 17 of the International Building Code as amended.

408 CANNABIS RELATED OCCUPANCIES

408.1 General. Any building used to cultivate, produce, infuse, or dispense cannabis shall be designed such that there shall be no emission of dust, fumes, vapors, or odors into the environment from the premise. A ventilation system shall be designed to prevent the distribution of odors to other occupied parts of the building or adjacent properties. Design of the odor control system shall be based on accepted engineering practices. All equipment and filter media shall be listed and labeled for the application. Exhaust systems used in odor control systems shall meet the requirements of Section 501.

408.1.1 Exhaust outlets. The termination point for exhaust outlets shall be in

accordance with Section 501.3. Exhaust from cultivation and production facilities shall be in accordance with Section 501.3.1(2) and for dispensaries in accordance with Section 501.3.1(3).

502.14 Motor vehicle operation. In areas where motor vehicles operate, mechanical ventilation shall be provided in accordance with Section 403. Additionally, areas in which stationary motor vehicles are operated shall be provided with a *source capture system* that connects directly to the motor vehicle exhaust systems. Makeup air for the required exhaust systems in areas where motor vehicles operate shall be provided through permanent unobstructed openings to the outdoors, such as louvers and grills. Mechanical equipment and louvers used for makeup air purposes shall be electrically interlocked with the exhaust system. Such system shall be engineered by a *registered design professional* or shall be factory-built *equipment* designed and sized for the purpose.

Exceptions:

1. This section shall not apply where the motor vehicles being operated or repaired are electrically powered.
2. This section shall not apply to one- and two-family dwellings.
3. This section shall not apply to motor vehicle service areas where engines are operated inside the building only for the duration necessary to move the motor vehicles in and out of the building.

606.2 Where required.

Smoke detectors shall be installed where indicated in Sections 606.2.1 through 606.2.3.

Exception: Smoke detectors shall not be required where air distribution systems are incapable of spreading smoke beyond the enclosing walls, floors and ceilings of the room or space in which the smoke is generated.

606.2.1 Return air systems. Air distribution systems.

Smoke detectors shall be installed ~~in return air systems with~~ air distribution systems downstream of the filters and ahead of any branch connections in systems having a design capacity greater than 2,000 cfm (0.9 m³/s). ~~in the return air duct or plenum upstream of any filters, exhaust air connections, outdoor air connections, or decontamination equipment and appliances.~~

Exception: Smoke detectors are not required ~~in the return air system~~ where all portions of the building served by the air distribution system are protected by area smoke detectors connected to a fire alarm system in accordance with the International Fire Code. The area smoke detection system shall comply with Section 606.4.

[BF] 607.2 Installation.

Fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers located within air distribution and smoke control systems shall be installed in accordance with the manufacturer's instructions, the dampers' listing and Sections 607.2.1

through 607.2.3. Dampers shall be tested by an approved testing agency or an independent, qualified third party special inspector. The special Inspector/testing agency shall be an independent third party individual or firm and shall not be the installing contractor.

928.1 General

Evaporative cooling equipment shall:

1. Be installed in accordance with the manufacturer's instructions.
2. Be installed on level platforms in accordance with Section 304.10. An evaporative cooler supported by the building structure shall be installed on a substantial level base and shall be secured directly or indirectly to the building structure by suitable means to prevent displacement of the cooler. Modifications to the supporting building framework as a result of the installation shall be made in accordance with the requirements of the International Building Code, as amended by the City of Surprise.
3. Have openings in exterior walls or roofs flashed in accordance with the International Building Code.
4. Be provided with an approved water supply, sized for peak demand. The quality of water shall be provided in accordance with the equipment manufacturer's recommendations. The piping system and protection of the potable water supply system shall be installed as required by the International Plumbing Code.
5. Have air intake opening locations in accordance with Section 401.4.
6. A permanent relief opening or other engineered design sufficient to assure positive airflow shall balance intake air.
7. Outside air shall be provided as specified in Section 403.2.
8. Air ducts and dampers, as portions of an evaporative cooling system, shall comply with Chapter 6.
9. Overflow drains shall be provided and shall discharge to an approved disposal location.

