North Dakota
DEPARTMENT OF COMMERCE

# North Dakota State Building Code

**Effective**
**November 1, 2007**

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**ALTERNATIVE FORMATS FOR PERSONS WITH DISABILITIES ARE AVAILABLE UPON REQUEST**

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## ACKNOWLEDGMENTS

The updating of the North Dakota State Building Code would not have been possible without the assistance of the Building Code Advisory Committee and the cities, counties, and organizations that were deemed eligible under the Administrative Rule (Article 108-01) and N.D.C.C. 54-21.3-03 were available to vote during the updating process. Their interest and expertise have resulted in a state building code that not only consists of the most up-to-date codes (the 2006 International Codes), but also reflects the needs and concerns of the jurisdictions of the state in amendments to those codes. We would also like to thank the cities of Fargo, Devils Lake and North Dakota Chapter of the American Institute of Architects the for proposing amendments to the 2006 International Codes for consideration in updating the State Building Code.

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## INTRODUCTION

The purpose of this document is to identify the building and related codes and state amendments to those codes that together make up the North Dakota State Building Code. Also included in this document are a brief history of the state building code; information on how to obtain copies of the four codes that make up the state building code; the state law (N.D.C.C. 54-21.3) that provides for the state building code; the American with Disabilities Act Accessibility Guidelines (ADAAG) Conformance Statement; and a sample ordinance for local adoption of the state building code.

## HISTORY OF THE NORTH DAKOTA STATE BUILDING CODE

In 1979, the 46th North Dakota Legislative Assembly created the North Dakota State Building Code. At the same time, the Legislature amended N.D.C.C. Sections 11-33-01, 40-47-01, and 58-03-11 relating to the authority of cities, townships, and counties to zone to reflect compliance with the state building code. The Legislature directed that the state building code would consist of the Uniform Building Code published by the International Conference of Building Officials. In 1985, the 49th Legislative Assembly added the Uniform Mechanical Code, also published by the International Conference of Building Officials.

Until 1991, the Legislature maintained the authority to update the state building code, but this process did not permit the state to update the state building code in a timely manner as new editions of the Uniform Building Code and Uniform Mechanical Code were published. In 1991, the Legislature provided for the state building code to be updated as new editions of the codes are published. This procedure, however, was later declared unconstitutional. As a result, in 1993 the Legislative Assembly shifted the responsibility for updating the state building code to the Office of Management and Budget, which then designated the Office of Intergovernmental Assistance (now the Division of Community Services) to adopt rules to implement and periodically update and to amend the code. The Legislative Assembly also directed in 1993, that effective August 1, 1994, any city, township, or county that elects to administer and enforce a building code shall adopt and enforce the state building code. However, the Legislative Assembly also provided for the ability for a city, county, or township to amend the state building code to conform to local needs. The first Administrative Rule (Article 4-08-01) for updating the state building code became effective December 1, 1994.

In 2001, the 57th Legislative Assembly amended N.D.C.C. 54-21.3-03, deleting the reference to the Uniform Building Code and Uniform Mechanical Code because they were no longer being published. In their place, the Legislative Assembly designated the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code as the codes that would make up the state building code. The first version of these codes to be adopted was the 2000 edition. The Legislative Assembly also created a Building Code Advisory Committee to help write administrative rules and to develop recommendations on proposed code amendments. A new Administrative Rule (Article 108, Chapter 108-01) to implement, amend, and periodically update the state building code became effective July 22, 2002.

## CURRENT NORTH DAKOTA STATE BUILDING CODE

Effective November 1, 2007, the North Dakota State Building Code consists of the 2006 International Building Code (IBC), International Residential Code (IRC), International Mechanical Code (IMC), and International Fuel Gas Code (IFGC) published by the International Code Council (ICC). **NO APPENDICES ARE ADOPTED**.

Also note that the State Building Code does not include the International Property Maintenance Code, the International Fire Code, or the International Energy Code. These codes, to be in effect, must be adopted separately by each city, county, or township.

To obtain copies of these codes, contact:

International Code Council
4051 W Flossmoor Road;
Country Club Hills, IL 60478-5771
[P] 1-888-ICC-SAFE (422-7233); [F] 1-800-214-7167

We encourage each city, township, and county that has elected or elects to enforce building codes to contact the International Code Council to become a member. This will entitle the jurisdiction to certain free publications, member rates for books and materials, and free technical assistance.

## REQUIREMENT TO ADOPT THE NORTH DAKOTA STATE BUILDING CODE

Effective August 1, 1994, N.D.C.C. 54-21.3-03 cities, townships, and counties that elect to enforce a building code are responsible for adopting and enforcing the state building code, but may amend the code to conform to local needs.

State agencies are responsible for assuring that plans and specifications for alterations and new construction of their buildings comply with the state building code, and that all work is inspected for compliance with the state building code. Schools located in jurisdictions that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction comply with the state building code.

Local governments that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction of their buildings comply with the state building code.

# NORTH DAKOTA CENTURY CODE
# CHAPTER 54-21.3-03
# STATE BUILDING CODE

## 54-21.3-01. Purposes of Chapter.

The purposes of this chapter are to:

1. Provide the citizens of this state with nationally recognized standards and requirements for construction and construction materials.

2. Eliminate restrictive, obsolete, conflicting, and unnecessary construction regulations that tend to increase construction costs unnecessarily or restrict the use of new materials, products, or methods of construction or provide preferential treatment to types or classes of materials or products or methods of construction.

3. Ensure adequate construction of buildings throughout the state and to adequately protect the health, safety, and welfare of the people of this state.

## 54-21.3-02. Definitions.

As used in this chapter, unless the context requires otherwise:

1. "Agricultural purposes" includes purposes related to agriculture, farming, ranching, dairying, pasturage, horticulture, floriculture, viticulture, and animal and poultry husbandry.

2. "Building" means a combination of any materials fixed to form a structure and the related facilities for the use or occupancy by persons, or property. The word "building" shall be construed as though followed by the words "or part or parts thereof".

3. "City" means any city organized under the laws of this state.

4. "Construction" means the construction, erection, reconstruction, alteration, conversion, or repair of buildings.

5. "Jurisdictional area" means the area within which a city or township has zoning jurisdiction.

6. "State building code" means the state building code provided for in this chapter.

## 54-21.3-03. State Building Code.

1. The department of commerce, in cooperation with the state building code advisory committee, shall adopt rules to implement, amend, and periodically update the state building code, which must consist of the international building, residential, mechanical, and fuel gas codes.

2. The state building code advisory committee consists of:

    a. Two representatives appointed by the North Dakota building officials association, one of whom must be from a jurisdiction of fewer than ten thousand people.

    b. One representative appointed by the North Dakota chapter of the American institute of architects.

    c. One representative appointed by the North Dakota society of professional engineers.

    d. One representative appointed by the North Dakota association of builders.

    e. One representative appointed by the North Dakota association of mechanical contractors.

    f. One representative appointed by the associated general contractors.

    g. A fire marshal appointed by the state fire marshal.

    h. One individual appointed by the state electrical board.

3. The state building code advisory committee shall meet with the commissioner of the department of commerce or a designee of the commissioner at least once each calendar year to address proposed amendments to the state building code. The commissioner of the department of commerce may not adopt an amendment to the state building code unless the amendment is approved by a majority vote of:

    a. One representative appointed by the North Dakota chapter of the American institute of architects;

    b. One representative appointed by the North Dakota society of professional engineers;

    c. One representative appointed by the North Dakota association of builders;

    d. One representative appointed by the North Dakota association of mechanical contractors;

    e. One representative appointed by the associated general contractors; and

    f. Representatives of eligible jurisdictions as established by administrative rule.

4. For the purposes of manufactured homes, the state building code consists of the manufactured homes construction and safety standards under 24 CFR 3280 adopted pursuant to the Manufactured Housing Construction and Safety Standards Act [42 U.S.C. 5401 et seq.].

5. The governing body of a city, township, or county that elects to administer and enforce a building code shall adopt and enforce the state building code. However, the state building code may be amended by cities, townships, and counties to conform to local needs.

6. A modular residential structure or a pre-built home placed in the state must be constructed in compliance with the state building code. A modular residential structure or a pre-built home placed in a jurisdiction that has amended the state building code must be constructed in compliance with the state building code and the amendments adopted by that jurisdiction.

**54-21.3-04. Exemptions.**

1. The following statewide codes are exempt from this chapter:

   a. The Standards for Electrical Wiring and Equipment, as contained in North Dakota Administrative Code article 24-02.

   b. The State Plumbing Code, as contained in North Dakota Administrative Code article 62-03.

   c. The State Fire Code, as contained in the rules of the state fire marshal as provided in section 18-01-04.

