City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1103.2.3

Submitted by: Strategic Workgroup on Accessibility

1103.2.3 Detached dwellings Detached one- and two- family *dwellings*, their accessory *structures* and their associated *sites* and *facilities* ~~are not required to comply with this chapter~~ shall comply with Section R322 of the *International Residential Code*.

Justification: The general exception to accessibility is removed and a reference is provided to the inclusive home design criteria in amended IRC Section R322.

Cost Impact: Minimal cost impact to provide these features during construction but can be a significant cost when these features need to be retrofitted into an already constructed home.

Staff Committee Rationale for Recommendation: Please see rationale on IRC R322 proposals.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/18/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☐ Approved as submitted ☐ Modified and approved ☒ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1103.2.11

Submitted by: Strategic Workgroup on Accessibility

1103.2.11 Residential Group R-1 or R-3. Buildings of Group R-1 containing not more than five dwelling units and sleeping units in aggregate for rent or hire that are also occupied as the residence of the proprietor ~~are not required to comply with this chapter. B~~ and buildings of Group R-3 congregate living facilities (transient) or boarding houses (transient) containing not more than five sleeping units for rent or hire that are also occupied as the residence of the proprietor ~~are not required to comply with this chapter.~~ shall comply with Section R322 of the *International Residential Code*.

Justification: The general exception to accessibility is removed and a reference is provided to the inclusive home design criteria in amended IRC Section R322.

Cost Impact: Minimal cost impact to provide these features during construction but can be a significant cost when these features need to be retrofitted into an already constructed home.

Staff Committee Rationale for Recommendation: Please see rationale on IRC R322 proposals**.**

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 03/18/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☐ Approved as submitted ☐ Modified and approved ☒ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1104.1

Submitted by: International Building Code Committee

1104.1 Site arrival points.
At least one *accessible route* within the *site* shall be provided from public transportation stops, *accessible* parking, <u>*accessible* electric vehicle charging spaces,</u> *accessible* passenger loading zones, and public streets or sidewalks to the *accessible building* entrance served.

> **Exception:** Other than in *buildings* or *facilities* containing or serving *Type B units*, an *accessible route* shall not be required between *site* arrival points and the *building* or *facility* entrance if the only means of access between them is a vehicular way not providing for pedestrian access.

Justification: Added accessible electric vehicle charging spaces as site arrival points because these are not necessarily accessible parking spaces; and EV charging spaces are proposed to be identified in the ADA as site arrival points.

Cost Impact: No cost impact.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 12/18/24
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1107.2

Submitted by: International Building Code Committee

1107.2 Electric vehicle charging stations.
Electric~~al~~ vehicle charging stations shall comply with Sections 1107.2.1, ~~and~~ 1107.2.2., 1107.2.3, and 1007.2.4.

An *electric vehicle charging station* is not required to be a parking space, but if it also serves to provide vehicle parking required by the Phoenix Zoning Ordinance, it shall be considered a separate parking *facility* and shall comply with the most restrictive requirements of both vehicle space types.

Exceptions:
1. *Electric~~al~~ vehicle charging stations* provided to serve Group R-3 and R-4 occupancies are not required to comply with this section.
2. *Electric vehicle charging stations* used exclusively by buses, trucks, other delivery vehicles, law enforcement vehicles and motor pools are not required to comply with this section.

1107.2.1 Number of accessible vehicle spaces.
~~Not less than 5 percent of vehicle spaces on the *site* served by electrical vehicle charging systems, but not fewer than one for each type of electric vehicle charging system, shall be *accessible*.~~

At least 5 percent but not less than one electric vehicle charging space for each type of electric vehicle charging system in an *electric vehicle charging station* shall be *accessible*.

When an *accessible route* from an *electric vehicle charging station* is provided to an *accessible* entrance, the *accessible* electric vehicle charging spaces shall be placed on the shortest practical *accessible route* to the *accessible* entrance relative to the other electric vehicle charging spaces at the *electric vehicle charging station*.

1107.2.2 Vehicle space size.
Accessible electric vehicle charging spaces shall be ~~comply with the requirements for a van accessible parking space that is~~ 132 inches (3350 mm) minimum in width and 240 inches (6096 mm) minimum in length with an adjoining access aisle that is 60 inches (1525 mm) minimum in width. Access aisles shall extend the full length of the electric vehicle charging space. An *accessible* electric vehicle charging space access aisle adjoining two *accessible* electric vehicle charging spaces or an *accessible* parking space may be shared.

Accessible vehicle charging spaces, access aisles, and the vehicular ways serving them, shall have a vertical clearance of 98 inches (2490 mm) minimum.

Measurement of *accessible* electric vehicle charging spaces and access aisles shall be made from the centerline of the markings.

Exception: Where *accessible* electric vehicle charging spaces or their access aisles are not adjacent to another *accessible* electric vehicle charging space or its access aisle, or

accessible parking space; measurements may include the full width of the line defining the *accessible* electric vehicle charging space or its access aisle.

Access aisles shall adjoin an *accessible route* required by Sections 1104.1 and 1104.2.

Accessible electric vehicle charging spaces shall be designed to allow a stationary vehicle in the *accessible* vehicle charging space from obstructing the required *accessible route*, the access aisle, and the *accessible* operable parts clear floor space.

1107.2.3 Accessible electric vehicle space and access aisle surfaces.

Accessible electric vehicle charging spaces and access aisles shall have *accessible* floor surfaces with slopes not steeper than 1:48. Changes in level are not permitted in the access aisles.

Access aisles shall be on the same level as the vehicle charging spaces they serve, shall not overlap vehicular ways, and shall be marked to discourage parking in them.

1107.2.4 Accessible electric vehicle charging system.

An electric vehicle charging system serving an *accessible* electric vehicle charging space shall be *accessible*, and on an *accessible route*; and shall comply with Section 1107.2.4.

Clear floor space at *accessible* operable parts shall be positioned for a parallel approach and shall be centered on the operable part, except where multiple *accessible* operable parts are present the clear floor space may be centered on the group of operable parts if the reach range to each operable part is not exceeded.

Electric vehicle charging cables that exceed 5 pounds (22.2N) shall include a cable management system to support the excess weight.

Except where a handset-type device is provided, an electric vehicle charging system that allows for private listening shall provide a mode of operation for controlling the volume.

Except where a handset-type device is provided, an electric vehicle charging system that provides non-private listening shall include an incremental volume control with output amplification up to a level of at least 65dB. The volume shall automatically reset to the default level after every use.

The content on a display screen, for an electric vehicle charging system that provides a display screen, shall be visible from a point located 40 inches (1015mm) above the center of the clear floor space for the display screen.

At least one mode of characters on a display screen, for an electric vehicle charging system that provides a display screen, shall be in a sans serif font. Where a display zoom feature is not provided, characters shall be 3/16 inch (4.8 mm) minimum in height based on the uppercase letter ‘‘I’’. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Where flashing is used to convey information, indicate an action, prompt a response, or distinguish a visual element, flashes shall not exceed a rate of three per second.

Where provided, status indicators shall be discernible visually, and by touch or sound.

Where provided, color coding shall not be used as the only means to convey information, indicate an action, prompt a response, or distinguish a visual element.

Where provided, audible signals or cues shall not be used as the only means to convey information, indicate an action, prompt a response, or distinguish a visual element.

Where provided, handset-type devices designed to be held to the ear shall provide volume gain conforming to 47 CFR 68.317. If the handset-type device is corded, the cord shall be 29 inches (735 mm) minimum in length. Handset-type devices shall reduce interference with hearing aid technologies and provide a means for effective magnetic wireless coupling in conformance with TIA–1083–B.

Where an electric vehicle charging system provides real-time video, the quality of the video shall be sufficient to support communication using sign language.

Where an electric vehicle charging system displays or processes video with audio, synchronized captioning of the audio shall be provided.

Justification: This amendment contains both scoping provisions and technical criteria for accessible electric vehicle charging stations and associated elements in compliance with the requirements that are included in the U.S. Architectural and Transportation Barriers Compliance Board's (aka U.S. Access Board) proposed rule that will amend the accessibility guidelines which are a codified part of the Americans with Disabilities Act. This amendment provides necessary information in compliance with the proposed rule that was not available at the time the 2024 IBC and the referenced ICC A117.1-17 was developed but will be required with amendment, in the near future by the ADA. The minimum size of the space and the aisle are coordinated not to conflict with the Phoenix Zoning Ordinance.

Cost Impact: No cost impact. The 2024 IBC already requires accessible EV charging stations but neither the IBC, nor the ICC A117.1-17, include adequate technical criteria to make these accessible. The technical criteria required to make these accessible will be specified by the ADA shortly, so this amendment will have no impact on the cost of an EV charging station in Phoenix relative to other jurisdictions.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 3/10/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 3/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1203.1

Submitted by: International Building Code Committee

SECTION 1203 TEMPERATURE CONTROL

1203.1 Equipment and systems.
Interior spaces intended for human occupancy shall be provided with active or passive ~~space~~ heating and cooling systems capable of maintaining an indoor temperature ~~not less than 68°F (20°C)~~ between 70°F (21°C) and 82°F (28°C) (if cooled by air conditioning, and 86°F (30°C) if cooled by evaporative cooling), measured at a point 3 feet (914mm) above the floor in the center of the room. ~~on the design heating day~~ The installation of portable space heaters or coolers shall not be used to achieve compliance with this section.