SECTION 932 WOODSTOVE/FIREPLACE INSTALLATION

Definitions. For purposes of this section, the following words and terms shall have the meaning ascribed thereto:

Fireplace: A built-in-place masonry hearth and fire chamber, or a factory-built appliance designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes.

Solid fuel: Includes, but is not limited to, wood, coal, or other non-gaseous or non-liquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood burning devices.

Woodstove: A solid fuel-burning heating appliance, including a pellet stove, which is

either freestanding or designed to be inserted into a fireplace.

932.1 General. In accordance with Maricopa County regulations, on or after December 31, 1998, no person, firm, or corporation shall construct or install a fireplace or a wood stove, and the Building Official shall not approve or issue a permit to construct or install a fireplace or a wood stove, unless the fireplace or wood stove complies with one of the following:

1. A fireplace which has a permanently installed gas or electric log insert;
2. A fireplace, wood stove, or other solid fuel-burning appliance which has been certified by the United States Environmental Protection Agency (EPA) as conforming to 40 Code of Federal Regulations part 60, subpart AAA;
3. A fireplace, woodstove, or other solid fuel-burning appliance that has been tested and listed by a nationally recognized testing agency to meet performance standards equivalent to those in 40 Code of Federal Regulations part 60, subpart AAA;
4. A fireplace, wood stove, or other solid fuel-burning appliance which has been determined by the Maricopa County Air Pollution Control Officer to meet performance standards equivalent to those in 40 Code of Federal Regulations part 60, subpart AAA, as in effect on July 1, 1990; or
5. A fireplace which has a permanently installed wood stove insert which complies with subparagraph 2, 3, or 4 above.

Exceptions: The following installations are not regulated or prohibited by this section:

1. Furnaces, boilers, incinerators, kilns, and other similar space heating or industrial process equipment.
2. Cook stoves, barbecue grills, and similar appliances designed primarily for cooking.
3. Fire pits, barbecue grills, and other outdoor fireplaces.

1109.2.5 Refrigerant pipe shafts.

Refrigerant piping that penetrates two or more floor/ceiling assemblies shall be enclosed in a fire-resistance-rated shaft enclosure. The fire-resistance-rated shaft enclosure shall comply with Section 713 of the *International Building Code*.

Exceptions:

1. *Refrigeration* systems using R-718 refrigerant (water).
2. Piping in a direct refrigeration system using ~~Group A1~~ refrigerant where the refrigerant quantity does not exceed the limits of Table 1103.1 for the smallest occupied space through which the piping passes.
3. Piping located on the exterior of the *building* where vented to the outdoors.

2024 International Fuel Gas Code Local Amendments

The 2024 International Fuel Gas Code Local Amendments are as follows:

[A] 101.1 Title.

These regulations shall be known as the Fuel Gas Code as amended by the City of Surprise, hereinafter referred to as “this code.”

[A] Section 112 (IFGC) Means of Appeals

[A] 112.1 General.

~~Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions or determinations made by the 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 code official.~~

[A] 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.~~

[A] 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.~~

[A] 112.4 Administration.

~~The code official shall take action without delay in accordance with the decision of the board.~~

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade, ~~except as provided for in Section 404.12.1~~ for metal piping and 18 inches (457mm) below grade for plastic piping.

~~**404.12.1 Individual outside appliances.** Individual lines to outside lights, grills or other *appliances* shall be installed a minimum of 8 inches (203 mm) below finished grade, provided that such installation is *approved* and is installed in locations not susceptible to physical damage.~~

2024 International Energy Conservation Code

Local Amendments

The 2024 International Energy Conservation Code Local Amendments are as follows:

SECTION C101 SCOPE AND GENERAL REQUIREMENTS (COMMERCIAL)

C101.1 Title.

This code shall be known as the Energy Conservation Code as amended by the City of Surprise and shall be cited as such. It is referred to herein as “this code.”

C101.2 Scope. This code applies to the design and construction of buildings not covered by the scope of the IECC—Residential Provisions. Group R-2 when defined as a Commercial Building by section C202, shall have the option of complying under the Residential Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Residential Provisions shall be followed.

SECTION C109 MEANS OF APPEALS

C109.1 General. Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions or determinations made by the 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 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 code official.

C109.2 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 equally good or better form of construction is proposed. The board shall not have authority to waive requirements of this code.~~

C109.3 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.~~

C109.4 Administration.