2. The following buildings are exempt from this chapter:

   a. Buildings which are neither heated nor cooled.

   b. Buildings used whose peak design rate of energy usage is less than one watt per square foot [929.0304 square centimeters] or three and four-tenths British thermal units an hour per square foot [929.0304 square centimeters] of floor area.

   c. Restored or reconstructed buildings deliberately preserved beyond their normal term of use because of historical associations, architectural interests, or public policy, or buildings otherwise qualified as a pioneer building, historical site, state monument, or other similar designation pursuant to state or local law.

3. Any building used for agricultural purposes, unless a place of human habitation or for use by the public, is exempt from this chapter.

**54-21.3-05. Enforcement of Code by City, Township, or County - Relinquishment.**

A city or township may administer and enforce the state building code only within its jurisdictional area. A county may administer and enforce the state building code within those areas of the county in which the state building code is not administered by a city or township. Cities and townships may relinquish their authority to administer and enforce the state building code to the county in which they are located in the manner provided by section 11-33-20.

The governing body of a city, township, or county electing to administer and enforce the state building code may designate an enforcement agency. Cities, townships, and counties may provide by agreement for joint administration and enforcement and may contract for private enforcement of the state building code.

## SCOPE OF THE STATE BUILDING CODE

**Administrative Rule Article 108, Chapter 108-01**, provides for the following scope for the state building code:

1. It supplements all laws defined within the North Dakota Century Code relating to construction, alterations, improvements, and siting of buildings unless specifically exempted.

2. It applies to all cities, townships, and counties that elect to adopt and enforce building codes within their jurisdictional boundaries.

3. It applies to all state and local government buildings.

4. It applies to all public and private schools.

## HOW TO USE THE NORTH DAKOTA STATE BUILDING CODE

**FIRST**: You must purchase the 2006 edition of the IBC, IRC ,IMC, and IFGC. See page 4 for ordering these codes.

**SECOND**: Wherever the International Plumbing Code and International Electrical Code are referenced, you must substitute the reference with the North Dakota State Plumbing Code and the Wiring Standards of North Dakota. Also note that the State Building Code does not include the International Property Maintenance Code, the International Fire Code, or the International Energy Code. These codes, to be in effect, must be adopted separately by each city, county, or township.

**THIRD**: When using the IBC, IRC, IMC, and IFGC you should first identify if a particular section or chapter is amended by the state. State agencies, local governments, and schools must use the state building code and may only use less restrictive code provisions contained in the state amendments. Local jurisdictions may not impose more restrictive code provisions on state buildings unless they are included in the state amendments.

## CHAPTER 1 OF EACH INTERNATIONAL CODE AND FEE SCHEDULE

Chapter 1 of each of the four International Codes that make up the state building code is entitled Administration. The provisions in the Chapter provide for the administration and enforcement of each code by the enforcing jurisdiction. Since administration and enforcement of the state building code is the responsibility of each city, township, and county that elects to administer and enforce a building code, the state building code does not contain any amendments to Chapter 1. **It is up to each jurisdiction to determine how it wants to administer and enforce the state building code.**

One area no longer included in the International Codes is the suggested permit fee schedule. For your reference, included below is the suggested fee schedule from the 1997 Uniform Building Code:

| **Table 1-A Building Permit Fees** | |
|---|---|
| **Total Valuation** | **Fee** |
| $1.00 to $500 | $23.50 |
| $501to $2,000.00 | $23.50 for the first $500.00 plus $3.05 for each additional $100.00, or fraction thereof, to and including $2,000.00. |
| $2,001to $25,000.00 | $69.25 for the first $2,000.00 plus $14.00 for each additional $1,000.00, or fraction thereof, to and including $25,000.00. |
| $25,001to $50,000.00 | $391.25 for the first $25,000.00 plus $10.10 for each additional $1,000.00, or fraction thereof, to and including $50,000.00. |
| $50,001to $100,000.00 | $643.75 for the first $50,000.00 plus $7.00 for each additional $1,000.00, or fraction thereof, to and including $100,000.00. |
| $100,001to $500,000.00 | $993.75 for the first $100,000.00 plus $5.60 for each additional $1,000.00, or fraction thereof, to and including $500,000.00. |
| $500,001to $1,000,000.00 | $3,233.75 for the first $500,000.00 plus $4.75 for each additional $1,000.00, or fraction thereof, to and including $1,000,000.00. |
| $1,000,001.00 and up | $5,608.75 for the first $,1,000,000.00 plus $3.65 for each additional $1,000.00, or fraction thereof. |
| Other Inspections and Fees: | |
| 1. Inspections outside of normal business hours (minimum charge - two hours) | $47.00 per hour[1] |
| 2. Re-inspection fees assessed under provisions of Section 305.8 | $47.00 per hour[1] |
| 3. Inspections for which no fee is specifically indicated (minimum charge - one-half hour) | $47.00 per hour[1] |
| 4. Additional plan review required by changes, additions or revisions to plans (minimum charge - one-half hour) | $Actual Costs[2] |
| 5. For use of outside consultants for plan checking and inspections, or both | $47.00 per hour[1] |

[1]Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

[2]Actual costs include administrative and overhead costs.

## IDENTIFICATION OF AMENDMENTS

This section presents the adopted state amendments to the 2006 edition of the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code. These amendments were approved through the voting procedures in Article 108-01 of the North Dakota Administrative Code on September 19th of 2007. The amendments to each code are presented separately, with each Chapter and section containing an amendment highlighted in bold letters and numbers. The type of amendment made to the section, table, or figure is indicated by the terms revise, add, or delete underneath the section, table, or figure number. Wherever a new section is added, the notice to add appears in bold letters above the new section designation. The following describes what each designation means:

- Revise - indicates that a chapter, section, table, or figure has been changed due to a deletion or substitution. Substituted language or specifications are underlined, and new tables or figures are identified

- Add - indicates new language or specifications have been added, without changing existing language or specifications. Additions are underlined.

- Delete - indicates complete deletion of a chapter, section, table, or figure or reassignment as an Appendix.

## FLOOD RESISTANCE PROVISIONS

A number of proposed amendments called for deleting all references to the flood resistance provisions in the IBC and IRC. The Building Code Advisory Committee recommended disapproving these proposed amendments, but the cities, counties, and organizations that participated in the voting process, elected to overturn the committee's recommendations and delete the flood resistance provisions from the State Building Code. Their reasoning is based on the fact that most jurisdictions participate in the National Flood Insurance Program (NFIP) and are subject to similar requirements. They may in fact have additional local requirements. They felt that to retain the flood resistance provisions in the codes would be confusing. However, even though these provisions are deleted from the State Building Code, a local jurisdiction may still refer to them.

The following flood related sections are deleted from the adoption of the 2006 IBC and IRC.

| **2006 International Building Code** | **2006 International Residential Code** |
|---|---|
| **1403.5** | **R301.2.4** |
| **1403.6** | **R324** |
| **1612** | **M1301.1.1** |
| **1803.4** | **M1401.5** |
| | **M1601.3.8** |
| | **M1701.6** |
| | **M2001.4** |
| | **M2201.6** |
| | **G2404.7** |

## 2006 INTERNATIONAL RESIDENTIAL CODE AMENDMENTS

**NOTE: Wherever the International Plumbing Code and International Electrical Code are referenced, substitute the reference with the North Dakota State Plumbing Code and Wiring Standards of North Dakota.**

## CHAPTER 2
## DEFINITIONS

### R201.3 Terms defined in other codes.

Revise as follows

Terms defined in other codes. Where terms are not defined in this code such terms shall have meanings ascribed to them as in other code publications of the International Code Council. Wherever the term 'International Plumbing Code' and/or 'International Private Sewage Disposal Code' is used in the International Residential Code, it shall mean the North Dakota State Plumbing Code. Wherever the term 'ICC Electrical Code' is used in the International Residential Code, it shall mean the North Dakota State Wiring Standards.

## CHAPTER 3
## BUILDING PLANNING

### R301.2.4 Floodplain construction.

Delete

Section R301.2.4 is hereby deleted in its entirety.

### Table 302.1, final column: Exterior walls.

Revise as follows:

| Minimum Fire Separation Distance |
|---|
| 0 feet |
| 3 feet |
| 2 feet |
| 3 feet |
| < 3 feet |
| 3 feet |
| 5 feet |
| < 5 feet |
| 5 feet |

**R307.1 Space required**

Revise as follows:

Space required. Fixtures shall be spaced as per Figure R307.2, with the exception of the clearance in front of water closets and bidets which shall be at least 24 inches.

**R309.2 Separation required.**

Revise as follows:

The garage shall be separated from the residence and its attic area by not less than ½-inch Type X gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch Type X gypsum board or equivalent. Garages less than 6 feet from a dwelling unit on the same lot shall be protected with not less than ½-inch Type X gypsum board applied to the interior side of exterior walls that are within this area.

