

ORDINANCE NO. 2007-11

AN ORDINANCE TO REPEAL CHAPTER 2 OF TITLE VI, OF THE 1999 MUNICIPAL CODE OF THE CITY OF URBANDALE, IOWA, AND TO ADOPT BY REFERENCE A COMPLETE BUILDING CODE REGULATING THE ERECTION, CONSTRUCTION, ENLARGEMENT, ALTERATION, REPAIR, MOVING, REMOVAL, CONVERSION, DEMOLITION, OCCUPANCY, EQUIPMENT, USE, HEIGHT, AREA, AND MAINTENANCE OF BUILDINGS AND STRUCTURES; TO PROVIDE FOR THE ISSUANCE OF PERMITS AND COLLECTIONS OF FEES; AND TO PROVIDE PENALTIES FOR VIOLATIONS.

Be it ordained by the Council of the City of Urbandale, Iowa:

SECTION 1.0000: Chapter 2 of Title VI of the 1999 Municipal Code of the City of Urbandale, Iowa, is hereby repealed and a new Chapter 2 established by inserting the following in lieu thereof:

SECTION 2.0000: Short Title. This Ordinance shall be known as the City of Urbandale, Iowa Building Code, and may be cited as such and will be referred to herein as "This Ordinance" or "This Code".

SECTION 3.0000: Adoption of Building Code. Pursuant to published notice and public hearing as required by law, the International Building Code and the International Residential Code, 2006 Edition, published by the International Code Council and commonly known as the International Building Code (IBC) and International Residential Code (IRC), are hereby adopted in full except for such portions as may be hereinafter deleted, modified or amended.

An official copy of the International Building Code and International Residential Code, 2006 Edition, as adopted and a certified copy of this Ordinance are on file in the office of the Building Official. A copy of the International Building Code and the International Residential Code, 2006 Edition, and copy of this Ordinance have been furnished to the Municipal Library. A copy of this ordinance has been furnished to the newspaper.

SECTION 4.0000: Amendments, Modifications, Additions and Deletions. Amendments to the International Building Code are identified by 'IBC' and amendments to the International Residential Code are identified by 'IRC'.

The following amendments, modifications, additions and deletions to the IBC and IRC, 2006 Edition, are hereby made:

4.0101: Revise IBC Section 101.1 and IRC Section R101.1 by inserting ‘City of Urbandale’ in the brackets.

4.0102: In IBC Section 105.2 and IRC section R105.2 amend item number 1 to read: “One story detached accessory structures used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 120 square feet and the structure does not utilize a permanent foundation.”

Also, delete item numbered 2. "Fences not over 6 feet (1829 mm) high."

4.0103: Add new section 105.8 to the IBC and new Section R105.9 to the IRC as follows: “No building permits shall be issued to any person or company who has fees outstanding, or who has outstanding, unresolved violations of this code or any other laws or ordinances of the City. The Building Official may waive this restriction for just cause.”

4.0104: Permit fees mentioned in IRC section R108.2 shall be as described by this ordinance. Add IBC subsection 108.2.1 entitled:

“Building Permit Fees

<i>TOTAL VALUATION</i>	FEE
\$1 to \$500	\$12.76
\$501 to \$2,000	\$12.76 for first \$500 plus \$1.97 for each additional \$100 or fraction thereof, to and including \$2,000
\$2,001 to \$25,000	\$42.31 for the first \$2,000 plus \$8.93 for each additional \$1,000 or fraction thereof, to and including \$25,000
\$25,001 to \$50,000	\$247.70 for the first \$25,000 plus \$5.95 for each additional \$1,000 or fraction thereof, to and including \$50,000
\$50,001 to \$100,000	\$396.45 for the first \$50,000 plus

	\$4.14 for each additional \$1,000 or fraction thereof, to and including \$100,000
\$100,001 to \$500,000	\$603.45 for the first \$100,000 plus \$3.82 for each additional \$1,000 or fraction thereof, to and including \$500,000
\$500,001 to \$1,000,000	\$2,131.45 for the first \$500,000 plus \$3.51 for each additional \$1,000 or fraction thereof, to and including \$1,000,000
\$1,000,001 to \$2,000,000	\$3,886.45 for the first \$1,000,000 plus \$2.97 for each additional \$1,000 or fraction thereof.
\$2,000,001 and up	\$6,856.45 for the first \$2,000,000 plus \$1.79 for each additional \$1,000 or fraction thereof.

*Fees shall be adjusted annually, based upon the U.S. average Consumer Price Index for All Urban Consumers.

Add a subsection entitled "Other Inspections and Fees" as follows:

Fences. The building permit fee shall be \$20.00.

Storage Tanks. The building permit fee shall be \$25.00 each for installation or removal.