~~The code official shall take action in accordance with the decisions of the board.~~

C401.2.1 International Energy Conservation Code.

Commercial buildings shall comply with one of the following:

1. Prescriptive Compliance. The Prescriptive Compliance option requires compliance with Sections C402 through C406 and Section C408. Dwelling units and sleeping units in Group R-2 buildings shall be deemed to be in compliance with this chapter, provided that they comply with Section R406.
2. Simulated Building Performance. The Simulated Building Performance option requires compliance with Section C407.

Exceptions:

1. *Additions, alterations, repairs* and changes of occupancy to existing buildings complying with Chapter 5.
2. Compliance with the provisions of section C408 is optional.

C401.2.2 ASHRAE 90.1. (as it relates to C401.2.1 International Energy Conservation Code- Prescriptive Compliance)

Commercial buildings shall comply with the requirements of ANSI/ASHRAE/IES 90.1.

1. *Compliance with the provisions of section C408 is optional.*

~~**C404.8.3 Covers.** Outdoor heated pools and outdoor permanent spas shall be provided with a vapor retardant cover or other approved vapor retardant means.~~

~~**Exception:** Where more than 75 percent of the energy for heating, computed over an operating season of not fewer than 3 calendar months, is from site-recovered energy such as from a heat pump or on-site renewable energy system, covers or other vapor retardant means shall not be required. On-site renewable energy used to meet Section C405.15.1 or C406.3.1 shall not be used to meet this exception.~~

~~**C405.2.7.2 Building facade and landscape lighting.** Building façade and landscape lighting shall automatically shut off from not later than 1 hour after building or business closing to not earlier than 1 hour before building or business opening.~~

~~**C405.2.7.3 Lighting setback.** Lighting that is not controlled in accordance with Section C405.2.7.2 shall comply with the following:~~

~~1. Be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent by selectively switching off or dimming luminaires at one of the following times:~~

~~1.1. From not later than midnight to not earlier than 6 a.m.~~

~~1.2. From not later than 1 hour after building or business closing to not earlier than 1 hour before building or business opening.~~

~~1.3. During any time where activity has not been detected for 15 minutes or more.~~

~~2. Luminaires serving exterior parking areas and having a rated~~

~~input wattage of greater than 40 watts and a mounting height of 24 feet (7315 mm) or less above the ground shall be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent during any time where activity has not been detected for 15 minutes or more. Not more than 1,500 watts of lighting power shall be controlled together.~~

C405.12 Reserved

This section is deleted in its entirety.

Note: The corresponding requirements in ASHRAE 90.1 8.4.2 Automatic Receptacle Control is also deleted in its entirety.

C405.13 Reserved

This section is deleted in its entirety.

Note: The corresponding requirements in ASHRAE 90.1 8.4.3 Electrical Energy Monitoring is also deleted in its entirety.

C405.15 Renewable energy systems.

Delete this section in its entirety.

Note. The corresponding requirements in ASHRAE 90.1 10.5.1 Renewable Energy Resources is also deleted in its entirety.

R101.2 Scope. This code applies to the design and construction of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) and Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane. Group R-2 when defined as a Residential Building by section R202, shall have the option of complying under the Residential Provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the Residential Provisions shall be followed.

R104.1.2 RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards (MINHERS) for third party testing and inspections shall be deemed to meet the requirements of sections R402.5.1, R402.5.1.2 and R403.3.7 and shall meet the following conditions:

1. Third Party Testing & Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review Procedures.
2. Sampling in accordance with Chapter 6 of the MINHERS Standards shall be performed by Raters or Rating Field Inspectors Working under a RESNET Accredited Sampling Provider.

3. Third Party Testing is required for the following items:
 - a. R402.5.1– Building Envelope – Thermal Air Barrier Checklist
 - b. R402.5.1.2 – Testing – Air Leakage Rate
 - c. R403.3.7 – Sealing – Duct Tightness
 - d. Any other testing and inspections required under the code.

