

**AN ORDINANCE TO ADOPT THE 2012 INTERNATIONAL BUILDING CODE  
BY AMENDING CHAPTER 15.12 OF THE RAPID CITY MUNICIPAL CODE**

WHEREAS, in Chapter 15.12 of the Rapid City Municipal Code, the City of Rapid City has adopted the 2009 edition of the International Building Code; and

WHEREAS, the City wishes to amend R.C.M.C. Chapter 15.12 to adopt the 2012 edition of the International Building Code; and

WHEREAS, the City wishes to retain the different or additional requirements it had adopted with regard to the 2009 edition of the International Building Code and apply them to the 2012 edition of the International Building Code; and

WHEREAS, the Common Council desires to amend R.C.M.C. Chapter 15.12 to adopt the 2012 edition of the International Building Code and to incorporate the additional requirements that the City had applied to the previous edition of the International Building Code.

NOW THEREFORE, BE IT ORDAINED by the City of Rapid City, that Chapter 15.12 of the Rapid City Municipal Code is hereby amended to read in its entirety as follows:

**CHAPTER 15.13: INTERNATIONAL BUILDING CODE**

Section

- 15.12.010 Adoption of ~~2009~~2012 International Building Code.
- 15.12.020 IBC Chapter 1–Deleted in part and replaced in part.
- 15.12.030 IBC Chapter 1, Section 101.4.1 Gas–Amended.
- 15.12.040 IBC Chapter 1, Section 101.4.2 Mechanical–Amended.
- 15.12.050 IBC Chapter 1, Section 101.4.3 Plumbing–Amended.
- 15.12.060 IBC Chapter 1, Section 101.4.6 Energy–Deleted.
- 15.12.070 IBC Chapter 1, Section 101.4.7 Electrical–Added.
- 15.12.080 IBC Chapter 1, Section 106.1 Live loads posted–Amended.
- 15.12.090 IBC Chapter 1, Section 108.3 Temporary power–Amended.
- 15.12.100 IBC Chapter 1, Section 110.3 Required Inspections–Amended.
- 15.12.110 IBC Chapter 2, Section 202 Definitions–Amended.
- 15.12.120 IBC Chapter 3, Section 312 Utility and Miscellaneous Group U–Amended.
- 15.12.130 IBC Chapter 4, Section 402.466.4 Plastic signs–Deleted.
- 15.12.140 IBC Chapter 4, Section 403.1 Applicability–Amended.
- 15.12.150 IBC Chapter 4, Section [F] 404.3 Automatic sprinkler protection–Amended.
- 15.12.160 IBC Chapter 4, Section 412.4.1 Exterior walls–Deleted.
- 15.12.170 IBC Chapter 5, Section 504.2 Automatic sprinkler system increase–Amended.
- 15.12.180 IBC Chapter 9, Section [F] 903.2 Where required–Amended.
- 15.12.190 IBC Chapter 10, Table 1004.1.42 Maximum floor area allowances per occupant–Amended.
- 15.12.200 ~~IBC Chapter 10, Section 1014.3 Common path of egress travel—Amended~~

15.12.210200 IBC Chapter 11, Section 1101.2 Design–Amended.  
15.12.220210 IBC Chapter 11, Section 1104.4 Multilevel buildings and facilities–Amended.  
15.12.230220 IBC Chapter 14, Section 1404.2.1 Weather resistive sheathing papers–Added.  
15.12.240230 IBC Chapter 14, Section 1405.11.4 Grounding–Amended.  
15.12.250240 IBC Chapter 15, Section [P] 1503.4 Roof drainage–Amended.  
15.12.260250 IBC Chapter 15, Section 1507.5.4 Ice barrier–Amended.  
15.12.270260 IBC Chapter 15, Section 1507.6.4 Ice barrier–Amended.  
15.12.280270 IBC Chapter 15, Section 1507.7.4 Ice barrier–Amended.  
15.12.290280 IBC Chapter 15, Section 1507.8.4 Ice barrier–Amended.  
15.12.300290 IBC Chapter 15, Section 1507.9.4 Ice barrier–Amended.  
15.12.310300 IBC Chapter 16, Section 1603.1 Construction documents–Amended.  
15.12.320310 IBC Chapter 16, Section 1604.1 General–Amended.  
15.12.330320 IBC Chapter 16, Section 1608 Snow loads–Amended.  
15.12.340330 IBC Chapter 16, Section 1612 Flood loads–Amended.  
15.12.350340 IBC Chapter 17, Section 1702 Definitions–Amended.  
15.12.360350 IBC Chapter 17, Section 1704.4-2-~~General~~Special inspections–Amended.  
15.12.370360 IBC Chapter 17, Section 1717.2 Prefabrication–Added.  
15.12.380370 IBC Chapter 18, Section 1804.4 Grading and fill in ~~floodways~~flood hazard areas–Amended.  
15.12.390380 IBC Chapter 18, Section 1808.6.1.1 Frost protection–Added.  
15.12.400390 IBC Chapter 27, Section 2701.1 Scope–Amended.  
15.12.410400 IBC Chapter 29, Section 2901.1 Scope–Amended.  
15.12.420410 IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures–Amended.  
15.12.430420 IBC Chapter 30, Section ~~2003.7~~3002.7 Common enclosure with stairway—Amended.  
15.12.440430 IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices–Deleted.  
15.12.440 IBC Chapter 32, Section 3202.1.4 Space below sidewalk – Added.  
15.12.450 IBC Chapter 32, Section 3202.5 Projection into alleys – Added.  
15.12.450460 IBC Chapter 32, Section 3202.5-6 Public right-of-way–Structures prohibited–Exceptions–Added.  
15.12.460470 IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property–Deleted.  
15.12.470480 IBC Chapter 34, Section 3412.2 Applicability–Amended.  
15.12.480490 IBC Appendix I, Section ~~H04.2~~I105.2 Footings–Amended.  
15.12.490500 IBC Appendix J, Section J101.2 Flood hazard areas–Amended.  
15.12.500510 IBC Appendix J, Section J103.1 Permits required–Amended.  
15.12.520 IBC Appendix J, Section J103.2 Exemptions–Amended.  
15.12.530 IBC Appendix J, Section J104.2 Site plan requirements–Amended.  
15.12.540 IBC Appendix J, Section J104.3 Geotechnical report–Amended.  
15.12.550 IBC Appendix J, Section J107.2 Surface preparation–Amended.  
15.12.560 IBC Appendix J, Section J109.1 General–Amended.  
15.12.540570 IBC Appendix J, Section J110 Erosion control–Amended.  
15.12.580 Appendix A, Table 100-B Climactic and geographic design criteria—Adopted.

**15.12.010 Adoption of ~~2009~~2012 International Building Code.**

There is adopted by the eCity that certain code, recommended by the International Code Council, known as the International Building Code, ~~2009~~2012 edition, specifically Chapters 1-27, 29-35, and Appendices B, C, I and J thereof. The code is adopted for all occupancies except 1- and 2-family dwellings. A copy of the same is on file in the office of the City Building Official.

**15.12.020 IBC Chapter 1–Deleted in part and replaced in part.**

The following sections of IBC Chapter 1 are hereby deleted and replaced with comparable provisions found in Chapter 15.04 Administration of the Rapid City Municipal Code.

