

# CHAPTER 155

## BUILDING CODE

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**155.01 ADOPTION OF BUILDING CODE.** This chapter shall consist of the “International Building Code, 2018 Edition, International Residential Code, 2018 Edition, including Appendix Chapters F and M, and the International Existing Building Code, 2018 Edition as published by the International Code Council which volume is incorporated herein by this reference as fully as though set forth herein in its entirety, excepting only such portions as are hereinafter stated to be deleted therefrom; and such additional provisions as are hereinafter set forth. This chapter and all provisions incorporated herein by reference or otherwise, shall be known as the “*Altoona Building Code,*” may be cited as such, and will be referred to herein as such and as “*this code.*”

**155.02 DELETIONS.** The following are hereby deleted from the International Building Code (hereinafter known as the IBC), International Residential Code (hereinafter known as the IRC) and International Existing Building Code (hereinafter known as the IEBC) and are of no force or effect herein:

1. Section 105.1.1 and 105.1.2 (IBC & IEBC)
2. Section 113 (IBC)
3. Section 112 (IEBC)
4. Section R112 (IRC)
5. Section R302.13 (IRC)
6. Section R319 (IRC) and Section 502 (IBC)

**155.03 AMENDMENTS AND ADDITIONS.** The remaining sections in this chapter are and represent amendments and additions to the requirements contained in the International Building Code (hereinafter known as the IBC), International Residential Code (hereinafter known as the IRC), and International Existing Building Code (hereinafter known as the IEBC), and where their requirements conflict with those of the International Building Code, International Residential Code, and International Existing Building Code, the requirements of this chapter shall prevail. The sections listed below shall be construed in the context of the enumerated chapter or chapters of the IBC, IRC, and IEBC.

1. Section R101.2 (IRC) Exceptions to Scope
2. Section 101.4 (IBC) Referenced Codes
3. Section 103 (IBC & IEBC) and Section R103 (IRC) Department Established

4. Section 105.2 (IBC & IEBC) and Section R105.2 (IRC) Work Exempt from Permit
5. Section 105.5 (IBC & IEBC) and Section R105.5 (IRC) Expiration
6. Section 109 (IBC), Section 108 (IEBC), and Section R108 (IRC) Fees
7. Section 111.1 (IBC) and Section R110.1 (IRC) Certificates of Occupancy
8. Section R111 (IRC) Service Utilities
9. Section 202 (IBC) and Section R202 (IRC) Definitions
10. Table R301.2(1) Climate and Geographical Table
11. Section R301.6 (IRC) and Section 1608.2 (IBC) Snow Load
12. Section R302.1 (IRC) Exterior Walls
13. Section R302.6 (IRC) Dwelling/Garage Fire Separation
14. Section 302.7 (IEBC) Fire Protection
15. Section R303.3 (IRC) Bathrooms
16. Section R303.9 (IRC) Required Heating
17. Section R305 (IRC) Ceiling Height
18. Section 308.5.4 (IBC) Daycare Facilities
19. Section R309.5 (IRC) Fire Sprinklers
20. Section R310.1 (IRC) Emergency Escape and Rescue Opening Required
21. Section 310.4.1 (IBC) Care Facilities Within a Dwelling
22. Section R310.1 (IRC) and Section 1030.3 (IBC) Requirements for Egress Window Landings
23. Section R310.5 (IRC) Emergency Escape Windows under Decks and Porches
24. Section R311.3.2 (IRC) Floor Elevations for Other Exterior Doors
25. Section 311.7.5.1 (IRC) Risers
26. Section R311.7.8.2 (IRC) Handrail Continuity
27. Section R313.1 (IRC) Townhouse Sprinkler Systems
28. Section R313.2 (IRC) One and Two Family Sprinkler Systems
29. Section R326 (IRC) Residential Swimming Pools, Spas, and Hot Tubs
30. Table R403.1 (IRC) and Table 1809.7 (IBC) Foundations for Stud Bearing Walls.
31. Section R403.1.4.1 (IRC) Frost Protection for Decks
32. Section 1809.5 (IBC) and Section R403.1.4.1 (IRC) Frost Protection for Accessory Structures
33. Section R404.1 (IRC) Concrete and Masonry Foundation Walls
34. Section R404.1.3.2.3 (IRC) Foundation Walls for Conventional Light Frame

## Construction

35. Section R404.4 (IRC) & 1807.2 (IBC) Retaining Walls
36. Section 406.3.2.1 (IBC) Dwelling Unit Separation
37. Section 423.4 (IBC) Storm Shelters
38. Section 903.2.3 (IBC) Group E Day Care Facilities
39. Section 903.2.6 (IBC) Group I
40. Section 903.2.8.4 (IBC) Care Facilities.
41. Section 903.2.11.1.3 (IBC) Basements
42. Section 903.3.1.2.3 (IBC) Attics in Multi-Family Structures
43. Section 907.2.10 (IBC) Single and Multiple Station Smoke Alarms
  
44. Section 905.3.1 #1 - Height
45. Section 905.3 (IBC) Excessive Distance
46. Section 907.1 (IBC) Fire Alarm Control Panels
47. Section 907.2.10 (IBC) Single and Multiple Station Smoke Alarms
48. Section 907.6.4 (IBC) Zones
49. Section 907.6.6 (IBC) Monitoring
50. Section 1008.3.3 (IBC) Rooms and Spaces
51. Section 1009.2 (IBC) Continuity and Components
52. Section 1010.1.6.1 (IBC) Frost Protection
53. Section 1013.1.1 (IBC) Additional Exit Signage
54. Section 1014.4 (IBC) Handrail Continuity
55. Section 1015.9 (IBC) Retaining Walls
56. Section 1028.5.1 (IBC) Hard Surfaces
57. Section 1029.5 (IBC) Window Well Drainage
58. Chapter 11 (IRC) and Chapter 13 (IBC) Energy Provisions
59. Section 1106 (IEBC) Storm Shelters
60. Section 1207.2 (IBC) Minimum Ceiling Heights
61. Section M1502.4.2 (IRC) Duct Installation
62. Section 1609.2 (IBC) Ground Snow Load
63. Section P2603.5 (IRC) Water Service Depth
64. Section P2719.1 (IRC) Floor Drains
65. Section P2801.1 (IRC) Water Heater Floor Drain

66. Section 2902.6 (IBC) Small Occupancies
67. Section P2903.7 (IRC) Minimum Water Service Pipe Size
68. Section P2904.1.1 (IRC) Required Sprinkler Locations
69. Section P3005.4.2 (IRC) Building Sewer
70. Section P3008.1 (IRC) Backwater Valves
71. Section P3303 (IRC) Secondary Storm Sewer
72. Section 3401.4 (IRC) Additions and Alterations
73. Section E4201.2 (IRC) Definitions
74. Section 3109 (IBC) Swimming Pools

1. **SCOPE.** Section R101.2 Exception of the IRC shall be deleted and replaced with the following:

***Exception:** The following shall be permitted to be constructed in accordance with this code.*

1. *Live/work units within detached one and two-family dwellings and townhouses that comply with the requirements of Section 419 of the International Building Code.*
2. *Owner-occupied lodging houses with five or fewer guestrooms*
3. *A care facility with eight (8) or fewer persons receiving custodial care within a dwelling unit.*
4. *A group day care home or a family day care home for 12 or fewer children receiving care that are within a dwelling unit.*
5. *An intermediate care facility located within a dwelling unit providing care on a 24 hour basis for three (3) or more, but less than eight (8) persons.*

2. **REFERENCED CODES.** Section 101.4 Referenced Codes of the IBC shall be amended as follows:

Section 101.4.1 Gas shall be amended by adding the following section:

*Section 101.4.1.1 Conflict. Where the requirements of the IFGC conflict with the provisions of the Iowa Administrative Code 661- Chapter 221 Fuel Gas Piping, or 661- Chapter 226 Liquefied Petroleum Gas, the Iowa Administrative Code shall be followed.*

Section 101.4.3 Plumbing shall be amended by adding the following:

*The Uniform Plumbing Code as adopted by the State of Iowa is recognized as an alternative method of compliance for the installation of plumbing systems.*

The reference to the International Private Sewage Disposal Code shall be deleted, and replaced with Polk County Health Department.