4. Alternate testing and inspection programs and protocols shall be allowed when approved by the Building Code Official.

R109.1 General. ~~Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions or determinations made by the 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 code official.~~

R109.2 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 have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall not have the authority to waive requirements of this code.~~

R109.3 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.~~

**TABLE R402. 5.1.1
AIR BARRIER, AIR SEALING AND INSULATION INSTALLATION**

COMPONENT	AIR BARRIER CRITERIA INSULATION	INSTALLATION CRITERIA
Rim joists	Rim joists shall include an air barrier. The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed.	Rim joists shall be insulated so that the insulation maintains permanent contact with the exterior rim board.

No changes to footnotes.

R403.3.7 Duct system testing.

Each duct system shall be tested for air leakage in accordance with ANSI/RESNET/ICC 380 or ASTM E1554. Total leakage shall be measured with a pressure differential of 0.1 inch water gauge (25 Pa) across the duct system and shall include the measured leakage from the supply and return ductwork. A written report of the test results shall be signed by the party conducting the test and provided to the code official. Duct system leakage testing at either rough-in or post construction shall be permitted with or without

the installation of registers or grilles. Where installed, registers and grilles shall be sealed during the test. Where registers and grilles are not installed, the face of the register boots shall be sealed during the test.

Exceptions:

1. Testing shall not be required for duct systems serving ventilation systems that are not integrated with duct systems serving heating or cooling systems.
2. Testing shall not be required where there is not more than 10 feet (3048 mm) of total ductwork external to the space conditioning equipment and both the following are met:
 - 2.1. The duct system is located entirely within conditioned space.
 - 2.2. The ductwork does not include plenums constructed of building cavities or gypsum board.
3. Where the space conditioning equipment is not installed, testing shall be permitted. The total measured leakage of the supply and return ductwork shall be less than or equal to 3.0 cubic feet per minute (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.
4. Where tested in accordance with Section R403.3.9, testing of each duct system is not required.
5. A duct air leakage test shall not be required when the ducts and air handlers are located entirely within the building thermal envelope.
6. Additions, alterations, renovations, or repairs to existing structures.
7. Conditioned garages.

R403.6.3 Testing

~~Mechanical ventilation systems shall be tested and verified to provide the minimum ventilation flow rates required by Section R403.6, in accordance with ANSI/RESNET/ICC-380. Where required by the code official, testing shall be conducted by an approved third-party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.~~

Exceptions:

- ~~1. Kitchen range hoods that are ducted to the outside with ducting having a diameter of 6 inches (152 mm) or larger, a length of 10 feet (3028 mm) or less, and not more than two 90-degree (1.57 rad) elbows or equivalent shall not require testing.~~
- ~~2. A third-party test shall not be required where the ventilation system has an integrated diagnostic tool used for airflow measurement, and a user-interface that communicates the installed airflow rate.~~
- ~~3. Where tested in accordance with Section R403.6.4, testing of each mechanical ventilation system is not required.~~

~~Section R403.10.3 Covers~~

~~R403.10.3 Outdoor heated pools and outdoor permanent spas shall be provided with a vapor retardant cover or other approved vapor retardant means.~~

~~Exception: Where more than 75 percent of the energy for heating, computed over an operation season of not fewer than 3 calendar months, is from a heat pump or an on-site renewable energy system, covers or other vapor retardant means shall not be required.~~

~~R403.11 Portable spas.~~

~~The energy consumption of electric powered portable spas shall be controlled by the requirements of APSP 14.~~

~~R403.12 Residential pools and permanent residential spas.~~

~~Where installed, the energy consumption of residential swimming pools and permanent residential spas shall be controlled in accordance with the requirements of APSP 15.~~

R404.1 Lighting equipment. All Not less than ninety percent (90%) of the permanently installed luminaires shall be capable of operation with an efficacy of not less than 45 lumens per watt or shall contain lamps capable of operation with an efficacy of not less than 65 lumens per watt.