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.

Justification: This amendment requires newly constructed buildings to comply with City of Phoenix Neighborhood Preservation Ordinance Sec. 39-5(B)(1)(b), which deals with buildings that are rented. All newly constructed buildings may be rented at some point in their life.

Cost Impact: Significant cost impact; this amendment requires cooling in all interior spaces intended for human occupancy, which the base code does not.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 01/09/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1704.1

Submitted by: International Building Code Committee

SECTION 1704
SPECIAL INSPECTIONS AND TESTS, CONTRACTOR RESPONSIBILITY AND ~~STRUCTURAL~~ OBSERVATION
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.

Justification: This section includes observations for electrical, mechanical, and plumbing, not just structural.

Cost Impact: No cost impact.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 01/9/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1704.6

Submitted by: International Building Code Committee

1704.6 Structural observations
Where required by the provisions of Section 1704.6.1, the *owner* or the *owner's* authorized agent shall employ ~~a~~ the *registered design professional* responsible for the structural design, or another *registered design professional* who is familiar with the structural design and is acceptable to the *building official* to perform *structural observations*. The structural observer shall visually observe representative locations of structural systems, details and load paths for general conformance to the *approved construction documents*. *Structural observation* does not include or waive the responsibility for the inspections in Section 110 or the *special inspections* in Section 1705 or other sections of this code. *Structural observation* shall be performed, at a minimum, at significant stages of the construction. ~~Prior to the commencement of observations, the structural observer shall submit to the *building official* a written statement identifying the frequency and extent of *structural observations*. At the conclusion of the work included in the *permit*, the structural observer shall submit to the *building official* a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.~~

1704.6.1 Structural observations for *structures*
Structural observations shall be provided for those structures where one or more of the following conditions exist:
1. The *structure* is classified as *Risk Category* III or IV.
2. The *structure* is a *high-rise building*.
3. The *structure* is assigned to *Seismic Design Category* E, and is greater than two *stories above grade plane*.
4. Such observation is required by the *registered design professional* responsible for the structural design.
5. Such observation is specifically required by the *building official*.
6. The *structure* contains elevated post-tensioned concrete floors or roofs.
7. The *building height* is greater than 75 feet.
8. The *structure* is greater than three *stories above grade plane*.

1704.6.2 Statement of Observations
Where observations are required, the *construction documents* shall show a statement of observations. This statement shall identify the frequency and extent of observations. The frequency and extent shall be acceptable to the *building official* based on the complexity and scope of work on the permit.

1704.6.3 Procedures
The *registered design professional* responsible for *structural observation* shall personally visit the site prior to completion of the Certificate of Compliance and periodically during the course of construction requiring *structural observatio*n as set forth in the inspection and observation program for each project.

The *registered design professional* responsible for performing *structural observation* shall complete a signed written report after each site visit. A copy of each report shall be kept on the job site for review by an inspector at all times until the inspector has issued final approval. Any and all deviations from the approved plans or specifications shall be immediately reported to the contractor for correction and then, if uncorrected, shall be reported to the *registered design professional in responsible charge* and to the *building official.*

In addition to individual reports, the *registered design professional* responsible for *structural observation* shall file with the *building official* a written monthly progress report indicating the dates of each site visit, the observations performed, any deviations noted from approved plans and specifications and any resulting instructions or change orders issued to the contractor.

1704.6.4 Certificate of compliance.
Upon completion of the portions of the work requiring *structural observation*, a Certificate of Compliance shall be issued to the *building official* under the seal and signature of the *registered design professional* responsible for such observation. A Certificate of Occupancy will not be issued until the *building official* receives all required observation reports and the Certificate of Compliance.

The Certificate of Compliance for *structural observation* shall read as follows:

"I certify to the best of my knowledge the structural requirements of the *Phoenix Building Construction Code* and approved plans and specifications have been complied with insofar as the portion of the work requiring *structural observation* is concerned, except for those deviations that have been previously reported. A guarantee that the contractor has constructed the building in full accord with the plans and specifications is neither intended nor implied."

Justification: These requirements are necessary to outline the functioning of the required observations for projects that are complex enough to require an engineer to visit the site to assist having the complex project be constructed as designed.

Post-tensioned concrete relies more heavily on accurate placement of post-tensioned tendons and mild reinforcement when compared to other types of concrete.

There had previously been an amendment for deferred units part of the lateral force resisting system that was capturing more situations than intended, so this was removed, but policy can still be set by the building official per item 5, where this should be required.

Cost Impact: Minimal cost impact. This amendment will require some complex structures to have a site visit by a structural engineer.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 01/9/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:

☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	
City Council Action ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1704.7

Submitted by: International Building Code Committee

1704.7 Electrical observations.
The owner shall employ the *registered design professional* responsible for the electrical design, or another *registered design professional* who is familiar with the electrical design and is acceptable to the *building official* to perform visual observation of complex electrical equipment and systems for general conformance to the approved plans and specifications, including but not limited to, placement and interconnection of equipment. Electrical observation shall be performed at significant stages of the construction and when the installation is complete and ready to be inspected. Electrical Observations are in addition to the inspections required by Section 110 and the special inspections required by Section 1705.21, and shall be provided when one of the following conditions exist:

1. Installation or alteration of that portion of health care facility electrical systems which falls within the scope of Article 517 of the *National Electrical Code*, including such systems installed in facilities where outpatient surgical procedures are performed.
2. Installations or alteration of electrical systems over 600v.
3. Installation or alteration of electrical systems within locations classified as hazardous by provisions of the *National Electrical Code*, except for gasoline dispensing installations and systems located within storage garages, repair garages or lubritoriums.
4. When such observation is required by the *registered design professional* responsible for the electrical design.
5. When such observation is specifically required by the *building official*.

1704.7.1 Statement of Observations
Where observations are required, the *construction documents* shall show a statement of observations. This statement shall identify the frequency and extent of observations. The frequency and extent shall be acceptable to the *building official* based on the complexity and scope of work on the permit.

1704.7.2 Procedures.
The *registered design professional* responsible for electrical observation shall personally visit the site prior to completion of the Certificate of Compliance and periodically during the course of construction requiring electrical observation as set forth in the inspection and observation program for each project.

The *registered design professional* responsible for performing electrical observation shall complete a signed written report after each site visit. A copy of each report shall be kept on the job site for review by an inspector at all times until the inspector has issued final approval. Any and all deviations from the approved plans or specifications shall be immediately reported to the contractor for correction and then, if uncorrected, shall be reported to the *registered design professional in responsible charge* and to the *building official.*

In addition to individual reports, the *registered design professional* responsible for electrical observation shall file with the *building official* a written monthly progress report indicating the

dates of each site visit, the observations performed, any deviations noted from approved plans and specifications and any resulting instructions or change orders issued to the contractor.

1704.7.3 Certificate of compliance.
Upon completion of the portions of the work requiring electrical observation, a Certificate of Compliance shall be issued to the *building official* under the seal and signature of the *registered design professional* responsible for such observation. A Certificate of Occupancy will not be issued until the *building official* receives all required observation reports and the Certificate~~s~~ of Compliance.

The Certificate of Compliance for electrical observation shall read as follows:

"I certify to the best of my knowledge the electrical requirements of the *Phoenix Building Construction Code* and approved plans and specifications have been complied with insofar as the portion of the work requiring electrical observation is concerned, except for those deviations that have been previously reported. A guarantee that the contractor has constructed the building in full accord with the plans and specifications is neither intended nor implied."

Justification: The above types of electrical work requiring Electrical Observations involve higher hazards and more complex systems. In addition to electrical inspections performed by City of Phoenix electrical inspectors and any required Special Electrical Inspections; these work types require Electrical Observations performed by a (State of Arizona) Registered Professional Electrical Engineer.

Cost Impact: Minimal Cost Impact. This amendment will require some complex structures to have a site visit by an electrical engineer.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 01/9/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1704.8

Submitted by: International Building Code Committee

1704.8 Mechanical observations.
The owner shall employ the *registered design professional* responsible for the mechanical design, or another *registered design professional* who is familiar with the mechanical design and is acceptable to the *building official*, to perform visual observation of complex mechanical equipment and systems for general conformance to the approved plans and specifications, including, but not limited to, placement and interconnection of equipment. Mechanical observation shall be performed at significant stages of the construction and when the installation is complete and ready to be inspected. Mechanical observations are in addition to the inspections required by Section 110 and the special inspections required by Section 1705.20, and shall be provided when one of the following conditions exist:

1. Outdoor Air Engineered Ventilation System per the exception to *International Mechanical Code Section* 403.2
2. *Appliances* and *equipment* that are not *listed* and *labeled* and are approved via Section 104.2.3.
3. When such observation is required by the *registered design professional* responsible for the mechanical design.
4. When such observation is specifically required by the *building official*.