3. **DEPARTMENT ESTABLISHED; DIRECTOR APPOINTED.** Section 103 of the IBC and IEBC, and R103 of the IRC is deleted and replaced with the following:

### **SECTION 103 DEPARTMENT OF BUILDING SAFETY**

*There is hereby established in the City the Department of Building Safety, which shall be under the direction and supervision of the Building and Zoning Official. The Building Official shall be responsible to the Community Development Director for the enforcement of the Building Codes, and such other ordinances as shall assign the Building Official that function, and shall perform such other duties as may be required by the Community Development Director or by any classification plan adopted by the City.*

*The Building Official shall have the authority to appoint staff members and delegate duties to those staff members. The Building Official shall submit a report to the Community Development Director not less than once a year, covering the work of the department during the preceding period and shall incorporate in that report a summary of recommendations as to desirable amendments to this code.*

*The Building Official shall keep a permanent, accurate account of all fees and other moneys collected and received under this code, the names of the persons upon whose account the same were paid, the date and amount thereof, together with the location of the building or premises to which they relate.*

*The titles Director of Building, Building and Zoning Official, and Building Official, as used herein, are synonymous and may be used interchangeably.*

- 4. WORK EXEMPT FROM PERMIT.** Subsection 105.2 Building: of the IBC and IEBC, and R105.2 Building: of the IRC shall be amended by deleting the sections, and replacing with the following:

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

*Building:*

- 1. One-story detached accessory structures used as tool or storage sheds and similar uses, provided the projected floor area does not exceed 40 square feet in area and complies with all applicable zoning requirements. Such building must be located at least three (3) feet from any property line and/or the easement width and six (6) feet into the rear yard from any principle structure in an A-1, R-1, R-2, R-4 and One & Two family dwellings in an R-3 and R-5 Zoning District. Setbacks for all other Zoned Districts shall comply with the applicable zoning regulations as adopted by the City of Altoona, Code of Ordinances.*
- 2. Movable and non-fixed cases, racks, fixtures, counters and partitions not over five (5) feet nine (9) inches high.*
- 3. Retaining walls which are not over four (4) feet in height, measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II, or IIIA liquids.*
- 4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height or diameter or width does not exceed two to one.*

5. *Residential Wading Pools*
6. *Swings, playhouses, and other playground equipment.*
7. *Sidewalks and driveways not more than 30 inches above adjacent grade, and not over any basement or story below and are not part of an accessible route.*
8. *Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.*
9. *Temporary motion picture, television and theater stage sets and scenery.*
10. *Window awnings supported by an exterior wall that do not require additional support for IRC structures, Group R, and U occupancies when projecting not more than 54 inches.*
11. *Amusement Rides (for the purposes of this exemption, accessory structures serving amusement rides and other structures located within the confines of an amusement ride theme park are not considered an amusement ride).*
12. *Mobile or manufactured residential buildings (not including the structural support systems and associated structures such as decks, exterior landings and stairs) which are:*
  - A. *Located in an authorized mobile home park or similar development, and*
  - B. *Installed in a manner complying with the State Building Code, said installation to be certified in the manner specified by the State Building Code Commissioner.*
13. *Minor maintenance and repair work that is deemed by the building official not to affect structural strength, safety, fire resistance, or sanitation, provided that no such work shall be performed in a manner contrary to any provisions of this code or any other laws.*

*Unless otherwise exempted, separate plumbing, electrical and mechanical permits will be required when appropriate for the above exempted items. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of the code or any other laws or ordinances of this jurisdiction.*

5. **EXPIRATION.** Subsection 105.5 of the IBC and IEBC, and R105.5 of the IRC shall be deleted and replaced with the following:

**105.5 Expiration.** *Every permit, except a demolition permit, issued by the building official under the provision of the building code shall expire under any one of the following conditions:*

1. *Failure to begin work authorized within 180 days after issuance of the permit.*
2. *Suspension or abandonment of work for 120 days after commencement of the work. Time of occurrence of suspension or abandonment of work shall be computed from the date of the most recent inspection since which no progress has been made.*
3. *Failure to complete work on a structure designed for residential uses within one year after issuance of a permit.*
4. *Failure to complete work on a structure designed for commercial or industrial uses within two years after issuance of a permit. For permits with a valuation exceeding*

*\$10,000,000.00 work shall be completed within three years after issuance of a permit.*

*Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence or continue work. The building official is authorized to grant, in writing, for periods not more than 180 days each, two extensions. The extension shall be requested in writing and justifiable cause demonstrated. Any of the extensions may be further extended by action of the city council. In all cases, when a renewal is granted the structure for which the permit is required shall comply with code requirements in effect at the time the permit is renewed.*

- 6. FEES.** Section 109 of the IBC, Section 108 of the IEBC, and Section R108 of the IRC are deleted and replaced with the following:

***FEES***

***1. Permit Fees:***

*A. A fee for each building permit shall be paid to the building official in the amount set forth in the Schedule of Fees as adopted by the city council. Building permit fees are figured on valuation. Valuation is figured by totaling square footage according to type of building or value of project. The amounts used to determine the valuation shall be set by the Building Official as determined necessary but not to exceed more than once in 12 month period typically beginning in January/February of each year. No building permits shall be issued to any person who has fees outstanding as required by this code or any other laws or ordinances of the City.*

*B. The determination of value or valuation under any of the provisions of the building code shall be made by the building official. The valuation to be used in computing the permit and plan-check fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent work or permanent equipment. A fee for each building permit shall be paid to the building official in the amount set forth in the Schedule of Fees as adopted by the City Council.*

*C. If a permit is issued for a specific amount of work and, upon inspection, it is determined that more work was performed than was authorized by the permit, the permittee shall amend the permit or obtain another permit to include all additional work and shall pay a new base fee and any unit fees as described in paragraph A above.*

*D. Permits and Fees for mechanical, plumbing, and electrical work shall meet the requirements of Ordinances 156, 157, and/or 158 respectively.*

***2. Additional permit fees are as follows:***

*A. Plan Check Fees: Plan Check Fees shall be in the amount set forth in the Schedule of Fees as adopted by the City Council.*

*B. Sidewalks and Approaches: Sidewalks and approaches shall be constructed with all new buildings. All approaches must be minimum 6 inches thick concrete from street to property line. Fees for sidewalks and approaches shall be in the amount set forth in the Schedule of Fees as adopted by the City Council.*

*C. Foundations: The fee for a permit to construct only a foundation shall be 150% of the fee in the amount set forth in the Schedule of Fees as adopted by the City Council. For purposes of this determination, the valuation of the foundation shall be considered to be ten percent (10%) of the total building valuation.*

*D. Accessibility Review Fee. A fee in the amount set forth in the Schedule of Fees as adopted by the City Council shall be charged for the review of plans in accordance with Sec 661-16.303 of the Iowa Administrative Code and Chapter 11 of the IBC for handicap accessibility provisions. The review fee shall not be required for construction for and associated with one and two family dwellings and for projects with an assessed value of construction of less than \$2,000.00.*

*E. Thermal Efficiency Standards. In addition to other fees required in this section, a fee in the amount set forth in the Schedule of Fees as adopted by the City Council shall be paid to the Building Official for the review of plans and inspection of construction for compliance with the thermal efficiency standards of the Iowa State Building Code.*

*F. Double Fee. Except in emergency situations, as determined by the Building Official, where work for which a building permit is required by this code is started or proceeded with by any person prior to obtaining a required permit, the fees in the amount set forth in the Schedule of Fees as adopted by the City Council shall be doubled. The payment of such double fee shall not relieve any person from fully complying with the requirements of this code in the execution of the work or from any other penalties prescribed herein. No additional permits of any type shall be issued to any person who owes the City the double fee described in this subsection. However, no double fee shall be imposed upon any person who starts without a permit if:*

*The work is started on a Saturday, Sunday, or holiday, or during any other day when the Building Department is not normally open for business, and the person secures the proper permit on the next Building Department working day.*

*G. Refunds. If, within 30 days of the date of issuance, the holder of a building permit decides not to commence the work described in said permit, said person may, upon application to the Building Official, be refunded that portion of the permit fee which is in excess of the permit refund fee in as set forth in the Schedule of Fees as adopted by the City Council.*

*H. Fees for Permit Renewals as stated in Section 155.07 shall be based on the percentage of valuation of remaining work to be performed provided the plans are not changed. If the plans are changed enough to warrant a review then the permit fee shall be ½ the cost of the original fee plus any fees as set forth in subsection J of this code section.*

*\* Or the hourly cost to the jurisdiction, whichever is greater. This cost shall include supervision, overhead, hourly wages, and fringe benefits of the employees involved.*

*I. Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection. Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official. To obtain a reinspection, the applicant shall pay the reinspection fee as set forth in the Schedule of Fees as adopted by the City Council. In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.*

*J. Other Inspections and Fees: See the schedule of fees as adopted by City Council.*

*Persons performing work for the Federal Government, the State, the county or city may obtain permits for such work without paying the permit fees described herein; provided, however, that nothing in this section shall be construed to exempt payment of permit fees by persons performing work under the direction of the City in connection with the abatement of any public law.*