Temporary Structure. The building permit fee shall be \$25.00. This applies to tents, canopies, membrane structures and similar structures."

Other Inspections and fees:

1. Inspections outside of normal business hours (minimum charge—two hours)	\$50.00 per hour (1)
2. Reinspection fees assessed under the provisions of Section 109 as amended	\$50.00 per hour (1)

3. Inspections for which no fee is specifically indicated	\$50.00 per hour (1)
4. Additional plan review required by changes, additions or revisions to plans (minimum charge—one-half hour)	\$50.00 per hour (1)
5. For use of outside consultants for plan checking and inspections, or both	Actual Costs (2)

(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.

Fee Refunds

The building official may authorize the refunding of any fee paid under this section which was erroneously paid or collected.

The building official may authorize the refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with the building code.”

4.0105: Delete IBC Section 108.3 and IRC Section R108.3 and replace with the following:

"The Building Valuation will be derived from the most current Building Valuation Data Schedule published in the Building Safety Journal.

A line is added for detached garages valuing them at \$15.00 per square foot. A line is added for open decks valuing them at \$10.00 per square foot.

A line is added for underground swimming pools valuing them at \$25.00 per square foot and above ground at \$10.00 per square foot.

A line is added for screened porches valuing them at \$15.00 per square foot.

Crawl spaces or garage foundations are not included in basement charges.

Foundation permits are to be valued at 20% of full building value, and the rest of the building will be valued at the remaining 80%.

Shell building value will be at warehouse value, and when tenant finishes occur they will be valued at the difference between warehouse value and the value assigned for the specific finished use.

Remodels are valued at 1/8 (.125) of full value"

4.0106: Add IBC Sub-section 108.5.1 and amend IRC Section R108.4 by adding provisions as follows: "Plan Review Fees. When submittal documents are required, a plan review fee shall be paid at the time of submitting the submittal documents for plan review, unless the building official delays requiring payment until permit issuance. Said plan review fee shall be 65 percent of the building permit fee. This plan review fee is separate from the permit fee, and is in addition to the permit fee.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items, an additional plan review fee shall be charged at the applicable rate. This subsection does not apply to Group U Occupancies or Group R-3 occupancies, unless the building official determines that there are unusual or unique features requiring specialized plan review.

Expiration of Plan Review. Applications for which no permit is issued within 180 days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days on request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken. No application shall be extended more than once. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee."

4.0107: In IBC Section 109.3.8 and IRC Section 109.1.5 add the following: "Fences: To be made after holes have been dug for all corner posts, and for additional posts as deemed necessary by the Building Inspector; and a final inspection upon completion of work."

4.0108: In IBC Section 109.3 and IRC Section R109 add the following paragraph:

"Where the work requiring a building permit includes one (1) or more prefabricated assemblies, the certificate of approval required by IBC Section 1703.7 may be accepted in lieu of the written approvals required by IBC subsection 109.3.1 through 109.3.7, and the frame and lath, and/or wallboard inspection required by IBC Section 109.3.5 where the use of prefabricated assemblies renders the obtaining of such approvals or inspection impractical. All certificates of approval for this purpose and as required by IBC Section 1703.7 of this Code shall be made by the International Code

Council, Underwriter's Laboratories, Inc., or any other approved independent inspection agency qualified to make such certification. Also all prefabricated assemblies must be certified to comply with regulations of the Iowa State Building Code."

4.0109: Add IBC Section 109.7 and IRC Section R109.5 regarding Reinspections as follows:

"Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official.

To obtain a reinspection, the applicant shall request that it be scheduled in the normal manner in which inspections are scheduled, and pay the reinspection fee in accordance with this ordinance.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid. Only the work necessary to correct what has been noted in the inspection or reinspection report is to be done until all reinspection fees are paid and reinspections satisfactorily completed."

4.0110: In IBC Section 112 and IRC Section R112 add: "The term of office of said members shall be three (3) years. Any vacancy occurring on the board, caused by resignation or otherwise, shall be filled by the Mayor, subject to the approval of the Council, with the terms of such appointments continuing in their established rotation. All members of such board shall serve without compensation, except their actual expenses, which shall be subject to the approval of the Council."

(a) The Board shall consist of the following persons: Three (3) general or homebuilding contractors and two (2) members of the general public with a good understanding of building construction with Architects and Engineers given preference for this position."