Section 103 Department of Building Safety
Section 104 Duties and Powers of Building Official
Section 105 Permits
Section 107 Submittal Documents
Section 109 Fees
Section 111 Certificate of Occupancy
Section 113 Board of Appeals
Section 114 Violations
Section 115 Stop Work Order

**15.12.030 IBC Chapter 1, Section 101.4.1 Gas–Amended.**

IBC Chapter 1, Section 101.4.1 Gas, is hereby amended to read in its entirety as follows:

**~~SECTION 101  
GENERAL~~**

**101.4.1 Gas.** The provisions of the Rapid City Gas Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

**15.12.040 IBC Chapter 1, Section 101.4.2 Mechanical–Amended.**

IBC Chapter 1, Section 101.4.2 Mechanical, is hereby amended to read in its entirety as follows:

**101.4.2 Mechanical.** The provisions of the current mechanical code adopted by the City of Rapid City shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

**15.12.050 IBC Chapter 1, Section 101.4.3 Plumbing–Amended.**

IBC Chapter 1, Section 101.4.3 Plumbing, is hereby amended to read in its entirety as follows:

**101.4.3 Plumbing.** The provisions of the current plumbing code adopted by the South Dakota State Plumbing Commission and the City of Rapid City with revisions, shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system.

**15.12.060 IBC Chapter 1, Section 101.4.6 Energy–Deleted.**

IBC Chapter 1, Section 101.4.6 Energy, is hereby deleted in its entirety.

**15.12.070 IBC Chapter 1, Section 101.4.7 Electrical–Added.**

IBC Chapter 1, Section 101.4.7 Electrical, is hereby added to read in its entirety as follows:

**101.4.7 Electrical.** The provisions of the current electrical code adopted by the City of Rapid City shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

**15.12.080 IBC Chapter 1, Section 106.1 Live loads posted–Amended.**

IBC Chapter 1, Section 106.1 Live loads posted, is hereby amended to read in its entirety as follows:

**~~SECTION 106  
FLOOR AND ROOF DESIGN LOADS~~**

**106.1 Live loads posted.** Where the live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 100 psf, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

**15.12.090 IBC Chapter 1, Section 108.3 Temporary power–Amended.**

IBC Chapter 1, Section 108.3 Temporary Power, is hereby amended to read in its entirety as follows:

**SECTION 108**  
**TEMPORARY STRUCTURES AND USES**

**108.3 Temporary power.** The building official is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in the current electrical code adopted by the City of Rapid City.

**15.12.100 IBC Chapter 1, Section 110.3 Required Inspections–Amended.**

IBC Chapter 1, Section 110.3 Required inspections, is hereby amended to read in its entirety as follows:

**SECTION 110**  
**INSPECTIONS**

**110.3 Inspections.** The Building Official, upon notification, may make the inspections set forth in Section 110.3.1 through 110.3.10.

**15.12.110 IBC Chapter 2, Section 202 Definitions–Amended.**

~~IBC Chapter 2, Section 202 Definitions, is hereby amended to read as follows:~~

**SECTION 202**  
**DEFINITIONS**

All definitions will remain the same as in Section 202 except for those specifically changed as follows:

**TOWNHOUSE.** A single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from foundation to roof and with open space on at least two sides.

**STRUCTURAL OBSERVATION.** The visual observation of the structural system by a registered design professional for general conformance to the reviewed construction documents at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspection required by Section 110, 1704 or other sections of this code.

**15.12.120 IBC Chapter 3, Section 312 Utility and Miscellaneous Group U–Amended.**

IBC Chapter 3, Section 312 Utility and Miscellaneous Group U, is hereby amended to read in its entirety as follows:

**SECTION 312**  
**UTILITY AND MISCELLANEOUS GROUP U**

**312.1 General.** Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

- Agricultural buildings
- Aircraft hangars, accessory to a one- or two-family residence (see Section 412.5)
- Barns
- Carports
- Fences more than 6 feet (1829 mm) high
- Grain silos, accessory to a residential occupancy
- Greenhouses
- Livestock shelters
- Private garages
- Retaining walls
- Sheds
- Stables
- Tanks
- Towers
- Camping Cabins

**312.2 Camping Cabins.** Camping cabins must have an egress window or door in each sleeping area, a smoke detector in each sleeping area, interior and exterior light, interior and exterior plug-ins, the unit number on each cabin, rodent protection, a fire extinguisher in each unit, and accessible units shall be provided as per Table 1107.6.1.1.

**15.12.130 IBC Chapter 4, Section 402.466.4 Plastic signs–Deleted.**

IBC Chapter 4, Section 402.466.4 Plastic Ssigns, is hereby deleted in its entirety.

**~~SECTION 402~~**  
**~~COVERED MALL AND OPEN MALL BUILDINGS~~**

**15.12.140 IBC Chapter 4, Section 403.1 Applicability–Amended.**

IBC Chapter 4, Section 403.1 Applicability, is hereby amended to read in its entirety as follows:

**SECTION 403**  
**~~HIGH-RISE BUILDINGS~~**

**403.1 Applicability.** High-rise buildings shall comply with Sections 403.2 through 403.6. The provisions of this section shall apply to buildings having occupied floors located more than 75 feet above the lowest level of fire department vehicle access.

**Exception:** The provisions of Section 403.2 through 403.6 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.
2. Open parking garages in accordance with Section 406.3~~5~~.
3. Buildings with a Group A-5 occupancy in accordance with Section 303.4~~5~~.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.

**15.12.150 IBC Chapter 4, Section [F] 404.3 Automatic sprinkler protection—Amended.**

IBC Chapter 4, Section [F] 404.3, Automatic ~~S~~sprinkler ~~P~~protection, is hereby amended to read in its entirety as follows:

**~~SECTION 404~~**  
**~~ATRIUMS~~**

**[F] 404.3 Automatic sprinkler protection.** An approved automatic sprinkler system shall be in-installed through-out the entire building.

**Exception:**

—~~1.~~ That area of a building adjacent to or above the atrium need not be sprinklered provided that portion of the building is separated from the atrium portion by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section ~~712~~711, or both.

**15.12.160 IBC Chapter 4, Section 412.4.1 Exterior walls—Deleted.**

IBC Chapter 4, Section 412.4.1 Exterior walls, is hereby deleted in its entirety.

**~~SECTION 412~~**  
**~~AIRCRAFT-RELATED OCCUPANCIES~~**

**15.12.170 IBC Chapter 5, Section 504.2 Automatic sprinkler system increase—Amended.**

IBC Chapter 5, Section 504.2, Automatic sprinkler system increase, is hereby amended to read in its entirety as follows:

**SECTION 504  
BUILDING HEIGHT**

**504.2 Automatic sprinkler system increase.** Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the building area increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18288 mm) or four stories, respectively.

**Exceptions:** The use of an automatic sprinkler system to increase building heights shall not be permitted for the following conditions:

1. Fire areas classified as a Group I-2 occupancy of Type IIB, III, IV or V construction.
2. Fire areas classified as a Group H-1, H-2, H-3 or H-5 occupancy.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.

