

City of *OVILLA* City Council

Rachel Huber, Place One
Larry Stevenson, Place Two
David Griffin, Place Three, Mayor Pro Tem

Richard Dormier, Mayor

Doug Hunt, Place Four
Dean Oberg, Place Five
Cyndy Powell, City Administrator

NOTICE OF CITY COUNCIL BRIEFING SESSION 105 S. Cockrell Hill Road, Ovilla, TX 75154

Tuesday, October 14, 2014

6:00 P.M.

Council Chamber Room

AGENDA

- I. CALL TO ORDER

- II. CONDUCT A BRIEFING SESSION to review and discuss future agenda items.
 - a. Review and discuss the adoption of the 2009 International Building Codes (IBC) with NCTCOG amendments, including local amendments.
 - b. Discuss Ashburne Glen Park and equipment maintenance.

- III. CONDUCT A BRIEFING SESSION to review and discuss agenda items for the 7:00 p.m. regular meeting.

- IV. ADJOURNMENT

THIS IS TO CERTIFY THAT A COPY OF THE NOTICE OF the October 14, 2014 Briefing Session Agenda was posted on the City Hall bulletin board, a place convenient and readily accessible to the general public at all times, and to the City's website, www.cityofovilla.org, on the 10th day of October 2014 prior to 6:00 p.m., in compliance with Chapter 551, Texas Government Code.

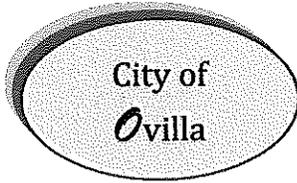


Pamela Woodall

Pamela Woodall, City Secretary

DATE OF POSTING: 10-10-2014 TIME: 10:30 am/pm
DATE TAKEN DOWN: _____ TIME: _____ am/pm

This facility is ADA compliant. If you plan to attend this public meeting and have a disability that requires special arrangements, please call 972-617-7262 at least 48 hours in advance. Reasonable accommodation will be made to assist your needs. PLEASE SILENCE ALL PAGERS, CELL PHONES & OTHER ELECTRONIC EQUIPMENT WHILE THE CITY COUNCIL MEETING IS IN SESSION.



Ovilla City Council

BRIEFING SESSION-FUTURE AGENDA ITEMS

Meeting Date: October 14, 2014

Budgeted Expense: YES NO N/A

Department: Administration

Amount: N/A

Reviewed By: City Administrator

City Secretary

City Attorney

Accountant

Other: Staff

Attachments:

1. Nearby cities survey
2. NCTCOG recommended amendments to the 2009 IBC
3. Ovilla's current Code

Future Agenda Item

Review and consider the adoption of the 2009 International Building Codes (IBC) with NCTCOG amendments, including local amendments.

Recommendation / Staff Comments:

Staff recommends to move forward with placing on the next agenda for Council consideration.

Cedar Hill – 2009 IBC all Codes with 2011 NEC

Desoto – 2009

Duncanville – 2009 IBC all Codes with 2008 NEC

Ferris – 2006 all Codes, pending legal review and adoption of 2012 Codes & 2014 Electrical Code

Forney – 2009 IBC all Code with 2011 NEC (in late 2014 plan to adopt the newest version)

Glenn Heights – no response

Heath – 2009 IBC all Codes with 2011 NEC

McClendon-Chisholm – 2009 IBC and 2011 NEC

Mansfield – 2012 IBC all Codes with 2011 NEC to be adopted end of this fiscal year.

Maypearl – 2009 IBC all Codes with 2011 Electrical

Midlothian – 2009 all Codes & Cog amendments except 2011 Electrical w/COG amendments

Red Oak – 2012 IBC all Codes

Waxahachie – 2000 IBC all Codes, except- NEC unknown

Weatherford – 2009

**Recommended Amendments to the
2009 International Residential Code**
North Central Texas Council of Governments region

The following sections, paragraphs, and sentences of the *2009 International Residential Code* are hereby amended as follows: Standard type is text from the IRC. Underlined type is text inserted. ~~Lined through type is deleted text from IRC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2006 edition of the code and a triple asterisk identifies a new or revised amendment with the 2009 code.

Note: Historically NCTCOG has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.**

The 2009 International Residential Code (IRC) and International Energy Conservation Code (IECC) include a new emphasis on envelope infiltration and duct leakage. Significant changes in the residential energy requirements include more frequent requirement of performance testing for leakage. Residential Duct systems must be tested unless all ducts and equipment are located within the conditioned space. Envelope testing is required to demonstrate compliance with maximum allowable leakage rate unless a detailed air barrier and insulation inspection has been performed to field verify component criteria. Testing is available from RESNET-certified HERS Raters or Rating Field Inspectors, and certified Performance Verification Technicians.

*****Section R101.1; Insert jurisdiction name as follows:**

R101.1 Title. These regulations shall be known as the *Residential Code for One- and Two-family Dwellings* of < insert jurisdiction name > hereinafter referred to as "this code."