(b) Hearings. Any person affected by a decision of the Building Official may request and shall be granted a hearing on the decision, provided that such person shall file in the office of the Department of Building, a written petition requesting such hearing and setting forth a brief statement of the grounds therefor, within fifteen (15) days after the day that the persons received notice of the decision. The petitioner shall pay a fee of Thirty Dollars (\$30.00) on residential and Fifty Dollars (\$50.00) on commercial property appeals at the time of filing the appeal. Upon receipt of such petition and fee, the Department of Building shall set a time and place for such hearing and shall give petitioner written notice thereof at least three (3) days before the date set for such hearing, unless such three (3) day notice requirement is waived, in writing, by the petitioner. At such hearing the petitioner shall be given an opportunity to be heard to show why the decision of the Building Official should be modified or withdrawn. The Building Official shall have the opportunity to be heard to show why his/her decision should be affirmed. The hearing shall be commenced not later than twenty-five (25) days after the day on which the petition was filed, unless, for good cause shown, the Building Official grants a postponement, in writing, of the hearing.

(c) Decision. After such hearing, the Board shall affirm, modify, or withdraw the decision of the Building Official. The proceedings at any hearing before the board, including the findings and decision of the Building Official, if applicable, shall be summarized, reduced to writing, and entered as a matter of public record in the office of the Department of Building. Such record shall include a copy of every notice or order issued in connection with the matter.

(d) Appeal. Within ten (10) days after the written summary of the proceedings has been filed in the office of the Department of Building, the City shall file with the Board either a written acceptance of the decision of the Board, or a notice of its intent to appeal said decision to any court of competent jurisdiction. Thereafter, the City shall commence the appropriate action in such court within the ten (10) day period. The petitioner aggrieved by a decision of the Board may seek relief therefrom in any court of competent jurisdiction, as provided by laws of the State.

(e) Vacancies. All vacancies occurring on the Board by removal, resignation, or death, shall be filled by appointment as determined previously. Any member of the Board may be removed by the City Council for malfeasance in office, incapacity, or neglect of duty. All appointments made under this Section shall be for the un-expired term of the position vacated."

4.0111: In IBC Section 113 and IRC Section R113, add a Subsection as follows:

"Any person, firm, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion hereof during which any violation of

any of the provisions of this chapter is committed, continued, or permitted, and upon conviction of any such violation such person shall be punishable by a fine of not to exceed Five Hundred Dollars (\$500.00) or as allowed by state code, or by imprisonment for not more than thirty (30) days, or by both such fine and imprisonment. Citations may also be issued under Chapter 22 of Title V of the Municipal Code."

4.0112: Add the following sentence to IBC Section 115.4, Method of Service:
"Correction notices posted at the job-site are an acceptable form of notice"

4.0301: In IRC Table R301.2(1), fill in the table blanks regarding climatic and geographic design criteria as follows:

"Ground Snow Load:	30 p.s.f.
Wind Speed:	90 m.p.h.
Seismic Design Category:	0
Weathering:	Severe
Frost line depth:	42" below grade
Termite:	Moderate to Heavy
Decay:	Slight to Moderate
Winter design Temp:	-5 degrees F.
Ice Shield Underlayment Rqd:	YES*
Flood Hazards:	Adopted May 29, 1979, and the current FIRM is dated July 19, 2000.
Air Freezing Index:	1,833
Mean Annual Temp:	48.6 degrees F.

*See amendment to IBC 1507.2.8.2 and IRC R905.2.7.1 regarding ice shield alternative."

4.0302: Amend IRC Section R311.5.3 by adding the following exception: "Because of the variation in floor coverings, the dimension of the top and bottom riser of an interior stair may vary up to one (1) inch or less from the stairway riser dimension, however in no case shall the riser height exceed seven and three-quarters (7-3/4") inches."

4.0303: Amend IRC Section R311.5.6.2 by adding the following sentence: "Handrails shall be permitted to be interrupted by a newel post at a turn, and by a wall, ceiling, or similar feature, if the handrail is offset and continued immediately for the full length of the stairs."

4.0304: Delete IRC Section R317.1.

4.0305: Amend IRC Section R317.2 by including "And Two-family dwellings" in the title after the word 'Townhouses'.

4.0401: Amend IRC Section R403 and R404 by adding the following:

"On residential occupancies, seasonal rooms may be constructed on a foundation consisting of a minimum 6" by 6" treated wood columns located under all load bearing points, and the columns are to be supported with minimum 24" by 24" by 10" thick footings at least 42" below grade; or the foundation may be structurally designed.

4.0901: In IBC Section 907.2.9 add the following: "Smoke detectors in common areas: all R-2 occupancies not otherwise required to be equipped with an automatic fire alarm system shall be equipped with smoke detectors in the common exit ways. They shall be installed on each floor level and nominally spaced thirty (30) feet apart beginning no more than fifteen (15) feet inside the common exits."