**15.12.180 IBC Chapter 9, Section [F] 903.2 Where required—Amended.**

IBC Chapter 9, Section [F] 903.2 Where required, is hereby amended to read in its entirety as follows:

**SECTION 903  
AUTOMATIC SPRINKLER SYSTEMS**

**[F] 903.2 Where required.** Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

**15.12.190 IBC Chapter 10, Table 1004.1.12 Maximum floor area allowances per occupant—Amended.**

IBC Chapter 10, Table 1004.1.12 Maximum floor area allowances per occupant, is hereby amended to read in its entirety as follows:

**SECTION 1004  
OCCUPANT LOAD  
TABLE 1004.1.12  
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

<i>FUNCTION OF SPACE</i>	<i>FLOOR AREA IN SQ. FT. PER OCCUPANT</i>
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Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangers	500 gross
Airport terminal Baggage claim Baggage handling Concourse Waiting areas	20 gross 300 gross 100 gross 15 gross
Assembly Gaming floors (video lottery, keno, slots, etc.)	15 net
Assembly with fixed seats	See Section 1004.74
Assembly without fixed seats Concentrated (chairs only – not fixed) Standing space Unconcentrated (tables and chairs)	7 net 5 net 15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms – other than fixed seating areas	40 net
Daycare	35 net
Dormitories	50 gross
Educational Classroom area Shops and other vocational room areas	20 net 50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas	240 gross 100 gross 120 gross
Kitchens, commercial	200 gross
Library Reading rooms Stack area	50 net
Locker rooms	50 gross
<u>Mall buildings – covered and open</u>	<u>See Section</u> <u>4.2.8.2</u>
Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas	60 gross 30 gross 300 gross
Parking garages	200 gross

Residential	200 gross
Skating rinks, swimming pools	50 gross
Rink and pool	15 gross
Decks	
Stages and platforms	15 net
Warehouses	500 gross
Jails	1.05 per bed
All others	100 gross

**~~15.12.200~~ IBC Chapter 10, Section 1014.3 Common path of egress travel—Amended**

—~~IPMCIBC~~ Chapter 10, Section 1014.3, Common path of egress travel, is hereby amended to read as follows:

**SECTION 1014  
EXIT ACCESS**

—~~1014.3 Common path of egress travel.~~ In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22860 mm). In Group H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8.

—**Exceptions:**

—1. The length of a common path of egress travel in Group B, F, M and S occupancies shall not be more than 100 feet (30480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

—2. Where a tenant space in Group B, M, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30480 mm).

—3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30480 mm).

—4. The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

**~~15.12.210~~200 IBC Chapter 11, Section 1101.2 Design—Amended.**

IBC Chapter 11, Section 1101.2 Design, is hereby amended to read in its entirety as follows:

**SECTION 1101**  
**GENERAL**

**1101.2 Design.** Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1. The scoping provision of ANSI shall be per section 1103.

**15.12.220210 IBC Chapter 11, Section 1104.4 Multilevel buildings and facilities–Amended.**

IBC Chapter 11, Section ~~1101.2 Design~~ 1104.4 Multilevel buildings and facilities, is hereby amended to read in its entirety as follows:

**SECTION 1104**  
**ACCESSIBLE ROUTE**

**1104.4 Multilevel buildings and facilities.** At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities.

**Exceptions:**

1. An accessible route from an accessible level is not required in facilities that are less than three stories in height or have less than 3,000 square feet (278.7 m<sup>2</sup>) per story. This exception shall not apply to:

1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces;

1.2. Levels containing offices of health care providers (Group B or I); or

1.3. Passenger transportation facilities and airports (Group A-3 or B).

2. Levels that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.

3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.

4. Where a two-story building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected by an accessible route to the story above or below.

5. Vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a ramp, lift or elevator complying with ICC A117.1 can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

**15.12.230220 IBC Chapter 14, Section 1404.2.1 Weather resistive sheathing papers–Added.**

IBC Chapter 14, Section 1404.2.1, Weather Resistive Sheathing Papers, is hereby added to read as follows:

**SECTION 1404  
MATERIALS**

**1404.2.1 Weather resistive sheathing papers.** House wraps or weather resistive sheathing papers consisting of spun bonded olefin sheets of high density polyethylene fibers are required to be installed as per the manufacturer's instruction/recommendations.

**15.12.240230 IBC Chapter 14, Section 1405.11.4 Grounding–Amended.**

IBC Chapter 14, Section 1405.11.4 Grounding, is hereby amended to read in its entirety as follows:

**SECTION 1405  
INSTALLATION OF WALL COVERINGS**

**1405.11.4 Grounding.** Grounding of metal veneers on buildings shall comply with the current electrical code adopted by the City of Rapid City.

**15.12.250240 IBC Chapter 15, Section [P] 1503.4 Roof drainage–Amended.**

IBC Chapter 15, Section [P] 1503.4 Roof Drainage, is hereby amended to read in its entirety as follows:

**SECTION 1503  
WEATHER PROTECTION**

**[P] 1503.4 Roof drainage.** Design and installation of roof drainage systems shall comply with the current plumbing code adopted by the South Dakota State Plumbing Commission and the City of Rapid City with revisions.

**15.12.260250 IBC Chapter 15, Section 1507.5.4 Ice barrier–Amended.**

IBC Chapter 15, Section 1507.5.4, Ice barrier, is hereby amended to read in its entirety as follows:

**SECTION 1507  
REQUIREMENTS FOR ROOF COVERINGS**

**1507.5.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of

normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

**Exception:** Detached accessory structures that contain no conditioned floor area.

If the ice ~~dam~~shield is not inspected, the contractor shall provide an affidavit that the ice ~~dam~~wasshield materials were installed properly.

#### **15.12.270260 IBC Chapter 15, Section 1507.6.4 Ice barrier–Amended.**

IBC Chapter 15, Section 1507.6.4 Ice barrier, is hereby amended to read in its entirety as follows:

**1507.6.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

**Exception:** Detached accessory structures that contain no conditioned floor area.

If the ice ~~dam~~shield is not inspected, the contractor shall provide an affidavit that the ice ~~dam~~wasshield materials were installed properly.

#### **15.12.280270 IBC Chapter 15, Section 1507.7.4 Ice barrier–Amended.**

IBC Chapter 15, Section 1507.7.4 Ice barrier, is hereby amended to read in its entirety as follows:

**1507.7.4 Ice barrier.** In areas where the average daily temperature in January is 25°F (-4°C) or less or where there is a possibility of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer- modified bitumen sheet shall extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

**Exception:** Detached accessory structures that contain no conditioned floor area.

If the ice ~~dam~~shield is not inspected, the contractor shall provide an affidavit that the ice ~~dam~~wasshield materials were installed properly.

#### **15.12.290280 IBC Chapter 15, Section 1507.8.4 Ice barrier–Amended.**

IBC Chapter 15, Section 1507.8.4 Ice barrier, is hereby amended to read in its entirety as follows:

**1507.8.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

**Exception:** Detached accessory structures that contain no conditioned floor area.

If the ice ~~dam~~shield is not inspected, the contractor shall provide an affidavit that the ice ~~dam~~wasshield materials were installed properly.