**R310.1 Emergency escape and rescue required.**

Revise as follows:

**Exceptions:**

1. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 $m^2$)

2. Below grade emergency escape and rescue windows may have a maximum sill height of 48 inches.

**R310.1.1 Minimum opening area.**

Delete

Exception

**R310.2.1 Ladders and steps.**

Add as follows:

Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position or, install a minimum 30"x16" permanently attached platform in the window

well, that will reduce the vertical depth of the window well to no more than 42 inches below the top of the window well and that will not impede the operation of the window. Ladders or steps required by this section shall not be required to comply with Sections R311.5 and R311.6. Ladders or rungs shall have a inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the window well.

Exception: Terraced window wells with a maximum of 24" per vertical rise and minimum of 12" horizontal projections on each level shall also be allowed in accordance with Figures 310.2.1(1) and 310.2.1(2).

**R311.4.3 Exceptions Landing at doors.**

Add as follows:

> 4. A floor or landing is not required at the exterior side of sliding doors and in-swinging doors opening onto a patio, and in-swinging doors opening into an attached garage.

**R311.5.3.1 Riser height.**

Revise as follows:

The maximum riser height shall be 8 inches. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

**R311.5.3.2 Tread depth.**

Revise as follows:

The minimum tread depth shall be 9 inches the tread depth shall be measured…Winder treads shall have a minimum tread depth of 9 inches measured…

**R311.5.4 Exceptions Landings for stairways.**

Revise as follows:

Exceptions:

1. A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.

2. A floor or landing is not required at the top of an exterior flight of stairs serving sliding doors and in-swinging doors opening onto a patio.

**R313.2 Location.**

Add as follows:

3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

**R324 Flood-resistant construction.**

Delete

Section R324 is hereby deleted in its entirety.

## CHAPTER 4
## FOUNDATIONS

**R401.3 Drainage.**

Revise as follows:

Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection. Lots shall be graded to drain surface water away from foundation walls.

**R403.1.4.1, Exceptions 1, 2, and 3. Frost protection.**

Revise as follows:

Exceptions:

1. Protection of freestanding accessory structures of light framed construction shall not be required.

2. Protection of freestanding, accessory structures with an area of 400 square feet (37 $m^2$) or less, of other than light-framed construction shall not be required.

3. Decks need not be provided with footings that extend below the frost line.

**Table R404.1(1)**

Delete entire table

**Table R404.1(2)**

Delete entire table

**Table R404.1(3)**

Delete entire table

**Tables R404.1(1), R404.1(2) and R404.1(3), together with its illustration, are hereby deleted in their entirety.**

**R404.1.1 Masonry foundation walls.**

Revise as follows:

Concrete masonry and clay masonry foundation walls shall be constructed as set forth in Tables R404.1.1(1), R404.1.1(2), or Tables R404.1.1(3) and Figures 404.1(1) and 404.1(2) and shall also comply with the provisions of Sections R606, R607 and R608.

**Table 404.1.1(6) Minimum reinforcement for concrete foundation walls**

Add as follows:

| **Minimum Reinforcement for Concrete Foundation Walls** | | |
|---|---|---|
| Wall Height (h) feet | Wall Thickness (t) inches | Vertical Reinforcing |
| 8 | 8 | #4 @ 24” o.c.<br>#5 @ 40” o.c. |
| | 10 | #4 @ 30” o.c.<br>#5 @ 50” o.c. |
| 9 | 8 | #4 @ 18” o.c.<br>#5 @ 28” o.c. |
| | 10 | #4 @ 24” o.c.<br>#5 @ 36” o.c. |
| 10 | 10 | #4 @ 16” o.c.<br>#5 @ 26” o.c. |

Notes:

1. Chart is based on an active soil pressure of 45 pounds per cubic foot (pcf).
2. Reinforcing steel shall be ASTM A615 Fy – 60,000 pounds per square inch (psi).
3. The vertical reinforcing bars are to be located on the inside face.
4. Minimum concrete strength $Fc^1$ = 3,000 pounds per square inch (psi).

Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced.

**Figure 404.1.1(6) Masonry foundation walls.**

Add as follows:

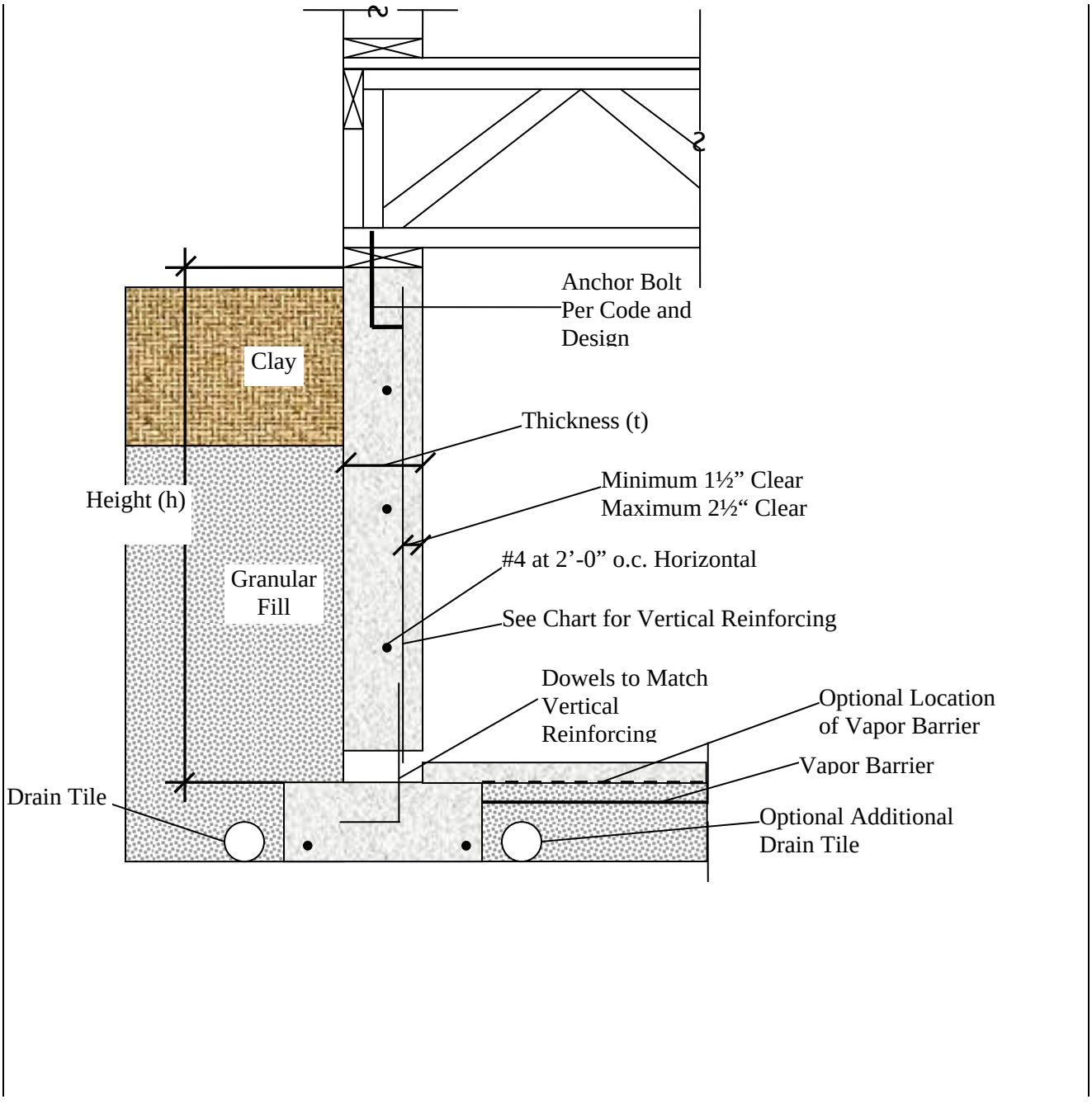


**Table 404.1.1(7) Foundation wall reinforcing**

Add as follows:

**Table R404.1.1(7)**
**Foundation Wall Reinforcing**

**Active Pressure = 65 pcf**

| **Minimum Reinforcement for Concrete Foundation Walls** | | |
|---|---|---|
| Wall Height (h) Feet | Wall Thickness (t) Inches | Vertical Reinforcing |
| 8 | 8 | #4 @ 18” o.c.<br>#5 @ 26” o.c.<br>#6 @ 40” o.c. |
| | 10 | #4 @ 24” o.c.<br>#5 @ 36” o.c.<br>#6 @ 52” o.c. |
| 9 | 8 | #4 @ 12” o.c.<br>#5 @ 18” o.c.<br>#6 @ 26” o.c. |
| | 10 | #4 @ 16” o.c.<br>#5 @ 24” o.c.<br>#6 @ 36” o.c. |
| 10 | 10 | #4 @ 12” o.c.<br>#5 @ 18” o.c.<br>#6 @ 24” o.c. |

Notes:

1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).