4.1001: Add IBC Subsection 1026.1.1 and IRC Section R310.1.5 as follows: "In basements, maximum sill height may be measured from an elevated landing not less than 36" wide by not less than 20" out from the exterior wall. The landing shall be securely affixed to the floor below and the wall under the window it serves.

The following shall be permitted as alternatives to the required escape or rescue window in a basement:

A. An automatic fire sprinkler system designed to protect the entire structure in accordance with NFPA-13D as published by the National Fire Protection Association, Batterymarch Park, Quincy, Ma. 02169.

B. A second stairway which enters the first story in an area separated from the other stairway by a minimum of a solid wall which has hinged doors mounted in any openings. Both areas on the first story which contain the stairways shall have a door opening directly into a street, alley, yard or exit court."

Also in IBC Section 1026 and IRC Section R310 add:

Walkout basements or basements with an emergency escape window shall not be required to add an additional emergency escape window in sleeping rooms, provided the emergency escape window or door and the stair to the floor above are placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the basement area, and provided additional smoke detectors are installed in each area or room in the basement (determination to be made by the Building Official)."

4.1201: Amend IBC Subsection 1209.2 by adding the following:

"Each attic compartment shall be provided an access opening from the unit or common space below, which opening shall be located in a common area wherever practical."

4.1301: Delete IBC Chapter 13 and IRC Chapter 11, and add the following sentence: "All new buildings or additions that are heated or cooled shall meet the State requirements for energy conservation." Additionally, delete IBC Section 109.3.7, Energy Efficiency Inspections.

4.1501: In IBC Section 1507.2.8.2 and IRC Section R905.2.7.1, Ice Protection, add the following exception: "Exception: Ice dam protection material is not required if the plans submitted with the permit application includes a detail that clearly indicates a raised heel truss or similar design. The detail shall also indicate a minimum R38 attic insulation extending across the top plate to a point aligning with the exterior sheathing. The building shall be constructed as designed."

4.1601: In IBC Section 1608 add: "For purposes of determining snow loads, the minimum basic criteria shall be thirty (30) pounds per square foot, provided that subsequent increases shall be required or decreases may be allowed as otherwise provided in this Code, except that the minimum snow load design in all cases is 24 pounds per square foot."

4.1602: Earthquake Regulations - Applicability

Add to IBC Subsection 1613 the following: "The requirements of Chapter 16 regarding earthquake design shall be applicable only to those buildings or structures listed hereinafter:

- a. Any building housing a Group A, E, I, Group H, Division 1, or Group H, Division 2, occupancy.
- b. Any tower structure exceeding fifty (50) feet height including, but not limited to water towers and transmission towers.
- c. Any major public building or structure including, but not, limited to, office buildings, police stations, fire stations, water treatment and supply facilities, sewage treatment facilities, bridges.
- d. Any other building or structure other than those listed above, in which the fundamental period of vibration "T" is in excess of one-half (1/2) a second.
- e. IBC Section 2113.4 Anchorage requirements of this Section shall apply to Seismic Zone No. 1 within the State of Iowa."

4.1801: Amend IBC Section 1805 and IRC Section R403, 'Footings' and IRC Table R403.1 with the following adjusted footings based on soil bearing pressure:

"Residential Conventional Footing Dimensions.

Assuming 2,000 P.S.F. is required for the footing, the following adjusted footing dimensions may be used for the soil conditions specified in the table below, unless specific engineering problems exist. The dimensions specified in this table are typically accepted dimensions for conventionally designed single family dwelling structures of one or two stories in height, intended to be constructed on undisturbed, non-expansive soils.

SOIL BEARING PRESSURE	CONVENTIONAL FOOTING & REINFORCEMENT
2,000 P.S.F.	8" X 16" with two #4 reinforcement bars
1,850 P.S.F.	9" X 20" with two #4 reinforcement bars
1,500 P.S.F.	10" X 20" with two #5 reinforcement bars
1,250 P.S.F.	11" X 28" with three #5 reinforcement bars
1,000 P.S.F.	12" X 32" with three #5 reinforcement bars"

4.1802: In IBC Section 1805 and IRC Section R404 add a new subsection 1805.10 and add to Subsection R404.5 – "Foundation Retaining Walls for Group R, Division 3:

A. Scope

Notwithstanding other design requirements of this Code, foundation retaining walls for Group R, Division 3 occupancies of Type V construction may be constructed in accordance with the provisions of this Section, provided that use or building site conditions affecting such walls are within the limitations specified herein.

B. General

1. The maximum height of the standard foundation wall shall be seven feet eight inches (7'8") measured between the foundation plate and a concrete floor slab having a minimum thickness of three and one-half inches (3 1/2"). If such floor slab is not provided, a specially designed means of providing lateral support at the bottom of the wall shall be required.