1704.8.1 Statement of Observations
Where observations are required, the *construction documents* shall show a statement of observations. This statement shall identify the frequency and extent of observations. The frequency and extent shall be acceptable to the *building official* based on the complexity and scope of work on the permit.

1704.8.2 Procedures.
The *registered design professional* responsible for mechanical observation shall personally visit the site prior to completion of the Certificate of Compliance and periodically during the course of construction requiring mechanical observation as set forth in the inspection and observation program for each project.

The *registered design professional* responsible for performing mechanical observation shall complete a signed written report after each site visit. A copy of each report shall be kept on the job site for review by an inspector at all times until the inspector has issued final approval. Any and all deviations from the approved plans or specifications shall be immediately reported to the contractor for correction and then, if uncorrected, shall be reported to the *registered design professional in responsible charge* and to the *building official*.

In addition to individual reports, the *registered design professional* responsible for mechanical observation shall file with the *building official* a written monthly progress report indicating the dates of each site visit, the observations performed, any deviations noted from approved plans and specifications and any resulting instructions or change orders issued to the contractor.

1704.8.3 Certificate of compliance.

Upon completion of the portions of the work requiring mechanical observation, a Certificate of Compliance shall be issued to the *building official* under the seal and signature of the *registered design professional* responsible for such observation. A Certificate of Occupancy will not be issued until the *building official* receives all required observation reports and the Certificates of Compliance.

The Certificate of Compliance for mechanical observation shall read as follows:

"I certify to the best of my knowledge the mechanical requirements of the *Phoenix Building Construction Code* and approved plans and specifications have been complied with insofar as the portion of the work requiring mechanical observation is concerned, except for those deviations that have been previously reported. A guarantee that the contractor has constructed the building in full accord with the plans and specifications is neither intended nor implied."

Justification: The above types of mechanical work requiring Mechanical Observations involve more complex systems. In addition to mechanical inspections performed by City of Phoenix mechanical inspectors and any required Special Mechanical Inspections; these work types require mechanical observations performed by a (State of Arizona) Registered Professional Mechanical Engineer.

Cost Impact: Minimal Cost Impact. Increased costs associated with hiring a registered design professional to perform mechanical observations.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 01/9/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1704.9

Submitted by: International Building Code Committee

1704.9 Plumbing observations.
The owner shall employ the *registered design professional* responsible for the plumbing design, or another *registered design professional* who is familiar with the plumbing design and is acceptable to the *building official*, to perform visual observation of complex plumbing equipment and systems for general conformance to the approved plans and specifications, including, but not limited to, placement and interconnection of equipment. Plumbing observation shall be performed at significant stages of the construction and when the installation is complete and ready to be inspected. Plumbing observations are in addition to the inspections required by Section 110 and the special inspections required by Section 1705.21 and shall be provided when one of the following conditions exist:

1. Siphonic Roof Drainage Systems
2. *Alternative Engineered Designs* per the *International Plumbing Code*.
3. Peak water demand and pipe sizing per the Uniform Plumbing Code.
4. When such observation is required by the *registered design professional* responsible for the plumbing design.
5. When such observation is specifically required by the *building official.*

1704.9.1 Statement of Observations
Where observations are required, the *construction documents* shall show a statement of observations. This statement shall identify the frequency and extent of observations. The frequency and extent shall be acceptable to the *building official* based on the complexity and scope of work on the permit.

1704.9.2 Procedures.
The *registered design professional* responsible for plumbing observation shall personally visit the site prior to completion of the Certificate of Compliance and periodically during the course of construction requiring plumbing observation as set forth in the inspection and observation program for each project.

The *registered design professional* responsible for performing plumbing observation shall complete a signed written report after each site visit. A copy of each report shall be kept on the job site for review by an inspector at all times until the inspector has issued final approval. Any and all deviations from the approved plans or specifications shall be immediately reported to the contractor for correction and then, if uncorrected, shall be reported to the *registered design professional in responsible charge* and to the *building official*.

In addition to individual reports, the *registered design professional* responsible for plumbing observation shall file with the *building official* a written monthly progress report indicating the dates of each site visit, observations performed, any deviations noted from approved plans and specifications and any resulting instructions or change orders issued to the contractor.

1704.9.3 Certificate of compliance.

Upon completion of the portions of the work requiring plumbing observation, a Certificate of Compliance shall be issued to the *building official* under the seal and signature of the *registered design professional* responsible for such observation. A Certificate of Occupancy will not be issued until the *building official* receives all required observation ~~special inspection~~ reports and the Certificates of Compliance.

The Certificate of Compliance for plumbing observation shall read as follows:

"I certify to the best of my knowledge the plumbing requirements of the *Phoenix Building Construction Code* and approved plans and specifications have been complied with insofar as the portion of the work requiring plumbing observation is concerned, except for those deviations that have been previously reported. A guarantee that the contractor has constructed the building in full accord with the plans and specifications is neither intended nor implied."

Justification: The above types of plumbing work requiring Plumbing Observations involve more complex systems. In addition to plumbing inspections performed by City of Phoenix plumbing inspectors and any required Special Plumbing Inspections; these work types require plumbing observations performed by a (State of Arizona) registered design professional.

Cost Impact: Minimal Cost Impact**.** Increased costs associated with hiring a registered design professional to perform plumbing observations.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 01/9/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1705.21

Submitted by: International Building Code Committee

1705.21 Electrical special inspections.
The types of equipment or installations noted below shall be tested or inspected by a special inspector.

1. Ground-fault protection performance tests for equipment provided with ground-fault protection.
2. Switchboards, panelboards, motor control centers and other equipment rated at 1,000 amperes or more, or over 600 volts.
3. Transformers rated 100 KVA or more, single phase; or 300 KVA or more, three phase.
4. Conductors that supply equipment rated at 1,000 amperes or more, or over 600 volts.
5. Emergency and standby power systems, including switchboards, panelboards, distribution boards, transfer equipment, power source, conductors, fire pumps and exhaust and ventilation fans.
6. Selective Coordination - This includes verification of the installation in accordance with the required selective coordination study.
7. Special cases – Work which, in the opinion of the building official, involves unusual hazards or conditions.

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

Justification: These requirements were previously included in an amendment in 2018 IBC and specify the items in electrical design that require Special Inspection. The above types of electrical work requiring Special Electrical Inspections involve higher hazards and more complex systems. In addition to electrical inspections performed by City of Phoenix electrical inspectors; these work types require Special Electrical Inspections by qualified third-party special inspectors.

These special inspections generally include:

1. Visual inspection for physical damage, proper device settings, and verification of compliance with the engineered drawings and specifications.
2. Electrical inspection to test for proper mechanical operation, and
3. Electrical testing to test for proper electrical connection / functioning and to detect damaged electrical components prior to the equipment being cleared to be energized.

Cost Impact: Minimal Cost Impact
The cost is associated with hiring qualified electrical special inspectors.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee Date: 12/12/2024
☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken

Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1705.22

Submitted by: International Building Code Committee

1705.22 Mechanical special inspections.
The types of equipment or installations noted below shall be tested or inspected by a special inspector in accordance with regulations established by the building official:

1. Duct smoke detectors for air distribution systems as required by *International Mechanical Code* section 606.5.
2. Fire, fire / smoke, radiation and smoke damper operation for dampers required by *International Mechanical Code* section 607.2.
3. Installation of grease duct enclosure alternative systems allowed under the exceptions to the *International Mechanical Code* section 506.3.11.
4. Special cases—Work which, in the opinion of the building official, involves unusual hazards or conditions.
5. Test and Balance report for air balance of ventilation systems installed in ambulatory care and I-2 occupancies designed and installed in accordance with ASHRAE 170 as required by *International Mechanical Code* section 407.1.

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

Justification: These requirements were previously included in an amendment in 2018 IBC and specify the items in mechanical design that require Special Inspection. The above types of mechanical work requiring Special Mechanical Inspections involve more complex systems and currently the City of Phoenix Inspection staff does not perform these types of inspections. In addition to mechanical inspections performed by City of Phoenix mechanical inspectors; these work types require Special Mechanical Inspections by qualified third-party special inspectors.

These special inspections generally include:
1. Visual inspection for physical damage, proper device settings, and verification of compliance with the engineered drawings and specifications.
2. Mechanical inspection to test for proper mechanical operation.

Cost Impact: Minimal cost impact. The cost is associated with hiring qualified mechanical special inspectors.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 12/18/2024
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:

☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	
Transportation, Infrastructure and Planning Subcommittee ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	Date:
City Council Action ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	Date:

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 1705.23

Submitted by: International Building Code Committee

1705.23 Plumbing special inspections.
The types of equipment or installations noted below shall be tested or inspected by a special inspector.

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

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

Justification: These requirements were previously included in an amendment in 2018 IBC and specify the items in plumbing design that require Special Inspection. The above types of plumbing work requiring Special Plumbing Inspections involve more complex systems and currently the City of Phoenix Inspection staff does not perform these types of inspections. In addition to plumbing inspections performed by City of Phoenix plumbing inspectors; these work types require Special Plumbing Inspections by qualified third-party special inspectors.

