



Staff Report

Agenda Item: **WORKSESSION ON THE 2006 BUILDING CODES, CHAPTER 7 OF THE TOWN CODE** - Worksession on the proposed adoption of the 2006 International Code Council (ICC) Building Codes to the Town Code of the Town of Clarkdale.

Staff Contact: Mike Baker, Sherry Bailey

Meeting Date: April 22, 2008

Background: The International Code Council publishes new updated building codes every three years. The Community Development Department has determined that by adopting the 2006 ICC versions we will remain in the mainstream of the building code process. We have also made amendments to institute some energy and water conservation measures and address problems that were not covered in the Codes.

There is a short synopsis attached highlighting the major changes that are being proposed.

Recommendation: Staff is seeking comments, questions, and suggestions from Council regarding the passage and amendments of the 2006 ICC Building Codes. This is a work session and no formal action is required.

ICC CODE ADOPTION 2006, AMENDMENTS AND NOTES

Article 7-1 - International Building Code, 2006

101.1 Title. Omit [NAME OF JURISDICTION] and substitute the following: Clarkdale, Arizona

Section 103 Department of Building Safety. Omit in its entirety.

Section 112 Board of Appeals. Omit in its entirety, and substitute the following:

112.1 Appeals. A person may appeal a decision made by the Building Official through the Board of Adjustment, as described in the Town Code.

903.2 Where Required. Delete in its entirety and substitute the following:

Approved automatic sprinkler systems shall be installed throughout new buildings:

1. Where the occupancy is Hazardous, Institutional, or Residential.
2. Where occupancy is Assembly, Business, Educational, Factory, Mercantile, and the gross floor area, including mezzanines and basements exceeds 1000 square feet, or the available water supply is insufficient for the required fire flow as determined by the Fire Official.
3. Where there are multiple stories, including basements and stories above grade plane.
4. Where there is a mixed use containing a residential use group.
5. Any structure used for occasional or full time residential use.

The required sprinkler system shall be designed and installed in accordance with National Fire Protection Association 13D and 13R as referenced in the 2006 International Fire Code, or as approved by the Fire Code Official, with the following exception:

1. Any area in a residential occupancy that contains a light fixture or outlet shall be sprinklered.

The following do not require sprinklers:

1. Detached accessory structures that are no more than 1000 square feet, more than 20 feet from the main structure, and not used to store or manufacture hazardous materials permitted by this Code.
2. Covered patios open on one or more sides.
3. Attached carports, open on 2 or more sides.
4. Detached canopies, not exceeding 5000 square feet, constructed of approved materials, and used exclusively for automotive motor fuel dispensing stations for private passenger vehicles.
5. Uninhabitable attics, basements and crawlspaces with or without electrical outlets or light fixtures.
6. Buildings or parts of buildings that because of their contents, location, usage, or other reasons determined by the Fire Code Official, a suppression system is not practical or needed.

Existing buildings shall be exempt from sprinkler requirements unless:

1. One or more additions are made to any use or occupancy and the aggregate of the addition(s) exceed 50% of the floor area of the original building as it was on November 11, 2005, or one thousand square feet, whichever is lesser.
2. An addition is constructed that exceeds the available water needed for fire flow as determined by the Fire Official.
3. The building undergoes a change of use and it is determined by the Fire Official, using Table A, that a greater fire or life safety hazard will be created.

CHAPTER 11, ACCESSIBILITY, Delete in its entirety.

2701.1 Scope. Omit ICC Electrical Code and substitute the following: National Electric Code 2002. The National Electric Code, 2002 as adopted and amended by the Town shall not apply to R-3 construction.

EXCEPTION: The National Electric Code, 2002, shall be the electrical code used for those installations, designs and modifications not referenced in the International Residential Code, 2006.

3109.1 General. After the first sentence, add the following: Swimming pools shall also comply with the State of Arizona laws governing such structures. All regulations shall be in full force regardless of the ages of the occupants of the dwelling unit to which the pool is associated with.