#### **15.12.~~300~~290 IBC Chapter 15, Section 1507.9.4 Ice barrier–Amended.**

IBC Chapter 15, Section 1507.9.4 Ice barrier, is hereby amended to read in its entirety as follows:

**1507.9.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

**Exception:** Detached accessory structures that contain no conditioned floor area.

If the ice ~~dam~~shield is not inspected, the contractor shall provide an affidavit that the ice ~~dam~~wasshield materials were installed properly.

#### **15.12.~~310~~300 IBC Chapter 16, Section 1603.1 Construction documents–Amended.**

IBC Chapter 16, Section 1603.1 Construction documents, is hereby amended to read in its entirety as follows:

### **~~SECTION 1603~~ ~~CONSTRUCTION DOCUMENTS~~**

**1603.1 General.** Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the construction documents.

Engineer design data shall be provided for roof areas where drifting occurs. The design data shall be shown on the plans.

**Exception:** Construction documents for buildings constructed in accordance with the conventional light-frame construction provisions of Section 2308 shall indicate the following structural design information:

1. Floor and roof live loads.
2. Ground snow load,  $P_g$ .
3. Ultimate design wind speed,  $V_{ult}$ , (3-second gust), miles per hour (mph) (km/hr) and nominal design wind speed,  $V_{asd}$ , as determined in accordance with Section 1609.3.1 and wind exposure.~~Basic wind speed (3-second gust), miles per hour (mph) (km/hr) and wind exposure.~~
4. Seismic design category and site class.
5. Flood design data, if located in flood hazard areas established in Section 1612.3.
6. Design load-bearing values of soils.

~~—Engineer design data shall be provided for roof areas where drifting occurs. The design data shall be shown on the plans.~~

**15.12.320310 IBC Chapter 16, Section 1604.1 General—Amended.**

IBC Chapter 16, Section 1604.1 General, is hereby amended to read in its entirety as follows:

**SECTION 1604  
GENERAL DESIGN REQUIREMENTS**

**1604.1 General.** Building, structures, and parts thereof shall be designed and constructed in accordance with strength design, load and resistance factor design, allowable stress design, empirical design, or conventional construction methods, as permitted by applicable material chapters and Table 100-B, Climatic and Geographic Design Criteria.

**15.12.330320 IBC Chapter 16, Section 1608 Snow loads—Amended.**

IBC Chapter 16, Section 1608 Snow loads, is hereby amended to read as follows:

**SECTION 1608  
SNOW LOADS**

**1608.1 General.** Design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607.

**1608.2 Ground snow loads.** The ground snow loads to be used in determining the design snow loads for roofs shall be determined in accordance with ASCE 7 or Figure 1608.2 for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated “CS” in Figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved.

Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official.

See Climatic Table 100-B and Section 1603.1 for additional design requirements.

**1608.3 Ponding instability.** Susceptible bays of roofs shall be evaluated for ponding instability in accordance with Section 7.11 of ASCE 7.

**15.12.340330 IBC Chapter 16, Section 1612 Flood loads–Amended.**

IBC Chapter 16, Section 1612 Flood loads, is hereby amended to read in its entirety as follows:

**SECTION 1612  
FLOOD LOADS**

**1612 All.** See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

**15.12.350340 IBC Chapter 17, Section 1702 Definitions–Amended.**

IBC Chapter 17, Section 1702 Definitions, is hereby amended to read in its entirety as follows:

**SECTION 1702  
DEFINITIONS**

**1702.1 General.** ~~The following words and terms shall, for the purposes of this chapter and as used else where in this code, have the meanings shown herein.~~ terms are defined in Chapter 2:

**APPROVED AGENCY.** ~~An established and recognized agency or design professional regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.~~

**APPROVED FABRICATOR.** ~~An established and qualified person, firm or corporation approved by the building official pursuant to Chapter 17 of this code.~~

**CERTIFICATE OF COMPLIANCE.** ~~A certificate stating that materials and products meet specified standards or that work was done in compliance with reviewed construction documents.~~

**DESIGNATED SEISMIC SYSTEM.** ~~Those architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7 and for which the component importance factor,  $I_p$ , is greater than 1 in accordance with Section 13.1.3 of ASCE 7.~~

**FABRICATED ITEM.** Structural, load-bearing or lateral load-resisting assemblies consisting of materials assembled prior to installation in a building or structure, or subjected to operations such as heat treatment, thermal cutting, cold working or reforming after manufacture and prior to installation in a building or structure. Materials produced in accordance with standard specifications referenced by this code, such as rolled structural steel shapes, steel reinforcing bars, masonry units, and wood structural panels or in accordance with a standard, listed in Chapter 35, which provides requirements for quality control done under the supervision of a third-party quality control agency shall not be considered “fabricated items.”

**INSPECTION CERTIFICATE.** An identification applied on a product by an approved agency containing the name of the manufacturer, the function and performance characteristics, and the name and identification of an approved agency that indicates that the product or material has been inspected and evaluated by an approved agency (see Section 1703.5 and “Label,” “Manufacturer’s designation” and “Mark”).

**INTUMESCENT FIRE-RESISTANT COATINGS.** Thin film liquid mixture applied to substrates by brush, roller, spray or trowel which expands into a protective foamed layer to provide fire resistant protection of the substrates when exposed to flame or intense heat.

**LABEL.** An identification applied on a product by the manufacturer that contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an approved agency and that indicates that the representative sample of the product or material has been tested and evaluated by an approved agency (see Section 1703.5 and **INSPECTION CERTIFICATE, MANUFACTURER’S DESIGNATION** and **MARK**).

**MAIN WIND-FORCE-RESISTING SYSTEM.** An assemblage of structural elements assigned to provide support and stability for the overall structure. The system generally receives wind loading from more than one surface.

**MANUFACTURER’S DESIGNATION.** An identification applied on a product by the manufacturer indicating that a product or material complies with a specified standard or set of rules (see also **INSPECTION CERTIFICATE, LABEL** and **MARK**).

**MARK.** An identification applied on a product by the manufacturer indicating the name of the manufacturer and the function of a product or material (see also **INSPECTION CERTIFICATE, LABEL** and **MANUFACTURER’S DESIGNATION**).

**MASTIC FIRE-RESISTANT COATINGS.** Liquid mixture applied to a substrate by brush, roller, spray or trowel that provides fire resistant protection of a substrate when exposed to flame or intense heat.

**SPECIAL INSPECTION.** Inspection as herein required of the materials, installation, fabrication, erection or placement of components and connections requiring special expertise to ensure compliance with reviewed construction documents and referenced standards (see Section 1704).

**SPECIAL INSPECTION, CONTINUOUS.** ~~The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.~~

**SPECIAL INSPECTION, PERIODIC.** ~~The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work has been or is being performed and at the completion of the work.~~

**SPRAYED FIRE-RESISTANT MATERIALS.** ~~Cementitious or fibrous materials that are sprayed to provide fire-resistant protection of the substrates.~~

**STRUCTURAL OBSERVATION.** ~~The visual observation of the structural system by a registered design professional for general conformance to the reviewed construction documents at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspection required by Section 110, 1704 or other sections of this code.~~

The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein

**LABEL.** An identification applied on a product by the manufacturer that contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an approved agency and that indicates that the representative sample of the product or material has been tested and evaluated by an approved agency (see Section 1703.5 and **INSPECTION CERTIFICATE, MANUFACTURER'S DESIGNATION and MARK**).