These special inspections generally include:
1. Visual inspection for physical damage, proper device settings, and verification of compliance with the engineered drawings and specifications.
2. Plumbing inspection to test for proper mechanical operation.

Cost Impact: Minimal cost impact. The cost is associated with hiring qualified plumbing special inspectors.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 12/18/2024
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Building Code (IBC)
Section 3113

Submitted by: International Building Code Committee

SECTION 3113 RELOCATABLE AND FACTORY-BUILT BUILDINGS

~~**3113.1 General.**~~
~~The provisions of this section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code.~~
~~Exception: This section shall not apply to manufactured housing used as dwellings.~~

~~**3113.1.1 Compliance**~~.
~~A newly constructed relocatable building shall comply with the requirements of this code for new construction. An existing relocatable building that is undergoing alteration, addition, change of occupancy or relocation shall comply with Chapter 14 of the International Existing Building Code.~~

~~3113.2 Supplemental information.~~
~~Supplemental information specific to a relocatable building shall be submitted to the authority having jurisdiction. It shall, as a minimum, include the following in addition to the information required by Section 105:~~
~~1. Manufacturer's name and address.~~
~~2. Date of manufacture.~~
~~3. Serial number of modular.~~
~~4. Manufacturer's design drawings.~~
~~5. Type of construction in accordance with Section 602.~~
~~6. Design loads including: roof live load, roof snow load, floor live load, wind load and seismic site. class, use group and design category.~~
~~7. Additional building planning and structural design data.~~
~~8. Site-built structure or appurtenance attached to the relocatable building.~~

~~**3113.3 Manufacturer's data plate**~~.
~~Each relocatable module shall have a data plate that is permanently attached on or adjacent to the electrical panel, and shall include the following information:~~
~~1. Occupancy group.~~
~~2. Manufacturer's name and address.~~
~~3. Date of manufacture.~~
~~4. Serial number of module.~~
~~5. Design roof live load, design floor live load, snow load, wind and seismic design.~~
~~6. Approved quality assurance agency or approved inspection agency.~~
~~7. Codes and standards of construction.~~
~~8. Envelope thermal resistance values.~~
~~9. Electrical service size.~~
~~10. Fuel-burning equipment and size.~~
~~11. Special limitations if any.~~

~~**3113.4 Inspection agencies.**~~
~~The building official is authorized to accept reports of inspections conducted by approved inspection agencies during off-site construction of the relocatable building, and to satisfy the applicable requirements of Sections 110.3 through 110.3.11.1. 3113.1~~

3113.1 General.
Factory-built buildings, manufactured homes, and mobile homes shall comply with applicable laws of the State of Arizona and this code. The provisions of this section for factory-built buildings, manufactured homes, and mobile homes take precedence over other code provisions which are inconsistent therewith. The general provisions of this code shall apply in all areas where there are not specific provisions in this section.

3113.1.1 Arizona law.
The construction of factory-built buildings and manufactured homes is regulated by the State of Arizona, Arizona Revised Statutes ARS 41-4001 through ARS 41-4010 and is not included in this Code.

3113.1.2 Factory-built building installation.
The installation of factory-built buildings, manufactured homes, and mobile homes including their foundations and direct connection to sewer, water, gas or electric utilities, is regulated by the State of Arizona and is not included in this code, except that a City of Phoenix On-Site Permit is required for compliance with Phoenix Zoning Ordinance requirements and with Building Code requirements pertaining to location on property and setback from other buildings or structures on the property. A City of Phoenix building permit is required for all on-site construction (except foundations) including connection to or alteration of existing on-site sewer, water, gas or electrical systems, and for construction of all site improvements required by the Phoenix Zoning Ordinance such as design review elements, signs, parking, landscaping, site amenities and disabled accessibility. Connection to a City water or sewer tap requires a separate permit from the Planning and Development Department.

3113.1.3 Alterations and additions.
Repairs, alterations and site-built additions to factory-built buildings, mobile homes, and manufactured homes are regulated by this code and by the Phoenix Zoning Ordinance and require City of Phoenix permits.

3113.1.4 Occupancy and use.
Occupancy and use of a factory built-building, manufactured home or mobile home is prohibited without first obtaining inspection approval and a certificate of occupancy from the building official, to verify compliance with the Phoenix Zoning Ordinance and other applicable city codes and ordinances.

3113.2 Definitions. For the purpose of this Section, the following definitions shall apply:

FACTORY BUILT BUILDING is a residential or non-residential building including a dwelling unit or habitable room thereof which is either wholly or in substantial part manufactured at an off-site location to be assembled on-site, except it does not include a manufactured home, recreational vehicle or mobile home.D

MANUFACTURED HOME is a structure built in accordance with the National Manufactured Home Construction and Safety Standards Act.

MOBILE HOME is a structure built prior to June 15, 1976, on a permanent chassis, capable of

being transported in one or more sections and designed to be used with or without a permanent foundation as a dwelling when connected to on-site utilities except that it does not include recreational vehicles or factory-built buildings.

ON-SITE PERMIT is the permit issued by the building official which authorizes the placement of a factory-built building, manufactured home, or mobile home on a site. The on-site permit shall authorize only the placement, foundation or unit tie-down, and specific connections to utility services which are authorized by a permit issued by the State of Arizona Office of Manufactured Housing. All other work on the site shall require a building permit issued by the building official in accordance with Section 105 of this code. Connection to a City water or sewer tap requires a separate permit from the Planning and Development Department.

3113.3 Installation requirements.
No factory-built building, manufactured home, or mobile home shall be moved onto or installed on any lot or site in the City of Phoenix except in compliance with these provisions.

3113.3.1 State insignia required.
No person, firm or corporation shall move onto any site any factory-built building or manufactured home building unless such building bears a current, valid insignia of approval of the State of Arizona.

3113.3.2 State permit required.
No person, firm or corporation shall move onto any site any factory-built building, manufactured home or mobile home unless and until a permit for such installation has been obtained from the State of Arizona.

3113.3.3 On-site permit required.
No person firm or corporation shall move onto any site, or relocate on any site, any factory-built building, manufactured home, or mobile home until an On-Site Permit has been issued by the City of Phoenix building official.

A site plan shall be submitted to the building official which shows all utility connections and all other information necessary to ascertain compliance with the separation and area restrictions of other sections of this code and with all provisions of the Phoenix Zoning Ordinance. If the building official is satisfied that the work described by the documents submitted conform to this section and other applicable law, the On-Site Permit shall be issued to the owner of the site or his authorized agent.

3113.3.4 Building permit required.
The person, firm or corporation obtaining the On-Site Permit shall also apply for and obtain a building permit from the building official when one or more of the following conditions apply:

1. For all on-site construction which connects to or alters existing buildings or existing onsite sewer, water, gas or electrical systems.

2. For all on-site construction which is required by or regulated by the Phoenix Zoning Ordinance, such as for design review elements, signs, parking, landscaping, site amenities and accessibility.

3. For all construction or alteration which is not part of the State-approved factory-built building, manufactured home, or mobile home including all interior fit-up, tenant improvement or remodeling work which is not specifically included in such State permit.

4. When a City of Phoenix inspection is requested by the installer for work otherwise included in the State of Arizona installation permit, including but not limited to requests for utility clearance inspections.

3113.4 Repairs, alterations, and additions.
No person shall repair, alter or add on to a factory-built building, manufactured home or a mobile home after the unit has been installed without first having obtained a permit from the building official for the specific work to be performed. All such work shall comply with the requirements of this Code.

3113.5 Fire protection.
Factory-built buildings shall be protected pursuant to the Phoenix Fire Code.

Justification: The 2018 IBC added a section for Relocatable Buildings; however, the State of Arizona has jurisdiction to regulate the construction of these buildings including manufactured housing used as dwellings. The City of Phoenix has worked extensively, and will continue to work, with the State of Arizona on the construction of these buildings. This is an existing amendment carrying forward.

Cost Impact: No cost impact.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 1/22/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Plumbing Code (IPC)
Section 604.4

Submitted by: International Plumbing Code Committee

604.4 Maximum flow and water consumption.
The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4(1).

Exceptions: Situations meeting exceptions 1 through 5 are not required to comply with Table 604.4(1) nor Table 604.4(2). Situations meeting exceptions 6 through 12 shall comply with Table 604.4(2).

1. Blowout design water closets having a water consumption not greater than 3 1/2 gallons (13 L) per flushing cycle.
2. Vegetable sprays.
3. Clinical sinks having a water consumption not greater than 4 1/2 gallons (17 L) per flushing cycle.
4. Service sinks.
5. Emergency showers.
6. The building does not have a demand recirculation water system and includes one or more centralized potable water-heater systems serving two or more dwelling units or sleeping units.
7. The building is more than six (6) stories above grade plane or is more than ten (10) stories.
8. The building is larger than 50,000 ft^2 (5000 m^2) and contains one or more potable water booster pumps.
9. The building is a facility where 5 or more people, excluding staff, receive custodial care or medical care on a 24-hour basis.
10. The building contains one or more areas for the purpose of surgery, or for housing or treating occupants receiving treatment for burns, chemotherapy for cancer, or solid organ transplantation or bone marrow transplantation.
11. The building contains areas for the purpose of housing or treating people that are immunocompromised, are taking drugs that weaken the immune system, have renal disease, diabetes, or chronic lung disease.
12. The plumbing fixtures serve a space whose primary purpose is housing occupants under the age of 2 years or over the age of 65 years.