3304.1.1 Slope limits. Delete in its entirety and substitute the following: Dust control. Dust shall be controlled as described in Appendix R, Safeguards During Construction, of the International One and Two Family Residential Code, 2006, as adopted and amended by the Town of Clarkdale.

3401.1 Scope. Add the following sentence after Exception: One and two family dwellings shall be exempt from the requirements of this Code.

SECTION 3409, ACCESSIBILITY FOR EXISTING BUILDINGS. Omit in its entirety.

Article 7-2 International Residential Code for One and Two Family Dwellings, 2006 – Include Chart

R101.1 Insert: Clarkdale, Arizona in place of name of jurisdiction.

R102.7 Existing structures. After *International Property Maintenance Code*, add the following: 2003 edition, as adopted and amended by the Town of Clarkdale,. After *International Fire Code*, add, 2006 edition, as adopted and amended by the Town of Clarkdale.

R103, Department of Building Safety, Omit in its entirety.

R105.2 Work exempt from permit. Building: 1. Omit entire sentence and substitute the following: Accessory buildings 50 sq. ft. or more require a building permit. Accessory structures less than 50 sq. ft. do not require a building permit, but the location of the structure shall be approved by the Community Development Department prior to construction. 2. Omit entire sentence and substitute the following: All fences require building permits.

R105.7 Placement of permit. Add the following after the last sentence. The Building Official shall establish a policy for the display of address numbers, permit and plan storage and determine the necessary documents to be at the job site.

R106.3.1 Approval of construction documents. Omit the following: which states APPROVED PLANS PER IRC SECTION R106.3.1. Add a period after stamp.

R106.3.3 Phased approval. Omit the last sentence in its entirety.

R112 Omit BOARD OF APPEALS, substitute the following: BOARD OF ADJUSTMENT

R112.1 General. Omit Board of Appeals in the first and third sentences and substitute the following: Board of Adjustment.

R112.3 Qualifications. Omit in its entirety and substitute the following: The Board of Adjustment shall be appointed as described in the Town of Clarkdale Code.

SECTION R202 DEFFINITIONS

Add the following:

GUEST HOUSE. A detached structure, containing sleeping, cooking, and sanitary facilities. Buildings containing guest houses shall be considered in their entirety as R-3 for review and fee assignment purposes.

TABLE R301.2 (1)

Add the following: after ground snow load: 20, after wind speed: 90, after seismic design category: A, after weathering: moderate, after frost line depth: 12 inches, after termite: moderate to heavy, after winter design temp: 20 degrees F., after ice barrier underlayment required: no, after flood hazards, add: determined by Yavapai County, after air freezing index add: not applicable, after mean annual temperature add: not applicable.

R317.1 Two family dwellings. Omit the first sentence and substitute the following: Dwelling units in two family dwellings shall be separated from each other by masonry, concrete, or cast concrete wall assembly having a minimum 4 hour fire resistance rating. Sound transmission between units shall comply with Appendix K. Exceptions: omit items 1.and 2.

R317.1.1 Supporting construction. Omit in its entirety.

R317.2 Townhouses. Omit in its entirety and substitute the following: Townhouses shall be considered separate buildings and shall be separated by minimum 4 hour rated walls made of masonry, poured concrete, or cast concrete. Horizontal separations between units shall have a minimum fire resistance rating of 2 hours if the entire building is equipped throughout with an approved automatic fire suppression system. Sound transmissions between units shall comply with Appendix K.

R317.2.2 Parapets. Omit in its entirety and substitute the following: Parapets are not required. Roofs shall be covered with minimum Class C material. Roof decking or sheathing shall be non-combustible materials, or approved fire treated wood for minimum of 4 feet on each side of the wall, or one layer of 5/8 inch Type X gypsum board installed directly under the roof decking and supported by a minimum of nominal 2 inch ledgers attached to the sides of the roof framing members for a minimum distance of 4 feet on each side of the wall.

R317.2.3 Parapet construction. Omit in its entirety.

R317.2.4 Structural independence. Omit all exceptions.

R317.3.1 Omit in its entirety.

R317.3.1.1 Fire-resistance-rated assembly. Omit in its entirety.