**MANUFACTURER'S DESIGNATION.** An identification applied on a product by the manufacturer indicating that a product or material complies with a specified standard or set of rules (see also **INSPECTION CERTIFICATE, LABEL and MARK**).

**MARK.** An identification applied on a product by the manufacturer indicating the name of the manufacturer and the function of a product or material (see also **INSPECTION CERTIFICATE, LABEL and MANUFACTURER'S DESIGNATION**).

#### **15.12.360350 IBC Chapter 17, Section 1704.12-~~General~~Special inspections –Amended.**

IBC Chapter 17, Section 1704.12-~~General~~Special inspections, is hereby amended to read in its entirety as follows:

#### **SECTION 1704 SPECIAL INSPECTIONS**

**1704.12-~~General~~Special inspections.** Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections

during construction on the types of work listed under Section ~~1704~~1705. These inspections are in addition to the inspections specified in Section 110.

~~The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the code official, for the inspection of the particular type of construction or operation requiring special inspection. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as the special inspector for the work designed by them, provided those personnel meet the qualification requirements of this section to the satisfaction of the code official. The special inspector shall provide written documentation to the building official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of special inspection activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.~~

### **Exceptions:**

1. Special inspections are not required for ~~work~~construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official and by the recommendation of the design professional.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. Unless otherwise required by the building official, special inspections are not required for occupancies in Group R-3 as applicable in Section 101.2 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
4. Special inspections are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

### **15.12.~~370~~360 IBC Chapter 17, Section ~~1717~~2 Prefabrication–Added.**

IBC Chapter 17, Section ~~1717~~2 Prefabrication, is hereby added to read in its entirety as follows:

#### **SECTION ~~1717~~2 PREFABRICATION**

##### **1717.1 General.**

**1717.1.1 Purpose.** The purpose of this section is to regulate materials and establish methods of safe construction where any structure or portion thereof is wholly or partially prefabricated.

**17172.1.2 Scope.** Unless otherwise specifically stated in this section, all prefabricated construction and materials used therein shall conform to all the requirements of this code.

**17172.1.3 Definitions.**

**PREFABRICATED ASSEMBLY.** A structural unit, the integral parts of which have been built or assembled prior to incorporation in the building.

**PREFABRICATED STRUCTURES.** The parts of which are fabricated and assembled in a central assembly point where on-site building, electrical, plumbing, and mechanical rough-in inspections occur at the assembly location.

**17172.2 Tests of materials.** Every approval of a material not specifically mentioned in this code shall incorporate as a proviso the kind and number of nationally recognized tests to be made during prefabrication.

**17172.3 Tests of assemblies.** The building official may require special tests to be made on assemblies to determine their durability and weather resistance.

**17172.4 Connections.** Every device used to connect prefabricated assemblies shall be designed as required by this code and shall be capable of developing the strength of the members connected, except in the case of members forming part of a structural frame as specified in Chapter 16. Connections shall be capable of withstanding uplift forces as specified in this code and in Chapter 16.

**17172.5 Pipes and conduits.** In structural design, due allowances shall be made for any material to be removed for the installations of pipes, conduit, and other equipment.

**17172.6 Permits, materials, plans, fees, certificate, and inspections.**

**17172.6.1 Materials.** Materials and the assembly thereof shall be inspected to determine compliance with this code. Every material shall be graded, marked, or labeled as required elsewhere in this code.

**17172.6.2 Plans.** One complete set of plans and specifications shall be submitted to the building inspection division of planning and building services for approval prior to issuing a building permit for a prefabricated structure. Plans shall be of sufficient detail and clarity to indicate compliance with all applicable codes (electrical, plumbing, building, mechanical, and zoning).

**17172.6.3 Permits and fees.** Permit fees shall be as follows:

1. The fee for a building permit shall conform to ~~Table 100-C~~ be set by resolution of the Common Council.
2. Electrical, plumbing, and mechanical permits and fees shall conform to the respective permit requirements and fee schedules.

**17172.6.4 Certificate.** A certificate of approval shall be furnished with every prefabricated assembly and prefabricated structure, except where the assembly is readily accessible to inspection at the site. The certificate of approval shall certify that the assembly in question has been inspected and meets all the requirements of this code. When mechanical equipment is installed so that it cannot be inspected at the site, the certificate of approval shall certify that such equipment complies with the laws applying thereto.

**17172.6.5 Certifying agency.** To be acceptable under this code, every certificate of approval shall be made by the approved agency.

**17172.6.6 Field erection.** The building official shall inspect placement of prefabricated assemblies at the building site to determine compliance with this code. Installation and finishing work at the building site must be performed by locally licensed contractors where required. Final inspections are to be made after the installation and finishing work has been completed and the building is ready for occupancy.

**17172.6.7 Continuous inspection.** If continuous inspection is required for certain materials where construction takes place on the site, it shall also be required where the same materials are used in prefabricated construction.

**Exception:** Continuous inspection will not be required during prefabrication if the approved agency certifies to the construction and furnishes evidence of compliance.

**17172.6.8 Moving permits.** A moving permit shall be obtained for each prefabricated structure being moved within the city in accordance with Section 3408 Moved Buildings.

**15.12.380370 IBC Chapter 18, Section 1804.4 Grading and fill in  ~~floodways~~ flood hazard areas–Amended.**

IBC Chapter 18, Section 1804.4 Grading and fill in  ~~floodways~~ flood hazard areas, is hereby amended to read in its entirety as follows:

**~~SECTION 1804  
EXCAVATION, GRADING AND FILL~~**

**1804.4 Grading and fill in  ~~floodways~~ flood hazard areas.** See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

**15.12.390380 IBC Chapter 18, Section 1808.6.1.1 Frost protection–Added.**

IBC Chapter 18, Section 1808.6.1.1, Frost protection, is hereby added to read in its entirety as follows:

**~~SECTION 1808  
FOUNDATIONS~~**

**1808.6.1.1 Frost protection.** Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending below the frost line of the locality;
2. Constructing in accordance with ASCE-32; or
3. Erecting on solid rock.

**Exception:** Free-standing buildings meeting all of the following conditions shall not be required to be protected:

1. Classified in Importance Category I, in accordance with Section 1604.5;
2. Area of 1,000 square feet or less with a maximum truss span of 24 feet; and
3. Eave height of 10 feet (3048 mm) or less.

Footings shall not bear on frozen soil unless such frozen condition is of a permanent character.

**15.12.400390 IBC Chapter 27, Section 2701.1 Scope–Amended.**

IBC Chapter 27, Section 2701.1 Scope, is hereby amended to read in its entirety as follows:

**~~SECTION 2701~~**  
**~~GENERAL~~**

**2701.1 Scope.** This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the current electrical code adopted by the City of Rapid City.