Exceptions:

1. Appliance lamps
2. Antimicrobial lighting used for the sole purpose of disinfecting
3. General service lamps complying with DOE 10 CFR, Part 430.32
4. Luminaires with a rated electric input of not greater than 3.0 watts

~~**R404.2 Interior lighting controls.** All permanently installed luminaires shall be controlled as required in Sections R404.2.1 and R404.2.2.~~

~~**Exception:** Lighting controls shall not be required for safety or security lighting.~~

~~**R404.2.1 Habitable spaces.**~~

~~All permanently installed luminaires in habitable spaces shall be controlled with a *manual dimmer* or with an *automatic* shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a *manual* control to allow occupants to turn the lights on or off.~~

~~**R404.2.2 Specific locations.**~~

~~All permanently installed luminaires in garages, unfinished basements, laundry rooms and utility rooms shall be controlled by an *automatic* shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a *manual* control to allow occupants to turn the lights on or off.~~

R404.3 Exterior lighting controls.

Exterior lighting controls shall comply with Section R404.3.1.

R404.3.1 Controls for individual dwelling units.

Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

1. Lighting shall be controlled by a *manual* on and off switch which permits *automatic* shut-off actions.
2. Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
3. Controls that override automatic shut-off actions shall not be allowed unless the override automatically returns automatic control to its normal operation within 24 hours.

R404.1.5 Gas lighting.

Gas-fired lighting appliances shall not be equipped with a *continuous pilot* and shall be equipped with an *on-demand pilot, intermittent ignition or interrupted ignition* as defined by ANSI Z21.20.

TABLE R406.5

MAXIMUM ENERGY RATING INDEX		
CLIMATE ZONE	ENERGY RATING INDEX NOT INCLUDING OPP	ENERGY RATING INDEX WITH OPP
0 and 1	51	35
2	51 <u>57</u>	34
3	50	33
4	53	40
5	54	43
6	53	43
7	52	46
8	52	46

2023 National Electrical Code Local Amendments

The 2023 National Electrical Code Local Amendments are as follows:

Article 90.2 (G) Administrative code.

(G) The International Building Code, 2024 Edition, Chapter One, as adopted and amended by the City of Surprise, shall be considered the administrative code for this sub-section.

Article 110.7 Wiring integrity. Completed wiring installations shall be free from short circuits, ground faults, or any connections to ground other than as required or permitted elsewhere in this *code*. All electrical equipment one thousand (1,000) amps or larger must pass a dielectric strength test by a qualified third party before requesting meter clearance.

210.52(C)(2) Island and Peninsular Countertops and Work Surfaces.

~~Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 210.52(C)(3). If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.~~

At least one receptacle shall be installed at each island and peninsular countertop space with a long dimension of 24 inches (600 mm) or greater and a short dimension of 12 inches (300 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall.

210.52(C)(3) Receptacle Outlet Location.

Receptacle outlets shall be located in one or more of the following:

- (1) On or above, but not more than 20 inches (500 mm) above, a countertop or work surface
- (2) In a countertop using receptacle outlet assemblies listed for use in countertops
- (3) In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops

Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in 210.52(C)(1), Exception No. 1, or appliances occupying assigned spaces shall not be considered as these required outlets.

Exception: To comply with the following conditions, receptacle outlets shall be permitted to be mounted not more than 12 inches (300 mm) below the countertop or work surface. Receptacles mounted below a countertop or work surface in accordance with this exception shall not be located where the countertop or work surface extends more than 6 inches (150 mm) beyond its support base:

(1) Construction to comply with accessibility requirements; or

(2) On island and peninsular countertops or work surface where the surface is flat across its entire surface (no backsplashes, dividers, etc.) and there are no means to mount a receptacle within 20 inches (500 mm) above the countertop or work surface, such as an overhead cabinet.

ARTICLE 210 Branch Circuits

210.52(G)(1) Garages. In each attached garage and in each detached garage with electric power, at least one receptacle outlet shall be installed in each vehicle bay at not less than (18) inches and not more than 1.7 m (5 ½ ft.) above the floor.

ARTICLE 215 Feeders

215.25 Feeder Circuits in Attached Single-Family Dwellings (Townhouses).

Dwelling Unit Feeders. Feeder circuits in each dwelling unit of attached one-family dwellings (townhouses) shall supply only loads within that dwelling unit or loads associated with that dwelling unit. Feeders serving adjoining townhouse dwelling units shall not pass through, above, below, or be attached to other townhouse dwelling units, regardless of ownership of the individual townhouse dwelling units.

220.5(C) Floor Area.

The floor area for each floor shall be calculated from the outside dimensions of the building, dwelling unit, or other area involved. For dwelling units, the calculated floor area shall not include open porches, garages, or unfinished areas not adaptable for future use as a habitable room or occupiable space.