R317.3.1.2 Penetration firestop system. Omit in its entirety.

R317.3.2 Membrane penetrations. Omit in its entirety.

R402.1 Wood foundations. Omit in its entirety and substitute the following: Wood foundations are not permitted. All references to constructing wood foundations in this code shall be considered void.

R404.1.8 Rubble stone masonry. Omit in its entirety.

R903.4.1.2 Roof water. Roof water shall be collected by a system of gutters and piping and channeled to the yard for immediate use or to an approved storage tank(s) for future use. Discharged water shall not cause erosion or become a private or public nuisance.

Table N1102.1 Insulation and Fenestration Requirements by Component. In the Climate Zone 3 section, in the ceiling R-value column, omit 30 and substitute the following: 38. In the wood frame wall R-value column, omit 13, and substitute the following: 18.

Table N11102.1.2 Equivalent U-Factors. In the Climate Zone 3 section, Ceiling U-Factor column, omit 0.035 and substitute the following: 0.030. In the Frame Wall U-Factor column, omit 0.082 and substitute 0.060.

M1413.1 General. Omit in its entirety and substitute the following: Evaporative coolers shall not be installed in new buildings or additions. Installation of evaporative coolers shall be permitted only to replace those coolers in existence prior to the adoption of this Code. The replacement unit must have a manufacturer approved water recirculating device.

G2448.1.1 Installation requirements. Add the following after the last sentence: Free standing tank type water heaters shall maintain a minimum 2 inch clearance from any surrounding door or wall.

P2503.7 Inspection and testing of backflow prevention devices. Omit in its entirety.

P2503.7.1 Inspections. Omit in its entirety.

P2503.7.2 Testing. Omit in its entirety.

P2712.10 Composting toilets. Approved composting toilets are permitted.

P2801.1 Required Add the following: All water heating systems shall be equipped with a recirculating pump, manifold, or similar approved device, unless the farthest fixture using hot water is 10 ft. or less from the water heater. All hot water piping, except for fixture supply lines, shall be insulated with approved materials.

P2902.5.3.1 Allowed irrigation systems. Irrigation systems shall be regulated by section 608.16.5.1 in the 2006 International Plumbing Code.

P2902.5.4 Connections to automatic fire sprinkler systems. Omit Exception in its entirety.

P2903.3 Minimum Pressure. Omit in its entirety and substitute the following: A water pressure reducing device shall be required as described in Section 604.8 of the 2006 International Plumbing Code. Minimum pressure shall be 55 pounds per square inch (psi), maximum psi shall be 80.

P2903.3.1 Maximum Pressure. Omit in its entirety.

P2903.7 Size of water service mains, branch mains and risers. Omit “3/4 inch (19 mm).” and substitute the following: 1 inch, or as approved by the Utilities Director or the Building Official.

SECTION P2907 DRINKING WATER TREATMENT UNITS

Delete in its entirety and substitute the following:

P2907.1 Reverse osmosis water treatment units. Reverse osmosis water treatment units are not permitted, except to replace existing units.

Appendix G Swimming Pools, Spas and Hot Tubs

AG103.2.1 Other Requirements. Swimming pools, spas, and hot tubs shall also comply with all State of Arizona laws governing these structures. Both State and Town of Clarkdale adopted building codes shall be in full force regardless of the age of the occupants of the dwelling served by the pool, spa or hot tub.

Add the following: SECTION AG 109 COVERS.

AG109.1 Required covers. All outdoor swimming pools and spas, permanent or portable, shall be equipped with tight fitting covers to reduce evaporation.

Appendix K SOUND TRANSMISSION

AK102.1 General. Omit 45, substitute the following: 60

AK103.1 General. Omit 45, substitute the following: 60.

Appendix P SPRINKLERS

AP101 Omit in its entirety and substitute the following: All one and two family dwellings and townhouses built shall be provided with automatic fire sprinkler protection as referenced in 13D-02 of the National Fire Protection Association, 2006 International Building Code.