TABLE 604.4 (1)
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY[b]
Lavatory, private	1.5 ~~2.2~~ gpm at 60 psi
Lavatory, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head [a,c]	2.0 gpm at 80 psi
Sink faucet	1.5 ~~2.2~~ gpm at 60 psi
Urinal	0.5 ~~1.0~~ gallon per flushing cycle
Water closet	1.28 ~~1.6~~ gallon per flushing cycle

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

a. A hand-held shower spray is a shower head.
b. Consumption tolerances shall be determined from referenced standards.
c. Shower heads shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1-2020/CSA B125.1.

TABLE 604.4 (2)
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY[b]
Lavatory, private	2.2 gpm at 60 psi
Lavatory, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head [a,c]	2.0 gpm at 80 psi
Sink faucet	2.2 gpm at 60 psi
Urinal	1.0 gallon per flushing cycle
Water closet	1.6 gallon per flushing cycle

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

a. A hand-held shower spray is a shower head.
b. Consumption tolerances shall be determined from referenced standards.
c. Shower heads shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1-2020/CSA B125.1.

Justification: Per Council Resolution 22129, “A Resolution Addressing the Future Water Consumption of New Development”, Section 2.2.b.i., staff will propose updates to the Building Code for water efficiency standards that would be consistent with water usage best practices. The proposed changes are consistent with the current EPA Water Sense standards.

Exceptions 6 through 12: During review of these proposed changes, it was identified that some situations could potentially be at higher risk of waterborne pathogens where the length of piping in the building was particularly long, due to the decay of disinfectant with time. Higher flow rates help move this water through the system faster, allow less time for disinfectant decay. Additionally, some populations are at higher risk for these pathogens, and they are the reason for some of the other exceptions. See ASHRAE Standard 188, and ASHRAE Standard 514, ASHRAE Guideline 12, NASEM Consensus Report on the Management of Legionella in Building Water Systems, and ASPE Engineering Methodologies to Reduce the Risk of Legionella in Premise Plumbing Systems Design Guide.

Note: Phoenix City Code Chapter 37, Article 3, pertaining to large water users, greater than 250,000 gallons per day, sec. 37-52-02.

Cost Impact: Minimal cost impact. These proposed fixture standards are consistent with most of the fixtures available on the market.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/19/2025
☐ Approved as submitted ☒ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 Uniform Plumbing Code (UPC)
Sections 401.3, 407.2.1, 408.3, 411.2, 412.1, and 420.2

Submitted by: Uniform Plumbing Code Committee

401.3 Maximum Flow Rates. Plumbing fixtures shall have maximum flow rates or maximum consumptions as required by this chapter.

Exceptions: Situations meeting exceptions 1 through 5 are not required to comply with the maximum flow rates or maximum consumptions of Sections 407.2.1, 407.2.1.1, 408.3, 408.3.1, 411.2, 411.2.1, 412.1, 412.1.1, 420.2, and 420.2.1. Situations meeting exceptions 6 through 12 shall comply with the maximum flow rates or maximum consumptions of Sections 407.2.1.1, 408.3.1, 411.2.1, 412.1.1, and 420.2.1

1. Blowout design water closets having a water consumption not greater than 3 1/2 gallons (13 L) per flushing cycle.
2. Vegetable sprays.
3. Clinical sinks having a water consumption not greater than 4 1/2 gallons (17 L) per flushing cycle.
4. Service sinks.
5. Emergency showers.
6. The building does not have a demand recirculation water system and includes one or more centralized potable water-heater systems serving two or more dwelling units or sleeping units.
7. The building is more than six (6) stories above grade plane or is more than ten (10) stories.
8. The building is larger than 50,000 ft^2 (5000 m^2) and contains one or more potable water booster pumps.
9. The building is a facility where 5 or more people, excluding staff, receive custodial care or medical care on a 24-hour basis.
10. The building contains one or more areas for the purpose of surgery, or for housing or treating occupants receiving treatment for burns, chemotherapy for cancer, or solid organ transplantation or bone marrow transplantation.
11. The building contains areas for the purpose of housing or treating people that are immunocompromised, are taking drugs that weaken the immune system, have renal disease, diabetes, or chronic lung disease.
12. The plumbing fixtures serve a space whose primary purpose is housing occupants under the age of 2 years or over the age of 65 years.

407.2.1 Maximum Flow Rate. The maximum flow rate for public lavatory faucets shall not exceed 0.5 gpm at 60 psi (1.9 L/m at 414 kPa) and 1.5 ~~2.2~~ gpm at 60 psi (5.68 ~~8.3~~ L/m at 414 kPa) for private lavatory faucets.

407.2.1.1 Maximum Flow Rate. Where exceptions 6 through 12 to Section 401.3 are applicable, the maximum flow rate for public lavatory faucets shall not exceed 0.5 gpm at 60 psi (1.9 L/m at 414 kPa) and 2.2 gpm at 60 psi (8.3 L/m at 414 kPa) for private lavatory faucets.

408.3 Water Consumption. Showerheads shall have a maximum flow rate of not more than 2.0 ~~2.5~~ gpm at 80 psi (7.57 ~~9.5~~ L/m at 552 kPa). Body sprays shall have a flow rate of not more than 2.0 ~~2.5~~ gpm at 80 psi (7.57 ~~9.5~~ L/m at 552 kPa).

408.3.1 Water Consumption. Where exceptions 6 through 12 to Section 401.3 are applicable, showerheads shall have a maximum flow rate of not more than 2.5 gpm at 80 psi (9.5 L/m at 552 kPa). Where exceptions 6 through 12 to Section 401.3 are applicable, body sprays shall have a flow rate of not more than 2.5 gpm at 80 psi (9.5 L/m at 552 kPa).

411.2 Water Consumption. Water closets shall have a maximum consumption not to exceed 1.28 ~~1.6~~ gallons (4.8 ~~6.0~~ Lpf) of water per flush.

411.2.1 Water Consumption. Where exceptions 6 through 12 to Section 401.3 are applicable, water closets shall have a maximum consumption not to exceed 1.6 gallons (6.0 Lpf) of water per flush.

412.1 Application. Urinals shall comply with ASME A112.19.2/CSA B45.1, ASME A112.19.19, or CSA B45.5/IAPMO Z124. Urinals shall have an average water consumption not to exceed 0.5 ~~1~~ gallon (1.9 ~~3.8~~ Lpf) of water per flush.

412.1.1 Application. Where exceptions 6 through 12 to Section 401.3 are applicable, urinals shall have an average water consumption not to exceed 1 gallon (3.8 Lpf) of water per flush.

420.2 Water Consumption. Sink faucets shall have a maximum flow rate of not more than 1.5 ~~2.2~~ gpm at 60 psi (5.68 ~~8.3~~ L/m at 414 kPa).

420.2.1 Water Consumption. Where exceptions 6 through 12 to Section 401.3 are applicable, sink faucets shall have a maximum flow rate of not more than 2.2 gpm at 60 psi (8.3 L/m at 414 kPa).

Justification: Per Council Resolution 22129, "A Resolution Addressing the Future Water Consumption of New Development", Section 2.2.b.i., staff will propose updates to the Building Code for water efficiency standards that would be consistent with water usage best practices. The proposed changes are consistent with the current EPA Water Sense standards.

Exceptions 6 through 12: During review of these proposed changes, it was identified that some situations could potentially be at higher risk of waterborne pathogens where the length of piping in the building was particularly long, due to the decay of disinfectant with time. Higher flow rates help move this water through the system faster, allow less time for disinfectant decay. Additionally, some populations are at higher risk for these pathogens, and they are the reason for some of the other exceptions. See ASHRAE Standard 188, and ASHRAE Standard 514, ASHRAE Guideline 12, NASEM Consensus Report on the Management of Legionella in Building Water Systems, and ASPE Engineering Methodologies to Reduce the Risk of Legionella in Premise Plumbing Systems Design Guide.

Note: Phoenix City Code Chapter 37, Article 3, pertaining to large water users, greater than 250,000 gallons per day, sec. 37-52-02.

These UPC sections were updated to match the similar requirements in the 2024 IPC to create consistency between the two codes.

