

Board of Appeals Regular Meeting

August 29, 2024 | 7:00 a.m.

Public Works and Development Services Building
South Atrium Conference Room
215 E. Buffalo St., Chandler, AZ



Board Members

Michael McElhany
Heather Mattisson
David Love
Michael Quinn
Jeff Cullumber

Pursuant to Resolution No. 4464 of the City of Chandler and to A.R.S. § 38-431.02, notice is hereby given to the members of the Board of Appeals and to the general public that the Board of Appeals will hold a REGULAR MEETING open to the public on Thursday, August 29, 2024, at 7:00 a.m., at the Public Works and Development Services Building, South Atrium Conference Room, 215 E. Buffalo Street, Chandler, AZ. One or more Board Members may be attending by telephone.

Persons with disabilities may request a reasonable modification or communication aids and services by contacting the City Clerk's office at (480) 782-2181(711 via AZRS). Please make requests in advance as it affords the City time to accommodate the request.

Agendas are available in the Office of the City Clerk, 175 S. Arizona Avenue.

Board of Appeals

Regular Meeting Agenda - August 29, 2024

Call to Order/Roll Call

Unscheduled Public Appearances

Members of the audience may address any item not on the agenda. State Statute prohibits the Board or Commission from discussing an item that is not on the agenda, but the Board or Commission does listen to your concerns and has staff follow up on any questions you raise.

Consent Agenda

Items listed on the Consent Agenda may be enacted by one motion and one vote. If a discussion is required by members of the Board or Commission, the item will be removed from the Consent Agenda for discussion and determination will be made if the item will be considered separately.

1. **Approval of Minutes, Thursday, August 15, 2024, Board of Appeals Meeting Minutes**

Move Board of Appeals approve the Thursday, August 15, 2024, Regular Meeting Minutes.

Discussion

2. **Staff Presentation of the Proposed Amendments and Significant Changes to the 2024 International Residential Code and the 2024 International Energy Conservation Code**

Member Comments/Announcements

Calendar

Adjourn



Board of Appeals Development Services Memo No.

Date: 08/29/2024

To: Board of Appeals

Thru:

From: Jennifer Ekblad, Deputy City Clerk

Subject: Approval of Minutes, Thursday, August 15, 2024, Board of Appeals Meeting Minutes

Proposed Motion:

Move Board of Appeals approve the Thursday, August 15, 2024, Regular Meeting Minutes.

Attachments

Minutes of the August 15, 2024 Regular Meeting

MINUTES OF THE BOARD OF APPEALS OF THE CITY OF CHANDLER, ARIZONA, held on Thursday, August 15, 2024, at 7:00 a.m., in the Development Services Building – South Atrium Conference Room, 215 E. Buffalo Street, Chandler, Arizona.

Members Present

Jeff Cullumber, Chair
David Love Vice Chair
Heather Mattisson, Board Member
Michael Quinn, Board Member
Michael McElhany, Board Member

Guest(s)

Chandni Bhakta, Arizona Multi-housing Association

Staff Absent

Shicheng Tao, Building Official

Staff Present

Kevin Snyder, Development Services Director
LeeRay Hanly, Building Plan Review Administrator
Bob Graffius, Building Inspection Administrator
Corey Bush, Senior Building Plans Examiner
Wayne McMinn, Senior Building Plans Examiner
Catherine Flores, Senior Management Analyst
Aaron Huckstep, Fire Marshal

1. **CALL TO ORDER / ROLL CALL** Quorum was established and the meeting was called to order at 7:02 a.m.

2. **UNSCHEDULED PUBLIC APPEARANCES - None**
(Members of the audience may address any item not on the agenda. State Statute prohibits the Board of Appeals from discussing an item not on the agenda, but the Board of Appeals does listen to your concerns and has staff to follow up on any questions you raise.)

CONSENT AGENDA

3. **APPROVAL OF MINUTES**

a. **Minutes of August 1, 2024**

Motion made by Board Member Michael Quinn to approve the Board of Appeals Meeting Minutes for August 1, 2024, Motion seconded by Board Member Michael McElhany. Approved (5-0)

4. **BOARD OF APPEALS BUSINESS MEETING**

Wayne McMinn, Senior Building Plans Examiner and Aaron Huckstep, Fire Marshal presented the Proposed Amendments and Significant Changes to the Board of Appeals.

- **Significant Changes to the 2024 IBC**
 - Proposed Adoption Dates 07/01/2025
 - City Council Hearing Dates, 11/04/2024, 11/07/24 & 12/12/2024
 - Board of Appeals Review 09/12/24.