*An expired permit may not be reissued without a permit fee except by resolution of the City Council.*

**7. CERTIFICATES OF OCCUPANCY.** Section 111.1 of the IBC and Section R110.1 of the IRC is amended by adding the following:

*On all new construction, all necessary drives, public sidewalks and approaches are to be installed before a Permanent Certificate of Occupancy is issued. For the issuance of a Temporary Certificate of Occupancy due to winter conditions for structures built under the IRC, a concrete driveway from the street to the garage, a private sidewalk consisting of an impervious surface connecting the driveway to the main entrance, and code compliant stairways and landings to the main entrance shall be installed. All public concrete sidewalks placed over sanitary sewer, storm sewer and water ditches shall have not less than two (2) number four (4) re-rods twenty feet (20) long. All public sidewalks and approaches shall also meet the requirements of the Statewide Urban Design and Specifications and Chapter 175 as well as Chapters 136 and 137 of the Municipal Code as adopted by the city.*

**8. SERVICE UTILITIES.** IRC Section R111 shall be amended by adding subsection R111.4. ***R111.4 Service Lines.*** *All electrical lines not exceeding 15,000 volts and all telephone and cablevision service lines, as well as other utility lines serving any new building or structure, including signs and billboards, requiring permanent electrical service shall be placed underground unless a waiver from such is approved by the Building and Engineering Departments. The provisions of this section shall not apply to existing buildings or additions to such buildings (unless said addition requires the utility service provider to upgrade the*

entire system from the transformer to the structure). Nothing in this section shall be deemed to apply to temporary service when defined as such by the utility provider.

**9. DEFINITIONS.** Section 202 IBC and IEBC, and section R202 IRC shall be amended by including the following definitions:

**BARRIER.** *A non-climbable fence, wall, building wall, or other approved structure, or combination thereof, which completely surrounds the swimming pool, residential swimming pool, wading pool, hot tub, or spa, and obstructs access to the same. The barrier shall be equipped with self-closing and self-latching pedestrian gates.*

**BEDROOM.** *Any room designed for and potentially used for sleeping purposes at the present time and/or in the future. Bedrooms shall meet all the minimum provisions of this code to include an emergency escape and rescue opening, and a permanently powered dual sensor smoke alarm device with battery backup. For the purpose of this chapter “bedroom(s) and sleeping room(s) shall be synonymous with each other.”*

**FIRE AREA.** *The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls, or a rated horizontal assembly.*

**RESIDENTIAL SWIMMING POOL.** *A water filled enclosure accessory to a one or two family dwelling or townhouse structure, that is portable or permanently constructed, intended for swimming or recreational bathing that has the ability to contain water more than 24 inches (610 mm) in depth. This includes in-ground, aboveground, and on-ground swimming pools, hot tubs and spas.*

**RESIDENTIAL WADING POOL.** *A water filled enclosure accessory to a one or two family dwelling or townhouse structure, that is portable or permanently constructed, intended for swimming or recreational bathing that does not have the ability to contain water more than 24 inches (610 mm) in depth. This includes in-ground, aboveground, and on-ground swimming pools, hot tubs and spas.*

**SPECULATIVE BUILDING.** *A strip mall, warehouse, or other structure where the final occupancy group of the building is not known at the time of permitting.*

**SWIMMING POOL.** *A water filled enclosure that is portable or permanently constructed, intended for swimming or recreational bathing that has the ability to contain water more than 24 inches (610 mm) in depth, and is not defined as a residential swimming pool. This includes in-ground, aboveground, and on-ground swimming pools, hot tubs and spas.*

**WADING POOL.** *A water filled enclosure that is portable or permanently constructed, intended for swimming or recreational bathing that does not have the ability to contain water more than 24 inches (610 mm) in depth, and is not defined as a residential wading pool. This includes in-ground, aboveground, and on-ground swimming pools, hot tubs and spas.*

**10. CLIMATE AND GEOGRAPHICAL CRITERIA.** Amend IRC Table R301.2(1) to read as follows:

**TABLE 301.2(1) CLIMATE AND GEOGRAPHIC DESIGN CRITERIA**

| Ground Snow Load | Wind Design |                    | Seismic Design Category | Subject to Damage From |                  |           | Winter      |                   | Flood Hazards                   | Air Freezing Index | Mean Annual Temp |
|------------------|-------------|--------------------|-------------------------|------------------------|------------------|-----------|-------------|-------------------|---------------------------------|--------------------|------------------|
|                  | Speed MPH   | Topo-graph Effects |                         | Weathering             | Frost line Depth | Termite   | Design Temp | Ice Barrier Req'd | NFIP Acceptance Zone C          |                    |                  |
| 30 PSF           | 90          | NO                 | A                       | Severe                 | 42"              | Mod/Heavy | -5F         | Yes               | 10-Nov-82 – No local amendments | 1833               | 48.6             |

**11. SNOW LOAD.** For purposes of determining snow loads as required in Section 1608.2 of the IBC and Section R301.6 of the IRC, the minimum ground snow load for design purposes shall be 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided in this code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.

**12. EXTERIOR WALLS.** Section R302.1 IRC shall be amended by retaining the exceptions, but replacing section 302.1 and Table 302.1(2) with the following:

**R302.1 Exterior Walls.** *Construction, projections, openings and penetrations of exterior walls of dwellings shall comply with Table R302.1(1); Accessory structures or dwellings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table 302.1(2), amended as follows:*

**TABLE 302.1(2)**

**EXTERIOR WALLS – ACCESSORY STRUCTURES AND DWELLINGS WITH FIRE SPRINKLERS**

| Exterior Wall Element |   | Minimum Fire-Resistance Rating   | Minimum Fire Separation Distance |
|-----------------------|---|--|----------------------------------|
| Building Walls        | Dwelling with Fire Sprinklers<br>Fire Resistance Rating | 1-hour tested in accordance with ASMT E 119, or UL 263, or Section 703.3 of the International Building Code with exposure from the outside | < 3 feet                         |
|                       | Accessory Structures Fire Resistance Rating             | 1-hour tested in accordance with ASMT E 119, or UL 263, or Section 703.3 of the International Building Code with exposure from the inside  | < 3 feet                         |
|                       | Not Fire Resistance rated                               | 0 hours  | ≥ 3 feet                         |
| Not Allowed           |   | NA   | < 2 foot                         |

|                      |  |  |          |
|----------------------|--|--|----------|
| Building Projections | Dwelling with Fire Sprinklers<br>Fire Resistance Rated | 1 hour on the underside, heavy timber, or fire retardant treated wood. | ≥2 foot  |
|                      | Accessory Structures Fire Resistance Rating            | 0 hours  | ≥2 foot  |
|                      | Non Fire Resistance Rated                              | 0 hours  | ≥3 feet  |
| Openings in walls    | Not Allowed  | N/A  | < 3 feet |
|                      | Unlimited  | 0-hour   | ≥ 3 foot |
| Penetrations         | All  | Comply with Section R302.4   | < 3 feet |
|                      |  | None Required  | ≥ 3 feet |

**13. DWELLING GARAGE FIRE SEPARATION.** Section R302.6 and Table R302.6 (IRC) shall be deleted and replaced with the following: *“The garage shall be completely separated from the dwelling unit by 5/8” type X gypsum board applied to the adjoining walls and the garage ceiling. Any structural element supporting a garage roof ceiling or floor ceiling assembly above shall be enclosed with 5/8” type X gypsum board. Openings in garage walls shall comply with section R302.5.”*

**14. FIRE PROTECTION.** Section 302 of the IEBC shall be amended by adding the following sub-section:

**302.7 Fire Protection.** *Existing buildings containing R-1 or R-2 occupancies shall be made to comply with the International Building Code section 903.2.8 during reconstruction after fire damage to 20% of existing dwelling/sleeping units, not including smoke or water damage or other damage from fire-fighting operations.*

**15. BATHROOMS.** Section R303.3 (IRC) shall be deleted and replaced with the following:  
**Section R303.3 Bathrooms.** *Bathrooms shall be provided with a mechanical ventilation system. The minimum ventilation rates shall be 50 cfm for intermittent ventilation or 20 cfm for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.*

*Exception: Toilet rooms containing only a water closet and/or lavatory may be provided with a recirculating fan.*

**16. REQUIRED HEATING.** Section R303.10 (IRC) shall be amended by adding the following exception:

*Exception: Sunrooms are not required to be provided heating or cooling facilities, however the existing building in which the sunroom is attached is required to maintain its thermal envelope.*

**17. CEILING HEIGHT.** Section R305 (IRC) shall be amended by adding the following section:  
**R305.1.2 Existing basements.** *Existing basements with either a non-finished or finished ceiling height of less than the heights as required by sections R305.1 or R305.1.1 are*