**15.12.410400 IBC Chapter 29, Section 2901.1 Scope–Amended.**

IBC Chapter 29, Section 2901.1 Scope, is hereby amended to read in its entirety as follows:

**~~SECTION 2901~~**  
**~~GENERAL~~**

**2901.1 Scope.** This chapter governs the plumbing components, equipment and systems used in buildings and structures covered by this code. Plumbing components, equipment and systems shall be designed and constructed in accordance with the provisions of the current plumbing code

adopted by the City of Rapid City. Toilet and bathing rooms shall be constructed in accordance with Section 1210.

**15.12.420410 IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures–Amended.**

IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures, is hereby amended to read as follows:

**SECTION 2902  
MINIMUM PLUMBING FACILITIES  
Uniform Plumbing Code  
Table 4-1  
Minimum Plumbing Facilities<sup>1</sup>**

Each building shall be provided with sanitary facilities, including provisions for persons with disabilities as prescribed by the Department Having Jurisdiction. Table 4-1 applies to new buildings, additions to a building, and changes of occupancy or type in an existing building resulting in increased occupant load. Exception: New cafeterias used only by employees.

The total occupant load shall be determined in accordance with the Building Code. The type of building or occupancy shall be determined based on the actual use of the various spaces within the building. Building categories not shown in Table 4-1 shall be considered separately by the Authority Having Jurisdiction. The minimum number of fixtures shall be calculated at 50 percent male and 50 percent female based on the total occupant load.

Once the occupant load and uses are determined, the requirements of section 412.0 and Table 4-1 shall be applied to determine the minimum number of plumbing fixtures required.

Type of Building <sup>2</sup> or Occupancy	Water Closets <sup>14</sup> (Fixtures per Person)		Urinals <sup>5, 10</sup> (Fixtures per Person)	Lavatories (Fixtures per Person)		Bathtubs or Showers (Fixtures per Person)	Drinking <sup>3, 13, 17</sup> Fountains (Fixtures per Person)
	Male	Female	Male	Male	Female		
Assembly places— theatres, auditoriums, convention halls, etc.—for permanent employee use	15-35	Female 1: 1-15 3: 16-33 4: 36-55	Male 0: 1-9 1: 10-50	40	Female 1 per 40		
	Over 55, add 1 fixture for each additional 40 persons.	Add one fixture for each additional 50 males.					
Assembly places— theatres, auditoriums, convention halls, etc.—for public use	100-200 3: 201-400	Female 3: 1-50 4: 51-100 8: 101-200 11: 201-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	200-400 3: 401-750	Female 1: 1-200 2: 201-400 3: 401-750		1: 1-150 2: 151-400 3: 401-750

	Over 400, add one fixture for each additional 500 males and 1 for each additional 125 females.	Over 600, add 1 fixture for each additional 300 males.	Over 750, add one fixture for each additional 500 persons.		Over 750, add one fixture for each additional 500 persons.		
Dormitories <sup>9</sup> – School or labor <sup>16</sup>	1 per 10	Female 1 per 8	Male 1 per 25	1 per 12	Female 1 per 12	1 per 8	1 per 150 <sup>12</sup>
	Add 1 fixture for each additional 25 males (over 10) and 1 for each additional 20 females (over 8).		Over 150, add 1 fixture for each additional 50 males.	Over 12, add one fixture for each additional 20 males and 1 for each 15 additional females.		For females, add 1 bathtub per 30. Over 150, add 1 bathtub per 20.	
Dormitories–for staff use <sup>16</sup>	15-35	Female 1: 1-5 3: 16-35	Male 1 per 50	40	Female 1 per 40	1 per 8	
	36-55	4: 36-55					
Dwellings <sup>4</sup> Single dwelling Multiple dwelling or apartment house <sup>1</sup>	1 per dwelling	1 per dwelling or apartment		1 per dwelling	1 per dwelling or apartment unit	1 per dwelling	1 per dwelling or apartment unit
Hospital waiting rooms	1 per room			1 per room			1 per 150 <sup>12</sup>

Type of Building <sup>2</sup> or Occupancy	Water Closets <sup>14</sup> (Fixtures per Person)	Urinals <sup>5, 10</sup> (Fixtures per Person)	Lavatories (Fixtures per Person)	Bathtubs or Showers (Fixtures per Person)	Drinking <sup>3, 13, 17</sup> Fountains (Fixtures per Person)	
Hospitals–for employee use	15-35	Female 1: 1-5 3: 16-35	Male 0: 1-0 1: 10-50	40	Female 1 per 40	
	36-55	4: 36-55	Add one			
	Over 55, 1					

	additional fixture for each additional 40 persons.		fixture for each additional 50 males.				
Hospitals Individual room Ward room	1 per room 1 per 8 patients			1 per room 1 per 10 patients	1 per room 1 per 20 patients	1 per 150 <sup>12</sup>	
Industrial <sup>6</sup> warehouses, workshops, foundries, and similar establishments— for employee use	10-25 26-50 51-75 76-100	Female 1: 1-10 2: 11-25 3: 26-50 4: 51-75 5: 76-100		Up to 100, 1 per 10 persons over 100, 1 per 15 persons <sup>7,8</sup>	1 shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating material	1 per 150 <sup>12</sup>	
	Over 100, add 1 fixture for each additional 30 persons.						
Institutional—other than hospitals or penal institutions (on each occupied floor)	1-25	Female 1 per 20	Male 0: 1-9 1: 10-50 Add one fixture for each additional 50 males.	1-10	Female 1 per 10	1 per 8	1 per 150 <sup>12</sup>
Institutional—other than hospitals or penal institutions (on each occupied floor)—for employee use	15-35 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	1-40	Female 1 per 40	1 per 8	1 per 150 <sup>12</sup>
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				
Office or public buildings	1-100 101-200 201-400	Female 1: 1-50 4: 51-100 8: 101-200 11: 201-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	1-200 201-400 401-750	Female 1: 1-200 2: 201-400 3: 401-750		1 per 150 <sup>12</sup>
	Over 400, add one fixture for		Over 600, add 1	Over 750, add one fixture for			

	each additional 500 males and 1 for each additional 150 females.	fixture for each additional 300 males	each additional 500 persons			
Office or public buildings—for employee use	15 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	40	Female 1 per 40	
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.			
Penal institutions—for employee use	15 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	1 per 40	Female 1 per 40	1 per 150 <sup>12</sup>
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.			