Article 250 – Grounding and Bonding

250.118 Types of Equipment Grounding Conductors.

The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

- (1) A copper, aluminum, or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and in the form of a wire or a busbar of any shape.
- (2) Rigid metal conduit.
- (3) Intermediate metal conduit.

- (4) Electrical metallic tubing with an additional equipment grounding conductor sized in accordance with Table 250.122.

ARTICLE 310 Conductors for General Wiring

310.12 120/240-Volt, Single-Phase Dwelling Services and Feeders. For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, service and feeder conductors supplied by a single-phase, 120/240-volt system shall be permitted to be sized in accordance with 310.12(A) through (D).

~~For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, single-phase feeder conductors consisting of two ungrounded conductors and the neutral conductor from a 208Y/120-volt system shall be permitted to be sized in accordance with 310.12(A) through (C).~~

314.27(A)(2) Ceiling Outlets.

At every outlet used exclusively for lighting, the box shall be designed or installed so that a luminaire or lampholder can be attached. Boxes shall be required to support a luminaire weighing a minimum of 23 kg (50 lb). A luminaire that weighs more than 23 kg (50 lb) shall be supported independently of the outlet box, unless the outlet box is listed for not less than the weight to be supported. The interior of the box shall be marked by the manufacturer to indicate the maximum weight the box shall be permitted to support.

Outlet boxes mounted in the ceilings of family rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, and similar areas of dwelling occupancies and located in an area of the ceiling typical for the installation of a ceiling-suspended (paddle) fan shall be installed to accommodate a ceiling-suspended (paddle) fan in accordance with 314.27(C).

314.27(C) Boxes at Ceiling-Suspended (Paddle) Fan Outlets.

Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer on the interior of the box as suitable for this purpose, and shall not support ceiling-suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported.

~~Outlet boxes mounted in the ceilings of habitable rooms of dwelling occupancies in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:~~

Where a ceiling-suspended (paddle) fan is not installed, the outlet box shall comply with one of the following:

- (1) Listed for the sole support of ceiling-suspended (paddle) fans
- (2) Installed so as to allow direct access through the box to structural framing capable of supporting a ceiling-suspended (paddle) fan without removing the box

406.9(C) Bathtub and Shower Space.

~~Receptacles shall not be installed inside of the tub or shower or within a zone measured 900 mm (3 ft) horizontally from any outside edge of the within or directly over a bathtub or shower stall, including the space outside the bathtub or shower stall space below the zone.~~

~~The zone also includes the space measured vertically from the floor to 2.5 m (8 ft) above the top of the bathtub rim or shower stall threshold. The identified zone is all-encompassing and shall include the space directly over the bathtub or shower stall and the space below this zone, but not the space separated by a floor, wall, ceiling, room door, window, or fixed barrier.~~

~~*Exception No. 1:* Receptacles installed in accordance with 680.73 shall be permitted.~~

~~*Exception No. 2:* In bathrooms with less than the required zone, the receptacle(s) required by 210.52(D) shall be permitted to be installed opposite the bathtub rim or shower stall threshold on the farthest wall within the room.~~

~~*Exception No. 3:* Weight supporting ceiling receptacles (WSCR) shall be permitted to be installed for listed luminaires that employ a weight supporting attachment fitting (WSAF) in damp locations complying with 410.10(D).~~

~~*Exception No. 4:* In a dwelling unit, a single receptacle shall be permitted for an electronic toilet or personal hygiene device such as an electronic bidet seat. The receptacle shall be readily accessible and not located in the space between the toilet and the bathtub or shower.~~

2024 International Existing Building Code Local Amendments

The 2024 International Existing Building Code Local Amendments are as follows:

[A] 101.1 Title.

These regulations shall be known as the Existing Building Code, as amended by the City of Surprise, herein-after referred to as “this code.”

SECTION 112 MEANS OF APPEALS

[A] 112.1 General. Appeals shall be in accordance with the Surprise Municipal Code Sec. 2-303. In order to hear and decide appeals of orders, decisions, or determinations made by the 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 governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

[A] 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 equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.~~

[A] 112.3 Qualifications. ~~The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.~~