- Proposed Amendments to the 2024 International Building Code
- Subsection 101.1 Title. These regulations shall be known as the Building Code of the City of Chandler, Arizona hereinafter referred to as “this code”.
- Subsection 102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state, or federal law.
 - The following provisions are added to the end thereof:
 - Additionally, the building official will enforce the provisions of such other laws when mandated by state or federal law.
- (NEW) Subsection 104.2.3 Alternative materials, design and methods of construction and equipment.
 - The proposed amendment is to delete the entire exception to this subsection.
 - Exception: Performance based alternative materials, design and methods of construction and equipment complying with the international Code Council Performance Code:
- Subsection 105.3.1 Action on application. The following provisions are added to the end of the paragraph.
 - The *building official* shall examine or cause to be examined applications for *permits* and amendments thereto within a reasonable time after filing. If the application or the *construction documents* do not conform to the requirements of pertinent laws, the *building official* shall reject such application in writing stating the reasons, therefore. If the *building official* is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the *building official* shall issue a *permit* therefore as soon as practicable. A permit may be issued solely after the applicant has satisfied all applicable City of Chandler ordinance and requirements.
- Subsection 105.5 Expiration.
 - Every *permit* issued shall become invalid unless the work authorized by such *permit* commences within 180 days after its issuance or after commencement of work if more than 180 days pass between inspections. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.
- A new subsection 105.5.1 is added to read as follows:
 - *105.5.1 Reinstatement.* The Building Official is authorized to reinstate a permit that has expired upon payment of a reinstatement fee provided:
 1. The permit has not been expired for more than one year and,
 2. Code requirements that would affect the project have not changed.

- Subsection 109.2 Schedule of permit fees. Delete in its entirety and replace with a new subsection 109.2 as follows:
 - 109.2 Schedule of permit fees. Permit fees, if any, shall be adopted by the City by resolution.
- (NEW) Subsection 111.1 Change of occupancy, Subsection 111.2 Certificate Issued and Subsection 111.3 Temporary occupancy.
- The City has no proposed amendment to these subsections. When the new code is adopted then it will go into the City Code as written.
- Subsection 111 Certificate of Occupancy.
- Add a new subsection 111.5 to read as follows:
 - 111.5 Certificate of Completion. A Certificate of Completion may be issued at completion of permitted work when:
 - a. The work authorized does not change the scope of an existing certificate of occupancy or:
 - b. The work authorized does not result in a building ready for occupancy.
 - A Certificate of Completion alone shall not authorize occupancy of a building.
- Subsection 308.2 Institutional Group I-1 and Subsection 208.2.3 Six to 16 persons receiving custodial care. Replace 16 persons with 10 persons.
- 308.2 Institutional Group I-1. Institutional group I-1 occupancy shall include buildings, structures, or portions thereof for more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care.
- 308.2.3 Six to 10 persons receiving custodial care. A facility housing not fewer than six and not more than 10 persons receiving custodial care shall be classified as Group R-4.
- Subsection 310.5 Residential Group R-4. Residential Group R-4 occupancy shall include buildings, structures, or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a *24-hour basis* in a supervised residential environment and receive *custodial care*.
 - Replace 16 person with 10 persons in the first sentence.
 - Residential Group R-4 occupancy shall include buildings, structures, or portions thereof for more than five but not more than 10 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care.
- (NEW) Subsection 412.4.5 Height and area limits. Residential aircraft hangars shall be not greater than 2,000 square feet (186 m²) in area and 20 feet (6096 mm) in building height.
 - Proposed amendment is to delete the entire paragraph and replace it with the following along with an additional note “d” to TABLE 412.3.6:
 - 412.4.5 Height and area limits. Residential aircraft hangars (those private hangars associated and attached to single family residential dwelling units) shall meet the City of Chandler fire suppression requirements as

amended in TABLE 412.3.6 "HANGAR FIRE SUPPRESSION REQUIREMENTS".

- A note 'd' has been added to the TABLE 412.3.6 as follows:
Residential aircraft hangars shall be provided with a group 13R fire suppression system OR the hangar and dwelling may be provided with a group 13D fire suppression system.
- (NEW) Subsection 1612.3 Establishment of flood hazard areas.
 - Proposed amendment is to insert The City of Chandler, Arizona as Name of Jurisdiction and the latest effective date as Date of Issuance as follows:
 - 1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for The City of Chandler, Arizona," dated the latest effective date, as amended, or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.
- Preface – Replacement of Margins with QR Codes
 - Solid vertical lines for new text, arrows for deletions and asterisks for relocations have been removed and replaced with a QR code.
 - A QR code is placed at the beginning of any section that has undergone a technical revision. (No QR code means there were no changes).
 - To see the changes, scan the QR code with a smart device or enter the 7-digit code beneath the QR code @ wr.iccsafe.org.
- Chapter 9 – Fire Protection and Life Safety Systems
 - There are numerous additions through the 2024 IBC and IFC to address the ever-growing lithium-ion battery applications.
 - Chapter 9 has added many sections for fire protection requirements associated with lithium-ion batter manufacturing, storage, use, repair, charging and research.
- Section 907.10.1 – Smoke Alarm Replacement
 - A new section was added requiring the replacement of smoke detectors when:
 - It does not work.
 - The detector is 10 years past the manufactured date.
 - The end-of-life signal is sounded.
 - The date of manufacture cannot be determined.
 - This requirement is already enforced by Fire.
 - Significance – Will not affect Building Inspections and is not enforceable in residential homes.

- Sections 912.5.1 & 912.5.4 – Signs
 - These sections were added dictating signage for sprinkler system fire department connections on multiple buildings or with combined systems.
 - Dictates the lettering be not less than 1” in height.
 - Adds the requirement to provide a sign at the FDC stating the required pressure needed unless the required pressure is 150 pounds per square inch or less.
 - Significance – FDC signage is Chandler is dictated by Fire Department detail FD104 and requires 2” letters.
- Section 915 – Carbon Monoxide Detection
 - Several changes in section 915 for carbon monoxide (CO) detection and alarm.
 - Previously CO detection limited dwellings, sleeping quarters, enclosed parking, and educational occupancies.
 - Now any occupancy with a CO source requires detection and/or alarm.
 - CO detectors are required to be tied into the fire alarm and activate notification alarm.
 - CO alarm requirements are retroactive per IFC 1103.9.
- Section 917.2 – Mass Notification
 - This section was added including all Group E occupancies in addition to college and university, campuses that were previously in this section.
 - Prior to construction of a Group E occupancy that requires a fire alarm or has an occupant load over 500, a mass notification risk analysis must be conducted in accordance with NFPA72.
 - Significance – If the risk analysis determines the need for mass notification, an approved mass notification system would be required to be installed.
- **Significant Changes to the 2024 IFC**
 - Proposed Adoption Date 07/1/2025
 - City Council Hearing Dates 11/04/2024, 11/07/2024, & 12/12/2024
 - Board of Appeals Review 09/12/2024.
- Chapter 28 – 2024 City Amendments
- 28-21 Construction Requirements for Existing Buildings
- Section 1103.8 of the code is hereby amended by adding a new Section 1103.8.2.1 entitled “Interconnection for R-3 Group Homes” to be read as follows:
 - 1103.8.2.1 Interconnection for R-3 Group Homes. All smoke detectors located in R-3 group occupancy types shall be interconnected in such a manner that the activations of one alarm will activate all the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible

in all bedrooms over background noise levels with all intervening doors closed.

- 28-25 – Appendices
- Firefighter Air Replenishment System (FARS)
 - L101.11. Air monitoring system. An *approved* air monitoring system shall be provided. The system shall automatically monitor air quality, moisture, and pressure on a continual basis. The air monitoring system shall be equipped with not less than two content analyzers capable of detecting carbon monoxide, carbon dioxide, nitrogen, oxygen, moisture, and hydrocarbons.
 - L101.11.1 The air monitoring system shall be tied into the FACP and transmit a supervisory signal when any of the following levels are detected:
 1. Carbon monoxide exceeds 5 ppm.
 2. Carbon dioxide exceeds 1,000 ppm.
 3. An oxygen level below 19.5 percent or above 23.5 percent.
 4. A nitrogen level below 75 percent or above 81 percent.
 5. Hydrocarbon (condensed) content exceeds 5 milligrams per cubic meter of air.
 6. The moisture concentration exceeds 24 ppm by volume.
 7. The pressure falls below 90 percent of the maintenance pressure of (4,500) psi.
- 28-25 – Appendices
- Firefighter Air Replenishment Systems (FARS)
 - Delete Section 2 and first sentence of 3.
- Preface – Replacement of Margins with QR Codes
 - Solid vertical lines for new text, arrows for deletions and asterisks for relocations have been removed and replaced with a QR code.
 - A QR code is placed at the beginning of any section that has undergone a technical revision. (No QR code means there were no changes).
 - To see the changes, scan the QR code with a smart device or enter the 7-digit code beneath the QR code @ qr.iccsafe.org.
- Section 107 – Temporary Structures
 - A new section was added addressing temporary structures, uses, equipment and systems.
 - Fire Code Official is authorized to issue a permit for temporary structures, uses, equipment or systems for a period not exceeding 180 days. The Fire Code Official can also discontinue this permit.
 - The Fire Code Official is authorized to give permission to temporarily supply utilities.
- Chapter 2 – Definitions
 - Just like every other code cycle, there were many additions, deletions, relocations, and changes to this section.
- Section 203 - Occupancy Classification and Use