*considered non-conforming. The finishing of basements that are considered non-conforming is allowed as long as the non-conforming height isn't decreased more than the minimal measurement allowed in order to apply a finished ceiling of gypsum board or acoustical ceiling tiles. Basements not meeting the minimum height requirements of section R305.1 or 305.1.1 shall only install recessed fixtures, except smoke detectors, and no ceiling mounted fans shall be allowed.*

**18. DAYCARE FACILITIES.** Section 308.5.4 (IBC) shall be deleted and replaced with the following:

**308.5.4 Eight or fewer persons receiving care in a dwelling unit.** *A facility such as the above within a dwelling unit and having eight or fewer persons receiving custodial care shall be classified as a group R-3 occupancy or shall comply with the International Residential Code. Exceptions:*

- 1. A group day care home or a family day care home for 12 or fewer children receiving care that are within a dwelling unit are permitted to comply with the International Residential Code.*
- 2. A care facility located within a dwelling unit providing care on a 24 hour basis for three (3) or more, but less than eight (8) persons.*

**19. FIRE SPRINKLERS.** Section R309.5 shall be amended by replacing the word “shall” in the first sentence with the word “may”

**20. EMERGENCY ESCAPE AND RESCUE OPENING REQUIRED.** Section R310.1 shall be amended by deleting Exception #2

**21. CARE FACILITIES WITHIN A DWELLING.** Section 310.4.1 (IBC) shall be amended by deleting the section and replacing with the following:

**310.4.1 Care facilities within a dwelling.** *Care facilities for eight or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.*

**22. REQUIREMENTS FOR EGRESS WINDOW LANDINGS.** Section R310.2.2 (IRC) and Section 1030.3 (IBC) shall be amended by adding the following to the end of the sections to state as follows:

*Where a landing is provided for egress windows in new and existing construction of Group R occupancies/One and Two family Dwellings when the maximum height requirement cannot be met as stated in Section 1030.3 or Section R310.2.2 shall have a minimum width of 36 inches, a minimum depth of 12 inches and a maximum height of 24 inches. The landing shall be permanently affixed to the floor below or the wall under the window it serves.*

**23. EMERGENCY ESCAPE WINDOWS UNDER DECKS AND PORCHES.** Section 310.2.4 (IRC) shall be deleted and replaced with the following:

**310.2.4 Emergency escape and rescue openings under decks and porches.** *Emergency escape and rescue openings installed under decks and porches shall be fully openable and provide a path not less than 36 inches (914 mm) in width and height to a yard or court. Cantilevered areas of all construction elements shall meet the requirements of this section as stated for decks and porches.*

**24. FLOOR ELEVATIONS FOR OTHER EXTERIOR DOORS.** Section R311.3.2 (IRC) exception shall be amended by deleting and replacing with the following:

*A landing is not required where a stairway of four or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.*

**25. RISERS.** Section R311.7.5.1 (IRC) shall be amended by adding exception #3 as follows:

*3. The dimension of the top and bottom riser of a stair may vary up to 1-inch (25.4 mm) from the other stairway riser dimension; however, in no case shall the riser height exceed seven and three-quarter inches.*

**26. HANDRAIL CONTINUITY.** The following shall be added at the end of section R311.7.8.4:

*“Handrails within a Dwelling Unit, One and Two family, or Townhouse Dwelling, shall be permitted to be interrupted at one location in a straight stair when the rail terminates into a wall or ledge, is offset, and immediately continues.*

**27. TOWNHOUSE SPRINKLER SYSTEMS.** Section R313.1 Townhouse automatic fire sprinkler systems shall be amended by deleting and replacing with the following:

**313.1 Townhouse automatic fire sprinkler systems.** *An automatic residential fire sprinkler system shall be installed in townhouses.*

*Exceptions:*

*1. An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.*

*2. Townhouse structures that contain eight (8) or less dwelling units.*

*3. Townhouse structures less than eighteen thousand (18,000) square feet floor space, exclusive of any garages.*

**28. ONE AND TWO FAMILY SPRINKLER SYSTEMS.** Section R313.2 One and two-family dwellings automatic fire systems shall be amended by deleting and replacing with the following:

**313.2 One- and two-family dwelling automatic fire sprinkler systems.** *An automatic fire sprinkler system shall be installed in one and two-family dwellings.*

*Exceptions:*

*1. An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing buildings that are not already provided with an automatic residential fire sprinkler system.*

*2. One-and two-family dwellings containing less than eight thousand (8,000) square feet of floor space per fire area, excluding attached garages or unenclosed areas.*

**29. RESIDENTIAL SWIMMING POOLS, SPAS, AND HOT TUBS.** Section R326 shall be amended by deleting the section and replacing with the following:

**R326.1 General** *The design and construction of residential pools and spas shall comply with IBC Section 3109.3.1 as amended by this ordinance, and the International Swimming Pool*

and Spa Code (ISPSC). Where any conflict arises between the ISPSC and IBC Section 3109.3.1, Section 3109.3.1 shall prevail.

**30. FOUNDATIONS FOR STUD BEARING WALLS.** The following table is substituted for Table 1809.7 of the IBC and Table R403.1 of the IRC:

Table 1809.7/Table R403.1 Foundations for Stud Bearing Walls

| Number of Stories | Thickness of Foundation Walls |         | Minimum width of Footings (inches)* | Thickness of Footings (inches) | Minimum Depth of Foundation Below Natural Surface of Ground and Finish Grade (inches) |
|-------------------|-------------------------------|---------|-------------------------------------|--------------------------------|---|
|                   | Unit                          |         |                                     |                                |   |
|                   | Concrete                      | Masonry |                                     |                                |   |
| 1                 | 8                             | 8       | 12                                  | 8                              | 42  |
| 2                 | 8                             | 8       | 16                                  | 8                              | 42  |
| 3                 | 10                            | 10      | 18                                  | 12                             | 42  |

Footings shall contain continuous reinforcement of 2 – ½” diameter rebar throughout. Placement of reinforcement and concrete shall meet the requirements of Chapter 19 of the International Building Code.

**31. FROST PROTECTION FOR DECKS.** Section R403.1.4.1 shall be amended by deleting exception #3 and replacing with the following:

*3. Decks less than 30" above grade (measured at any point within 36" horizontally to the edge of any side), and not supported by a dwelling, shall not require footings that extend below the frost line.*

**32. FROST PROTECTION FOR ACCESSORY STRUCTURES.** Section 1809.5 of the IBC and Section R403.1.4.1 of the IRC shall be amended by deleting the exception in the IBC and deleting exceptions #1 and #2 in the IRC, and replacing with the following:

*Exceptions:*

*1. The Building Official may approve slab-on-grade foundation designs for wood or metal frame residential accessory structures over 160 square feet to not exceeding 1,024 square feet, without additional engineering, providing the design meets all of the following:*

*A. Foundations supporting wood shall extend at least six inches above the adjacent finish grade. The grade shall be removed to a depth sufficient enough for all vegetation to be absent and soils to be stable enough to support the slab load, 3,000# concrete mix shall be used.*

*B. The entire perimeter of the foundation shall be provided with a thickened portion of slab with cross section dimensions of 12 inches minimum width and 16 12 inches minimum thickness.*

*C. The slab floor shall be a minimum of 4 inches thick concrete with 6" x 6" reinforcing mesh or #4 reinforcing bars 24" on center front-to-back and side-to-*

side. The thickened portion of the slab shall also contain two #4 rebar, one near the top and one near the bottom continuously with ends of rebar overlapping each other at least 15 inches.

D. Slab floor and thickened edge shall be one continuous pour, interconnected with reinforcing.

E. Vertical distance from the top of the foundation floor to the lowest point of the footing base shall not be more than 24 inches.”