Type of Building <sup>2</sup> or Occupancy	Water Closets <sup>14</sup> (Fixtures per Person)	Urinals <sup>5, 10</sup> (Fixtures per Person)	Lavatories (Fixtures per Person)	Bathtubs or Showers (Fixtures per Person)	Drinking <sup>3, 13, 17</sup> Fountains (Fixtures per Person)
Penal institutions—for prison use Cell	1 per cell		Male	1 per cell	1 per cell
Exercise room	1 per exercise room		1 per exercise room	1 per exercise room	1 per exercise room
Public or professional offices <sup>15</sup>	Same as Office or Public Buildings for employee use <sup>15</sup>		Same as Office or Public Buildings for employee use <sup>15</sup>	Same as Office or Public Buildings for employee use <sup>15</sup>	Same as Office or Public Buildings for employee use <sup>15</sup>
Restaurants, pubs and lounges <sup>11, 15</sup>	50 1-150 3: 151-300	Female 1: 1-50 2: 51-150 4: 151-300	Male 1: 1-150	Male 1: 1-150 2: 151-200 3: 201-400	Female 1: 1-150 2: 151-200 3: 201-

					400	
		Over 300, add 1 fixture for each additional 500 males and one for each 150 females	Over 150, add 1 fixture for each additional 150 males.		Over 400, add 1 fixture for each additional 400 persons.	
Retail or Wholesale Stores	100 01-200 01-400	Female 1: 1-25 2: 26-100 4: 101-200 6: 201-300 8: 301-400	Male 0: 0-25 1: 26-100 2: 101-200 3: 201-400 4: 401-600		1 per 2 water closets	0: 1-30 <sup>17</sup> 2: 31-150 One additional drinking fountain for each 150 persons thereafter
		Over 400, add one fixture for each additional 500 males and one for each 150 females	Over 600, add one fixture for each additional 300 males			
Schools—for staff use All school	15 5-35 3: 36-55	Female 1: 1-15 2: 16-35 3: 36-55	Male 1 per 50	per 40	Female 1 per 40	
		Over 55, add 1 fixture for each additional 40 persons				
Schools—for student use Nursery	20 2: 21-50	Female 1: 1-20 2: 21-50		1: 1-25 2: 26-50	Female 1: 1-25 2: 26-50	1 per 150 <sup>12</sup>
		Over 50, add 1 fixture for each additional persons		Over 50, add 1 fixture for each additional 50 persons		
Elementary	per 30	Female 1 per 25	Male 1 per 75	Male per 35	Female 1 per 35	1 per 150 <sup>12</sup>
Secondary	per 40	Female 1 per 30	Male 1 per 35	Male per 40	Female 1 per 40	1 per 150 <sup>12</sup>
Others (colleges, universities, adult centers, etc.)	per 40	Female 1 per 30	Male 1 per 35	Male per 40	Female 1 per 40	1 per 150 <sup>12</sup>
Worship places educational and activities Unit	per 150	Female 1 per 75	Male 1 per 150		1 per 2 water closets	1 per 150 <sup>12</sup>

Type of Building <sup>2</sup> or Occupancy	Water Closets <sup>14</sup> (Fixtures per Person)	Urinals <sup>5, 10</sup> (Fixtures per Person)		Lavatories (Fixtures per Person)	Bathtubs or Showers (Fixtures per Person)	Drinking <sup>3, 13, 17</sup> Fountains (Fixtures per Person)	
		15	Female 1 per 75			Male 1 per 150	
Worship places principal assembly place		15	Female 1 per 75	Male 1 per 150	1 per 2 water closets		1 per 150 <sup>12</sup>
1 The figures shown are based upon one (1) fixture being the minimum required for the number of persons indicated or any fraction thereof.							
2 Building categories not shown on this table shall be considered separately by the Authority Having Jurisdiction.							
3 Drinking fountains shall not be installed in toilet rooms.							
4 Laundry trays. One (1) laundry tray or one (1) automatic washer standpipe for each dwelling unit or one (1) laundry tray or one (1) automatic washer standpipe, or combination thereof, for each twelve (12) apartments. Kitchen sinks, one (1) for each dwelling or apartment unit.							
5 For each urinal added in excess of the minimum required, one water closet shall be permitted to be deducted. The number of water closets shall not be reduced to less than two-thirds (2/3) of the minimum requirement.							
6 As required by PSAI Z4.1, <i>Sanitation in Places of Employment</i> .							
7 Where there is exposure to skin contamination with poisonous, infectious, or irritating materials, provide one (1) lavatory for each five (5) persons.							
8 Twenty-four (24) lineal inches (610 mm) of wash sink or eighteen (18) inches (457 mm) of a circular basin, when provided with water outlets for such space, shall be considered equivalent to one (1) lavatory.							
9 Laundry trays, one (1) for each fifty (50) persons. Service sinks, one (1) for each one hundred (100) persons. Service sinks are required in all occupancies listed in Table 4-1 with the exception of dwellings.							
10 General. In applying this schedule of facilities, consideration shall be given to the accessibility of the fixtures. Conformity purely on a numerical basis may not result in an installation suited to the needs of the individual establishment. For example, schools should be provided with toilet facilities on each floor having classrooms.							
a. Surrounding materials, wall, and floor space to a point two (2) feet (610 mm) in front of urinal lip and four (4) feet (1,219 mm) above the floor, and not less than two (2) feet (610 mm) to each side of the urinal shall be lined with non-absorbent materials.							
b. Trough urinals shall be prohibited.							
11 A restaurant is defined as a business that sells food to be consumed on the premises.							
a. The number of occupants for a drive-in restaurant shall be considered as equal to the number of parking stalls.							
b. Hand-washing facilities shall be available in the kitchen for employees.							
12 Where food is consumed indoors, water stations shall be permitted to be substituted for drinking fountains. Offices, or public buildings for use by more than six (6) persons shall have one (1) drinking fountain for the first one hundred fifty (150) persons and one (1) additional fountain for each three hundred (300) persons thereafter.							
13 There shall be at least one (1) drinking fountain per occupied floor in schools, theatres auditoriums, dormitories, offices, or public buildings.							
14 The total number of water closets for females shall be equal to the total number of water closets and urinals required for males. This requirement shall not apply to Retail or Wholesale Stores.							
15 For smaller-type Public and Professional Offices such as banks, dental offices, law offices, real estate offices, architectural offices, engineering offices, and similar uses. A public area in these							

offices shall use the requirements for Retail or Wholesale Stores.

16 Recreation or community room in multiple dwellings or apartment buildings, regardless of their occupant load, shall be permitted to have separate single-accommodation facilities in common-use areas, within tracts or multi-family residential occupancies where the use of these areas is limited exclusively to owners, residents, and their guests. Examples are community recreation or multi-purpose areas in apartments, condos, townhouses, or tracts.

17 A drinking fountain shall not be required in occupancies of 30 or less. When a drinking fountain is not required, then footnotes 3, 12, and 13 are not applicable.

**15.12.430420 IBC Chapter 30, Section 2003.73002.7 Common enclosure with stairway— Amended.**

IBC Chapter 30, Section 3002.7 Common enclosure with stairway, is hereby amended to read in its entirety as follows:

**SECTION 3002**  
**HOISTWAY ENCLOSURES**

**3002.7 Common enclosure with stairway.** Elevators shall not be in a common shaft enclosure with a stairway unless allowed as per Section 1022.

**15.12.440430 IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices— Deleted.**

IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices, is hereby deleted in its entirety.

**SECTION 3109**  
**SWIMMING POOL ENCLOSURES AND SAFETY DEVICES**

**15.12.440 IBC Chapter 32, Section 3202.1.4 Space below sidewalk – Added.**

ICB Chapter 32, Section 3202.1.4 Space below sidewalk is hereby added to read in its entirety as follows:

**3202.1.4 Space below sidewalk.** The space adjoining a building below a sidewalk on public property may be used and occupied in connection with the building for any purpose not inconsistent with this code or other laws or ordinances regulating the use and occupancy of such spaces on condition that the right to so use and occupy may be revoked by the City at any time and that the owner of the building will construct the necessary walls and footings to separate such space from the building and pay all costs and expenses attendant therewith.