Cost Impact: Minimal Cost Impact. These proposed fixture standards are consistent with "Water Sense" fixtures already available on the market.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:
2024 Code Committee Date: 03/19/2025 ☐ Approved as submitted ☒ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Subcommittee Date: 03/27/2025 ☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Transportation, Infrastructure and Planning Subcommittee Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
City Council Action Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 Uniform Plumbing Code (UPC)
Section 1014.2.1

Submitted by: Uniform Plumbing Code Committee

1014.2 Hydromechanical Grease Interceptors.

1014.2.1 Capacity. The total capacity in gallons (gal) (L) of fixtures discharging into a hydromechanical grease interceptor shall not exceed two and one-half times the certified gallon per minute (gpm) (L/s) flow rate of the interceptor in accordance with Table 1014.2.1(1) and 1014.2.1(2). No hydromechanical interceptor shall be installed which has an approved rate of flow greater than fifty (50) gallons per minute (3.5 L/s), nor less than twenty (20) gallons per minute (1.3 L/s) except where approved by the Authority Having Jurisdiction.

For this section, the term "fixture" shall mean and include each plumbing fixture, appliance, apparatus, or other equipment required to be connected to or discharged into a grease interceptor by a provision of this section.

TABLE 1014.2.1(1)
HYDROMECHANICAL GREASE INTERCEPTOR SIZING USING GRAVITY FLOW RATES[1]

DIAMETER OF GREASE WASTE PIPE (Inches)	MAXIMUM FULL PIPE FLOW (gpm)[2]	ONE-MINUTE DRANINAGE PERIOD (gpm)	TWO-MINUTE DRANINAGE PERIOD (gpm)
2	20	20	10
3	60	75	35
4	125	150	75
5	230	250	125
6	375	400	200

For SI units: 1 inch = 25 mm, 1 gallon per minute = 0.06L/s

Notes:

[1] For interceptor sizing by the fixture capacity see the example below.

[2] ¼ inch slope per foot (20.8 mm/m) based on Manning's formula with friction factor N = 0.012.

TABLE 1014.2.1(2)
HYDROMECHANICAL GREASE INTERCEPTOR SIZING BASED ON FIXTURE COUNT

Total Number of Grease Retention Fixtures Connected	Total Flow-Through Rating (gpm)	Grease Retention Capacity Equal to or Greater Than (pounds)
1	20	40
2	25	50
3	35	70
4	50	100

For SI units: 1 gallon per minute = 0.06 L/s, 1 pound = 0.454 kg.

Justification: The purpose of this code change is to provide the public with prescriptive sizing guidelines for hydromechanical grease interceptors. This is required by the Water Service Department's Office of Environmental Programs.
Cost Impact: Minimal cost impact to adding/changing the requirements for interceptors. This requirement is an amendment carried forward from the 2018 Uniform Plumbing Code.
Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee ☒ Approved as submitted ☐ Modified and approved ☐ Denied	Date: 11/14/2024 ☐
Development Advisory Board (DAB) Subcommittee ☒ Approved as submitted ☐ Modified and approved ☐ Denied	Date: 03/27/2025 ☐
Development Advisory Board (DAB) ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐
Transportation, Infrastructure and Planning Subcommittee ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken
City Council Action ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Energy Conservation Code (IECC)
Chapter 1 [RE], Section R104

Submitted by: Home Builders Association of Central Arizona

R104.1.2 RESNET testing & inspection protocol.
The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standard (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.

Justification: From HBACA - This amendment was developed in collaboration between the MAG Building Codes Committee Members, SRP, APS, and the HBACA and has been adopted in many municipalities throughout the region. It is also included in MAG's Building Code Amendment and Standards Manual. Note that this proposed amendment is slightly different than the amendment adopted in 2018 and 2021 to reflect changing code sections.

Staff Committee Rationale for Recommendation: Amendment carried forward. Doesn't lower standards but allows less dwelling units to be tested.

Current disallowance of MINHERS standards for sampling of single-family homes per MINHERS addendum 78i effective January 1, 2025, subject to RESNET change.

Cost Impact: Applicant did not provide any information.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/25/2025
☐ Approved as submitted ☒ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Chapter 11, Section N1101.4.1

Submitted by: Home Builders Association of Central Arizona

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.

Justification: From HBACA - This amendment was developed in collaboration between the MAG Building Codes Committee Members, SRP, APS, and the HBACA and has been adopted in many municipalities throughout the region. It is also included in MAG's Building Code Amendment and Standards Manual. Note that this proposed amendment is slightly different than the amendment adopted in 2018 and 2021 to reflect changing code sections.

Staff Committee Rationale for Recommendation: Amendment carried forward. Doesn't lower standards but allows less dwelling units to be tested.

Current disallowance of MINHERS standards for sampling of single-family homes per MINHERS addendum 78i effective January 1, 2025, subject to RESNET change.

Cost Impact: Applicant did not provide any information.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/25/2025
☐ Approved as submitted ☒ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R202

Submitted by: Home Builders Association of Central Arizona

SECTION: R202 DEFINITIONS

FIRE SEPARATION DISTANCE. The distance measured from the building face <u>of the wall framing</u> 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 the right angle from the face of the wall framing.~~

Justification:
This amendment provides a more exact point of measurement for fire separation distance.

From HBACA – A similar amendment was adopted by the City of Phoenix in 2018. The rationale from the city was that the amendment "established a more exact point for measurement" and that "[c]onstruction documents use this point for measuring distances." We agree that this is a good clarification. This is a particularly important issue on narrow lots where the added width from stucco can determine compliance with the fire separation distance requirements.

Cost Impact: No cost impact.

Staff Committee Rationale for Recommendation: IRC Committee proposed amendment provides more concise verbiage that accomplishes what is being submitted here.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 1/17/2025
☐ Approved as submitted ☐ Modified and approved ☒ Denied ☐ No action taken	
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☐ Approved as submitted ☐ Modified and approved ☒ Denied ☐ No action taken	
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Chapter 2 Definition: Fire Separation Distance

Submitted by: International Residential Code Committee

SECTION R202 DEFINITIONS

[RB] FIRE SEPARATION DISTANCE. The shortest distance measured from the building face 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.~~

Justification: This establishes a more exact point for measurement. Construction documents use this point for measuring distances.

Cost Impact: No cost impact

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:

2024 Code Committee				Date: 3/24/2025
☐ Approved as submitted	☒ Modified and approved	☐ Denied	☐ No action taken	
Development Advisory Board (DAB) Subcommittee				Date: 3/27/2025
☐ Approved as submitted	☒ Modified and approved	☐ Denied	☐ No action taken	
Development Advisory Board (DAB)				Date:
☐ Approved as submitted	☐ Modified and approved	☐ Denied	☐ No action taken	
Transportation, Infrastructure and Planning Subcommittee				Date:
☐ Approved as submitted	☐ Modified and approved	☐ Denied	☐ No action taken	
City Council Action				Date:
☐ Approved as submitted	☐ Modified and approved	☐ Denied	☐ No action taken	

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL
Amendment to 2024 International Residential Code (IRC)
Section R310.6 & R311.6

Submitted by: International Residential Code Committee

R310.6 Power Source

Smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial power source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Smoke alarms shall be permitted to be battery operated where installed in buildings without commercial power.
2. Smoke alarms installed in accordance with Section R310.2.2 shall be permitted to be battery powered~~.~~ where alteration or repairs do not result in the removal of interior wall or ceiling finishes unless there is an attic or crawl space or basement available which could provide access for hardwiring of smoke alarms.

R311.6 Power Source

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial power source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.
2. Carbon monoxide alarms installed in accordance with Section R311.2.2 shall be permitted to be battery powered~~.~~ where alteration or repairs do not result in the removal of interior wall or ceiling finishes unless there is an attic or crawl space or basement available which could provide access for hardwiring of smoke alarms.

Justification: The base code language would allow projects that fall under the technical definition of alteration and repair that are complete gut remodels, whole house rewires, etc. to only be required to provide battery powered smoke and carbon monoxide alarms. It also lends to suggesting that additions that are receiving new electrical wiring could also be constructed with smoke and carbon monoxide alarms that are not hardwired. This is not consistent with the intent of the smoke and carbon monoxide alarm provisions of providing consistent, redundant levels of safety for sleeping occupants in the building. It stands to reason that such projects should fall under the same requirement for power source as newly constructed dwelling units. The language used in the amendment is language that has been derived from previous versions of the code.

Cost Impact: Minimal cost impact
Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**
ACTION TAKEN:
2024 Code Committee Date: 1/31/2025 ☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Subcommittee Date: 03/27/2025 ☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Transportation, Infrastructure and Planning Subcommittee Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
City Council Action Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R319.5

Submitted by: International Residential Code Committee

R319.5 Replacement windows for emergency escape and rescue openings.

Replacement for emergency escape and rescue openings installed in buildings meeting the scope of this code shall be exempt from Sections R319.2 and R319.4.4, provided that the replacement window meets the following conditions:

1. The replacement window is the ~~manufacturer's largest standard size window that will fit within the~~ same size as the existing frame or existing rough opening. The replacement window shall be ~~permitted to be of the same operating style as the existing window or a~~ an operating style that provides for ~~an equal or greater~~ the greatest window opening area, height dimensions, and width dimensions.~~, than the existing window.~~ If an operating style can meet the requirements of 319.2, that operating style shall be provided.
2. The replacement window is not part of a change of occupancy. See Section 319.7.1

Justification: Aligns with current city policy established in 2007. Replacement emergency escape and rescue openings should meet minimum code requirements where possible. When it is not possible, the emergency escape and rescue opening should not be further reduced in size but instead improved where possible. Further reducing the size of emergency escape and rescue openings creates a higher hazard for occupants and rescue personnel.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R319.6

Submitted by: International Residential Code Committee

R319.6 Dwelling additions

Where dwelling unit additions contain sleeping rooms, an emergency escape and rescue opening shall be provided in each new sleeping room. Where dwelling unit additions have basements, an emergency escape and rescue opening shall be provided in the new basement.