2. Reinforcing steel shall be ASTM A615 Fy – 60,000 pounds per square inch (psi).

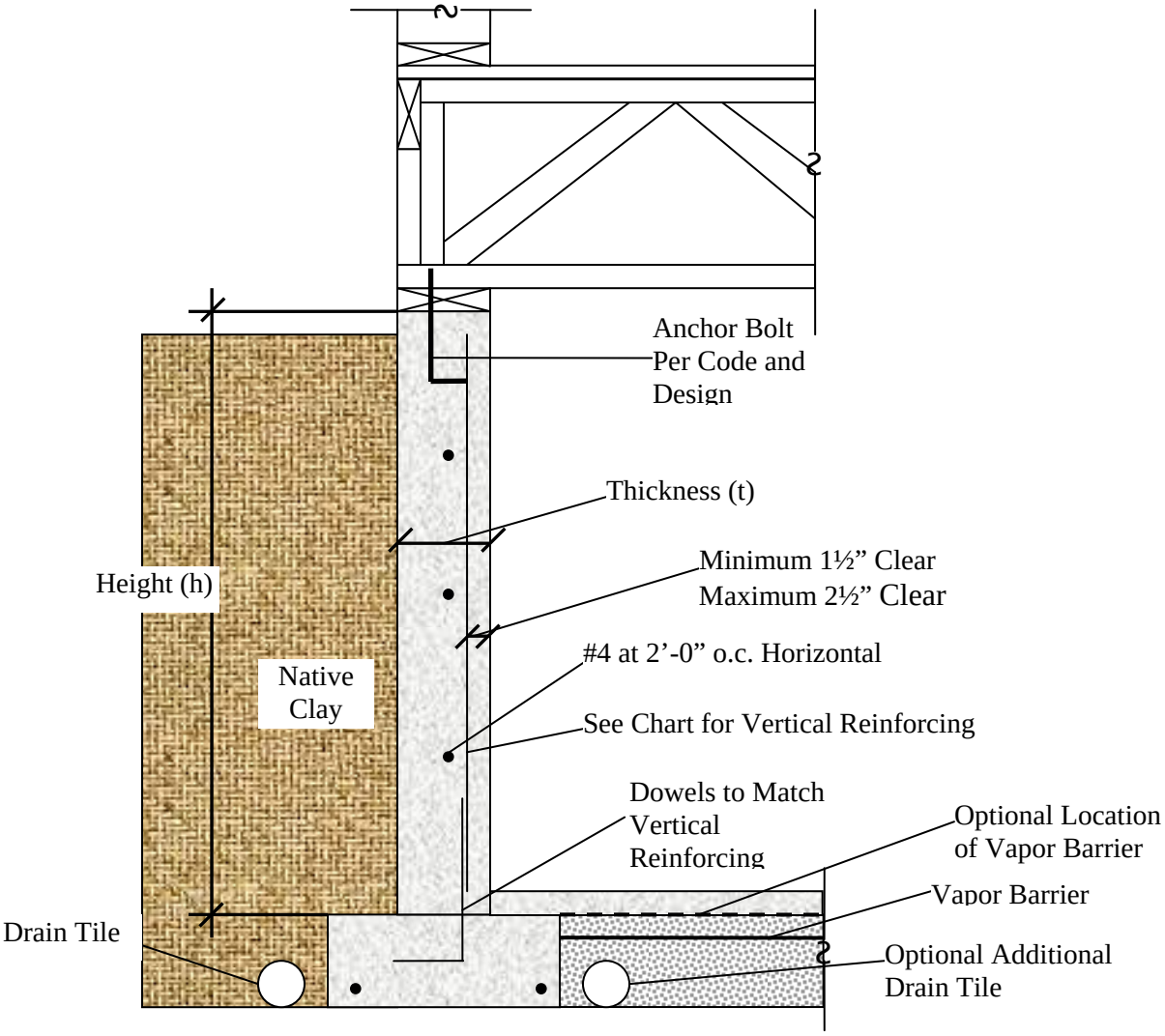
3. The vertical reinforcing bars are to be located on the inside face.

4. Minimum concrete strength $Fc^1$ = 3,000 pounds per square inch (psi).

Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced

**Figure 404.1.1(7) Foundation wall reinforcing**

Add as follows:




**R404.1.2 Concrete foundation walls.**

Revise as follows:

Concrete foundation walls. Concrete foundation walls shall be constructed as set forth in Tables R404.1.1(5), R404.1.1(6), and R404.1.1(7), and Figures R404.1.1(6) or R404.1.1(7) and shall also comply with the provisions of this section and the applicable provisions of Section R402.2.

**Section: R405.2.3 Drainage system.**

Revise as follows:

In other than Group I soils, a sump shall be provided to drain the porous layer and footings. The sump shall be at least 18 inches in diameter or 16 inches square, shall extend at least 24 inches (610 mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. The drainage system shall discharge into an approved sewer system or to daylight.

## CHAPTER 5
## FLOORS

**R506.2.3, Exception 4 Vapor retarder.**

Add as follows:

4. Attached garages.

## CHAPTER 7
## WALL COVERING

**R703.6.2 Plaster.**

Add as follows:

Plastering with portland cement plaster shall be not less than three coats when applied over metal lath or wire lath and shall be not less than two coats when applied over masonry, concrete, pressure-preservative treated wood or decay-resistant wood as specified in Section R319.1 or gypsum backing. If the plaster surface is completely covered by veneer or other facing material or is completely concealed, plaster application need be only two coats, provided the total thickness is as set forth in Table R702.1(1). Approved decorative coatings applied to a concrete or masonry surface shall be installed in accordance with the manufacturer's installation instructions.

## CHAPTER 8
## ROOF-CEILING CONSTRUCTION

**R808.1 Combustible insulation.**

Revise as follows:

Combustible insulation.

…. Recessed lighting fixtures installed in the building thermal envelope shall meet the requirements of the North Dakota State Wiring Standards.

## CHAPTER 9
## ROOF ASSEMBLIES

### R903.5 and Figure 903.5 Hail exposure.

Delete

Section R903.5 and Figure R903.5 are hereby deleted

### R905.2.5 Fasteners.

Revise as follows:

Fasteners for asphalt shingles shall be galvanized steel, stainless steel, aluminum or copper roofing nails, minimum 12 gage [0.105 inch (2.67 mm)] shank with a minimum 3/8 inch (9.5 mm) diameter head, ASTM F 1667, of a length to penetrate through the roofing materials and a minimum of ¾ inch (19.1 mm) into the roof sheathing <u>or other fasteners as approved by the building official and shingle manufacturer</u>. Where the roof sheathing is less than ¾ inch (19.1 mm) thick, the fasteners shall penetrate through the sheathing. Fasteners shall comply with ASTM F 1667.

### R907.3 Re-covering versus replacement.

Delete 907.3 Item 4:

## CHAPTER 11
## ENERGY EFFICIENCY

### Chapter 11 Energy efficiency.

Delete and substitute as follows:

Chapter 11 is hereby deleted in its entirety and relocated to appendices as Appendix S.

## CHAPTER 13
## GENERAL MECHANICAL SYSTEM REQUIREMENTS

### M1301.1.1 Flood-resistant installation.

Delete

Section M1301.1.1 is hereby deleted in its entirety.

## CHAPTER 14
## HEATING AND COOLING EQUIPMENT

### M1401.5 Flood hazard.

Delete

Section M1401.5 is hereby deleted in its entirety.

## CHAPTER 15
## EXHAUST SYSTEMS

### M1502.6 Duct length.

Revise as follows:

Length limitation. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm), <u>including two 90-degree elbows</u>, from the dryer location to the wall or roof termination. The maximum length of the duct shall be reduced 2.5 feet (762 mm) for each <u>additional</u> 45-degree (0.8 rad) bend and 5 feet (1524 mm) for each <u>additional</u> 90-degree bend. The maximum length of the exhaust duct does not include the transition duct…

## CHAPTER 16
## DUCT SYSTEMS

### M1601.3.1 Joints and seams.

Revise as follows:

Joints and seams. <u>When located outside of conditioned space,</u> joints of duct systems shall be made substantially airtight by means of tapes, mastics, gasketing, or other approved closure systems….