Footings located at least 8 feet (2438 mm) below grade may project not more than 12 inches (305 mm).

**15.12.450 IBC Chapter 32, Section 3202.5 Projection into alleys – Added.**

IBC Chapter 32, Section 3202.5 Projection into alleys is hereby added to read in its entirety as follows:

**3202.5 Projection into alleys.** No part of any structure or any appendage thereto shall project into any alley.

Exceptions:

1. A curb or buffer block may project not more than 9 inches (229 mm) and not exceed a height of 9 inches (229 mm) above grade.

2. Footings located at least 8 feet (2438 mm) below grade may project not more than 12 inches (305 mm).

**15.12.450460 IBC Chapter 32, Section 3202.56 Public right-of-way–Structures prohibited–Exceptions–Added.**

IBC Chapter 32, Section 3202.56 Public right-of- way–Structures–Exceptions, is hereby added to read in its entirety as follows:

**SECTION 3202**  
**~~ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY~~**

**3202.56 Public rights-of-way–Structures prohibited–Exceptions.** See section 12.20.030 of the Rapid City Municipal Code.

**15.12.460470 IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property–Deleted.**

IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property, is hereby deleted in its entirety.

**SECTION 3308**  
**~~TEMPORARY USE OF STREETS, ALLEYS, AND PUBLIC PROPERTY~~**

**15.12.470480 IBC Chapter 34, Section 3412.2 Applicability–Amended.**

IBC Chapter 34, Section 3412.2 Applicability, is hereby amended to read in its entirety as follows:

**SECTION 3412**  
**~~COMPLIANCE ALTERNATIVES~~**

**3412.2 Applicability.** Structures existing prior to the adoption of this code, in which there is work involving additions, alterations or changes of occupancy shall be made to comply with the

requirements of this section or the provisions of Sections 3403 through 3409. The provisions in Sections 3412.2.1 through 3412.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.

**15.12.480490 IBC Appendix I, Section ~~H104.2~~I105.2 Footings–Amended.**

IBC Appendix I, Section ~~H104.2~~I105.2 Footings, is hereby amended to read in its entirety as follows:

**~~APPENDIX I~~  
~~PATIO COVERS~~**

**~~H104.2~~I105.2 Footings.** A patio cover shall be permitted to be supported on a concrete slab on grade without footings, provided the slab conforms to the provisions of Chapter 19 of this code, is not less than 3 1/2 inches (89 mm) thick and further provided that the columns do not support loads in excess of 750 pounds (3.36 kN) per column.

**15.12.490500 IBC Appendix J, Section ~~J101.2~~ Flood hazard areas–Amended.**

IBC Appendix J, Section ~~J101.2~~ Flood hazard areas, is hereby amended to read in its entirety as follows:

**~~APPENDIX J~~  
~~GRADING~~**

**~~J101.2~~ Flood hazard areas.** See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

**15.12.500510 IBC Appendix J, Section ~~J103.1~~ Permits required–Amended.**

IBC Appendix J, Section ~~J103.1~~ Permits required, is hereby amended to read in its entirety as follows:

**~~J103.1~~ Permits required.** Except as exempted in Section ~~J103.2~~, no grading shall be performed without first having obtained a permit therefore from the building official and paying the required grading permit fee and grading plan review fee as established ~~in Table 100-D and Table 100-E~~ by resolution of the Common Council. A grading permit does not include the construction of retaining walls or other structures.

**15.12.520 IBC Appendix J, Section ~~J103.2~~ Exemptions–Amended.**

IBC Appendix J, Section ~~J103.2~~ Exemptions, is hereby amended to read in its entirety as follows:

**~~J103.2~~ Exemptions.** A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided that the total amount of grading does not exceed 15 cubic yards, that there is no danger to the public, and that such grading will not adversely affect adjoining properties.

2. Excavation for construction of a structure permitted under this code.

3. Cemetery graves.

4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells, or trenches for utilities.

6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.

7. Exploratory excavations performed under the direction of a registered design professional.

Exemption from the permit requirements of this appendix 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.

#### **15.12.530 IBC Appendix J, Section J104.2 Site plan requirements–Amended.**

IBC Appendix J, Section J104.2 Site plan requirements, is hereby amended to read in its entirety as follows:

**J104.2 Site plan requirements.** In addition to the provisions of Section 107, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code. Site plans shall be prepared and stamped by a registered engineer, except that when the grading permit is for a recreational facility, a registered landscape architect may prepare the data required.

#### **15.12.540 IBC Appendix J, Section J104.3 Geotechnical report–Amended.**

IBC Appendix J, Section J104.3 Geotechnical report, is hereby amended to read in its entirety as follows:

**J104.3 Geotechnical report.** A geotechnical report prepared by a registered engineer shall be provided. The report shall contain at least the following:

1. The nature and distribution of existing soils;
2. Conclusions and recommendations for grading procedures;
3. Soil design criteria for any structures or embankments required to accomplish the proposed grading; and
4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

**Exception:** A geotechnical report is not required where the building code official determines that the nature of the work applied for is such that a report is not necessary.

**15.12.550 IBC Appendix J, Section J107.2 Surface preparation—Amended.**

IBC Appendix J, Section J107.2 Surface preparation, is hereby amended to read in its entirety as follows:

**J107.2 Surface preparation.** The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to a depth of at least 8 inches to provide a bond with the fill material.

**15.12.560 IBC Appendix J, Section J109.1 General—Amended.**

IBC Appendix J, Section J109.1 General, is hereby amended to read in its entirety as follows:

**J109.1 General.** Unless otherwise recommended by a registered engineer, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

**Exception:** Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).

**15.12.510570 IBC Appendix J, Section J110 Erosion control—Amended.**

IBC Appendix J, Section J110 Erosion control, is hereby amended to read in its entirety as follows:

**SECTION J110**  
**EROSION CONTROL**

**J110.1 General.** See Chapter 8.46, 8.48, and 8.50 of the Rapid City Municipal Code.

**15.12.580 Appendix A, Table 100-B Climactic and geographic design criteria—Adopted.**

When a provision in this code refers to a climactic condition or general condition found below, the following table shall be used, to the extent that it applies:

**APPENDIX A:  
TABLE 100-B CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

<i>GROUNDSNOW LOAD</i>	<i>WIND SPEED (MPH)</i>	<i>SEISMIC DESIGN CATEGORY</i>	<i>SUBJECT TO DAMAGE FROM</i>			<i>WINTER DESIGN TEMP</i>	<i>ICE BARRIER UNDERLAY REQUIREMENT</i>	<i>FLOOD HAZARDS</i>	<i>AIR FREEZING INDEX</i>	<i>MEAN ANNUAL TEMP</i>
			<i>Weathering</i>	<i>Frost line depth</i>	<i>Termite</i>					
42 psf <sup>1</sup>	90	B	Moderate	42"	None to slight	-7	Yes	<del>2-18-98</del> June 2013	1548	48°F

<sup>1</sup>The ground snow load for Rapid City shall be 42 psf and as per ASCE 705.

CITY OF RAPID CITY

\_\_\_\_\_  
Mayor

ATTEST

\_\_\_\_\_  
Finance Officer

(seal)

First Reading:  
Second Reading:  
Published:  
Effective: