

## Chapter 15.01

### NORTH LIBERTY BUILDING CODE

- 15.01.010 Short title.**
- 15.01.020 International Building Codes adopted.**
- 15.01.030 Amendments of the International Building Code and the International Residential Code.**
- 15.01.040 Availability of the building code.**

**15.01.010 Short title.** The ordinance codified in this chapter shall be known as the "North Liberty Building Code," may be cited as such, and will be referred to as such herein in this chapter. Any higher standards in the state statute or city ordinance shall be applicable.

**15.01.020 International Building Codes adopted.** Except as hereafter modified, that certain building codes known as the International Building Code, 2009 Edition, including Appendix H titled "Signs", the International Residential Code, 2009 Edition, including Appendices E titled "Manufactured Housing Used as Dwellings," F titled "Radon Controlled Methods," G titled "Swimming Pools, Spas and Hot Tubs," H titled "Patio Covers" and K titled "Sound Transmission" as published by the International Code Council in cooperation with the International Conference of Building Officials, which codes are specifically incorporated by reference shall be known as the building code. The provisions of said building code shall control the design, construction, quality of materials, erection, installation, addition, alteration, repair, location, relocation, replacement, removal, demolition, use and maintenance of buildings and other structures within the incorporated limits of North Liberty, Iowa.

**15.01.030 Amendments of the International Building Code and the International Residential Code.** Certain sections, and portions of sections, of the International Building Code, 2009 Edition (hereinafter IBC) and the International Residential Code for One- and Two-Family Dwellings, 2009 Edition (hereinafter IRC), are modified as set forth in this section.

**A. Delete the following Sections from Chapter One of the IBC and insert in lieu thereof the following:**

**101.1 Title.**

These regulations shall be known as the Building Code of North Liberty, hereinafter referred to as "this code."

**101.4 Referenced codes.**

The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

**101.4.1 Electrical.**

The provisions of the Electrical Code adopted by the State of Iowa Electrical Board shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

**101.4.2 Gas.**

The provisions of the 2009 International Fuel 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.

**101.4.3 Mechanical.**

The provisions of the 2009 International Mechanical Code 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.

**101.4.4 Plumbing.**

The provisions of the 2009 International Plumbing Code 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. The provisions of the International Private Sewage Disposal Code shall apply to private sewage disposal systems.

**101.4.5 Property maintenance.**

The provisions of the 2009 International Property Maintenance Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants; and occupancy of existing premises and structures.

#### **101.4.6 Fire prevention.**

The provisions of the 2009 International Fire Code and as amended in Chapter 15.03 shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

#### **101.4.7 Energy.**

The provisions of the State of Iowa Energy Conservation Code shall apply to all matters governing the design and construction of buildings for energy efficiency.

**105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

**105.1.1 Issuance of permits.** No permit shall be issued to individual who does not have a valid license to perform such work.

#### **105.1.2 Licenses required.**

- a) State of Iowa electrical contractor license with a class A master electrician for all electrical work defined by the State of Iowa contractor licensing program.
- b) State of Iowa master license for hydronic, mechanical, medical gas and plumbing work defined by State of Iowa contractor licensing program.
- c) National Institute for certification in Engineering Technologies (NICET) Level III for any person designing water based fire protection system.
- d) National Institute for certification in Engineering Technologies (NICET) Level III for any person designing fire alarm system.
- e) City of North Liberty sewer & water installer license.

#### **110.3 Required inspections.**

The building official, upon notification, shall make the inspections set forth in Sections 110.3.1 through 110.3.10.

#### **110.3.1 Footing and foundation inspection.**

Footing and foundation inspections shall be made after excavations for

footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

**110.3.2 Concrete slab and under-floor inspection.**

Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

**110.3.3 Lowest floor elevation.**

In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the building official.

**110.3.4 Frame inspection.**

Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

**110.3.5 Fire-resistant penetrations.**

Protection of joints and penetrations in fire resistance-rated assemblies shall not be concealed from view until inspected and approved.

**110.3.6 Other inspections.**

In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building safety.

**110.3.7 Special inspections.**

For special inspections, see Section 1704.

**110.3.8 Final inspection.**

The final inspection shall be made after all work required by the building permit is completed.

**B. Delete the following Section from Chapter Five of the IBC and insert in lieu thereof the following:**

**501.2 Address numbers.** Approved numbers or addresses shall be placed on all buildings in accordance with the fire code.

**C. Amend Sections 1011 from Chapter Ten of the IBC and insert in lieu the following:**

**1011.1.1 Additional Exit Signs.** Exit signs may be required at the discretion of the code official to clarify an exit or exit access.

**1011.5.2 Exit Sign Illumination.** In new construction, or if an exit sign is replaced, exit signs shall use an LED lighting system and be illuminated internally. Exit signs shall have a battery backup unless an on-site generator set is used. Luminance on the face of an exit sign shall have an intensity of not less than 5.0 foot-candles (53.82 lux).