(Reason: To call attention to the blank to be filled in.)

****Section R102.4; change to read as follows:**

R102.4 Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this *code* shall be considered part of the requirements of this *code* to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

Where differences occur between provisions of this *code* and referenced codes and standards, the provisions of this *code* shall apply.

Exception: Where enforcement ... *{remainder of text unchanged}*...

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes. Note: the former ICC Electrical Code is now Appendix K of the IBC, but no longer called by that name. If adopting in that location, be sure to include language that includes structures under IRC and IBC.)

*****Section 108.7; add Section 108.7 to read as follows:**

108.7 Re-inspection Fee. A fee as established by city council resolution may be charged when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address or permit card is clearly posted;
3. Approved plans are not on the job site available to the inspector;
4. The building is locked or work otherwise not available for inspection when called;
5. The job site is red-tagged twice for the same item;
6. The original red tag has been removed from the job site and/or,
7. Violations exist on the property including failure to maintain erosion control, trash control or tree protection.
8. Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

(Reason: This fee is not a fine or penalty but is designed to compensate for wasted time and trips when inspections are called for when not ready.)

****Section R109.1.3; change to read as follows:**

R109.1.3 Floodplain inspections. For construction permitted in areas prone to flooding as established by Table R301.2(1), upon . . . *{text unchanged}* . . . construction, the building official may shall require submission . . . *{text unchanged}*.

(Reason: Confirmation of elevation is left to local discretion.)

****Section R110 (R110.1 through R110.5); delete the section.**

(Reason: Issuing CO's for residences is not a common practice in the area.)

****Section R112.2.1 & R112.2.2; delete the sections.**

(Reason: Floodplain provisions are addressed locally.)

****Section R202; change definition of "Townhouse" to read as follows:**

TOWNHOUSE. A single-family dwelling unit constructed in a group of three or more attached units separated by property lines in which each unit extends from foundation to roof and with a *yard* or *public way* on at least two sides.

(Reason: Consistent with terminology commonly used in this region.)

*****Table R301.2(1); fill in as follows:**

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f
	SPEED ^d (mph)	Topographic Effects ^k	
<u>5 lb/ft²</u>	<u>90 (3-sec-gust)/76 fastest mile</u>	<u>No</u>	<u>A</u>

SUBJECT TO DAMAGE FROM		
Weathering ^a	Frost line depth ^b	Termite ^c
<u>moderate</u>	<u>6"</u>	<u>very heavy</u>

WINTER DESIGN TEMP ^e	ICE BARRIER UNDER-LAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
<u>22°F</u>	<u>No</u>	<u>local code</u>	<u>69°F</u>	<u>64.9°F</u>

{No change to footnotes}

(Reason: To promote regional uniformity.)

****Section R302.1; add exception #6 to read as follows:**

Exceptions: {previous exceptions unchanged}

- Open metal carport structures may be constructed when also approved within adopted ordinances.

(Reason: Refers to other ordinances, such as zoning ordinances.)

*****Section R302.2, Exception; change to read as follows:**

Exception: A common two-hour fire-resistance-rated wall assembly, or one-hour fire-resistance-rated wall assembly when equipped with a sprinkler system... {remainder unchanged}

(Reason: For those areas not requiring sprinkler systems, the IRC is written under the assumption that the 1 hour rating is supported by automatic fire sprinkler systems.)

*****Section R302.2.4, Exception 5; change to read as follows:**

Exception: {previous exceptions unchanged}

- Townhouses separated by a common two-hour fire-resistance-rated wall, or one-hour fire resistant rated wall when equipped with an automatic sprinkler system. {remainder unchanged}

(Reason: For those areas not requiring sprinkler systems, the IRC is written under the assumption that the 1 hour rating is supported by automatic fire sprinkler systems.)

*****Section R302.3; add Exception #3 to read as follows:**

Exceptions:

1. {existing text unchanged}
2. {existing text unchanged}
3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

(Reason: Provide guidance for a common construction method in this area. Correlates with amendment to IRC Section R202 Townhouse definition.)

*****Section R302.5.2; change to read as follows:**

R302.5.2 Duct penetration. Ducts in the garage... {text unchanged} ...and shall have no openings into the garage and shall be protected as required by Section 302.11, Item 4.

(Reason: This defines how to protect the opening.)

*****Section R302.5.3; amend the section as follows:**

R309.5.3 Other penetrations. Penetrations through the separation required in Section ~~R309.2~~ R302.6 shall be protected as required by Section R302.11, Item 4.

(Reason: this is a correction of a typographical error.)

****Section R302.7; change to read as follows:**

R302.7 Under stair protection. Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 5/8-inch (15.8 mm) fire-rated 4/2-inch (12.7 mm) gypsum board or one-hour fire-resistive construction.

(Reason: Represents the standard protection method used in this area.)

****Section R303.3, Exception; change to read as follows:**

Exception: The glazed areas shall not be required where artificial light and a mechanical ventilation system, complying with one of the following, are provided.

1. The minimum ventilation rates shall be 50 cfm (24 L/s) for intermittent ventilation or 20 cfm (10 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.
2. Bathrooms that contain only a water closet, a lavatory, or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

(Reason: Consistent with common local practice.)

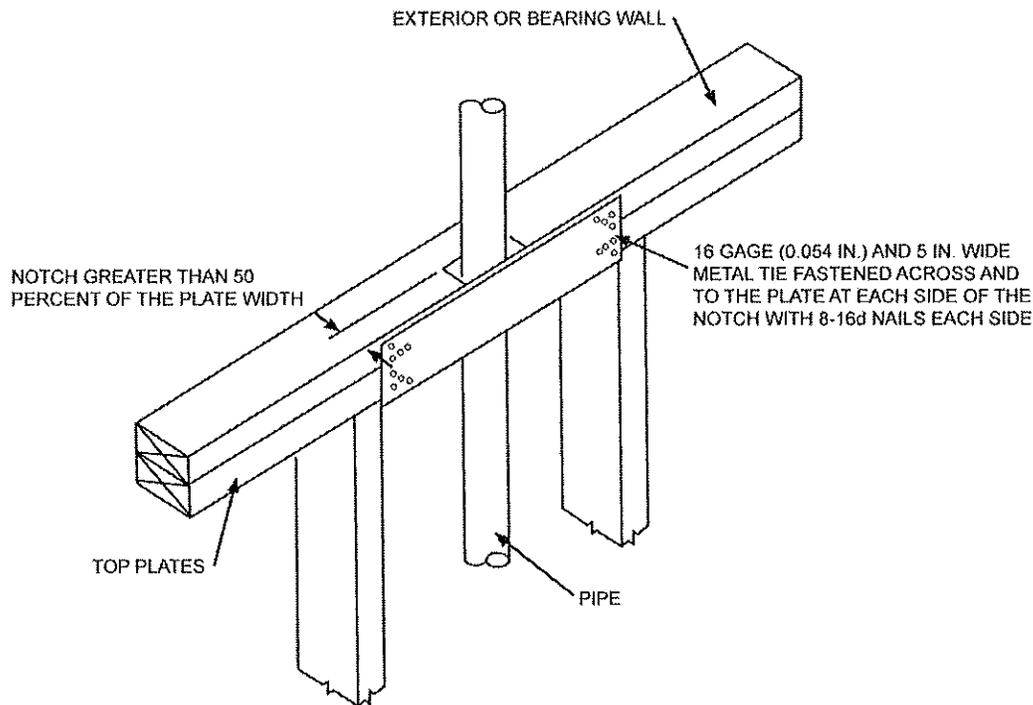
*****Section 602.6.1; amend the following:**

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and 4 ½ inches (38 mm) 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1.

(Reason: reflects regional practice and to comply with P2603.2.1. Also provides additional assurance of maintaining the integrity of the framing by spreading the nailing pattern.)

*****Figure R602.6.1; delete the figure and insert the following figure:**

WALL CONSTRUCTION



For SI: 1 inch = 25.4 mm

FIGURE R602.6.1
TOP PLATE FRAMING TO ACCOMMODATE PIPING

(Reason: reflects regional practice and to comply with P2603.2.1. Also provides additional assurance of maintaining the integrity of the framing by spreading the nailing pattern.)

****Section R703.7.4.1; add a second paragraph to read as follows:**

In stud framed exterior walls, all ties shall be anchored to studs as follows:

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or
2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

(Reason: Provide easy to install and inspect dimensions to clarify how to anchor and to distinguish "studs" from other types of construction.)

*****Section R902.1; Amend and add exception #3 to read as follows:**

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed in ~~areas designated by law as requiring their use or when the edge of the roof is less than 3 feet from a property line.~~ *{remainder unchanged}*

Exceptions:

1. *{text unchanged}*
2. *{text unchanged}*
3. Non-classified roof coverings shall be permitted on one-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed (area defined by jurisdiction).

(Reason: Consistent with regional practice. Language fits better in this section. Aligned the area and description of the building to be consistent with the item #1 to Section R105.2)

****Section R907.1; add a sentence to read as follows:**

R907.1 General. Materials and methods of application used for re-covering or replacing an existing roof covering shall comply with the requirements of Chapter 9. All individual replacement shingles or shakes shall comply with Section R902.1. *{Exception unchanged}*

(Reason: Consistent with regional practice. Correlates with regional amendment to R902.1 above)

*****Section N1101.2; add Section N1101.2.2 to read as follows:**

N1101.2.2 Compliance software tools. Software tools used to demonstrate energy code compliance utilizing the UA alternative approach shall be approved by the building official. The PNL program REScheck™ is not acceptable for residential compliance.

Exception: When REScheck™ "UA Trade-off" compliance approach or the UA Alternate compliance approach method is used, the compliance certificate must demonstrate that the maximum glazed area does not exceed 15% of the conditioned floor area.