2. Structures supported on skids or post construction, with a total area of less than 240 sq. ft.

**33. CONCRETE AND MASONRY FOUNDATION WALLS.** Section R404.1 shall be amended by adding the following to the end of the existing text:

*If backfill prior to a poured in place floor slab is desired, one of the following methods to provide bottom lateral support shall be completed: (1) a full depth (minimum 1-1/2”) nominal 2” x 4” keyway may be formed into the footings to secure the bottom of the foundation wall - or- (2) 36” long vertical # 4 rebar may be embedded a minimum of 6” into the footings not to exceed 7’ on center spacing.*

**34. FOUNDATION WALLS FOR CONVENTIONAL LIGHT FRAME CONSTRUCTION.** Section R404.1.3 shall be amended by adding the following section R404.1.3.2.3 and Table R404.1.3.2.3:

**Section R404.1.3.2.3** *Foundation Walls for Conventional Light Frame Wood Construction constructed with concrete and masonry foundation walls shall be permitted to be designed in accordance with Table R403.1.3.2.3 Foundation Walls for Conventional Light Frame Construction*

Table R404.1.3.2.3 Foundation Walls for Conventional Light Frame Construction

| Height of Foundation Wall (Net measured from top of basement slab to top of foundation wall)* | Thickness of Foundation Walls | Reinforcement type and placement within Foundation Wall** | Reinforcement type and placement within Foundation Wall**<br>(12’ span between corners and supporting cross walls.) | Type of Mortar |
|---|-------------------------------|---|---|----------------|
|   | <i>Unit</i>                   |   |   |                |

| <i>Gross</i>  | <i>Net</i> | <i>Concrete</i> | <i>Masonry</i> | <i>Concrete</i>  | <i>Masonry</i>   | <i>Masonry</i>  |
|---|------------|-----------------|----------------|--|--|---|
| 8   | 7' 8"      | 7 ½"            | 8"             | 3 – ½" diameter bars with placement in the top, middle, and bottom | 0.075 square inch bar 8' o.c. vertically in fully grouted cells. If block is 12" nominal thickness, may be unreinforced. | Type M or S. Grout & Mortar shall meet provisions of Chapter 21 |
| 9   | 8' 8"      | 8"              | See Chapter 18 | ½" bars 2' o.c. horizontally & 20" vertically o.c.                 | See Chapter 18   | Same as above   |
| 10  | 9' 8"      | 8"              | See Chapter 18 | (5/8" bars 2' o.c. horizontally & 30" vertically o.c.)             | See Chapter 18   | Same as above   |
| *Concrete floor slab to be minimum 4". If such floor slab is not provided, a specially designed means of providing lateral support at the bottom of the wall shall be required.   |            |                 |                |  |  |   |
| ** All reinforcement bars shall meet ASTM A615 grade 40 and be deformed. Placement of bars shall be in center of wall and meet the provisions of 18, 19, and 21 of the IBC.   |            |                 |                |  |  |   |
| NOTE: Cast in place concrete shall have a compressive strength of 3,000 lbs @ 28 days. Footings shall contain continuous reinforcement of 2 – ½" diameter rebar throughout. Placement of reinforcement and concrete shall meet the requirements of Chapter 19 of the IBC.   |            |                 |                |  |  |   |
| NOTE: Material used for backfilling shall be carefully placed granular soil of average or high permeability and shall be drained with an approved drainage system as prescribed in Section 1805.4 of the IBC. Where soils containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils are encountered or where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the wall, a specially designed wall shall be required. |            |                 |                |  |  |   |

**35. RETAINING WALLS.** Section 1807.2 of the IBC, and Section R404.4 of the IRC shall be deleted and replaced with the following:

***Retaining Walls.*** *Retaining walls that are not laterally supported at the top and that retain in excess of 48 inches (1219 mm) of unbalanced fill shall require engineered plans to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Multi-level retaining wall designs where the landing area is less than 8' from the back of one wall to the face of the next wall, the multi-level wall system shall be considered one wall for the purpose of this section. Retaining walls shall be designed for a safety factor of 1.5 against*

*lateral sliding and overturning. This section shall not apply to foundation walls supporting buildings.*

- 36. DWELLING UNIT SEPARATION.** Section 406.3.2.1 IBC shall be amended by deleting and replacing with the following:

***406.3.2.1 Dwelling unit separation.** The private garage shall be separated from the dwelling unit and its attic area by means of minimum 5/8 inch type “X” fire code gypsum board or equivalent throughout. Garages beneath habitable rooms shall be separated by not less than 5/8 inch type “X” fire code gypsum board or equivalent throughout. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1 3/8 inch thick, or doors in compliance with 716.5.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.*

- 37. STORM SHELTERS.** Section 423.4 (IBC) Group E Occupancies shall be amended by deleting the section and replacing with the following:

***423.4 Group E Occupancies.** In areas where the shelter design wind speed for tornados is 250 mph in accordance with Figure 304.2(1) of ICC 500, all Group E occupancies with an occupant load of 50 or more shall have a storm shelter constructed in accordance with Chapters 1-5 & 8 of ICC 500. Storm shelters shall be provided with an emergency lighting system. The emergency lighting system shall provide an average of 1 foot-candle (11 lux) of illumination in occupied shelter areas, and any means of egress pathways. The emergency lighting shall be capable of providing a duration of not less than 2 hours of required illumination.*

*Exceptions:*

- 1. Group E day care facilities.*
- 2. Group E occupancies accessory to places of religious worship.*
- 3. Buildings meeting the requirements for shelter design in ICC 500.*
- 4. Accessory structures to existing group E sites where the occupancy classification of said structures are classified as Groups A-5 and U*

- 38. GROUP E DAY CARE FACILITIES.** Section 903.2.3 shall be amended by adding the following subsection:

*4. Group E day care facilities 5,000 sq. ft. or more, or containing an occupant load of 100 or more persons, including children and staff, shall be provided with a NFPA 13 system throughout the occupancy.*

- 39. GROUP I.** Section 903.2.6 shall be amended by deleting exception #2, and replacing with the following:

*2. A Group I-4 day care facility with a fire area less than 5,000 sq. ft. and an occupant load less than 100, which is located at the level of exit discharge, and where every room where care is provided has not fewer than one exterior exit door, an automatic sprinkler system is not required.*

- 40. CARE FACILITIES.** Subsection 903.2.8.4 (IBC) shall be amended by deleting the section and replacing with the following:

**903.2.8.4 Care facilities.** Care facilities for eight (8) or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.

**41. BASEMENTS.** Section 903.2.11.1.3 (IBC) Basements shall be deleted and replaced with the following:

*[F] 903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet from openings required by Section 903.2.11.1, the basement shall be equipped throughout with an approved automatic sprinkler system.*

**42. ATTICS IN MULTI-FAMILY STRUCTURES.** Section 903.3.1.2.3 (IBC) shall be amended by adding the following subsection #5.

5. *Multi-family residential structures required to have a sprinkler system installed, shall provide automatic sprinklers throughout all portions of the attic area.*

*Exceptions:*

1. *Structures are 2 stories or less in height*
2. *The attic structural and roofing components are composed of non-combustible materials*
3. *Attic areas with less than 4' height*

**43. ALARMS.** Section 903.4.2 (IBC) shall be deleted and replaced with the following:

**903.4.2 Alarms.** *An approved audible device listed for outdoor use with 110 candela visual signal shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.*

**44. HEIGHT.** Section 905.3.1 #1 (IBC) shall be deleted and replaced with the following:

1. *Three or more stories above or below the level of fire department equipment access.*

**45. EXCESSIVE DISTANCE.** Section 905.3 (IBC) shall be amended by adding the following subsection:

**905.3.9 Excessive Distance.** *Where the most remote portion of a floor or story is more than 400 feet from a hose connection or fire department access road the fire code official is authorized to require standpipes to be provided in approved locations. Class I manual standpipes shall be allowed.*

**46. FIRE ALARM CONTROL PANELS (FACP)** Section 907.1 (IBC) shall be amended by adding the following subsection:

**Section 907.1.4 Fire alarm control panels (FACP).** *Each building shall have no more than 1 FACP. Installation of fire alarm panel shall not exceed six feet in height measured from the floor to the top of the unit.*

**Exception:** *Suppression system releasing panels are not required to meet the height requirement or the limitation in the number of panels.*

**47. SINGLE AND MULTIPLE STATION SMOKE ALARMS.** Section 907.2.10 (IBC) shall be modified by inserting the following immediately following the existing language:  
*Smoke alarms in dwelling and sleeping units shall be addressable with sounder bases and monitored by the building fire alarm system as a supervisory signal only. Mini horns in dwelling units are not required if notification from a building fire alarm system is through the smoke alarms with sounder bases. An addressable system is required whenever there are eight or more signaling devices, i.e., detectors, pull stations, flow switches, etc.*

**48. ZONES.** Section 907.6.4 (IBC) shall be amended by adding a new section as follows:  
**907.6.4.3 Zone and address location labeling.** *Fire alarm panels shall have all zones and address points plainly and permanently labeled as to their location on the outside of the panel or on an easily readable map of the building, if no display screen is present.*

**49. MONITORING.** Section 907.6.6 (IBC) shall be deleted and replaced with the following language:  
**907.6.6 Monitoring.** *Fire alarm systems required by this chapter shall be monitored by a central station approved and listed under UL 827 in accordance with NFPA 72.*

**50. ROOMS AND SPACES.** Section 1008.3.3 (IBC) shall be amended by deleting item #5 and replacing with the following:  
*5. Public restrooms that contain more than one water closet/urinal or that are required to be accessible.*