### M1601.3.4 Duct insulation.

Add as follows:

<u>4. All portions of the air distribution system shall be installed in accordance with Section M1601 and be insulated to an installed R-4.2 when system components are located within the building but outside of conditioned space, and R-8 when located outside of the building. When located within a building envelope assembly, at least R-8 shall be applied between the duct and that portion of the assembly furthest from conditioned space.</u>

**M1601.3.8 Flood hazard areas.**

Delete

Section M1601.3.8 is hereby deleted in its entirety.

**M1603 Minimum duct size.**

Add as follows:

M1603 - Minimum Duct Size

M1603.1 General**.** The minimum unobstructed total area of supply and return air ducts from a warm-air furnace shall be in accordance with the manufacturer's installation instructions, but shall not be less than 2 square inches (1290 MM sq) for each 1,000 Btu/h (293W) output rating of the furnace. The minimum unobstructed total area of the supply and return air ducts from a central air-conditioning unit and/or heat pump shall be in accordance with the manufacturer's installation instructions, but shall be not less than 6 square inches (3870 mm sq) for each 1,000 Btu/h (293W) nominal cooling output rating. Dampers, grilles, or registers installed for the purpose of controlling the supply airflow shall not be considered as obstructions.

## CHAPTER 17
## COMBUSTION AIR

**M1701.6 Opening location.**

Delete

Section M1701.6 is hereby deleted in its entirety.

**M1703.2 Two openings or ducts.**

Revise as follows:

Two openings or ducts. Outside combustion air shall be supplied through openings or ducts, as illustrated in Figures M173.2(1), M1703.2(2), M1703.2(3) and M1703.2(4). One opening shall be within 12 inches (305mm) of the top of the enclosure, and one within 12 inches (305mm) of the bottom of the enclosure. Openings are permitted to connect to spaces directly communicating with the outdoors, such as ventilated crawl spaces. The same duct or opening shall not serve both combustion air openings. The duct servicing the upper opening shall be level or extend upward from the appliance space.

**Figure M1703.2(3) Appliances located in confined spaces—all air taken from outdoors through ventilated attic,**

**Delete**

**Figure M1703.2(4) Appliances located in confined spaces—inlet air taken from ventilated crawl space and outlet air to ventilated attic,**

**Delete**

**Figure M1703.3 Appliances located in confined spaces—all air taken from outdoors through ventilated attic, inlet duct within outlet duct**

**Delete**

**Figures M1703.2(3), M1703.2(4) and M1703.3 are hereby deleted in their entirety.**

**Section M1703.3 All air from outdoors.**

Delete

Section M1703.3 is hereby deleted in its entirety.

## CHAPTER 18
## CHIMNEYS AND VENTS

**M1801.1 Venting required.**

Revise as follows:

Fuel-burning appliances shall be vented to the outside in accordance with their listing and label and manufacturer's installation instructions. Venting systems shall consist of approved chimneys or vents, or venting assemblies that are integral parts of labeled…….

## CHAPTER 20
## BOILERS AND WATER HEATERS

**M2001.4 Flood-resistant installation.**

Delete

Section M2001.4 is hereby deleted in its entirety

## CHAPTER 21
## HYDRONIC PIPING

**M2101.3 Protection of potable water.**

Revise as follows:

Protection of potable water. The potable water system shall be protected from backflow in accordance with the provisions listed in the North Dakota State Plumbing Code.

**M2101.10 Tests.**

Revise as follows:

Tests. New hydronic piping shall be isolated and tested hydrostatically at a pressure of not less than 100-pounds per square inch (psi) (689 kPa) for a duration of not less than 15 minutes.

## CHAPTER 22
## SPECIAL PIPING AND STORAGE SYSTEMS

**M2201.6 Flood-resistant installation.**

Delete

Section M2201.6 is hereby deleted in its entirety.

## CHAPTER 24
## FUEL GAS

**G2404.7 Flood hazard.**

Delete

Section G2404.7 is hereby deleted in its entirety.

**G2406.2, Exceptions 3 and 4 Prohibited locations.**

Delete

Section G2406.2 is hereby amended to delete items 3 and 4

**Figure G2407.6.1(1) All air from outdoors—inlet air from ventilated crawl space and outlet air to ventilated attic (see Section G2407.6.1)**

**Delete**

**Figure G2407.6.1(2) All air from outdoors through ventilated attic (see Section G2407.6.1). Delete**

Delete

Figures G2407.6.1(1) AND G2407.6.1(2) are hereby deleted in their entirety.

**Figure G2407.6.2 Single combustion air opening, all air from outdoors (see Section 304.6.2).**

Revise as follows:

Figure G2407.6.2 is hereby amended to delete the reference to an alternate opening location.

**G2407.11 Combustion air ducts.**

Revise as follows:

Section G2407.11 is hereby amended to delete item number 5.

**G2417.4.1 Test pressure.**

Revise as follows:

The test pressure to be used shall not be less than one and on half times the proposed maximum working pressure, but not less than 25 psig, irrespective of design pressure. Where the test pressure exceeds 125 psig, the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

**G2419.2 Drips.**

Revise as follows:

Where wet gas exists, a drip shall be provided at any point in the line of pipe where condensate could collect.

**G2425.8, Item 7 Equipment not required to be vented.**

Delete

Section G2425.8 is hereby amended by deletion of item number 7.

**G2425.12 Residential and low-heat appliances flue lining systems.**

Revise as follows:

Flue lining systems for use with residential-type and low-heat appliances shall be limited to the following:

1. Clay flue lining complying with the requirements of ASTM C 315 or equivalent when each appliance connected into the masonry chimney has a minimum input rating greater than 400,000 Btu/h. Clay flue lining shall be installed in accordance with Chapter 10.

2. Listed chimney liner systems complying with UL 1777.

3. Other approved materials that will resist, without cracking, softening, or corrosion, flue gases and condensate at temperatures up to 1800 F (982 C).

4. Aluminum (1100 or 3003 alloy or equivalent) not less than 0.032 inches thick up to 8 inches in diameter or stainless steel (304 or 430 alloy or equivalent) not less than 26 gauge (0.018 inches thick) to 8 inches in diameter or not less than 24 gauge (0.024 inches thick) 8 inches in diameter and larger.

When a metal liner is used other than a listed chimney liner a condensation drip tee shall be installed and supported in an approved manner.

**G2426.7 Protection against physical damage.**

Revise as follows:

…and shall extend a minimum of 1.5 inches (38.5 mm) above sole plates, below top plates and to each side of a stud, joist or rafter.

**G2427.5.2 Masonry chimneys.**

Revise as follows:

Masonry chimneys shall be built and installed in accordance with this code and shall be lined with approved clay flue lining, a listed chimney lining system, or other approved material that will resist corrosion, erosion, softening or cracking from vent gases at temperatures up to 1,800 F (982 C). Masonry chimneys shall be lined in accordance with Section G2425.12.

**G2439.5.1 Maximum length.**

Revise as follows:

> The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm), including two 90-degree elbows, from the dryer location to the wall or roof termination. The maximum length of the duct shall be reduced 2.5 feet (762 mm) for each additional 45-degree (0.79 rad) bend and 5 feet (15224 mm) for each additional 90-degree bend. The maximum length of the exhaust duct does not include the transition duct.

**G2442.6 Screen.**

Revise as follows:

Required outdoor air inlets shall be covered with a screen having ¼ inch (6.4 mm) openings. Required outdoor air inlets serving a nonresidential portion of a building shall be covered with screen having openings larger than ¼ inch (6.4 mm) and not larger than ½ inch.

**Section G2445 Un-vented Room Heaters.**

**Delete** Section G2445 is hereby deleted in its entirety.

## CHAPTERS 25-42

**Chapters 25-42**

Delete

Chapters 25 through 42 are hereby deleted in their entirety.

## 2006 INTERNATIONAL BUILDING CODE AMENDMENTS

## CHAPTER 3
## USE AND OCCUPANCY CLASSIFICATION

### 305.2 Day care.

Revise as follows:

The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than twelve children older than 2 ½ years of age, shall be classified as a Group E occupancy.

### 308.3.1 Child care facility.

Revise as follows:

A child care facility that provides care on a 24-hour basis to more than twelve children 2 ½ years of age or less shall be classified as Group I-2.

### 308.5 Group I-4, day care facilities.

Revise as follows:

A facility such as the above with twelve or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code…

### 308.5.2 Child care facility.

Revise as follows:

A facility that provides supervision and personal care on less than a 24-hour basis for more than twelve children 2 ½ years of age or less shall be classified as Group I-4.

Exception: A child day care facility that provides care for more than twelve but no more than 100 children 2 ½ years or less of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.

### 310.1 Residential Group R.

Revise as follows:

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

Adult facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Child care facilities that provide accommodations for twelve or fewer persons of any age for less than 24 hours.

Congregate living facilities with 16 or fewer persons.

Adult and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code.*

## CHAPTER 4
## SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

### 406.1.4 Paragraph 1

Revise as follows:

1. The private garage shall be separated from the dwelling unit and its attic area by means of a minimum 1/2-inch Type X gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 1/2-inch Type X gypsum board or equivalent. 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 13/8 inches (34.9 mm) thick, or doors in compliance with Section 715.4.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.

## CHAPTER 7
## FIRE-RESISTANCE-RATED CONSTRUCTION

### 705.6 Vertical continuity.

Add as follows:

6. Fire walls installed within detached structures of Group U occupancy may terminate at the underside of the roof sheathing provided such walls are not required to be fire resistive construction due to proximity to property lines.

## CHAPTER 9
## FIRE PROTECTION SYSTEMS

### 903.3.1.1 NFPA 13 sprinkler systems.

Add as follows:

Sprinkler heads in unoccupied mall tenant spaces may be installed at ceiling height if allowed by the code official. Permission will be granted on an individual basis and requires written documentation from the code official. Combustible storage shall not be allowed in these unoccupied tenant spaces if sprinkler heads are installed at ceiling height. Signage shall be provided outlining the storage restrictions.

### 907.2.10.1.1 Group R-1.

Add as follows:

4. In dwelling units where the ceiling height of a room open to the hallway serving the sleeping rooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

### 907.2.10.1.2 Groups R-2, R-3, R-4 and I-1.

Add as follows:

4. In dwelling units where the ceiling height of a room open to the hallway serving the sleeping rooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

## CHAPTER 10
## MEANS OF EGRESS

**1009.1 Stairway width.**

Add as follows:

5. Stairways used only to attend equipment or private stairways serving an occupant load of 10 or fewer persons and which are not accessible to the public.

**1009.3, Exceptions 4 and 6 Stair treads and risers.**

Revise as follows:

4. In occupancies in Group R-3, as applicable in Section101.2, within dwelling units in occupancies in Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 8 inches and the minimum tread depth shall be 9 inches, the minimum winder tread depth at the walk line shall be 10 inches, and the minimum winder tread depth shall be 6 inches. A nosing not less than 0.75 inch but not more than 1.25 inches shall be provided on stairways with solid risers where the tread depth is less than 11 inches.

5. …

6. Stairways used to attend equipment, to unoccupied roofs or private stairways serving an occupant load of 10 or fewer persons, maximum riser height may be 8 inches and the minimum tread depth may be 9 inches.

**1009.10, Exceptions 5-7 Handrails**

Add as follows:

**1009.10 Handrails.**

Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

**Exceptions:**

1. Aisle stairs …….handrails.

5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 occupancies do not require handrails.

6. Vehicle service pit stairways are exempt from the rules for stairway railing and guards, if they would prevent a vehicle from moving into a position over the pit.

7. Stairways used only to attend equipment or private stairways serving an occupant load of 10 or fewer persons and which are not accessible to the public are permitted to have a handrail on one side only.

**1026.1 General.**

**Exception**

Revise as follows:

1. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1

**1026.2, Exception**

Delete

Delete the Exception to Section 1026.2.

## CHAPTER 11
## ACCESSIBILITY

**1104.4, Exception 1**

Revise as follows:

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 shall not be required to stories and mezzanines above and below accessible levels in facilities that are less than three stories or that have an area of not more than 3,000 square feet (278.7 m2) per story.

### 1107.6.2.1 Apartment houses, monasteries and convents.

Revise as follows:

1107.6.2.1 Apartment houses, monasteries and convents.

Type B units shall be provided in apartment houses, monasteries and convents in accordance with Sections 1107.6.2.1.1 and 1107.6.2.1.2.

## CHAPTER 12
## INTERIOR ENVIRONMENT

### 1207 Sound transmission.

Delete

Section 1207 is hereby deleted in its entirety.

## CHAPTER 13
## ENERGY EFFICIENCY

### Chapter 13 Energy Efficiency

Delete

Chapter 13 is hereby deleted in its entirety.

## CHAPTER 14
## EXTERIOR WALLS

### 1403.5 Flood resistance.

Delete

Section 1403.5 is hereby deleted in its entirety.

### 1403.6 Flood resistance

Delete

Delete Section 1403.6

**1406.3 Balconies and similar projections.**

Add as follows:

**Exception**

5. Private balconies and similar appendages serving individual dwelling units on buildings of Type V construction.

## CHAPTER 15
## ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

**1507.2.6 Fasteners.**

Revise as follows:

Fasteners for asphalt shingles shall be galvanized, stainless steel, aluminum, or copper roofing nails, minimum 12 gage 0.105 inch (2.67 mm) shank with a minimum 0.375 inch-diameter (9.5 mm) head, of a length to penetrate through the roofing materials and a minimum of 0.75 (19.1 mm) into the roof sheathing or other fasteners as approved by the building official and shingle manufacturer. Where the roof sheathing is less than 0.75 inch (19.1 mm) thick, the nails shall penetrate through the sheathing. Fasteners shall comply with ASTM F 1667.

**Section 1510 Re-roofing.**

Delete

Section 1510 is hereby deleted and relocated as Appendix L.

## CHAPTER 16
## STRUCTURAL DESIGN

**1601.1 Scope.**

Add as follows:

It shall not be the responsibility of the building official to determine engineering requirements of this code. Exclusive of the conventional light-frame wood construction provisions referenced in Section 2308, the method to resist loads as referenced in this chapter is the responsibility of a structural engineer or other qualified design professional.

**1610. Exception Soil lateral loads**.

Revise as follows:

Exception: Basement walls extending not more than 9 feet below grade and supporting flexible floor systems shall be permitted to be designed for active pressure.

**Section 1612 Flood loads.**

Delete

Section 1612 is hereby deleted in its entirety.

## CHAPTER 17
## STRUCTURAL TESTS AND SPECIAL INSPECTIONS

**1704.1 General.**

Add as follows:

4. The frequency and amount of special inspections shall be as determined by the design professional of record. The continuous and periodic inspections referenced in Tables 1704.3, 1704.4, 1704.5.1, and 1704.5.3 shall be considered as guidelines for that determination.

## CHAPTER 18
## SOILS AND FOUNDATIONS

**1803.3 Site grading.**

Delete and substitute as follows

Section 1803.3 **Surface drainage.** Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection. Lots shall be graded to drain surface water away from foundation walls.

**1803.4 Grading and fill in flood hazard areas.**

Delete

Section 1803.4 is hereby deleted in its entirety and subsequent sections renumbered accordingly.

**1805.2.1, Exception Frost protection.**

Add as follows:

Section 1805.2.1 is hereby amended to add a new, final paragraph to the exception as follows:

Free-standing buildings used as Group U occupancies for the storage of private or pleasure-type motor vehicles constructed in accordance with Sections 406.1.1 and 406.1.2.

## CHAPTER 25
## GYPSUM BOARD AND PLASTER

**2512.1 Exterior plaster**

Revise as follows:

At the end of Section 2512.1 ADD Approved decorative coatings applied to a concrete or masonry surface shall be installed in accordance with the manufacturer's installation instructions.

## CHAPTER 29
## PLUMBING SYSTEMS

**Section 2901 Plumbing Systems.**

Revise as follows:

Section 2901 shall be amended to reference the North Dakota State Plumbing Code instead of the International Plumbing Code.

**Table 2902.1 Minimum number of required plumbing fixtures.**

Revise as follows:

Table 2902.1 is hereby amended as shown in the replacement Table 2902.1 following.

**[P] TABLE 2902.1**
**MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]**
**(See Sections 2902.2 and 2902.3)**

| No. | Classification | Occupancy | Description | Water Closets | | Lavatories | | Bathtubs or Showers | Drinking Fountains | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Male | Female | Male | Female | | | |
| 1 | Assembly (see Sections 2902.2, 2902.4, and 2902.4.1) | A-1[d] | Theaters and other buildings for the performing arts and motion pictures | 1 per 125 | 1 per 65 | 1 per 200 | | -- | 1 per 500 | 1 service sink |
| | | A-2[d] | Nightclubs, bars, taverns, dance halls and buildings for similar purposes | 1 per 40 | 1 per 40 | 1 per 75 | | -- | 1 per 500 | 1 service sink |
| | | | Restaurants, banquet halls and food courts | 1 per 60 | 1 per 60 | 1 per 200 | | -- | 1 per 500 | 1 service sink |
| | | A-3[d] | Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums | 1 per 125 | 1 per 65 | 1 per 200 | | -- | 1 per 500 | 1 service sink |
| | | | Passenger terminals and transportation facilities | 1 per 500 | 1 per 500 | 1 per 750 | | -- | 1 per 1,000 | 1 service sink |
| | | | Places of worship and other religious services | 1 per 150 | 1 per 75 | 1 per 200 | | -- | 1 per 1,000 | 1 service sink |
| | | A-4 | Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities | 1 per 75 for the first 1,500 and l per l20 for the remainder exceeding 1,500 | 1 per 40 for the first 1,500 and l per 60 for the remainder exceeding 1,500 | 1 per 200 | 1 per 150 | -- | 1 per 1,000 | 1 service sink |

