EXHIBIT A

2018 Building & Fire Code Amendment Summary

The following list is a brief description of proposed amendments to the family of 2018 International Building Codes. This list has been prepared as a supplement to the Council Report to clarify the "code language" used in the ordinances and to provide the rationale for each amendment (e.g. public proposal, consistency with regional codes, clarification of code language, previous amendment). Minor changes to text and definitions are not included in this summary.

1. TITLE 4 CHAPTER 2 MESA BUILDING CODE
Adopt the 2018 edition of the IBC and Appendix C – Group U – Agricultural Buildings, E – Supplementary Accessibility, I – Patio Covers, Appendix J – Grading and the following amendments:

- Section 310.7. This section is amended to maintain security standards that have been in the Mesa code since 2003.

  Public Proposal __ Regional Consistency __ Clarification __ Previous Amendment X

- Sections 402.5, 403.3, 404.3 and 410.6. These sections are amended to require all portions of a building to be protected by automatic fire sprinklers including open parking garages, atriums and stages. This is for consistency with the fire code.

  Public Proposal __ Regional Consistency __ Clarification __ Previous Amendment X

- Section 1004.5 Areas without fixed seating has language changes for clarification and identifies the use of the Code Modification process. Section 1010.1.2 Door Swing carries forward the amendment from the 2006 IBC.

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

- Section 1101 has additional language that excludes private clubs and religious facilities from certain accessibility requirements, to comply with Federal and State laws. Section 1102.1 Design also has additional language so that it complies with Federal and State laws. Section 1103.2.5 Construction Sites has additional language to clarify accessibility requirements for temporary sales offices.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 1609.3 Added wind speeds to the Risk Categories as an additional design option.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section 1704.6.1 Structural observations for structures has four additional conditions requiring special inspections; high rise buildings, 3-story buildings, elevated post-tension concrete structures and prefabricated systems. Section 1705.19. Requires special inspections for medical gas installations. These special inspections are necessary due to the complexity and critical nature of these structures and systems.

  Public Proposal __ Consistent with Region X Clarification_ Previous Amendment X

- Section 1803.5.13 Post-tensioned slabs on ground are required to have a geotechnical investigation for post-tensioned foundations.

  Public Proposal _ Consistent with Region X Clarification _ Previous Amendment X

- Section 1907.2 This section is added to require that post-tensioned slabs be identified as such. Post-tension slabs pose a hazard if they are drilled or modified, and, since the "posts" are not visible, labeling helps to warn that a slab is post-tension.

  Public Proposal __ Regional Consistency X Clarification __ Previous Amendment X

- Section 2902.1 Minimum Number of Required Plumbing Fixtures eliminates the requirement of installing a service sink in B and M occupancies. Section 2902.2 Separate Facilities raises the threshold for the requirement to install separate toilet facilities from 15 occupants to 20 occupants in specific occupancies and Section 2902.6 Small Occupancies raises the occupant load to 50 before requiring a drinking fountain. This is consistent with the region and previous amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 3109 Swimming Pools, Spas and Hot Tubs changes the reference to the Mesa Swimming Pool and Spa Code.

  Public Proposal__ Regional Consistency__ Clarification X Previous Amendment __

- Section 3201.1. Changes the language to reference Chapter 9-2 of the Mesa City Code.

  Public Proposal __ Regional Consistency__ Clarification X Previous Amendment X

- References Standards: The NFPA Standards have been revised to match the Mesa Fire Code NFPA Standards.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

3. TITLE 4 CHAPTER 3 MESA RESIDENTIAL CODE
Adopt the 2018 edition of the IRC and Appendix H with the following key changes:

- Table R301.2(1) is amended to provide design criteria for local winds.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Table R301.5 is amended by changing the live load for sleeping rooms and habitable attics. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal__ Regional Consistency X Clarification X Previous Amendment X

- Section 311.7.8.4 has an additional exception that allows handrails to be discontinuous. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section R311.7.8.5. For clarification, illustrations of accepted designs are included.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Sections R313.2 and R313.2.1 have been deleted. This is in accordance with state law and removes the requirement of installing fire sprinklers in one- and two-family dwellings.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section R313.2.1 adds exceptions to allow the installation of battery-operated smoke detectors as a method to comply. The intent is to make installation of detectors in existing homes more practical.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Sections R320.2 No-Step Entrance and R320.3 Model Home Sales Office Restrooms are new subsections that bring temporary sales offices into compliance with ADA requirements.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section R322 adds language identifying Maricopa County as the authority for requirements related to construction in a flood plain.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section R328 identifies security standards for residential homes.

Public Proposal __ Regional Consistency__ Clarification X Previous Amendment X

- Section R329.1 adds language to identify the fire code as the document that regulates water and access requirements for residential construction.

Public Proposal _ Regional Consistency __ Clarification X Previous Amendment X

- Table R401.4.1 is amended by reducing the load bearing pressure for specific soil types. This is consistent with other cities and the previous Mesa amendments.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section R403. adds an exception to eliminate the footing requirement for enclosed patios. The intent is to make enclosing existing patios more practical.

Public Proposal __ Regional Consistency__ Clarification X Previous Amendment X

- Section R1001.13 and R1004.6 are amended by adding the reference to the Mesa Mechanical Code for fireplace restrictions.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section N1101.4.1. Added to give homebuilders another option to meet the requirements of the energy code. This was proposed by the Home Builder Association and has been adopted in other cities.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section N1103.3.1. Insulation is amended by adding an additional exception for the insulation of ducts. Table N1106.4 is amended by raising the Energy Rating Index in Climate Zone 2. These were proposed by the Home Builder Association and have been adopted in other cities.

Public Proposal X Regional Consistency X Clarification X Previous Amendment X

- Section G2404.7. Flood hazard language added that refers to Maricopa County Planning and Development Regulations.

Public Proposal __Regional Consistency X Clarification X Previous Amendment X

- Section P2603.6, P2910.4.1, and P3001.4. Requires tracer wire for non-metallic pipes larger than 2". This makes finding the pipe easier after it is buried. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 3601.2 allows the installation of two electric services on two-family dwellings. This makes it practical to have two billing addresses.

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

4. TITLE 4 CHAPTER 4 MESA ELECTRICAL CODE
Adopt the 2017 edition of the NEC with the following key changes:

- Article 230.70 (B) Marking: Adds language clarifying the marking criteria for disconnects.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Article 250.118 Types of Equipment Grounding Conductors: Specifies requirements for grounding. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

5. TITLE 4 CHAPTER 5 MESA PLUMBING CODE
Adopt the 2018 edition of the IPC and appendices C and E with the following key changes:

- Section 305.8 and 701.8. Require tracer wire for non-metallic pipes larger than 2". This makes finding the pipe easier after it is buried. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Table 403.1 The requirement for a service sink in certain occupancies has been deleted.

  Public Proposal X Regional Consistency X Clarification X Previous Amendment X

- Section 410.2. Increases the occupant load for requiring a drinking fountain. This is consistent with other cities and the previous Mesa amendments.

  Public Proposal X Regional Consistency X Clarification X Previous Amendment X

- Section 604.4 References Arizona Revised Statues for requirements.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Application of Backflow Preventers: Table 608.1 has been amended to clarify types of devices and the application of such devices. This is consistent with Mesa water resources requirements.

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

- Section 608.17.4 Connections to automatic fire sprinkler systems and standpipe systems has been amended to reference City of Mesa Standard Details. Sections 608.17.11 and 608.17.11.1 identify the location and type of backflow device required on dialysis process water systems.

Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 701.2 adds language to identify Maricopa County Environmental Services Department (MCESD) as the AHJ in determining when a sewer is not available.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 1002.4 added language to clarify when a trap seal primer is required.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

6. TITLE 4 CHAPTER 6 MESA MECHANICAL CODE

Adopt the 2018 edition of the IMC with the following key changes:

- Section 509.1. Exempts pizza ovens from the requirement for a fire suppression system. This is consistent with previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 930. Provides compliance guidelines regarding wood burning fireplaces.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- References Standards: The NFPA Standards have been revised to match the Mesa Fire Code NFPA Standards.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

7. TITLE 4 CHAPTER 7 MESA FUEL GAS CODE

Adopt the 2018 edition of the IFGC and Appendices A, B, and C with the following key changes:

- Sections 406.4 and 406.1 amends gas pipe testing requirements to be consistent with state requirements. Section 406.4.3 provides criteria for test gauges and inspections.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- References Standards: The NFPA Standards have been revised to match the Mesa Fire Code NFPA Standards.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment__

8. TITLE 4 CHAPTER 8 MESA EXISTING BUILDING CODE

Adopt the 2018 edition of the IEBC with the following key changes:

- Section 4-8-2, Option A, gives the applicant the option to use the Mesa Building Code for an existing building. Section 4-8-3, Option B, gives the applicant the option to use the Mesa Existing Building Code.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 101.9 Requires existing buildings, structures and/or building service equipment to be maintained when renovations occur. This is consistent with previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 803. Clarifies when fire sprinklers are not required.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 1103. References Maricopa County Planning and Development Department regulations for construction in flood plains

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- References Standards: The NFPA Standards have been revised to match the Mesa Fire Code NFPA Standards.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

9. TITLE 4 CHAPTER 9 MESA ENERGY CONSERVATION CODE

Adopt the 2018 edition of the IECC with the following key changes:

- Section C401.2 added language to allow the Building Official to grant exemptions.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section R401.4. Allows compliance testing for air leakage of duct systems to be a random testing of no fewer than one in seven single family dwellings within a subdivision. Testing every tract “cookie-cutter” houses using the same design is not necessary. This is consistent with other cities and previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

10. TITLE 4 CHAPTER 10 MESA SWIMMING POOL AND SPA CODE

Adopt the 2018 edition of the ISPSC with the following key changes:

- Section 305.2.1 Barrier height and clearances was amended to raise the minimum height requirement. Section 305.2.7 Chain link dimensions added the minimum requirement for the gauge of the wire. This is consistent with other cities and previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section 305.4 Structure wall as a barrier added language regarding the requirements of the door alarm and addresses the multi-panel sliding door requirements. This is consistent with other cities and previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section 305.8 Provides alternative options for meeting the pool barrier requirements and identifies which pools that are exempt from meeting the barrier requirements. This is consistent with other cities and previous Mesa amendments.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

2. TITLE 7, Chapter 2, Fire Code

Adopt the 2018 edition of the IFC and appendices b, c, e, f, I, l and n including the following significant amendments:

- Section 105.1.2 Permit required of all occupancies in Mesa allowing the Fire/Medical Department to gain information such as emergency contacts and special hazards.

  Public Proposal __ Regional Consistency __ Clarification __ Previous Amendment X

- Section 109.1. Language amended to reflect the Mesa City Code

  Public Proposal __ Regional Consistency __ Clarification __ Previous Amendment X

- Definitions: Chapter 2. Various definitions amended to accurately reflect City Code and State Statutes

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

- Section 503. Section 503 specifies many variables for fire access, such as grade, width, surface, turning radius, number and proximity to buildings.

  Public Proposal X Regional Consistency __ Clarification X Previous Amendment X

- Section 503.1.1 Language amended to comply with State Statute regarding residential sprinklers and fire access roads.

  Public Proposal X Regional Consistencyt __ Clarification X Previous Amendment X

- Section 503.7 Requires two access roads. This is not an amendment; these requirements are from Appendix D and are placed in 503.7 for ease of reference. Appendix D was not adopted in entirety.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section 503.8 Requires aerial access roads of 26 feet wide for certain buildings. This is not an amendment; these requirements are from Appendix D and are placed in 503.7 for ease of reference. Appendix D was not adopted in entirety.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment __

- Section 503.9.2 specifies street width requirements for fire access roads.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 507.3 Specifies the requirements for fire flow in appendix B will be a 50% reduction with fire sprinkler, not 75% as is the base Code

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

- Section 510. New to Mesa, the amendment specifies which buildings will be tested and signal strength required

  Public Proposal __ Regional Consistency X Clarification__Previous Amendment __

- Section 903. Specifies sprinklers are required in all new buildings, with select exceptions. Included is Business occupancies 5,000 square feet and under, which were previously not included in Mesa. Much of this section is form the base IFC but has been renumbered.

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 903.3.1.2.3 This section has been adopted to offer more alternatives to the builder other than only sprinklers, while keeping the height requirement of the current Mesa amendment. Previously was only a Mesa amendment, is now part of the base IFC

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Section 903.4 Amended to reflect the sprinkler requirements in Mesa

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X

- Referenced Standards: Chapter 80. Specifies which NFPA Standards are referenced as part of the Code

  Public Proposal __ Regional Consistency X Clarification X Previous Amendment X

- Appendix L Specifies which buildings are required to install a FARS system. Amendment exceeds base Code by requirement all stairwells have a FARS system.

  Public Proposal __ Regional Consistency __ Clarification X Previous Amendment X