**51. CONTINUITY AND COMPONENTS.** Section 1009.2 (IBC) shall be amended by adding item #11 as follows:  
*11. Components of required exterior walking surfaces shall be concrete, asphalt, or other approved hard surface.*

**52. FROST PROTECTION.** Section 1010.1.6 (IBC) shall be amended by adding a new subsection as follows:  
**1010.1.6.1 Frost protection.** *Exterior landings at doors required to be at the same level by 1010.1.5 shall be provided with frost protection.*

**53. ADDITIONAL EXIT SIGNAGE.** Section 1013.1 (IBC) shall be amended by adding the following subsection:  
**1013.1. 1 Additional exit signage.** *Additional exit signs may be required at the discretion of the Code Official to clarify an exit or exit access.*

**54. HANDRAILS.** Section 1014.4 Continuity shall be amended by deleting exception number 1 and replacing with the following:  
*1. Handrails within a dwelling unit, or serving an individual dwelling unit of groups R-2 and R-3, shall be permitted to be interrupted by a newel post at a turn or landing. Handrails serving these occupancies shall be allowed to be interrupted at one location in a straight stair when the rail terminates into a wall or ledge, and is offset, and immediately continues.*

**55. RETAINING WALLS.** Section 1015 (IBC) shall be amended by adding a new sub-section 1015.9 as follows.

***1015.9 Retaining walls.** A guard shall be provided along retaining walls where a finished walking surface such as a sidewalk, patio, driveway, parking lot or similar, are located on the top side of a retaining wall. The guard shall be installed along any portion of the wall measuring 30 inches or greater in height measured at any point within 36 inches horizontally to the edge of the open side. A guard shall not be required along portions of the retaining wall where the horizontal distance between the edge of the finished walking surface and the face of the wall is greater than 72 inches.*

**56. HARD SURFACES.** Section 1028.5 (IBC) shall be amended by adding the following subsection:

***1028.5.1 Hard surfaces.** Components of required exterior walking surfaces shall be concrete, asphalt, or other approved hard surface.*

**57. WINDOW WELLS DRAINAGE.** Section 1030.4 (IBC) shall be amended by adding a the following subsection:

***1030.4.3 Window Well Drainage.** Window wells shall be designed for proper drainage by connecting to the buildings foundation drainage system required by section 1805.4.2 or by an approved alternate method.*

**58. ENERGY PROVISIONS.** Chapter 11 IRC and Chapter 13 IBC shall be deleted and replaced with the following:

*Buildings shall be designed and constructed in accordance with the Current Edition of the International Energy Conservation Code, published by the International Code Council, as adopted and amended by the State of Iowa.*

**59. STORM SHELTERS.** Section 1106 (IEBC) shall be amended by adding the following exception #4.

*4. Accessory structures to existing group E sites where the occupancy classification of said structures are classified as Groups A-5 and U*

**60. MINIMUM CEILING HEIGHTS.** Section 1207.2 (IBC) shall be amended by adding the following exception #5:

*5. In existing structures, basements with either a non-finished or finished ceiling height of less than the heights as required by sections 1207.2 are considered non-conforming. The finishing of basements that are considered non-conforming is allowed as long as the non-conforming height isn't decreased more than the minimal measurement allowed in order to apply a finished ceiling of gypsum board or acoustical ceiling tiles, but in no case shall the height be less than 82" in any portion of the finished area. Basements not meeting the minimum height requirements of section 1207.2 shall install recessed fixtures only, and nothing shall project into the minimum height requirement.*

**61. DUCT INSTALLATION.** Section M1502.4.2 shall be amended by deleting the section, and replacing with the following:

***M1502.4.2 Duct installation.** Exhaust ducts shall be supported at intervals not to exceed 4 feet, (3658 mm) and shall be secured in place. The insert end of the duct shall extend into the*

*adjoining duct or fitting in the direction of airflow. Exhaust duct joints shall be sealed in accordance with Section M1601.4.1 and shall be mechanically fastened. Ducts shall not be joined with screws or similar fasteners. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall be of sufficient size to allow the installation of the duct, without changing the configuration of the duct.*

*Exception: Dryer duct sections that are longer than 4 feet shall be supported minimally every 6 feet.*

**62. GROUND SNOW LOAD.** Section 1608.2 (IBC) shall be deleted and replaced with the following:

***1608.2 Ground Snow Load.** The ground snow load to be used in determining the design snow load for roofs is hereby established at 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided by code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.*

**63. DEPTH OF WATER SERVICE.** Section P2603.5 IRC shall be amended by deleting “Water service pipe shall be installed not less than 12 inches deep and not less than 6 inches below the frost line” and replacing with “*Water service piping shall, whenever feasible, be no less than five feet below the surface of the ground*”.

**64. FLOOR DRAINS.** Section P2719.1 IRC shall be amended by adding the following text to the existing section: “*Unless otherwise approved by the inspector, at least one floor drain shall be provided in each room where a water heater is, or will be installed, and in each mechanical room. When installed in a basement floor, such floor drain shall be at least three inches in diameter*”. Every water meter shall be within 8 feet of a floor drain as described per ordinance section 91.04 meeting the requirements of ordinance section 155.48”.

**65. WATER HEATER FLOOR DRAIN.** Section P2801.4 IRC shall be amended by adding the following sentence to the end of the paragraph: “*Every water heater shall be located in close proximity to a floor drain meeting the requirements of ordinance section 155.03 #69*”.

**66. SMALL OCCUPANCIES.** Section 2902.6 IBC shall be amended by deleting the section and replacing with the following:

***2902.6 Small occupancies.** Drinking fountains are not required for an occupant load of 50 or fewer however a bottled water dispenser shall be provided for occupancies with an occupant load between 16 and 49. For occupancies less than 100, individual water bottles readily available, offered continuously without fee, and displayed with approved signage within the public area shall be allowed in place of drinking fountains or water dispensers.*

**67. MINIMUM WATER SERVICE SIZE.** Section P2903.7 shall be amended by deleting *size of water service pipe shall be not less than 3/4 inch diameter*” and replacing with “*size of water service pipe shall be not less than 1 inch diameter.*”

**68. REQUIRED SPRINKLER LOCATIONS.** Section P2904.1.1 IRC shall be amended by adding exception #5:

*5. Structures complying with any exception of R313 as amended.*

**69. BUILDING SEWER.** Section P3005.4.2 IRC shall be amended by adding the following sentence at the end of the section *“The minimum diameter for a building sewer shall be four (4) inches.”*

**70. BACKWATER VALVE.** Section P3008.1 IRC shall be amended by adding the following sentences at the end of the paragraph *“The requirement for the installation of a backwater valve shall apply only when it is determined necessary by the Building Official based on local conditions. When a valve is required by the Building Official, it shall be a manually operated gate valve or fullway ball valve. An automatic backwater valve may also be installed, but is not required.”*

**71. SECONDARY STORM SEWER.** Section P3303 shall be amended by adding a new subsection as follows:

***P3303.1.5 Secondary storm sewer.*** *The provisions for secondary storm sewers shall comply with Section 157.08 of the City of Altoona, Code of Ordinances, 2004, for all structures with habitable and/or useable space below grade.*

**72. ADDITIONS AND ALTERATIONS.** Section E3401.4 of the IRC shall be amended by adding the following to the end of the paragraph *“Additions to, alterations of, and repairs to existing electrical equipment shall comply with this code. Furthermore, existing electrical equipment that is temporarily exposed or made accessible because of any remodeling or repair of an existing structure, shall be made to comply with this code. In any event, the building official may, when any additions, alterations, or repairs are made, order other reasonable additions or alterations in the electrical equipment of a structure or on any premises when a danger to life or property may result if such other additions or alterations were not made.”*

**73. DEFINITIONS.** Section E4201.2 IRC shall be amended by deleting the following definitions:

1. Permanently Installed Swimming, Wading, Immersion and Therapeutic Pools, and
2. Storable Swimming or Wading Pools

**74. SWIMMING POOLS.** Section 3109 (IBC), shall be deleted and replaced with the following:  
***3109.1 General.*** *The design and construction of swimming pools, spas, and hot tubs shall comply with the following, and the International Swimming Pool and Spa Code (ISPSC). Where any conflict arises between the ISPSC and this section, this section shall prevail.*

***3109.2 Definition.*** *The following terms are defined in Section 155.03 #9 of this code of ordinances:*

***Barrier***

***Residential Swimming Pool***

***Residential Wading Pool***

***Swimming Pool***

***Wading Pool***

**3109.3 Swimming pools, commercial hot tubs, and wading pools.** *Swimming pools, commercial hot tubs, and wading pools shall comply with the requirements of Sections 3109.4 through 3109.10 and other applicable sections of this code.*

**3109.3.1 Residential swimming pools and hot tubs.** *Residential swimming pools and hot tubs shall comply with Sections 3109.4.1 through 3109.10.*

**3109.4 Enclosure height.** *Swimming pools, commercial hot tubs, and wading pools shall be completely enclosed by a fence or barrier not less than 6 feet (1290 mm) measured on the side of the barrier that faces away from the swimming pool.*

**3109.4.1 Residential.** *Residential swimming pools and hot tubs shall be completely enclosed by a fence or barrier not less than 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the vertical clearance between the top of the pool structure and the bottom of the barrier shall be not greater than 4 inches (102 mm).*

**Exception:** *A hot tub/spa with a safety cover complying with ASTM F1346 shall not be subject to the barrier requirements.*

**3109.5 Barrier requirements.** *The vertical clearance between grade and the bottom of the barrier shall be not greater than 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Openings in the fence shall not permit the passage of a 4-inch-diameter (102 mm) sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.*

**3109.6 Openings.** *Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.*

**3109.6.1 Solid barrier surfaces.** *Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.*

**3109.6.2 Closely spaced horizontal members.** *Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall be not greater than 1-3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1-3/4 inches (44 mm) in width.*

**3109.6.3 Widely spaced horizontal members.** *Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall be not greater than 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1-3/4 inches (44 mm) in width.*

**3109.6.4 Chain link dimensions.** Mesh size for chain link fences shall be not greater than a 2-1/4 inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1-3/4 inches (44mm).

**3109.6.5 Diagonal members.** Where the barrier is composed of diagonal members, the opening formed by the diagonal members shall be not greater than 1-3/4 inches (44 mm).

**3109.7 Gates.** Access doors or gates shall comply with the requirements of Sections 3109.3 through 3109.4.1.4 and shall be equipped to accommodate a locking device. Pedestrian access doors or gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Doors or gates other than pedestrian access doors or gates shall have a self-latching device. Release mechanisms shall be in accordance with Sections 1010.1.9 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate 3 inches (76 mm) or more, below the top of the door or gate, and the door or gate and barrier shall be without openings greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

**3109.8 Pool structure as barrier.** Where an aboveground pool contains a barrier mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured or locked to prevent access, or the ladder or steps shall be surrounded by a barrier which meets the requirements of Sections 3109.3 through 3109.4.1.4. Where the ladder or steps are secured or locked, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

**3109.9 Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment, or similar objects from being used to climb the barriers.

**3109.10 Entrapment avoidance.** Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

**155.04 PREMISE IDENTIFICATION.** Every new and existing principal structure on a premise shall have the address number affixed thereto. The numbers shall be 6 inches in height for structures built per the provisions of the IBC with the exception that individual dwelling units in multi-family structures are allowed numbers to be a height of 3 inches. The numbers for buildings constructed per the provisions of the IRC shall be 4 inches in height. The numbers shall be of visible from the public right of way and of contrasting color from the principal structure. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. Address numbers may be required to be increased in height and stroke width at the direction of the Fire Code Official. Address identification shall be maintained.

**155.05 RESIDENTIAL WOOD FLOOR CANTILEVERS.** Notwithstanding the provisions of Chapter 23 of the International Building Code and Chapter 5 of the International Residential

Code, the maximum floor cantilevers of dimensional wood floor systems serving uses regulated by the International Building Code for group R occupancies and residential occupancies regulated by the International Residential Code shall not exceed a projecting dimension equal to twice the depth of the floor joist for bearing cantilevers and three times the depth of the joist for non-bearing cantilevers. This provision shall not apply to Engineered Wood products or cantilevers designed by a registered design professional for a specific application.

**155.06 LICENSING FOR ELECTRICAL, PLUMBING, AND MECHANICAL CONTRACTORS AND INSTALLERS.** The provisions of Chapter 160 of the City of Altoona, Code of Ordinances shall be applicable for any work performed in regards to electrical, plumbing, and mechanical systems. In cases where an owner-occupant of a single-family dwelling desires to install plumbing and plumbing fixtures, heating or comfort cooling equipment, wiring, electrical equipment, or perform any electrical work in said person's single-family dwelling, said person may appear before the Building Official and show competency to do the specific work for which said person desires a permit. After such showing, said owner-occupant may obtain a permit by paying the proper fee, without having to meet the provisions of Chapter 160.

**155.07 DEMOLITION OF BUILDINGS AND STRUCTURES.**

1. Permit Required; Expiration.
  - A. No person shall commence the work of demolishing any building or structure until a permit authorizing such work has been obtained from the Building Official. Every demolition permit issued under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within seven (7) calendar days from the date of issuance, or if the work authorized by such permit is not completed within 30 calendar days of the date of issuance, unless, because of the extensiveness of the project, the Building Official deems at the time of issuance, a longer period for either commencement or completion should be granted.
  - B. Any permittee holding an unexpired demolition permit may request in writing an extension of time within which the demolition work may be commenced or completed. If such request contains good and satisfactory reasons showing that circumstances beyond the control of the permittee have prevented timely commencement or completion of the work, the Building Official may extend the applicable expiration date.
  - C. The fee for such permit shall be at the same rate as the original permit.
  - D. If a demolition permit to remove an unsafe building, or a building that is the subject of a public nuisance action has expired, the Building Official shall order the prompt removal of such structure, in accordance with all requirements of this chapter. All of the costs attendant to this action, including administrative costs, shall be either assessed against the property or collected from the owner unless otherwise directed by the Council.
2. Application for Permit. Application for a permit to demolish a building or structure shall be made to the Building Official. The applicant shall provide the following information:

A. In the case of demolition by explosives, the applicant shall furnish the information required in this subsection and shall furnish information regarding the person who will be conducting the demolition by explosives and shall furnish plans showing how the building or structure will be prepared for demolition, the type and amount of explosives to be used; and a detailed plan showing what safety precautions will be taken to protect persons and property.

B. A permit for the demolition of a building or structure by the use of explosives may be issued by the Council subject to the following:

(1) The applicant for a permit must demonstrate to the Council the need for demolition by explosives rather than demolition by conventional means and must demonstrate that demolition by explosives can be safely conducted at the specific location requested.

(2) The Building Official, Fire Chief and Police Chief shall review the application and submit their opinions to the Council concerning whether or not the demolition can be safely conducted together with any recommendations they may have.

(3) The applicant shall provide a certificate of liability insurance for personal injuries, death and for property damage in an amount not less than \$1,000,000 naming the City as an additional named insured party. The certificate shall provide that the coverage shall not be canceled or changed without ten days' prior written notice to the City. The Council may require additional insurance coverage in instances where the hazard appears greater than normally expected and may also in such instances require the posting of a bond acceptable to the City in an amount commensurate with the severity of the hazard. The bond shall provide that the applicant shall well and satisfactorily perform the demolition. The bond shall be for the benefit of the City and any person who is injured or damaged by the failure of the applicant to satisfactorily perform the demolition.

(4) The applicant shall agree to indemnify and hold harmless the City from all losses resulting from damages or injuries caused by the applicant or the applicant's employees, servants or agents arising out of the use of explosives in demolition.

(5) The applicant shall pay the City in advance for reasonable expenses that will be incurred by the City in furnishing necessary security and police protection in the vicinity of the demolition site.

(6) The applicant shall observe all applicable Federal, State and local laws in the course of the demolition including but not limited to the following:

(a) The applicable provisions of the fire prevention code relating to the storage, transportation and use of explosives.

(b) The rules and regulations of the United States Environmental Protection Agency relating to the demolition of buildings or

structures containing asbestos materials or other hazardous air pollutants.

(7) The applicant shall meet all other requirements of this chapter relating to the demolition of structures or buildings, provided, however, that should a conflict exist between the provisions of this paragraph and other provisions of the Code of Ordinances, the provisions of the paragraph shall be deemed controlling.

(8) The applicant need not obtain an obstruction permit as provided in Section 155.15 of this chapter to block off portions of the public property within an appropriate distance of the demolition site provided that the obstruction is for less than a 24 hour period and provided that the obstruction is for security purposes in connection with the use of explosives. However, the applicant shall be required to obtain an obstruction permit to use public property in the cleanup operations following the detonation of explosives.

(9) The Council shall at any time have the authority to impose additional requirements and safety precautions in the interest of the public health, safety, and welfare.

3. Permit – Issuance, Validity, Expiration, Revocation, Fees.

A. Except as otherwise provided in this section, the issuance, validity, expiration, and revocation of any permit to demolish a building or structure shall be administered in accordance with Section 155.08 of this chapter and Section 105 of the IBC and Section R105 of the IRC.

B. Permits fees shall be as set forth in the amount set forth in the Schedule of Fees as adopted by the City Council.

4. Utility Services. No permit to demolish shall be issued until it has been established that existing utility services have been properly disconnected and approved.

5. Permit - Bond Required.

A. Before a permit is issued to remove a building which has been ordered removed as a public nuisance pursuant to the provisions of the International Building Code and International Residential Code, and which period of time granted by the courts for removal or other remedial action by the applicants or other party of interest has expired, the applicant may be required to post a cash bond equal to the estimated costs of the removal of the building and the disconnection of the existing utility services. If the building is not removed by the applicant at the time the permit expires at a time specified by the Building Official, such bond shall be forfeited and used toward the costs of the City to remove it.

B. If the building is removed by the applicant prior to the time the permit expires, such bond shall be returned to the applicant. A return of the bond does not exempt the applicant from further assessments to the real estate for costs which have occurred prior to the issuance of the permit.

6. General Requirements.

A. The Building Official shall have the authority to impose at any time reasonable requirements and safety precautions in the interest of public health, safety, and welfare which, in the opinion of the Building Official, are commensurate with the severity of hazard, either demonstrated or anticipated, provided that such requirements may be appealed to, and reviewed by, the board of appeals at the request of the affected party.

B. In addition, the following provisions shall be met:

(1) The discharging, loading, or dumping of building materials from any building shall be accomplished in such manner as to minimize the creation of dust and scattering of debris. Materials shall not be dropped by gravity to any point lying outside the building walls except through an enclosed chute, unless such materials are dust free and the height of drop is at least equal to the horizontal distance to the nearest property or barricade line. Where such horizontal distance is not available and practical necessity dictates the dropping of relatively large masses of materials, the Building Official may approve appropriate protective measures designed to provide protection from danger equivalent to that afforded by the otherwise required horizontal setback, provided however, that in all cases, such materials shall be handled in a manner approved by the Air Pollution Control Division of the County Health Department.

(2) When necessary to protect the public health, safety, or welfare, every demolition project shall be barricaded, fenced, lighted, and signed with warning and/or directional signs in a manner approved by the Building Official. The Building Official may also require the presence of approved security guards or flagmen. Such barricades, fences, lights, and signs as may be deemed necessary by the Building Official for protection of the public shall be maintained after completion of the demolition work until such time as the site is cleaned of all debris and all excavations, basements, and depressions in the ground are restored to grade and rendered harmless.

(3) Adequate precautions shall be taken to insure that procedures or conditions relating to the demolition work do not constitute a fire hazard. If, in the opinion of the Fire Chief, a fire hazard exists, or is likely to exist, the Fire Chief may order the cessation of work or require that appropriate protective measures, approved by the Fire Chief, be taken.

(4) All streets, alleys, and public ways adjacent to the demolition site shall be kept free and clear of any rubbish, refuse, and loose materials resulting from the demolition work unless an obstruction permit for such space has been obtained.

Upon Completion of the demolition work, the site shall be left in a clean, smooth condition. Inorganic building rubble, sand, clean earth, or other approved fill material may be used to fill excavations, basements, and depressions, provided that the top 12 inches shall be clean earth or its equivalent in terms of surface smoothness, freedom from dust, and cleanliness. If the surface is to be used for the parking of vehicles, it shall be constructed as required in the Zoning Code.

**155.08 OBSTRUCTION PERMIT; BOND AND INSURANCE.** Obstruction permits shall meet the requirements of Chapter 141 of the Altoona Municipal Code. Building permits shall be obtained for work performed in the public right of way in conjunction with building construction, demolition, alterations, repairs and installations.

**155.09 EXTERIOR BUILDING WALL CONSTRUCTION.**

1. Notwithstanding anything contained in Sections 602 or 705 of the IBC and Section R302 of the IRC, an exterior wall may be constructed with openings without complying with the requirements of such sections related to opening protection; provided, that before a building permit is issued which permits an exterior wall to be so constructed, the owner of the building shall furnish the Building Official with either:

A. A copy of an easement or covenant running with the land applicable throughout the existence of the proposed building in which those with interests in the property abutting the side of the property on which said exterior wall is to be constructed agree not to construct a wall set forth in said Sections 602, 705 or R302 which would require said exterior wall and said building on such abutting property to have the opening protection of said Sections 602, 705 or R302 which copy shall show the book and page where such document has been filed of record in the office of the Polk County Recorder; or

B. An agreement, in a form capable of being filed of record in the office of the Polk County Recorder, for the benefit of those with interest in the abutting property, by which the owner of the building and the owner of the property on which said building is to be built, jointly and severally agree, on behalf of themselves and their successors and assigns for so long as said building is in existence, that, in consideration for being permitted to building an exterior wall on said building without complying with said Sections 602, 705 or R302 at such time as a building is erected on the abutting property within the distances to said exterior wall contained in said Sections 602, 705 or R302 then they shall modify or rebuild said exterior wall to conform at least to the requirements of said Sections 602 and 705 applicable to the actual separations of the building; said agreement shall be recorded at the expense of the applicant for the building permit.

2. Notwithstanding anything contained in Section 602 or 705 of the IBC and Section R302 of the IRC, an exterior wall may be constructed with openings adjacent to a public street or alley right-of-way without complying with the requirements of such sections related to opening protection, provided the following conditions are each satisfied:

A. The setback between the exterior wall and the far side of the adjoining public right-of-way must conform at least to the requirements of such sections 602, 705 or R302 applicable to the actual separation of building.

B. The City Council has by resolution declared an intent to permanently maintain the adjoining right-of-way as a public street or alley, and to never permit a structure to be constructed or placed upon the right-of-way within the required separation from the exterior wall. The resolution shall specifically describe the affected right-of-way and shall be in a form that can be recorded and indexed into the records of the county recorder.

C. The owner of the building has furnished a copy of the City Council resolution described above, which copy shall show the book and page where such document has been filed of record in the office of the county recorder

#### **155.10 PERMANENT OCCUPANCY OF PUBLIC PROPERTY.**

1. No part of any structure or any appendage thereto, except signs, shall project beyond the property line of the building site, except as specified in this code, provided, however, that a structure or appendage thereto may project beyond the property line of the building site when the applicant holds a property interest including but not limited to air rights, within the area of the project sufficient to establish a legal right to build therein or thereon.
2. Structures or appendages regulated by this section shall be constructed of materials as specified in Section 705 of the IBC and section R302 of the IRC for structures regulated by such code.
3. The projection of any structure or appendage shall be the distance measured per the definition of Fire Separation Distance as noted in the IBC and section R302 of the IRC for structures regulated by such code.
4. Nothing in this code shall prohibit the construction and use of a structure between buildings and over or under a public way provided the structure complies with all requirements of this code.

**155.11 COVERING OR CONCEALING WORK.** No building construction work for which a permit is required shall be concealed in any manner from access or sight until the work has been inspected and approved by the inspector.

**155.12 REMOVAL OF COVERING.** The inspector has the authority to remove or cause the removal of lath, plaster, sheathing, sheetrock, insulation or other obstruction which may prevent the proper inspection of building construction work.

**155.13 CORRECTING DEFECTIVE WORK.** When a contractor is notified that defects exist in his or her work, said contractor shall make corrections within thirty (30) days after notification. Failure to correct the defect within the thirty (30) days shall result in a stop work order being placed on the building or structure where the defective work exists.

**155.14 BOARD OF APPEALS.** In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and hereby created a Board of Appeals, consisting of five (5) members. Board members shall be chosen and appointed based on diversity and building construction knowledge, all of whom shall be residents of the City of Altoona, Iowa. One (1) member of said Board of Appeals at a minimum shall be a private citizen. The Building Official or designated representative shall be an ex-officio member without a vote and shall act as secretary of the Board. The appointment of members shall be for four (4) year terms, expiring on December 31, with not more than three (3) members' terms expiring any one year.

The Building Board of Appeals shall be appointed by the Mayor, subject to Council approval, and shall serve without compensation. The Board shall adopt reasonable rules and regulations for conducting its investigations and shall render all decisions and findings in writing to the Building Official with a duplicate copy to the appellant, and may recommend to the City Council such new legislation as is consistent therewith. The Board shall meet at will and when there are appeals or business on file for a hearing.

Nominal appeal fee to the Building Board of Appeals shall be paid as set forth in Section 155.03 PERMIT FEES. The appeal shall be valid for one (1) year from the date of the Board approval to the commencement of work and to the completion of work undertaken pursuant to the approval.

**155.15 VIOLATIONS.** See Chapter 4 of this Code of Ordinances.