The following exceptions shall apply:

1. All spaces (other than uninhabitable attics, basements, and crawl spaces) including attached garages, containing an electrical outlet or light fixture shall be protected with fire sprinklers.
2. Where there is a mixed use containing a residential use group, the entire building will be sprinkled.

AP 102 Sprinklers not required. The following areas do not require sprinklers:

1. Detached accessory structures that do not contain occasional or full time residential uses, including guest houses and in-law arrangements, located 6 feet or more from the house.
2. Attached carports, open on two (2) or more sides.
3. Covered patios, open on one (1) or more sides.

AP 103 Existing buildings. Existing buildings shall be exempt from sprinkler requirements unless:

1. One or more additions are made and the aggregate area of the addition exceeds 50% of the square footage of the original building on October 11, 2005, or 1000 square feet, whichever is less.
2. An existing detached building is converted in whole or part to residential use or an addition to a detached structure is built that contains a residential use.
3. An addition is added that exceeds the available water supply needed for fire flow.

Appendix R SAFEGUARDS DURING CONSTRUCTION

AR 101 Dust control. Any terrain that has been grubbed or altered by grading or construction shall have dust control measures in place at all times, including weekends, to prevent any windborne dust from becoming a public or private nuisance. Contractors and owners shall be held responsible for controlling dust.

Exception: Land where regrowth of vegetation has occurred.

AR 102 Stop work order. A written notice requiring cessation of dust producing activity shall be issued to the operator, contractor, or owner if excessive dust is being generated and the method of controlling the dust is inadequate or absent. If after 15 minutes, the dust generation is not corrected; a written stop work order may be issued to the operator and/or contractor for all or part of the project, and shall remain in effect until adequate measures have been taken to reduce the dust to an acceptable level.

Article 7-3 International Plumbing Code, 2006

101.1 Title. Omit [NAME OF JURISDICTION] and substitute the following: the Town of Clarkdale, Arizona

SECTION 103 DEPARTMENT OF PLUMBING INSPECTION. Delete in its entirety.

109.2 Membership of board. Delete in its entirety and substitute the following:
"Appeals shall be heard by the Board of Adjustment as described in the Town Code."

109.2.1 Qualifications. Delete in its entirety

109.2.2 Alternate members. Delete in its entirety.

109.2.3 Chairman. Delete in its entirety.

109.2.5 Secretary. Delete in its entirety.

419.1 Approval. Omit in its entirety and substitute the following: Urinals shall be approved waterless type.

420.1.1 Composting toilets. Approved composting toilets are permitted.

603.1 Size of water service pipe. Delete "3/4 inch (19.1mm)." and substitute the following: 1 inch, or as approved by the Building Official.

604.8 Water-pressure reducing valve or regulator. Omit in its entirety and substitute the following: All newly constructed buildings connected to the municipal water supply shall have an approved pressure regulator device installed on the user side of the water meter. The regulator shall be accessible, in an approved location, and have unions, screens, and pressure gauges on each side of the device to comply with 604.8.2. Sufficient water pressure shall be maintained to assure the proper operation, but not put undue strain on fixtures, devices and systems. Any existing structure that is newly supplied with

municipal water or undergoes a service main addition or replacement shall adhere to this section and 603.1.

607.2 Hot water supply temperature maintenance. Delete in its entirety and substitute the following: All potable water systems shall be equipped with a recirculating pump for hot water, a manifold or similar approved device, unless the farthest fixture using hot water is 10 ft. or less from the water heater.

607.2.1 Piping insulation. Delete in its entirety and substitute the following: All hot water piping, except for fixture supply lines, shall be insulated with approved materials.

608.16.5.1 Permitted lawn irrigation systems. Low water use drip systems are permitted for new and replacement lawn irrigation systems. Sprinkler systems may be repaired only and not expanded or installed in new uses and as otherwise regulated in the Town Code.

Article 7-4 International Mechanical Code, 2006

101.1 Title. Omit [Name of Jurisdiction] and substitute the following: the Town of Clarkdale, Arizona.

Section 103 Department of Mechanical Inspection, Delete in its entirety.

Section 109 Means of Appeal. Delete in its entirety and substitute the following:
109.1 Means of appeal. A decision of the building official may be appealed to the Board of Adjustment as described in the Town Code.