- Entire section from 203.1 – 203.11.3 was added.
- Most of, but not all, of the occupancy classification code sections were taken from the International Building Code and are now also a part of the International Fire Code.
- Section 320 – Lithium-Ion and Lithium Metal Battery Storage
 - An entire new section was added addressing lithium battery storage. (320.1 through 320.4.3.3.).
 - These new sections provide code requirements ranging from permitting, indoor storage, outdoor storage, fire protection, occupancy separation, construction, explosion control and fire alarms.
 - Significance – We are seeing this more and more and the Fire department is responding to more battery fires.
- Section 322 – Powered Micro Mobility Devices
 - What is a powered micro mobility device? Electric micro mobility includes any small, low speed, electric powered transportation device, including electric assist bicycles (e-bikes), electric scooters (e-scooters), and other small lightweight, wheeled electric powered conveyances.
 - Another new section was added addressing storage and charging.
 - Significance – These often contain lithium-ion or lithium metal batteries.
- Section 401.10.6 & 403.10.6.1 – Lithium-Ion Batteries
 - Another two new sections addressing lithium-ion batteries.
 - Additional include providing a fire safety and evacuation plan as well as providing mitigation planning for occupancies involved in the research, development, testing, manufacturing, handling, or storing of these batteries.
 - Significance – There is a “theme” forming with this years Fire Code changes.
- Section 510 - Emergency Responder Communications Enhancement Systems
 - The title of this section changes from Emergency Responder Communication Coverage to Emergency Responder Communications Enhancement Systems.
 - Significance – No change to inspection protocol.
- Section – Lithium-Ion Batteries
 - Another new section was added regarding lithium-ion and lithium metal batteries.
 - The new section requires that fire sprinkler systems for areas containing these batteries be designed based on laboratory test(s) and scenarios.
- Section 9904.14.1 – Manual System Operation
 - Exception #2 was added to this section.
 - This exception allows the Fire code official to accept an approved alternate location when the “no less than 10 feet, no more than 20 feet from the cooking area” requirement is not feasible.

- Section 9907.2.2.2 / 907.2.4.1 – Lithium-Ion
 - Another two sections were added regarding lithium-ion and lithium metal batteries.
 - Air-sampling smoke detection or radiant-energy sensing detection systems need to be installed in areas involving research and development of these batteries.
 - Air-sampling smoke detection or radiant-energy sensing detection systems need to be installed in areas involving manufacturing, vehicle manufacturing or other equipment where these type batteries are installed during manufacturing.
- Section 907.2.11.3 – Installation near cooking appliances
 - This section was re-written and changed.
 - Smoke alarms in R-2, R-3, R-4, and I-1 occupancies shall be installed not less than 10 feet horizontally from a permanently installed cooking appliance.
 - Regarding of type of smoke alarm
 - Exception allows smoke alarm to be installed not less than 6 feet from the appliance where necessary to comply with section 9097.2.11.1 or 907.2.11.2.
 - Significance – Previously this section addressed the different types of smoke detectors and distance requirements.
- Section 907.10.1 – Smoke Alarm Replacement
 - A new section was added requiring the replacement of smoke detectors when:
 - It does not work.
 - The detector is 10 years past the manufactured date.
 - The end-of-life signal is sounded.
 - The date of manufacture cannot be determined.
 - This requirement is already enforced by Fire Inspectors.
- Section 912.5.1. – 912.5.4 Signs
 - These sections were added dictating signage for sprinkler systems fire department connections on multiple buildings or with combined systems.
 - Dictates the lettering be not less than 1” in height.
 - Adds the requirement to provide a sign at the FDC stating the required pressure needed unless the required pressure is 150 pounds per square inch or less.
 - Significance – FDC signage in Chandler is dictated by Fire department detail FD104 and requires 2” letters.
- Section 917.2 – Mass Notification
 - This section was added including all Group E occupancies in addition to college and university campuses that were previously in this section.

- Prior to construction of a Group E occupancy that requires a fire alarm or has an occupant load over 500, a mass notification risk analysis must be conducted in accordance with NFPA72.
- Significance – If the risk analysis determines the need for mass notification, an approved mass notification shall be provided in accordance with the findings.

ACTION AGENDA

a. None

5. BRIEFING ITEMS

Wayne McMinn, Senior Building Plans Examiner and Aaron Huckstep, Fire Marshal spoke on the Code Amendment and Significant Changes Presentation. It was discussed that the board members will be briefed by staff pertaining to the building code editions in the upcoming meetings.

6. MEMBER COMMENTS/ANNOUNCEMENTS

7. CALENDAR

a. Next meeting is scheduled Thursday, August 29, 2024, @ 7:00 a.m.

8. ADJOURN

Board Member Michael Quinn motioned for the meeting to adjourn. Motion seconded by Vice Chair David Love.

The meeting was adjourned at 8:15 a.m.

Jeff Cullumber, Chairman

Shicheng Tao, Secretary