| No. | Classification | Occupancy | Description | Water Closets | | Lavatories | | Bathtubs or Showers | Drinking Fountains | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Male | Female | Male | Female | | | |
| | | A-5 | Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities | 1 per 75 for the first 1,500 and l per l20 for the remainder exceeding 1,500 | 1 per 40 for the first 1,500 and l per 60 for the remainder exceeding 1,500 | 1 per 200 | 1 per 150 | -- | 1 per 1,000 | 1 service sink |
| 2 | Business (see Sections 2902.2, 2902.4 and 2902.4.1) | B | Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses | 1 per 40 | | 1 per 80 | | -- | 1 per 100 | 1 service sink |
| 3 | Educational | E | Educational facilities | 1 per 50 | | 1 per 50 | | -- | 1 per 100 | 1 service sink |
| 4 | Factory and industrial | F-1 and F-2 | Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials | 1 per 100 | | 1 per 100 | | | 1 per 400 | 1 service sink |
| 5 | Institutional | I-1 | Residential Care | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| | | I-2 | Hospitals, ambulatory nursing home patients[b] | 1 per room[c] | | 1 per room[c] | | 1 per 15 | 1 per 100 | 1 service sink |
| | | | Employees, other than residential care[b] | 1 per 25 | | 1 per 35 | | -- | 1 per 100 | -- |
| | | | Visitors, other than residential care | 1 per 75 | | 1 per 100 | | -- | 1 per 500 | -- |
| | | I-3 | Prisons[b] | 1 per cell | | 1 per cell | | 1 per 15 | 1 per 100 | 1 service sink |
| | | I-3 | Reformatories, detention centers and correctional centers[b] | 1 per 15 | | 1 per 15 | | 1 per 15 | 1 per 100 | 1 service sink |
| | | I-4 | Adult day care and child | 1 per 15 | | 1 per 15 | | -- | 1 per 100 | 1 service |

| No. | Classification | Occupancy | Description | Water Closets | | Lavatories | | Bathtubs or Showers | Drinking Fountains | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Male | Female | Male | Female | | | |
| | | | care | | | | | | | sink |
| 6 | Mercantile (see Section 2902.2, 2902.4, 2902.4.1 and 2902.4.2) | M | Retail stores, service stations, shops, salesrooms, markets and shopping centers | 1 per 300 | | 1 per 600 | | -- | 1 per 1,000 | 1 service sink |
| 7 | Residential | R-1 | Hotels, motels, boarding houses (transient) | 1 per sleeping unit | | 1 per sleeping unit | | 1 per sleeping unit | -- | 1 service sink |
| | | R-2 | Dormitories, fraternities, sororities and boarding house (not transient) | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| 7 | Residential | R-2 | Apartment house | 1 per dwelling unit | | 1 per dwelling unit | | 1 per dwelling unit | -- | 1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 2 dwelling units |
| | | R-3 | One- and two-family dwellings | 1 per dwelling unit | | 1 per dwelling unit | | 1 per dwelling unit | -- | 1 kitchen sink per dwelling unit; I automatic clothes washer connection per 20 dwelling units |

| No. | Classification | Occupancy | Description | Water Closets | | Lavatories | | Bathtubs or Showers | Drinking Fountains | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Male | Female | Male | Female | | | |
| | | R-4 | Residential care/assisted living Facilities | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| 8 | Storage (see Sections 2902.2, 2902.4 and 2902.4.1) | S-1 S-2 | Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard | 1 per 100 | | 1 per 100 | | | 1 per 1,000 | 1 service sink |

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.

b. Toilet facilities for employees shall be separate from facilities for inmates or patients.

c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient rooms shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.

d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.

**2902.2, Exception 2 Separate facilities.**

Revise as follows:

2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 10 or less.

## CHAPTER 31
## SPECIAL CONSTRUCTION

**3109 Swimming pool enclosures and safety devices.**

Revise as follows:

Section 3109 is hereby deleted and moved to Appendix M.

## 2006 INTERNATIONAL MECHANICAL CODE AMENDMENTS

## CHAPTER 2
## DEFINITIONS

### 201.3 Terms defined in other codes.

Revise as follows:

Terms defined in other codes. Wherever reference is made in this code to the International Plumbing Code it shall mean the North Dakota State Plumbing Code. Wherever in this code reference is made to the ICC Electrical Code it shall mean the National Electrical Code together with the North Dakota State Wiring Standards. Where terms are not defined in this code and are defined in the *International Building Code, ICC Electrical Code, International Fire Code*, *International Fuel Gas Code* or the *International Plumbing code,* such terms shall have meanings ascribed to them as in those codes.

## CHAPTER 3
## GENERAL REGULATIONS

### 305.4 Interval of support.

Revise as follows:

Section 305.4 is hereby amended by adding a new sentence to the end of the first paragraph to read as follows:

In addition to the requirements of Table 305.4, piping and tubing shall be supported within 2 feet (610 mm) of every bend or angle.

## CHAPTER 4
## GENERAL REGULATIONS

### Table 401.5 Opening sizes in louvers, grilles and screens protecting outdoor exhaust and air intake openings.

Revise as follows:

**TABLE 401.5**
**OPENING SIZES IN LOUVERS, GRILLES AND SCREENS PROTECTING OUTDOOR EXHAUST AND AIR INTAKE OPENINGS**

| OUTDOOR OPENING TYPE | MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION |
|---|---|
| Exhaust openings | Not < ¼ inch and not > ½ inch |
| Intake openings in residential occupancies | Not < ¼ inch and not > ½ inch |
| Intake openings in other than Residential occupancies | > ¼ inch and not > ½ inch |

**404.2 Minimum ventilation.**

Revise as follows:

Minimum ventilation. Automatic operation of the system shall not reduce the ventilation rate below 0.05 cfm per square foot (0.00025 $m^3s \cdot m^2$) of the floor area and the system shall be capable of producing a ventilation rate of 0.75 cfm per square foot (0.0038$m^3s$) of floor area.

**CHAPTER 5**
**EXHAUST SYSTEMS**

**504.6.1 Maximum length.**

Revise as follows:

The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location including two 90-degree elbows to the outlet terminal. The maximum length of the duct shall be reduced 2.5 feet (762 mm) for each additional 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each additional 90-degree (1.6 rad) bend. The maximum length of the exhaust duct does not include the transition duct.

**508.2 Compensating hoods.**

Revise as follows:

Compensating hoods. Manufacturers of compensating hood shall provide a label indicating minimum exhaust flow and/or maximum makeup airflow that provides capture and containment of the exhaust effluent. Short circuit compensating hoods are prohibited.

**508.2.1 Compensating hood make-up air.**

Add as follows:

Section 508.2.1 - Compensating Hood Make-up Air. Compensating hoods shall extract at least 40% of the required exhaust air flow from the kitchen area.

## CHAPTER 7
## COMBUSTION AIR

**701.4 Crawl space.**

Revise as follows:

Crawl space. For the purposes of this chapter, an opening to a naturally ventilated crawl space shall be considered equivalent to an opening to the outdoors.

**701.4.2 Attic space.**

Delete

Section 701.4.2 is hereby deleted in its entirety.

## CHAPTER 10
## BOILERS, WATER HEATERS AND PRESSURE VESSELS

**1001.1. Item 7 Scope.**

Add as follows:

7. Any boiler or pressure vessel subject to inspection by federal or state inspectors. Refer to North Dakota Law Rules and Regulations.

## CHAPTER 11
## REFRIGERATION

**1104.2 Exception 3 Machinery room.**

Add as follows:

3. If an existing refrigerating system is replaced or if an existing refrigeration plant is increased by not more than 50% of its original capacity, but not more than 100 tons per system using a non-flammable class A1 or B1 refrigerant and the refrigeration machinery room was not provided in the original installation prior to 1994, a refrigeration machinery room shall not be required. If the existing refrigeration is not located in a general machinery room separated from occupied spaces, a refrigeration machinery room shall be provided. The space containing the refrigeration machinery shall meet the requirements of Section 1104.3.4, protection from refrigerant decomposition, and Section 1105.3, requiring refrigerant detection. If the requirements of 1104.3.4 and 1105.3 cannot be met, a refrigeration machinery room shall be provided

## 2006 INTERNATIONAL FUEL GAS CODE AMENDMENTS

## CHAPTER 3
## GENERAL REGULATIONS

**303.3 Prohibited locations.**

**Delete Exception 3 and Exception 4**

**304.6.1 Two-permanent-openings method.**

Revise as follows:

Where directly communicating with the outdoors, or where communicating with the outdoors through vertical ducts, each opening shall have a minimum free area of 1 square inch per 4,000 Btu/h (550 $mm^2$/kw) of total input rating of all equipment in the enclosure.

**Figures 304.6.1(1) All air from outdoors—inlet air from ventilated crawl space and outlet air to ventilated attic.**

**Delete**

**Figure 304.6.1(2) All air from outdoors through ventilated attic.**

**Delete**

**Figures 304.6.1(1) and 304.6(2) are hereby deleted in their entirety**.

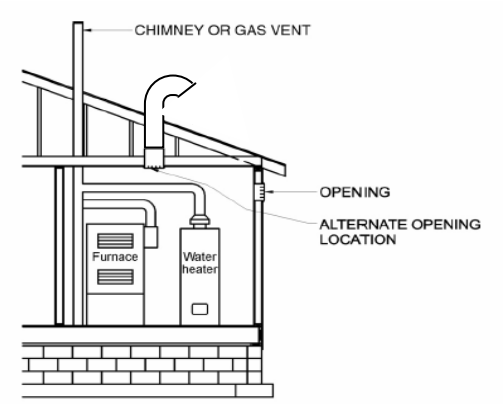
**304.6.2 One-permanent-opening method.**

Revise as follows:

The opening shall directly communicate with the outdoors or through a vertical or horizontal duct to the outdoors and shall have a minimum free area of 1 square inch per 3,000 Btu/h (734 $mm^2$kw) of the total input rating of all equipment located in the enclosure, and not less than the sum of the areas of all vent connectors in the space.

**Figure 304.6.2 Single combustion air opening, all air from the outdoors.**

Revise as follows:




**304.11, Item 5 Combustion air ducts.**

Revise as follows:

5. Ducts shall not terminate in an attic.

## CHAPTER 4
## GAS PIPING INSTALLATIONS

**403.3 Other materials.**

Revise as follows:

Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service, and, in addition, shall be recommended for that service by the manufacturer and shall be approved by the code official. Listed LPG hose may be used with natural gas when used for temporary heating at a maximum length of 50 feet.

**403.10.1.1 Pipe joints.**

Add as follows:

403.10.1.1. Gas supply systems with pressures 5 psig or greater and gas pipe joints 2½ inches or larger, regardless of pressure, shall be welded.

**403.10.4 Metallic fittings.**

Revise as follows:

1. Threaded fittings in sizes larger than 2 ½ inches or larger shall not be used except where approved.

**406.4 Test pressure measurement.**

Revise as follows:

Measurement of test pressures shall be performed with gauges of 2 psi (13.8 kpa) increments or less and have a range not exceeding 100 psi unless otherwise approved.

**406.4.1 Test pressure.**

Revise as follows:

Test Pressure. The test pressure to be used shall be no less than 1½ times the proposed maximum working pressure, but not less than 25 psig, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

**408.2 Drips.**

Revise as follows:

Where wet gas exists, a drip shall be provided at any point in the line of pipe where condensate could collect.

**411.2 Manufactured home connections.**

Revise as follows:

Manufactured homes shall be connected to the distribution piping system by listed and labeled connectors in compliance with ANSI Z21.75/CSA 6.27 and installed in accordance with the manufacturer's installation instructions.

**415.1 Interval of support.**

Revise as follows:

In addition to the requirements of Table 415.1, piping and tubing shall be supported within 2 feet (610 mm) of every bend or angle.

## CHAPTER 5
## CHIMNEYS AND VENTS

**501.8 Equipment not required to be vented.**

Revise as follows:

Section 501.8 is hereby amended by **deleting item 8** and renumbering the subsequent items.

**501.12 Residential and low-heat appliances flue lining systems.**

Revise as follows:

Flue lining systems for use with residential-type and low-heat appliances shall be limited to the following:

1. Clay flue lining complying with the requirements of ASTM C 315 or equivalent when each appliance connected into the masonry chimney has a minimum input rating greater than 400,000 Btu/h. Clay flue lining shall be installed in accordance with the *International Building Code.*
2. …
3. …
4. Aluminum (1100 or 3003 alloy or equivalent) not less than 0.032 inches thick to 8 inches diameter or Stainless steel (304 or 430 alloy or equivalent) not less than 26 gauge (0.018 inches thick) to 8 inches diameter or not less than 24 gauge (0.024 inches thick) 8 inches diameter and larger.

When a metal liner is used other than a listed chimney liner a condensation drip tee shall be installed and supported in an approved manner.

**502.7 Protection against physical damage.**

Revise as follows:

…and shall extend a minimum of 1.5 inches (38.5 mm) above sole plates, below top plates and to each side of a stud, joist or rafter.

**503.5.3 Masonry chimneys.**

Revise as follows:

Masonry chimneys. Masonry chimneys shall be built and installed in accordance with NFPA 211 and shall be lined.

**503.5.6.1 Chimney lining.**

Revise as follows:

Chimneys shall be lined in accordance with NFPA 211 and Section 501.12.

Exception: Existing chimneys shall be permitted to have their use continued when in more than one appliance venting system the secondary appliance, such as a water heater, is replaced and the primary heating appliance remains.

## CHAPTER 6
## SPECIFIC APPLIANCES

**614.6.1 Maximum length.**

Revise as follows:

Maximum length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location including two 90-degree elbows, to the outlet terminal. The maximum length of the duct shall be reduced 2 ½ feet (762 mm) for each additional 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each additional 90-degree (1.6 rad) bend.

**618.6 Screen.**

Revise as follows:

Screen. Required outdoor air inlets for residential portions of a building shall be covered with a screen having ¼ inch (6.4 mm) openings. Required outdoor air inlets serving a non-residential portion of a building shall be covered with a screen having openings larger than ¼ inch (6.4 mm) and not larger than ½ inch.

**621 Unvented room heaters.**

Delete

Section 621 is hereby deleted in its entirety

## AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)

N.D.C.C 54-21.3-04.1 requires that every building or facility subject to the federal Americans with Disabilities Act must conform to the accessibility standards of the Americans with Disabilities Act Accessibility Guidelines ADAAG). The law also requires a state agency or the governing body of a political subdivision to obtain from any person preparing plans and specifications for a building or facility subject to the Americans with Disabilities Act, a statement that the plans and specifications are, in the professional judgment of that person, in conformance with the ADAAG. This form must then be submitted to the Division of Community Services. Page 57 of this document contains the ADAAG Conformance Statement that is required.

**ADAAG CONFORMANCE STATEMENT**
**NORTH DAKOTA DIVISION OF COMMUNITY SERVICES**
**SFN 19701 (06/03)**
(This form must be submitted for new construction, alternations and additions to buildings and facilities subject to the Americans with Disabilities Act)

| **AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) CONFORMANCE STATEMENT** | |
|---|---|
| Name & Building Address | Owner<br>City/County |
| Date Construction to Start | Projected Completion Date |
| Type of Construction<br>New Building ☐ Sq. Ft. _____<br>Addition ☐ Sq. Ft. _____<br>Alteration ☐ Sq. Ft. _____ | |
| Describe Alteration: | |
| Type of Occupancy/Use (Refer to Occupancies and Divisions defined in the Uniform Building Code): | |
| I certify, to the best of my professional judgment, that the plans and specifications for the above referenced building or facility conforms with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities as adopted in North Dakota Century Code Section 54-21.3-04.1. | |
| _____<br>Name of Design Professional | _____<br>Firm |
| _____<br>Signature | _____<br>Phone Number Date |

**Send To:** **Division of Community Services**
**1600 East Century Avenue, Suite 20**
**PO Box 2057**
**Bismarck, ND 58502-2057**

## SAMPLE MODEL ORDINANCE

The following is a Sample Model Ordinance for the adoption of the State Building Code for those cities, townships, and counties that elect to administer and enforce a building code.

### Adoption of Code

The erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, uses, height, area and maintenance of buildings or structures in the City/Township/County of _____
shall meet with the provisions of the rules and regulations of the North Dakota State Building Code and any future updates and amendments to that code, _____ copies of which are on file with the City Auditor/Township Board/County Auditor and are hereby made a part of this chapter by reference with the exception of the sections hereinafter set forth affecting local conditions in the City/Township/County, which are amended, for use and application in the City/Township/County, and the City/Township/County hereby adopts said code as so modified.

### Amendments

Sec. ____ Shall be revised to read as follows:

Sec. ____ Shall be added to read as follows:

Sec. ____ Shall be deleted

### Fees

Fees under the Building Code shall be as follows:

***NOTE:*** A suggested Building Permit Fees schedule can be found on page 11 of this document.