EXCEPTION: Standards for walls taller than eight feet (8'), up to a maximum of ten feet (10') are also provided in this ordinance. Wall designs that the Building Official finds to be less than these standards shall be certified by a registered structural engineer or architect. Foundation wall requirements assume the basement to be rectangular in

shape with a floor assembly attached to the top of the foundation walls. Irregular shaped basements or split level main floors are unique and may require a specific design.

2. The foundation plate shall be attached to the wall with one-half inch (1/2") steel bolts as prescribed in IRC Section R403.1.6, unless larger bolts are specified.
3. Material used for back-filling shall be carefully placed granular soil of average or high permeability and shall be drained with an approved drainage system. The wood and earth separation requirements of IRC Section R319 of this Code shall be observed.
4. Where soils containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils are encountered or where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the wall, a specially designed wall shall be required.

C. Hollow Concrete Masonry Foundation Walls

1. Hollow concrete masonry units shall be set in type M or type S mortar.
2. All footings shall be of cast-in-place concrete having a minimum compressive strength of three thousand (3,000) pounds per square inch at twenty-eight (28) days, and shall be reinforced longitudinally with not less than one-half inch (1/2") steel bar for one (1) story construction, or two (2) one half inch (1/2") diameter steel bars for two (2) story construction. Footing reinforcement shall be symmetrically placed and so located as to insure no less than three (3) inches of concrete cover on all sides of the reinforcement.
3. Foundation walls having a nominal thickness of not less than twelve inches (12") may be unreinforced. Other foundation walls shall comply with the following requirements:
 - a. The nominal thickness of concrete masonry units shall not be less than eight inches (8").
 - b. When a foundation wall has a horizontal clear span of more than twelve feet (12') between supporting cross walls or corners, fully grouted vertical reinforcing shall be provided in the center of said wall in the amount of 0.075 square inches of ASTM A615 grade 40 steel per lineal foot of wall. All reinforcing steel shall be deformed bars spaced no more than eight feet zero inches (8'0") on center. All grout shall comply with this Code.

D. Eight Feet (8') Tall Cast-in-place Plain Concrete Foundation Walls

Cast-in-place plain concrete foundation walls constructed under the provisions of this subsection shall be of concrete having a minimum compressive strength of twenty-eight (28) days of not less than three thousand (3,000) pounds per square inch. All materials, proportioning, and placing shall conform to the requirements of Chapter 19 of the IBC.

In addition:

1. The minimum thickness of wall shall be seven and one-half inches (7 1/2").
2. Walls shall be reinforced with no less than three (3) one-half inch (1/2") diameter deformed ASTM A615 grade 40 steel bars placed horizontally at the center of the wall, with one (1) bar located near the top, one (1) bar located near the bottom, and one (1) bar located near mid-height of the wall. Reinforcing bars and methods of placement shall be in accordance with Chapter 19 of the IBC."

Reinforcement around window and door openings shall comply with the requirements of IBC Section 1909.6.3.

E. Cast-in-Place Plain Concrete Foundation Walls Exceeding Eight Feet (8'), To The Maximum Ten Feet (10') Tall

Cast-in-place plain concrete foundation walls constructed under the provisions of this subsection shall be of concrete having a minimum compressive strength at twenty-eight (28) days of not less than three thousand (3,000) pounds per square inch.

All materials, proportioning, and placing shall conform to the requirements of Chapter 19 of the IBC.

In Addition:

1. The minimum thickness of wall shall be eight inches (8").
2. The reinforcing steel shall be a minimum of ASTM grade 40.

The minimum vertical reinforcement shall be number four (#4) bars spaced at twenty inches (20") on center; or number five (#5) bars spaced at thirty inches (30") on center.

The minimum horizontal reinforcement shall be number four (#4) bars spaced twenty four inches (24") on center, spaced a minimum of three inches (3") from the bottom or top of the wall.

All wall reinforcement shall be located in the area from the center of the wall towards the inner face of the wall, with the minimum clearance being two inches (2") from the inner face of the wall.

All reinforcement bar splices shall be lapped a minimum twenty (20) times the bar diameter.

Bars shall bend around corners, and the minimum bend radius is six (6) times the diameter of the bar.

Reinforcement around window and door openings shall comply with the requirements of IBC Section 1909.6.3.

3. Foundation drainage shall be provided, and includes granular fill around the drain piping, up to a minimum of twelve inches (12") granular fill above the pipe.

4. The top of the wall shall be secured to the sill with a minimum of one-half inch (1/2") anchor bolts spaced a maximum of six feet (6') on center.

When the floor joists are parallel to the wall, solid blocking between the rim joist and the adjoining joist shall be provided, spaced at a maximum of six feet (6') on center. Approved anchors shall be provided, spaced a maximum of six feet (6') on center. Anchor bolts, solid blocking and anchors shall all be placed in close proximity to each other."

4.1803: The following table shall replace IBC Table 1805.4.2 and IRC Table R403.1, when applying either code to residential construction:

"Foundations for Stud Bearing Walls Minimum Requirements					
Number of Stories	Thickness of Foundation Walls(inches) Concrete	Thickness of Foundation Walls(inches) Unit Masonry	Minimum Width of Footing (inches)	Thickness of Footing (inches)	Min. Depth of Fndtn. Below Ground Surface
1	8	8	16	8	42
2	8	8	16	8	42
3	10	12	18	12	42

Exception 1: All detached Group U buildings under 400 square feet in area may be constructed on a 3 1/2" slab of concrete.

Exception 2: All Group U buildings over 400 square feet in area shall have not less than 6 inch by 6 inch footings around perimeter; if set on sloping ground, shall be a minimum of 12 inches deep by 6 inches into existing soil.

Exception 3: All Group U buildings over 720 square feet in area shall have frost protected footings extending 42" below finished grade. These footings may be a well crumbed 8" trench."

4.2301: In IBC Section 2304.11 and IRC Section R319 add the following: "Fences. Wood used in fences shall be treated wood, approved wood of natural resistance to decay, or adequately protected wood."

4.3101: Amend IBC Section 3109 as follows:

"The minimum 'barrier' fence height shall be 72" tall.

Furthermore, all municipal code references to regulations contained in Title VI, Chapter 9 shall be interpreted to refer to these swimming pool regulations".

4.7001: Delete all IBC and IRC Appendix provisions.

SECTION 5.0000: Existing Permits and Construction Commenced

If a plan has been approved by the proper official or officials of the City and a building permit issued or if construction has begun following approval of a plan and issuance of a building permit, the provisions of this Ordinance shall not apply except to the extent that their application is requested by the permit holder. Where application of the provisions of the Ordinance is not requested, the provisions of the Ordinance relating to building standards in effect at the time of granting of the permit shall be applicable. Permits for construction issued by the proper authorities of this City prior to the effective date of this Ordinance shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced substantially and in good faith thereunder within two (2) months from the date of its issue or within one (1) month from the time this Ordinance becomes effective, whichever shall first occur.

Said permits shall also expire by limitation and become null and void if the building or work authorized by them is suspended or abandoned at any time after the work is commenced for a period of sixty (60) days, but if the suspension or abandonment occurred or began before the effective date of this Ordinance, said permit shall expire. Permits may be renewed within ninety (90) days of date of issuance. Renewal of permit fee will be one-half (1/2) of the original fee.

SECTION 6.0000: Chapter 11 of Title VI Titled “Driveway Approach Permits” is amended as follows:

“Delete section 9.5, which states that ‘a complete set of specifications for all approaches are attached to this ordinance’, and insert: ‘Both residential and non-residential driveway approaches and driveways shall be constructed according to the Des Moines Metropolitan Design Standards Manual as amended by Urbandale’s Engineering Department.’”

SECTION 7.0000: All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION 8.0000: This ordinance shall be in effect after its final passage, approval and publication as provided by law.

SECTION 9.0000: If any section, provision or part of this ordinance shall be adjudged to be invalid or unconstitutional, such adjudication shall not affect the validity of this ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Passed and approved by the City Council of the City of Urbandale, Iowa this 31st day of July.

Robert D. Andeweg, Mayor

ATTEST:

Debra Mains, City Clerk

Published August 10, 2007

MEMORANDUM

DATE: July 3, 2007 Meeting
TO: Urbandale City Council
FROM: Maurice Dudney, Building Official

SUBJECT: ORDINANCE 2007-11, THE 2006 EDITION OF THE IBC & IRC

Background

Recommended Code

The 2006 edition International Building Code (IBC) and 2006 edition International Residential Code (IRC) are being proposed for adoption. Previously Urbandale adopted the 2003 edition of the codes, so this will update to the newest edition.

CHANGES TO THE IRC

IRC Section R302

The separation distance from dwelling to property line is increased from 3' to 5'. If a wall must be closer than 5' it must also be one-hour rated fire-resistive. Openings are prohibited if the wall is less than 3' from the property line, the same as before.

IRC Section R308.4

This provision regarding windows alongside stairs is revised so that safety glazing is required when the bottom of the glass is closer than 36" to the stair surface. Previously the glass had to be at least 60" above the stair surface in order to be non-safety glazing. This only affects the 1 & 2 family dwellings, for everything else the glass must be 60" or more above the stairs in order to avoid the safety glazing requirement.

IRC Section R309.1 & R309.2, and IBC 406.1.4

A detached garage less than 3' from the house is required to have Type X gypsum on that close wall. Doors between attached garages & their dwelling, in conjunction with dwellings built per the IRC, are not required to be self-closing. The same door, if built under the IBC, is required to be self-closing.

IRC Section R311.5.4

The exception specifically allows an attached garage stair and other interior stairs such as a basement stair not to have a landing, provided the door opens away from the stair.

Memo Re Building Code

IRC Section R313.1

This provision will recognize fire alarm systems that are activated with smoke detectors, and accepts a system, just as interconnected smoke detectors are accepted.

IRC Section R317.1

The bi-attached dwelling's separation wall can now end at the ceiling if the ceiling is a 5/8" type X gypsum board assembly. In other words the separation wall is not required in the attic. Urbandale and most everyone else in the metro amends this and requires the two-hour separation from footing to roof.

IRC Section R404.1

This requirement for anchor bolts has been significantly revised, and is based upon the height of wall and unbalanced fill. It often requires anchor bolts to be spaced not exceeding 18" or less.

IRC Section R404.5

This requires retaining walls supporting unbalanced fill in excess of 24" to be designed.

IRC Section R408.3

This gives an allowance so that crawl spaces can be unventilated. Probably the most common application will be by covering the soil with plastic and running a mechanical supply duct to the crawl space, plus leaving a return opening back into the basement.

IRC Section R602.1.3

Provisions have been added for structural log members, circular in shape. The structural standard ASTM D 3957 for logs is referenced in R802.1.5.

IRC Section R602.10 & IBC 2308.9.3.2

A lot has been added for wall bracing, and this relates specifically to the narrow braced wall sections adjacent to large window or garage door openings. A reduction in the 32" width, down to 16" wide for one story and 24" wide for two story structures.

IRC Section R613.1

Flashing around windows is now required. Many windows have been installed without flashing, mistakenly assuming that the mounting flange was adequate.

IRC Section R613.2

Operable windows with the sill more than 6' above grade on the exterior and with the sill less than 24" above the floor on the interior are now required to only open 4", or be equipped with a window fall guard. It is reported that safety screens are being developed. If the window is in a bedroom and is either limited to the 4" opening or is equipped with a fall guard, it must be releasable so that emergency escape can occur.

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IRC Section R613.7.1

Window fenestration testing and labeling is required.

IRC Table R703.4

A weather resistant barrier is now required underneath all sidings.

IRC Tables R802.5.1(1) through R802.5.1(9)

Rafter tie requirements have been added to all of these tables. Ties in the bottom 1/3 of the rafter height (area) are allowed, while ties in the upper 2/3 of the rafter area are not recognized by these tables. This will be some helpful information when a raised stick-framed ceiling is desired.

IRC Section R905.2.7.1

Ice barrier requirements have been clarified, so that now virtually all of Iowa is required to install the ice barrier.

IRC Section R907.3

Re-roofing is regulated, and Polk/Dallas counties are in the “moderate hail exposure” zone so item #4 of this section says that asphalt shingles must be removed before re-roofing.

IRC Section N1101.4 & N1101.4.1u

This is an energy code section. Blown or sprayed insulation jobs must be left with a certification statement, certifying what was installed, the date, and who did it.

IRC Section N1101.8

This is an energy code section. An insulation certificate is required to be placed inside the electrical panel, presumably just under the lid. This could generate conflicts, such as obstructing the circuit identification required by the electrical code.

IRC Section G2415.1

This is a mechanical (gas pipe) section. Banking of gas meters on a townhouse is prohibited by this section because that causes gas supply piping to penetrate firewalls between dwelling units, usually in the attics. Banking also causes gas pipe to pass through adjacent units not necessarily under the control of the dwelling being served, also potentially hazardous.

IRC Section P3103.1

This is a plumbing code section. The roof vent termination length (extension) above the roof should be inserted in the blank; however 6” has been included in the plumbing code ordinance.

CHANGES TO THE IBC

IBC Section 310.1 & 310.2

Congregate living facilities for more than 16 people are R-2 Occupancies, and if they are for 16 or less people then they are an R-3 Occupancy.

IBC Section 406.1.2

The required setback from a U Occupancy (private garage) building to the property line has been reduced from 10' to 5'. This is referenced from Table 602, footnote b.

IBC Sections 503.1.1 – 507

Several changes have been made so that the allowable size is different, in many instances larger. For example, 505.2 allows a mezzanine to be 50% of the floor instead of the previous 33% limitation, and 507.3 allows A-1 and A-2 Occupancies in unlimited area buildings now, where they were not included before.

IBC Section 508.3

There are now 3 different ways to analyze mixed-occupancy buildings, and at least one more alternative allowed would be to combine options.

IBC Table 508.3.3

This has been improved/simplified again by clarifying some of the separations. The table was 302.3.2, and is a part of the Chapter 3 provisions that have been relocated to Chapter 5. A significant change is that a separation is not required between M or B Occupancies and their adjoining S-1 Occupancy. This used to be limited to sprinkled buildings only.

IBC Section 706.2.1 & 715.4.6.3.1

Labeling of fire resistive glazing is codified for uniformity, and should ensure more of it has the required label. Clarification should reduce usage confusion.

IBC Section 707.14.1

Elevator lobby requirements have been relaxed, so a lobby is only required based upon the number of stories served. Exception 4 allows no lobby unless the building has a floor more than 75' high. The requirement for an elevator lobby to protect a fire-resistive corridor is gone.

IBC Section 716.5.3

The allowance for subduct penetrations of shafts without a smoke damper has been expanded from exclusively B Occupancies to include R Occupancies too.

IBC Section 910.2.2

Smoke and heat vents for H Occupancies have been deleted.

Memo Re Building Code

IBC Section 1003.2

Means of egress ceiling height is now 7'-6", coordinated with 1208.2 which required the 7'-6" ceiling height for habitable spaces.

IBC Section 1004.1

An allowance is provided to the Building Official where he or she can apply discretion when determining a design occupant load.

IBC Section 1007.3

When a stair is required to be enclosed it must have an area of refuge.

IBC Section 1008.1.1

R-1 Occupancy (hotel) guest room doors minimum clear opening width is 32" for all egress doors. This means at least a 34" wide door must be provided into the guestroom, to the bathroom and bedroom if it is separate.

IBC Section 1009.5.2, 1010.7.2 & 1014.5

A new provision in the 2003 code was to require exterior stair, ramp and balcony protection from the accumulation of ice and snow, and that has been removed from the 2006 edition.

IBC 1009.10, 1010.8 & 1012

Stair and ramp handrail requirements have been pretty much the same for some time, and so now handrail provisions for both have been given a new section, section 1012.

1009.11.2, 1013.5 & 1013.6

Roof edge fall protection is required when roof hatches, mechanical equipment and walking surfaces are within 10' of the edge of the roof. The code describes a guard, similar to what is required on a deck, with maximum 21" openings.

1014.2, Exc 2

Exiting through a storage or stock room has been prohibited, but this new exception allows that provided a compliant "demarcation" is installed.

1014.3, Exc 4

The common path of travel in an R-2 Occupancy (apartment building) is increased from 75' to 125'.

1015.2.2

When a third exit is required, it is not required by the code to be separated a certain distance from the other two exits.

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1104.3, 1104.5

Some text regarding mezzanines was deleted so that it is more clear that mezzanines are usually required to be accessible.

1105.1

The requirement for accessible public entrances is increased from 50% to 60%, meaning that for a two-exit space both would be required to be accessible. Also for a four-exit space three of the four exits would be required to be accessible.

1106.1

Handicap parking stall location is somewhat more flexible, as long as they are located where they will be most beneficial. They could be located in a separate parking facility if distance, cost and convenience are equivalent to another location.

Table 1604.5

The structural importance factor was clarified to apply specifically to places of assembly exceeding an occupant load of 300.

1704.1.1 & 1706

Special Inspections are to be captured in a statement from the engineer-of-record, and submitted by the applicant with the permit. Then the contractor is required to submit a statement acknowledging the required Special Inspections.

2303.1.10

Structural log buildings are recognized.

CHANGES TO THE ORDINANCE

Ordinance Section 4.0302

IRC M1501.1 and M1506.2 requires mechanical exhaust systems to discharge to the outdoors, and specifically states that “Exhaust air from bathrooms and toilet rooms shall not discharge into an attic, crawl space or other areas inside the building.” This ordinance section was created to address that issue, and so the ordinance amendment is not needed any more.

Ordinance Section 4.0401

The sentence proposed for deletion was a part of what was copied from West Des Moines, to address the occasionally troublesome additions on isolated columns. The desire was to make the additions more structurally sound, and aesthetically consistent. In the year this provision has been in effect it has been formally appealed two times, and several other times it has been accommodated with some distress to the property owners. While the intention was good the provision seems to have created more problems than it solved, and should be eliminated as proposed.

Ordinance Section 4.7001

This makes it clear that the appendix provisions are not adopted, and section is simply relocated.

Memo Re Building Code

Ordinance Section 4.3101

The swimming pool fence (called “barrier” in the IBC) requirement language was revised to assist with clarity regarding the 6’ minimum height. This does amend the IBC minimum 4’ high barrier (fence), and some communities are considering going to the 4’ minimum height.