Exceptions:

1. An emergency escape and rescue opening is not required in a new basement that contains a sleeping room with an emergency escape and rescue opening that meets the requirements of R319.2.1 through R319.4.4.
2. An emergency escape and rescue opening is not required in a new basement where there is an emergency escape and rescue opening that meets the requirements of R319.2.1 through R319.4.4 in an existing basement that is accessed from the new basement.
3. ~~An operable window complying with Section R319.7.1 shall be acceptable as an emergency escape and rescue opening.~~

Justification: Provides clarification of requirements for existing emergency escape and rescue openings. Removes added language allowing for less safe emergency and escape and rescue openings. Aligns with current city polices and requirements established in 2007.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R319.7

Submitted by: International Residential Code Committee

R319.7 Alterations or repairs of existing basements.

New sleeping rooms created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R319.1 and R319.2. ~~Other than new sleeping rooms, w~~Where existing basements undergo alterations or repairs, an emergency escape and rescue opening shall be provided in accordance with R319.1 and R319.2 ~~is not required~~.

> **Exception:** ~~An operable window complying with R319.7.1 shall be acceptable as an emergency escape and rescue opening~~. For existing basements not containing habitable space, where alterations or repairs do not result in new habitable space, an emergency escape and rescue opening shall not be required.

Justification: Clarifies section reference for sizing requirements of emergency escape and rescue openings. Also removes added language allowing for less safe emergency and escape and rescue openings. Aligns with current city policy and requirements established in 2007. Allowing a reduced size for emergency escape and rescue openings creates a hazard for occupants and rescue personnel.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R319.7.1

Submitted by: International Residential Code Committee

R319.7.1 Existing emergency escape and rescue openings.

Where a change of occupancy would require an emergency escape and rescue opening in accordance Section R319.1, operable windows serving as the emergency escape and rescue opening shall comply with ~~the following:~~ R319.1.1 through R319.4.4.

~~1. An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm)~~

~~2. A replacement window where such window complies with both of the following:~~
~~2.1.The replacement window meets the size requirements in Item 1.~~
~~2.2.The replacement window is the manufacturer's largest standard-size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.~~

Justification: Most changes of occupancies in Residential construction result in a higher occupant load, and/or involve the care of individuals. Maintaining the city's current and longstanding policy (2007) of emergency and escape and rescue openings provides for an increased level of safety and a higher probability of escape and rescue in an emergency. Allowing a reduction in the size requirements of emergency and rescue openings creates a hazard for occupants and rescue personnel.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R322

Submitted by: International Residential Code Committee

SECTION R322 ACCESSIBILITY

R322.1 Dwelling units or sleeping units.
Where there are four or more dwelling units or sleeping units in a single structure, the provisions of Chapter 11 of the International Building Code for Group R-3 shall apply.

Exception: Owner-occupied lodging houses with five or fewer guestrooms are not required to be accessible.

R322.2 Model home complex.

R322.2.1 No-step entrance.
At least one single family dwelling as part of a Model Home Complex, as described in the Phoenix Zoning Ordinance, shall have a no-step entrance as described in Section R322.2.2.

R322.2.2 Dwellings.
Residential single family dwellings, as part of a Model Home Complex, as described in the Zoning Ordinance, shall have a route of travel as described herein. The route of travel shall be a continuous no–step path connecting each subdivision sales office or public way to the primary entry.

The route of travel shall conform to the following requirements:

1. The running slope shall not exceed 1:12.
2. Routes of travel complying with this section are not required to have handrails.
3. The route of travel shall be a firm, stable, and slip resistant surface for a minimum width of 36 inches (914 mm) continuous and clear for a height of 7 feet (2.134 m) above the route.
4. The entry to the model home shall have a maneuvering space of a minimum 48 inches (1219 mm) by 48 inches (1219 mm) on the exterior side of the entry door.
5. The threshold at the entry shall not exceed ½ inch (13 mm).
6. The no step entry shall be identified by a readily viewable sign.

Justification: To provide a somewhat accessible route to the model home to allow access without traversing steps or steep slopes. This requirement was approved by the Development Advisory Board on May 17th, 2001 and has been in the Phoenix Building Construction Code since that time.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:
2024 Code Committee Date: 01/15/2025 ☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Subcommittee Date: 03/27/2025 ☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Development Advisory Board (DAB) Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
Transportation, Infrastructure and Planning Subcommittee Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken
City Council Action Date: ☐ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R322

Submitted by: Strategic Workgroup on Accessibility

R322.1 Dwelling units or sleeping units. Where there are four or more dwelling units or sleeping units in a single structure, the provisions of Chapter 11 of the *International Building Code* for Group R-3 shall apply. Other dwelling unit and sleeping unit containing structures shall comply with Section R322.1.1.

~~**Exception:** Owner-occupied lodging houses with five or fewer guestrooms are not required to be accessible.~~

R322.1.1 Dwelling units.
Dwelling units and sleeping units shall comply with the inclusive home design features of Section R322.1.1

Exceptions: The following are not required to comply with Section R322.1.1:
1. All portions of the dwelling units or sleeping units not on the floor level that contains the accessible entrance.
2. A raised or sunken floor area in a portion of a living, dining, or sleeping room.
3. Dwelling units or sleeping units covered by Section R322.1.2.

R322.1.1.1 Entrance.

At least one dwelling unit entrance shall be *accessible* and on an *accessible route* from the street or sidewalk, the dwelling unit's driveway, or the dwelling unit's garage or carport in compliance with the Chapter 4 of ICC A117.1 - 2017, except the clear width need not exceed 36 inches (815 mm) minimum. The required accessible entrance shall not be to a bedroom.

R322.1.1.2 Interior circulation paths.

Interior circulation paths shall have a clear width of 36 inches (815 mm) minimum as measured between fixed or built-in elements.

User passage doors shall have a clear opening width of 32 inches (805 mm) minimum; measured on a swinging door between the face of the door open to 90 degrees and the door stop.

Door hardware shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate, except locks used only for security and not used for normal operation. Operable parts of hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor.

R322.1.1.3 Operable parts.

Lighting controls, electrical switches and receptacle outlets, user controls for thermostats, and user controls for security or intercom systems shall be placed 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Exception: Floor receptacle outlets, controls mounted on ceiling fans, controls mounted on appliances, controls mounted on smoke detectors and carbon monoxide detectors.

R322.1.1.4 Toilet rooms and bathrooms.

Toilet rooms and bathrooms shall be provided with wall reinforcements for future grab bars where walls occur around toilets, showers, and bathtubs in compliance with Section 1104.11.1 of ICC A117.1-2017.

Toilet rooms and bathrooms shall be provided with floor clearance space that complies with either Section 304 or 1104.11.2 of ICC A117.1-2017.

Justification: Inclusive home design criteria has been in effect in Pima County and the City of Tucson since 2003. People over 65 years are the fastest growing sector of the American population and Phoenix is a retirement destination. Inclusive home design criteria allows people to stay in their homes and their neighborhood longer as they age.

Cost Impact: minimal cost impact to provide these features during construction but can be a significant cost when these features need to be retrofitted into an already constructed home.

Staff Committee Rationale for Recommendation: The amendment proposal aligns with the goals of the City of Phoenix Strategic Work Group on Accessibility. Members of the work group were appointed by the City Manager.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/18/2025
☐ Approved as submitted ☒ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☐ Approved as submitted ☐ Modified and approved ☒ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R330.3.1

Submitted by: International Residential Code Committee

R330.3.1 Spacing

Individual units shall be separated from each other by not less than 3 feet (914 mm) except where other separation distances are specified by the ESS listing and the manufacturer's installation instructions~~.~~, or as permitted in accordance with the Phoenix Fire Code.

Justification:

New code section. Installation of ESS systems are also reviewed and inspected by the Phoenix Fire Department. Language is provided to ensure compliance with and allowances provided by the Phoenix Fire Code. The Phoenix Fire Code has provisions for permitted locations based on large scale fire testing. Many manufacturers conduct large scale fire testing of their own equipment, which may provide more possible installation locations for the customer.

Cost Impact: No cost impact. Possible cost savings.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:

2024 Code Committee	Date: 3/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section R330.4

Submitted by: International Residential Code Committee

R330.4 Locations

ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space in accordance with Section R302.6
3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit, except where smaller separation distances are permitted by the UL 9540 listing and manufacturer's installation instructions~~.~~, or as permitted in accordance with the Phoenix Fire Code.
4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type Xgypsum wallboard. Openings into the dwelling shall be equipped with solid wood doors not less than 1-3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1-3/8 inches (35 mm) in thickness, or doors with a 20-minute fire protection rating. Doors shall be self-latching and equipped with a self-latching or an automatic-closing device. Penetrations through the required gypsum wallboard into the dwelling shall be protected as required by Section R302.11, Item 4.