**1011.5.4 Combination Lights.** Combination exit sign/emergency light devices are prohibited in all new construction.

**Section 1011.5.5 Separation of Emergency Lighting.** In new construction, emergency lighting shall be separated from the exit sign by a minimum of 6 feet.

**Section 1011.5.6 Self-luminous and Photo luminescent exit signs.** Self-luminous and photo luminescent exit signs are not allowed. Exception: Approved self-luminous and/or photo luminescent exit may be allowed in tents by approval of the Code Official.

**Section 1011.5.7 Self-Testing Exit Signs and Emergency Lights.** Exit signs and/or emergency lights mounted higher than 8 1/2 feet from floor level to the bottom of the exit sign or emergency light or if the exit sign or emergency light is mounted in a location where it cannot be manually tested, the exit sign and/or emergency light shall be self-testing and have a visual diagnostic indicator.

**D. Delete the following Section from Chapter Thirteen of the IBC and insert in lieu thereof the following:**

**1301.1.1 Criteria.**

Buildings shall be designed and constructed in accordance with the State of Iowa Energy Conservation Code.

**E. Delete the following Sections from Chapter Twenty-seven of the IBC and insert in lieu thereof the following:**

### **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 2008 National Electrical Code, except as hereafter modified:

Delete section 210.8, paragraph (A) and insert in lieu thereof the following paragraph:

(A) Dwellings Units. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in (1) through (8) shall have ground-fault circuit-interrupter protection for personnel.

(1) Bathrooms.

(2) Garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use.

Exceptions:

1. Receptacles not readily accessible.

2. A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)(7), or (A)(8). Receptacles installed under exception 210.8(A) (2) shall not be considered as meeting the requirements of 210.52(G).

(3) Outdoors.

Exception: Receptacles not readily accessible and supplied by a dedicated branch circuit for electric snow-melting or deicing equipment shall be permitted to be installed in accordance with 426.28.

(4) Crawl spaces at or below grade level.

(5) Unfinished basements, for the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and other similar uses.

Exceptions:

1. Receptacles not readily accessible.

2. A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)(7), or (A)(8).

3. A receptacle supplying a permanently installed fire or burglar alarm systems. Receptacles installed under exception 210.8(A) (2) shall not be considered as meeting the requirements of 210.52(G).

(6) Kitchen receptacles that serve a countertop surfaces.

(7) Laundry, utility, and wet bar sinks receptacles when installed

within 6-ft of outside edge of a sink.

**2702.1 Installation.**

Emergency and standby power systems shall be installed in accordance with the 2008 National Electrical Code, NFPA 110, and NFPA 111.

**F. Delete the following Section from Chapter Thirty-four of the IBC and insert in lieu thereof the following:**

**3410.2 Applicability.**

Structures existing prior to the effective date of this ordinance and in which there is work involving additions, alterations or changes of occupancy shall be made to conform to the requirements of this section or the provisions of Sections 3403 through 3407. The provisions in Sections 3410.2.1 through 3410.2.5 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.

**G: Delete the following Sections from Chapter One of the IRC and insert in lieu thereof the following:**

**R101.1 Title.**

These provisions shall be known as the Residential Code for One- and Two-Family Dwellings of North Liberty, and shall be cited as such and will be referred to herein as is "this code".

**R105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

**R105.1.1 Issuance of permits.** No permit shall be issued to individual who does not have a valid license to perform such work, except for state's exemption for a homeowner that qualifies for a Homestead Tax Exemption.

**R105.1.2 Licenses required.**

- a) State of Iowa electrical contractor license with a class A master electrician for all electrical work defined by the State of Iowa contractor licensing program.

- b) State of Iowa master license for hydronic, mechanical, medical gas and plumbing work defined by State of Iowa contractor licensing program.
- c) National Institute for certification in Engineering Technologies (NICET) Level III for any person designing water based fire protection system.
- d) National Institute for certification in Engineering Technologies (NICET) Level III for any person designing fire alarm system.
- e) City of North Liberty sewer & water installer license.

**R105.2 Work exempt from permit.**

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

**Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet (13.29 m<sup>2</sup>).
2. Fences not over 6 feet (1829 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m<sup>2</sup>) in area, that are not more than 30 inches (762 mm) above grade at any point and do not serve the exit door required by Section R311.4.
11. Reapplication of shingles and roof sheathing provided less than 50% of the sheathing is replaced and other structural alterations are not required.
12. Reapplication of siding.

13. Window replacement provided window opening sizes are not altered and conforming rescue and escape windows are present in all sleeping rooms.

**Electrical:**

**Repairs and maintenance:** A permit shall not be required for minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

**Gas:**

1. Portable heating, cooking or clothes drying appliances.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
3. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

**Mechanical:**

1. Portable heating appliances.
2. Portable ventilation appliances.
3. Portable cooling units.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.
8. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

**R108.3 Building permit valuations.**

The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment, and permanent systems. The building official shall verify the applicant's valuation by using the most current Building Valuation Data Table published in Building Safety Journal to determine the permit value. Final building permit valuation shall be set by the building official.

**H. Modify the following Sections from Chapter Three of the IRC and inserting the following:**

**R301.2 Climatic and geographic design criteria.**

Buildings shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local jurisdiction and set forth in Table R301.2 (1).

Ground Snow Load	Wind	Seismic Design Category	Subject to Damage From				Winter Design Temp (e)	Ice Shield Underlayment Required (h)	Flood Hazards (g)	Air Freezing Index (i)	Mean Annual Temp (j)
	Speed (mph)		Weathering (a)	Frost Line depth (b)	Termite (c)	Decay (c)					
25	90	A	Severe	42"	M-H	S-M	-5° F	Yes	8/22/2002	2000	50° F

**R302.2 Townhouses.**

Each townhouse shall be considered a separate building and shall be separated by fire--resistance-rated wall assemblies meeting the requirements of Section R302 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with Chapters 33 through 42. Penetrations of electrical outlet boxes shall be in accordance with Section R302.3.

**R302.2.1 Continuity.**

The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.

**R302.2.2 Parapets.**

Parapets constructed in accordance with Section R302.2.3 shall be constructed for townhouses as an extension of exterior walls or common walls in accordance with the following:

1. Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches (762 mm) above the roof surfaces.

2. Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is not more than 30 inches (762 mm) above the lower roof, the parapet shall extend not less than 30 inches (762 mm) above the lower roof surface.

Exception: A parapet is not required in the two cases above when the roof is covered with a minimum class C roof covering, and the roof decking or sheathing is of noncombustible materials or approved fire-retardant-treated wood for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of 5/8-inch (15.9 mm) Type X gypsum board is installed directly beneath the roof decking or sheathing, supported by a minimum of nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet (1220 mm) on each side of the wall or walls.

3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches (762 mm) above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides.

### **R302.2.3 Parapet construction.**

Parapets shall have the same fire-resistance rating as that required for the supporting wall or walls. On any side adjacent to a roof surface, the parapet shall have noncombustible faces for the uppermost 18 inches (457 mm), to include counter flashing and coping materials. Where the roof slopes toward a parapet at slopes greater than two units vertical in 12 units horizontal (16.7-percent slope), the parapet shall extend to the same height as any portion of the roof within a distance of 3 feet (914 mm), but in no case shall the height be less than 30 inches (762 mm).

### **R302.2.4 Structural independence.**

Each individual townhouse shall be structurally independent.

Exceptions:

1. Foundations supporting exterior walls or common walls.
2. Structural roof and wall sheathing from each unit may fasten to the common wall framing.
3. Nonstructural wall coverings.
4. Flashing at termination of roof covering over common wall.
5. Townhouses separated by a common 2-hour fire-resistance-rated wall as provided in Section R302.2.

### **R305.1 exceptions:**

3. Ceiling height may be reduced 6 inches for main beams and mechanical ducts provided the prescribed ceiling height is maintained in at least two-thirds (2/3) of the room.

**R313.1 Townhouse automatic fire sprinkler systems.**

An automatic residential fire sprinkler system shall be installed in townhouses with five or more units.

Exceptions:

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

**Delete the entire Section R313.2 One- and two-family dwellings automatic fire systems.**

**R319.1 Premises identification.** Approved numbers or addresses shall be placed on all buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Said numbers shall contrast with their background. Address numbers shall be in Arabic numerals or alphabet letters a minimum of 4 inches in height with a minimum stroke width of 1/2 inch. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure.

**R317.1 Location required.**

Protection of wood and wood based products from decay shall be provided in the following locations by the use of naturally durable wood or wood that is preservative-treated in accordance with AWPA U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1.

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches (457 mm) or wood girders when closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
2. All wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches (203 mm) from the exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.

4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 1/2 inch (12.7 mm) on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches (152 mm) from the ground or less than 2 inches (51 mm) measured vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surfaces exposed to the weather and installed with frost protection methods approved by the Building Official.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

**I. Delete following Section from Chapter Six of the IRC:**

**Sections R612 Window sills**

**Availability of the building code.**

An official copy of the building code, including a certificate by the city clerk as to its adoption and effective date thereof, is on file in the office of the city clerk in the administration building, and shall be kept there on file. Copies shall be available at the department of building safety for public inspection. Additionally the International Building Code, 2009 Edition, the International Residential Code for One- and Two-Family Dwellings, 2009 Edition, the 2007 Supplement to the International Codes (unmodified) are available to the public at the North Liberty public library.