Article 7-5 National Electrical Code, 2002

80.1 Scope.

Add the following:

(6) This code shall be the Electrical Code for all structures except for buildings constructed under the International Residential Code, 2006. For any design, installation, or situation not covered in the International Residential Code, 2006, this Code shall be adhered to.

Article 7-6 International Fuel Gas Code, 2006

101.1 Title. Omit [Name of Jurisdiction] and substitute the following: the Town of Clarkdale, Arizona.

Section 103 Department of Inspection. Delete in its entirety.

Section 109 Means of Appeal. Delete in its entirety and substitute the following:
109.1 Appeals. A person shall have the right to appeal a decision of the Building Official through the Board of Adjustment as described in the Town Code.

****NEW ARTICLE 7-7 International Fire Code (delete entirely Article 4-3)**

International Fire Code, 2006 – Include Chart

Section 103 Department of Fire Prevention, delete in its entirety.

Section 105 Permits, Delete in its entirety.

APPENDIX D, FIRE APPARATUS ACCESS ROADS

D102.1 Access and loading. Add the following after the last sentence: Vertical clearance of no less than 13 feet 6 inches shall be maintained on all access roads. The minimum width of private access roads over 200 feet in length shall be no less than 14 feet unless otherwise stated in this Code or approved by the fire chief. Access roads over 1000 feet long shall be provided with turn outs or passing lanes every 500 feet. Roads shall be constructed to be all weather and properly maintained. Access standards may be modified by the fire chief if the structures served are supplied with an approved fire suppression system. Bridges shall be constructed and maintained in accordance with the standards of the local jurisdiction having authority.

D103.1 Grade. Omit in its entirety and substitute the following: Roads shall meet or exceed the following standards:

1. 0-6% grade, natural soil or 4" of compacted AB grade gravel.
2. All roads over 6% grade shall be approved by the Fire Code Official.

TABLE D103.4 Add the following after the first sentence in the 151-500 length, turnarounds required column: Approved outlets or turnarounds with a minimum width of 20 feet, a minimum inside turning radius of 20 degrees and a minimum outside radius of 40 degrees shall be required on all roads of 150 feet to 1000 feet. In the length column omit Over 750 and add the following: Over 1000. In the Turnaround required column omit special approval required and substitute the following: Turn outs or passing lanes shall be provided every 500 feet.

D103.6.1 Roads 20 to 26 feet in width. Omit in its entirety.

D103.6.2 Roads more than 26 feet in width. Omit in its entirety, and substitute the following: All roads shall maintain a 20 foot clear width, unless otherwise stated in the Town Code or are approved by the Fire Code Official.

D103.6.2.1 Roads more than 29 feet wide. Fire apparatus roads 30 to 35 feet wide are permitted to have parking on both sides and no posting.

101.1 Title. Omit [NAME OF JURISDICTION] and substitute the following: Clarkdale, Arizona

SECTION 108 BOARD OF APPEALS

Omit in its entirety and substitute the following:

108.1 Board of Adjustment. Appeals shall be heard by the Board of Adjustment as described in the Town of Clarkdale Code.

Article 7-8 International Existing Building Code, 2006

Section 101.1 Title. Insert after, *Building Code* of, the Town of Clarkdale, Arizona,.

Section 101.4 Applicability. Add after existing buildings, except one and two family dwellings (R-3),

Section 103 Department of Building Safety. Omit in its entirety.

Section 112 Board of Appeals, Omit in its entirety and substitute the following:

112.1 Appeals. A person may appeal the decision of the Building Official through the Board of Adjustment as described in the Town Code.

Article 7-9 International Energy Conservation Code, 2006

101.1 Title. Omit [NAME OF JURISDICTION] and substitute the following: Clarkdale, Arizona.

Table 402.1.1 INSULATION AND FENSTRATION REQUIREMENTS BY COMPONENT, in Climate Zone 3, Ceiling R-value, omit 30, and substitute the following: 38. In the Wood Frame Wall R-Value, omit 13, and substitute the following: 18.