ESS shall not be installed in sleeping rooms, or closets or spaces opening directly into sleeping rooms.

Justification:

New code section. Installations of ESS systems are also reviewed and inspected by the Phoenix Fire Department. Language is provided to ensure compliance with and allowances provided by the Phoenix Fire Code. The Phoenix Fire Code has provisions for permitted locations based on large scale fire testing. Many manufacturers conduct large scale fire testing of their own equipment, which may provide more possible installation locations for the customer.

Cost Impact: No cost impact. Possible cost savings.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:

2024 Code Committee Date: 3/14/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken

Development Advisory Board (DAB) Subcommittee Date: 3/27/2025

☒ Approved as submitted ☐ Modified and approved ☐ Denied ☐ No action taken	
Development Advisory Board (DAB) ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken
Transportation, Infrastructure and Planning Subcommittee ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken
City Council Action ☐ Approved as submitted ☐ Modified and approved ☐ Denied	Date: ☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Appendices Adoption

Submitted by: International Residential Code Committee

Adopt the following appendices:

Appendix BA – Manufactured Housing Used as Dwellings and Factory Built Buildings

Appendix BB – Tiny Houses

Appendix BF – Patio Covers

Appendix BG – Sound Transmission

Appendix BI – Light Straw – Clay Construction

Appendix BJ – Strawbale Construction

Appendix BO – Existing Buildings and Structures

Appendix CA – Sizing and Capacities of Gas Piping

Appendix CB – Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances and Appliances Listed for Use with Type B Vents.

Appendix CD – Piping Standards for Various Appliances

Appendix CE – Venting Methods

Appendix CF – Sizing of Water Piping System

Appendix NB – (Rb) Solar-Ready Provisions – Detached One- and Two-Family Dwellings and Townhouses

Appendix BA – Manufactured Housing Used as Dwellings and Factory Built Buildings
Justification: Continues factory-built building requirements.

Appendix BB – Tiny Houses
Justification: Useful information for inspectors and customers.

Appendix BF – Patio Covers
Justification: Continuation of less restrictive structural requirements for patio covers.

Appendix BG – Sound Transmission
Justification: Incorporates Phoenix Amendment for sound mitigation around city airport.

Appendix BI – Light Straw – Clay Construction
Justification: Development options

Appendix BJ – Strawbale Construction
Justification: Development options

Appendix BO – Existing Buildings and Structures
Justification: Allows additional design flexibility when modifying an existing building

Appendix CA – Sizing and Capacities of Gas Piping
Justification: Provides guidance on piping sizing with all the methods of sizing.

Appendix CB – Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances and Appliances Listed for Use with Type B Vents
Justification: Provides a guide for inspectors and customers.

Appendix CD – Piping Standards for Various Appliances
Justification: Provides guidance on piping sizing with all the methods of sizing.

Appendix CE – Venting Methods
Justification: Provides useful guidance for residential plumbing situations.

Appendix CF – Sizing of Water Piping System
Justification: Provides useful guidance for pipe sizing.

Appendix NB – (Rb) Solar-Ready Provisions – Detached One- and Two-Family Dwellings and Townhouses
Justification: Development options and guidance for builders.

Cost Impact: Minimal cost impact.

Approved in previous 2018 Code Adoption process: ☒ **YES** ☐ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 01/31/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

BUILDING CONSTRUCTION CODE CHANGE PROPOSAL

Amendment to 2024 International Residential Code (IRC)
Section Appendix NE

Submitted by: International Residential Code Committee

Adopt Appendix NE

NE101.1 (RE101.1) Definitions.

AUTOMOBILE PARKING SPACE. A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office and work areas, for the parking of an automobile.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, electric vehicle supply equipment (EVSE), a rechargeable storage battery, a fuel cell, a photovoltaic array or another source of electric current.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). A designated automobile parking space that is provided with electrical infrastructure such as, but not limited to, raceways, cables, electrical capacity, a panelboard or other electrical distribution equipment space necessary for the future installation of an EVSE.

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). An automobile parking space that is provided with a branch circuit and an outlet, junction box or receptacle that will support an installed EVSE.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE SPACE). An automobile parking space that is provided with a dedicated EVSE connection.

NE101.2 (RE101.2) Electric vehicle power transfer infrastructure.
New residential automobile parking spaces for residential buildings shall be provided with electric vehicle power transfer infrastructure in accordance with Sections NE101.2.1 through NE101.2.5

NE101.2.1 (RE101.2.1) Quantity
New one-and two-family *dwellings* and *townhouses* with a designated attached or detached garage or other on-site private parking provided adjacent to the *dwelling unit* shall be provided with one EV capable, EV ready or *EVSE* space per *dwelling unit*.

Exceptions:
1. Where the local electric distribution entity certifies in writing that it is not able to provide 100 percent of the necessary distribution capacity within 2 years after the estimated

certificate of occupancy date, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity

2. Where substantiation is *approved* that meeting the requirements of Section NE101.2.5 will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than $450 per *dwelling unit*.

NE101.2.2 (RE101.2.2) EV Capable spaces

Each EV capable space used to meet the requirements of Section NE101.2.1 shall comply with the following:

1. A continuous raceway or cable assembly shall be installed between a suitable panelboard or other on-site electrical distribution equipment and an enclosure or outlet located within 6 feet (1828 mm) of the *EV capable space.*
2. The installed raceway of cable assembly shall be sized and rated to supply minimum circuit capacity in accordance with Section NE101.2.5.
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have sufficient dedicated space and spare electrical capacity for a two-pole circuit breaker or set of fuses.
4. The electrical enclosure or outlet and the electrical distribution equipment directory shall be marked: ”For future electric vehicle supply equipment (*EVSE*).”

NE101.2.3 (RE101.2.3) EV Ready spaces

Each branch circuit serving EV ready spaces shall comply with all of the following:

1. Termination at an outlet or enclosure located within 6 feet (1828mm) of each EV ready space it serves and marked ” For electric vehicle supply equipment (*EVSE*).”
2. Service by and electrical distribution system and circuit capacity in accordance with Section NE101.2.5.
3. Designation on the panelboard or other electrical distribution equipment directory as” For electric vehicle supply equipment (*EVSE*).”

NE101.2.4 (RE101.2.4) EVSE Spaces

An installed EVSE with multiple output connections shall be permitted to serve multiple *EVSE* spaces. Each *EVSE* serving either a single *EVSE* space or multiple *EVSE* spaces shall comply with the following:

1. Be served by an electrical distribution system in accordance with Section NE101.2.5.
2. Have a nameplate charging capacity of not less than 6.2 kVA (or 30A at 208/240V) per *EVSE* space served. Where an *EVSE* serves three or more EVSE spaces and is controlled by an energy management system in accordance with Section NE101.2.5, the nameplate charging capacity shall be not less than 2.1 kVA per *EVSE* space served.
3. Be located within 6 feet (1828 mm) of each *EVSE* space it serves.
4. Be installed in accordance with NFPA 70 and be *listed* and labeled in accordance with UL 2202 or UL 2594.

NE101.2.5 (RE101.2.5) Electrical distribution system capacity.

The branch circuits and electrical distribution system serving each EV capable space, EV ready space and EVSE space used to comply with section NE101.2.1 shall comply with one of the following:

1. Sized for a calculated EV charging load of not less than 6.2 kVA per *EVSE*, *EV ready* or *EV capable space*. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.
2. The capacity of the electrical distribution system and each branch circuit serving multiple EVSE spaces, EV ready spaces or EV capable spaces designed to be controlled by an energy management system in accordance with NFPA 70 shall be sized for calculated

EV charging load of not less than 2.1 kVA per space. Where an energy management system is used to control EV charging loads for the purpose of this section, it shall not be configured to turn off electrical power to EVSE or EV ready spaces used to comply with Section NE101.2.1

Justification:
This is not a proposed amendment to IRC Appendix NE. Base code requires appendices to be adopted individually. This simply proposes adoption of IRC Appendix NE. Adoption of IRC Appendix NE aligns with the City of Phoenix Transportation Electrification Action as approved by City Council. The TEAP requires staff to develop draft language for consideration through a public hearing process.

Cost Impact: Cost impact will vary based on EV Capable, EV Ready and EVSE space. This would require the installation of electrical infrastructure to parking locations not currently required.

Approved in previous 2018 Code Adoption process: ☐ **YES** ☒ **NO**

ACTION TAKEN:	
2024 Code Committee	Date: 03/18/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB) Subcommittee	Date: 03/27/2025
☒ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Development Advisory Board (DAB)	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
Transportation, Infrastructure and Planning Subcommittee	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken
City Council Action	Date:
☐ Approved as submitted ☐ Modified and approved ☐ Denied	☐ No action taken