(Reason: This amendment is added to satisfy the "not less restrictive" requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77th Legislature and reflects the findings of ESL report to SECO. In addition, this requirement will remain in effect until Jan. 1, 2012.)

***Section N1102.1; change to read as follows:

N1102.1 Insulation and fenestration criteria. The building thermal envelope shall meet the requirements of Table N1102.1 based on the climate zone specified in Table N1101.2. The use of Tables N1102.1 and N1102.1.2 are limited to a maximum glazing area of 15% window area to floor area ratio.

(Reason: This amendment is added to satisfy the "not less restrictive" requirement when adopting subsequent editions of energy codes in accordance with Texas SB 5, 77th Legislature and reflects the findings of ESL report to SECO. Effective January 1, 2012, this amendment becomes more stringent than the mandated Texas Building Energy Performance Standards.)

**Section N1102.2.12; add Section N1102.2.12 to read as follows:

N1102.2.12. Insulation installed in walls. Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

(Reason: This will increase the performance of the batt insulation by eliminating the potential for drafts and insure that the batt insulation stays in place)

***Section M1305.1.3; change to read as follows:

M1305.1.3 Appliances in attics. *Attics containing appliances* requiring access shall be provided . . . *{bulk of paragraph unchanged}* . . . sides of the *appliance* where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger and large enough to allow removal of the largest appliance. As a minimum, access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu items 1, 2, and 3 with prior approval of the building official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the *appliance* can be serviced and removed through the required opening.
2. Where the passageway is unobstructed...*{remaining text unchanged}*

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IFGC and IMC 306.3.)

*****Section M1305.1.3.1; add text to read as follows:**

M1305.1.3.1 Electrical requirements. A luminaire controlled by a switch located at the required passage-way opening and a receptacle outlet shall be installed at or near the *appliance* location in accordance with Chapter 39. Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.

(Reason: To call attention to the need for care while installing lighting wiring in attic.)

****Section M1305.1.4.1; change to read as follows:**

M1305.1.4.1 Ground clearance. *Equipment and appliances* supported from the ground shall be level and firmly supported on a concrete slab or other *approved* material extending above the adjoining ground a minimum of 3 inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) above the ground.

(Reason: Consistent with current local practice and regional amendment to IMC 304.9)

****Section M1305.1.4.3; add text to read as follows:**

M1305.1.4.3 Electrical requirements. A luminaire controlled by a switch located at the required passage-way opening and a receptacle outlet shall be installed at or near the *appliance* location in accordance with Chapter 39. Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.

(Reason: To call attention to the need to require thermostat wires and other wiring to be protected from damage.)

****Section M1307.3.1; delete.**

(Reason: This provision does not reflect standard practice in this area.)

*****Section M1411.3; change to read as follows:**

M1411.3 Condensate disposal. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to an ~~approved place of disposal~~ a sanitary sewer through a trap, by means of a direct or indirect drain. *{remaining text unchanged}*

(Reason: Reflects regional practice and to reduce excessive runoff into storm drains.)

****Section M1411.3.1, Items 3 and 4; add text to read as follows:**

M1411.3.1 Auxiliary and secondary drain systems. *{bulk of paragraph unchanged}*

1. *{text unchanged}*
2. *{text unchanged}*
3. An auxiliary drain pan... *{bulk of text unchanged}*... with Item 1 of this section. A water level detection device may be installed only with prior approval of the building official.
4. A water level detection device... *{bulk of text unchanged}*... overflow rim of such pan. A water level detection device may be installed only with prior approval of the building official.

(Reason: Reflects standard practice in this area.)

*****Section M1411.3.1.1; add text to read as follows:**

M1411.3.1.1 Water-level monitoring devices. On down-flow units ...*{bulk of text unchanged}*... installed in the drain line. A water level detection device may be installed only with prior approval of the building official.

(Reason: Reflects standard practice in this area.)

*****Section M1501; add new Section M1501.2 to read as follows:**

M1501.2 Material and size. Exhaust ducts shall have a smooth interior finish and shall be constructed of metal a minimum 0.016-inch (0.4mm) thick. The exhaust duct size shall be 4 inches (102 mm) nominal in diameter. Duct size shall not be reduced along its developed length or at termination.

(Reason: Reflects standard practice in this area and provides clarification when preparing specifications.)

*****Section M1501; add new Section M1501.3 to read as follows:**

M1501.3 Specified length. The maximum length of the exhaust duct shall be 35 feet (10668 mm) from the connection to the transition duct from the appliance to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.

(Reason: Reflects standard practice in this area and provides clarification when preparing specifications.)

****Section M2005.2; change to read as follows:**

M2005.2 Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the International Energy Conservation Code and equipped with an approved self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

(Reason: Corresponds with the provisions of IFGC Section 303, exception #5.)

****Section G2408.3 (305.5); delete.**

(Reason: This provision does not reflect standard practice in this area.)

****Section G2412.5 (401.5); add a second paragraph to read as follows:**

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING
1/2 to 5 psi gas pressure
Do Not Remove"

(Reason: To protect homeowners and plumbers.)

****Section G2413.3 (402.4.3); add an exception to read as follows:**

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EDH).

(Reason: Pipe less than 1/2" has a history in this region of causing whistling.)

****Section G2415.9.1 (404.9.1); delete.**

(Reason: Individual lines should also be buried to 18 inches.)

****Section G2415.10 (404.10); change to read as follows:**

G2415.10 (404.10) Minimum burial depth. Underground *piping systems* shall be installed a minimum depth of ~~42 inches (305 mm)~~ 18 inches (457 mm) below grade, except as provided for in Section G2415.10.1.

(Reason: To provide increased protection to piping systems.)

****Section G2417.1 (406.1); change to read as follows:**

G2417.1 (406.1) General. Prior to acceptance and initial operation, all *piping* installations shall be inspected and *pressure tested* to determine that the materials, design, fabrication, and installation practices comply with the requirements of this *code*. The permit holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the building official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

(Reason: To utilize language used in the IPC regarding who is responsible for testing procedures.)

****Section G2417.4; change to read as follows:**

G2417.4 (406.4) Test pressure measurement. Test pressure shall be measured with a manometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the *pressure test* period. The source of pressure shall be isolated before the *pressure tests* are made. Mechanical gauges Gauges used to measure... {remainder unchanged}

(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig.)

****Section G2417.4.1; change to read as follows:**

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be not less than ~~one and one-half times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), or at the discretion of the Building Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, 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*. For tests requiring a pressure of 3 psig, mechanical gauges used to measure test pressures shall utilize a dial with a minimum diaphragm diameter of three and one half inches (3 1/2"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, mechanical diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 1/2"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. ~~have a range such that the highest end of the scale is not greater than five times the test pressure.~~

For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

(Reason: To provide for lesser pressures to coordinate with the use of more accurate diaphragm gauges.)

****Section G2417.4.2; change to read as follows:**

G2417.4.2 (406.4.2) Test duration. The test duration shall be held for a length of time satisfactory to the Building Official, but in no case for be not less than 40 fifteen (15) minutes. ~~For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Building Official, but in no case for less than thirty (30) minutes.~~

(Reason: To comply with accepted regional practices.)

****Section G2420.1 (406.1); add Section G2420.1.4 to read as follows:**

G2420.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

(Reason: To provide proper security to CSST valves. These standards were established in this region in 1999 when CSST was an emerging technology.)

*****Section G2420.5.1 (409.5.1); add text to read as follows:**

G2420.5.1 (409.5.1) Located within the same room. The shutoff valve ...*{bulk of paragraph unchanged}*... in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

(Reason: Reflects regional practice and provides an additional measure of safety.)

****Section G2421.1 (410.1); add text and Exception to read as follows:**

G2421.1 (410.1) Pressure regulators. A line *pressure regulator* shall be ...*{bulk of paragraph unchanged}*... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

(Reason: To require adequate access to regulators.)

*****Section G2422.1.2.3 (411.1.3.3); delete Exception 1 and Exception 4.**

G2422.1.2.3 (410.1) Pressure regulators. A line *pressure regulator* shall be ...*{bulk of paragraph unchanged}*... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

(Reason: To comply with accepted regional practices.)

****Section G2439.5 (614.6); change text to read as follows:**

G2439.5 (614.6) Domestic clothes dryer exhaust ducts. Exhaust ducts for domestic *clothes dryers* shall conform to the requirements of Sections ~~G2429.5.4~~G2439.5.1 through ~~G2429.5.7~~G2439.5.7. The size of duct shall not be reduced along its developed length nor at the point of termination.

(Reason: To clarify the size requirement and to correct a typo in the code.)

****Section G2445.2 (621.2); add Exception to read as follows:**

G2445.2 (621.2) Prohibited use. One or more *unvented room heaters* shall not be used as the sole source of comfort heating in a *dwelling unit*.

Exception: Existing approved unvented room heaters may continue to be used in *dwelling units*, in accordance with the *code* provisions in effect when installed, when approved by the Building Official unless an unsafe condition is determined to exist as described in *International Fuel Gas Code Section 108.7* of the Fuel Gas Code.

(Reason: Gives code official discretion)

****Section G2448.1.1 (624.1.1); change to read as follows:**

G2448.1.1 (624.1.1) Installation requirements. The requirements for *water heaters* relative to access, sizing, *relief valves*, drain pans and scald protection shall be in accordance with this *code*.

(Reason: To clarify installation requirements. Also corresponds with amendments regarding water heater access.)

****Section P2503.6; change to read as follows:**

P2503.6 Shower liner test. Where shower floors and receptors are made water tight by the application of materials required by Section P2709.2, the completed liner installation shall be tested. The pipe from the shower drain shall be plugged water tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches (51 mm) measured at the threshold. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection.

(Reason: To clarify installation requirements. Also corresponds with amendments regarding water heater access.)

****Section P2709.2; add Exception to read as follows:**

Exception: Showers designed to comply with ICC/ANSI A117.1.

(Reason: To provide more specific requirements.)

****Section P2717.2; change text to read as follows:**

P2717.2 Sink and dishwasher. A sink and dishwasher are permitted ... *{bulk of text unchanged}* ... wye fitting to the sink tailpiece. The dishwasher waste line shall rise and be securely fastened to the underside of the counter before connecting to the sink tailpiece. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece shall connect to a deck mounted air break.

(Reason: To provide consistency with 2009 International Plumbing Code, Section 802.1.6.)

****Section P2717.3; change text to read as follows:**

P2717.3 Sink, dishwasher and food grinder. The combined discharge ... *{bulk of text unchanged}* ... head of the food grinder. ~~The dishwasher waste line shall rise and be securely fastened to the underside of the counter before connecting to the sink tailpiece or the food grinder.~~ The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder shall connect to a deck mounted air break.

(Reason: To provide consistency with 2009 International Plumbing Code, Section 802.1.6.)

****Section P2801.6; add Exception to read as follows:**

Exceptions:

1. Elevation of the ignition source is not required for water heaters that are listed as flammable vapor resistant and for installation without elevation.
2. Electric Water Heater.

(Reason: To coordinate with Section 2408.2 of the IRC, which recognizes this exception.)

****Section P2902.5.3; change to read as follows:**

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(Reason: To provide clarity.)

****Section P3005.2.6; change to read as follows:**

P3005.2.6 ~~Base of stacks~~ Upper Terminal. A cleanout shall be provided at the base of each waste or soil stack. Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

(Reason: To eliminate the requirement for excessive cleanouts.)

****Section P3111; delete.**

(Reason: A combination waste and vent system is not approved for use in residential construction.)

****Section P3112.2; delete and replace with the following:**

P3112.2 Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

(Reason: To clarify the installation of island venting and to provide a regional guideline on a standard installation method for this region.)

END

Division 3. Electrical Code*

Part I. In General

Sec. 3.02.111 Adopted

(a) The 2005 edition of the National Electrical Code is hereby adopted as the official electrical code of the city and is fully incorporated by reference as though copied into this part in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 13, adopted 1/10/11)

(b) The 2005 edition of the National Electrical Code is hereby amended by the adoption of those local amendments shown on exhibit "G" attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 14, adopted 1/10/11)

Sec. 3.02.112 Aluminum wiring prohibited

Any provision of said code notwithstanding, however, all electrical wiring within the city shall consist exclusively of copper wiring, and no aluminum wiring shall be permitted. (1989 Code, ch. 3, sec. 4.02)

Secs. 3.02.113–3.02.130 Reserved

Division 4. Plumbing Code*

Sec. 3.02.161 Adopted

(a) The 2006 edition of the International Plumbing Code is hereby adopted as the official plumbing code of the city and is fully incorporated by reference as though copied into this division in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 9, adopted 1/10/11)

(b) The 2006 edition of the International Plumbing Code is hereby amended by the adoption of those local amendments shown on exhibit "E" attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 10, adopted 1/10/11)

Sec. 3.02.162 State plumbing license required

No person shall engage in work or conduct of the business of plumbing or landscape irrigation within the city, except as herein specifically exempted, unless such person is the holder of a valid license issued by the state board of plumbing examiners or the state board of irrigators. Plumbing

work by a landscape irrigation installer, however, is limited to the installation and repair of irrigation systems and connection of these systems to the customer's side of the water service. Nothing contained herein shall prohibit the employment of a journeyman plumber or irrigator or apprentice to engage in plumbing work under the general supervision of a master plumber nor plumbing work done by a property owner in a building or on premises owned or occupied by him or her as his or her home. (1989 Code, ch. 3, sec. 6.02)

Sec. 3.02.163 Lead pipes and fittings prohibited

(a) The use of lead pipes and pipe fittings that contain more than 8.0% lead or solders and flux that contain more than 0.2% lead is prohibited in the following circumstances:

- (1) For installation and repair of any public water supply; and
- (2) For any plumbing in a residential or nonresidential facility providing water for human consumption and connected to a public drinking water supply system.

(b) This requirement will be waived for lead joints that are necessary for repairs to cast iron pipes.

(1989 Code, ch. 3, sec. 6.03)

Division 5. Mechanical Code*

Sec. 3.02.221 Adopted

(a) The 2006 edition of the International HVAC/Mechanical Code with 2006 COG amendments is hereby adopted as the official HVAC/mechanical code of the city and is fully incorporated by reference as though copied into this division in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 5, adopted 1/10/11)

(b) The 2006 edition of the International HVAC/Mechanical Code is hereby amended by the adoption of those local amendments shown on exhibit "C" attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 6, adopted 1/10/11)

Sec. 3.02.272 Cooling systems in attic spaces

When a cooling system is installed in attic spaces, it shall have both a condensate drain and an emergency overflow drain. Drains shall be insulated with a minimum of three-eighths inch (3/8") thick flexible plastic tubing with a flame spread/smoke development of 25/100. The overflow emergency drain should be run to the outside of the building. (1989 Code, ch. 3, sec. 13.02)

Sec. 3.02.273 Metal duct systems

Metal duct systems shall conform to the following minimum gauges:

- (1) Round ducts and enclosed rectangular ducts:
 - (A) Fourteen inches (14") and less:
 - (i) Galvanized: 30 gauge.
 - (ii) Aluminum: 26 gauge.
 - (B) Over fourteen inches (14"):
 - (i) Galvanized: 28 gauge.
 - (ii) Aluminum: 26 gauge.
- (2) Round ducts ten inches (10") in diameter or less may be thirty-two (32) gauge galvanized.
- (3) All duct joints shall be first taped and then firmly held in place by means of not less than three (3) metal screws equally spaced in each joint or an equivalent fastening method. Tapes used for sealing joints shall meet 25/50 flame spread/smoke development.
- (4) Ducts shall be hung or supported as follows:
 - (A) Less than ten inches (10") OD duct: Ten (10) ga. galvanized or one-inch (1") galvanized strap twelve feet (12') on center. Strap no less gauge than the duct it supports.
 - (B) Larger than ten inches (10") OD but less than twenty inches (20") OD: One-inch (1") galvanized strap on ten-foot (10') centers. Same gauge as duct it supports.
 - (C) Larger than twenty inches (20") OD: Two-inch (2") galvanized strap. Same gauge as duct it supports.
- (5) All unlined metal ducts shall be insulated with a minimum of two-inch (2") thick three-fourths pound (3/4 lbs.) density flexible duct wrap with RFSK facing. All laps and fasteners shall be sealed with a three-inch (3") matching tape. Ductwrap and tape shall meet 25/50 flame spread/smoke development as specified by NFPA-80A.

Secs. 3.02.222–3.02.270 Reserved

Sec. 3.02.274 Fiberglass duct systems

- (a) Fiberglass duct systems shall be approved for air velocities. Water gauge pressure and maximum air temperature in accordance with the manufacturer's ratings.
- (b) All joints of fiberglass ductboard systems shall be connected or stapled and taped in accordance with the manufacturer's instructions. Tape shall also meet class I air duct approval by UL 181 as required by NFPA-90A.
- (c) Shall not be installed where they will be exposed to the weather.
- (d) All installations of rectangular fiberglass duct board types 475, 800 and 1400 shall be reinforced and suspended in accordance with the latest edition of manufacturer's instructions.
- (e) The use of triangular duct board wye fittings for multiple outlets will be permitted or used. Only metal wye fittings will be permitted.

(1989 Code, ch. 3, sec. 13.04)

Sec. 3.02.275 Factory-made flexible air ducts

- (a) Shall be a class I air duct in accordance with UL 181 test, as required by NFPA-901. Facing material for round fiberglass ducts shall have a perm rating of not greater than 0.05 perms. Insulation material for insulated flexible duct shall be sheathed with an approved facing material with a vapor barrier having a perm rating of not greater than 0.3 perms, as determined by ASTM-E96, Procedure A. The insulated flexible duct shall have a resilient core of continuous impervious inner air barrier. Shall have a thermal conductivity (c) at seventy-five degrees (75°) of not greater than twenty-four (24) C-BTU hour square foot deg F. (ASTM C 177-71 test). Should not be used where exposed to the weather.
- (b) Flexible ducts in excess of four feet (4') will be permitted if used only on a room addition or garage conversion to an existing residence or building. Flex duct shall be properly supported to prevent collapsing. Metal ells shall be used at the outlet to provide sufficient air flow. This application is for additions and shall not be used on new construction.
- (c) Flexible ducts shall not be used in excess of two (2) lengths in any duct run of the HV and AC system. Flexible ducts shall be supported per manufacturer's recommendations.
- (d) Duct systems may be connected to the outlets with flexible ducts but cannot exceed two feet (2') in length. Tape or mastic with a class I air duct in accordance with UL 181 may be used to seal the joints. All tapes or mastics shall meet the 25/50 flame spread/smoke development rating as specified by NFPA-90A.

(1989 Code, ch. 3, sec. 13.05)

Sec. 3.02.276 Inspection

When ducts are installed and properly taped, a city inspection shall be called for before any portion of this work is covered up or concealed. Approval at the mechanical/electrical inspection shall be required prior to a green tag being issued by the city building inspector. (1989 Code, ch. 3, sec. 13.06)

Sec. 3.02.277 Enforcement; penalty

Any person, firm, partnership, association or corporation who shall violate any of the provisions of this division shall be guilty of a misdemeanor, and each and every instance of the violation of this division shall constitute a separate offense and shall be punishable by separate fines for each offense. If work is not installed to quality as per this division it will be the responsibility of the contractor to remove faulty material and replace same to conform at no additional cost to the city and the homeowner. In addition, the contractor shall be liable, upon conviction, for a fine pursuant to the terms and conditions stated hereinabove. (1989 Code, ch. 3, sec. 13.07)

Division 7. Fuel Gas Code

Sec. 3.02.331 Adopted

(a) The 2006 edition of the Fuel Gas Code is hereby adopted as the official fuel gas code of the city and is fully incorporated by reference as though copied into this division in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 11, adopted 1/10/11)

(b) The 2006 edition of the Fuel Gas Code is hereby amended by the adoption of those local amendments shown on exhibit "F" attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 12, adopted 1/10/11)

Secs. 3.02.332–3.02.380 Reserved

Division 8. Swimming Pool, Spa and Hot Tub Code

Sec. 3.02.381 Adopted; fence required

(a) The 1991 edition of the Uniform Swimming Pool, Spa, and Hot Tub Code, as amended or revised, is hereby adopted to govern the construction and installation of swimming pools, spas and hot tubs within the city. Said code is hereby adopted and incorporated as fully as if set out at length herein.

(b) A fence permit as outlined in [section 3.05.007](#) is required in conjunction with the swimming pool permit.

(c) No water shall be allowed in the pool until the fence is installed.

(1989 Code, ch. 3, sec. 8.01)

Sec. 3.01.001 Public works construction standards adopted

The 2004 edition of the NCTCOG Public Works Construction Standards and all subsequent amendments and revisions thereto, or as modified hereafter, is hereby adopted, and the provisions of the code are incorporated herein by reference the same as though copied in full herein. (Ordinance 08-020 adopted 9/8/08)

Sec. 3.01.002 Exterior wall requirements variance

(a) Special designs that constitute a variance will be referred to the board of adjustment. The required variance fee is included in the adopted fee schedule. Applicants must meet the requirements for a variance set forth in [chapter 14](#).

(b) For new residential homes located within the boundaries of the Historical Overlay District as defined within [chapter 14](#), a variance may be requested to allow the use of Hardiplank or a comparable substitute. When reviewing the variance request the board of adjustment shall consider the design of the proposed residence, and that such construction of the building would not be contrary to the purpose of the Historical Overlay District.

(Ordinance 07-007, sec. 2, adopted 4/9/07)

Division 2. Building Code and Residential Code*

Sec. 3.02.051 Adopted

(a) The 2006 edition of the International Building Code with 2006 COG amendments is hereby adopted as the official building code of the city and is fully incorporated by reference as though copied into this division in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 3, adopted 1/10/11)

(b) The 2006 edition of the International Building Code with 2006 COG amendments is hereby amended by the adoption of those local amendments shown on exhibit "B" attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 4, adopted 1/10/11)

(c) The 2006 edition of the International Residential Code is hereby adopted as the official residential code of the city and is fully incorporated by reference as though copied into this division in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 7, adopted 1/10/11)

(d) The 2006 edition of the International Residential Code is hereby amended by the adoption of those local amendments shown on exhibit “D” attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 8, adopted 1/10/11)

Sec. 3.02.052 Building permit required

A building permit is to be required before construction is begun for all construction within the city, including, but not limited to, residences, business buildings, fences, alterations of existing structures, portable storage buildings and sheds, and patio covers. (1989 Code, ch. 3, sec. 1.02)

Sec. 3.02.053 Requests for permits and inspections

All requests for building permits and inspections of construction by the building inspector shall be made at the city hall. (1989 Code, ch. 3, sec. 1.03)

Sec. 3.02.054 Compliance with codes and ordinances

All building permits shall comply with provisions of the above said building codes, the comprehensive zoning ordinance and all other governing ordinances and regulations applicable to the construction project. The city secretary is hereby directed to make available a list of basic building requirements of the city to all applicants. (1989 Code, ch. 3, sec. 1.04)

This article shall be known as the fire code of the city, hereinafter referred to as “this code.” (1989 Code, ch. 5, sec. 2.00)

Sec. 5.04.002 Adopted

(a) The 2006 edition of the International Fire Code with 2006 COG amendments is hereby adopted as the official fire code of the city and is fully incorporated by reference as though copied into this article in its entirety. The material contained in such code shall not be included in the formal municipal codification of ordinances but shall be maintained as a public record in the office of the city secretary and will be available for public inspection and copying during regular business hours. (Ordinance 2011-002, sec. 1, adopted 1/10/11)

(b) The 2006 edition of the International Fire Code with 2006 COG amendments is hereby amended by the adoption of those local amendments shown on exhibit “A” attached to Ordinance 2011-002 and incorporated by reference. (Ordinance 2011-002, sec. 2, adopted 1/10/11)

Sec. 5.04.003 Violations

Any person or other legal entity which shall fail to comply with the provisions of this article or the fire code adopted herein by reference shall be guilty of a misdemeanor. (1989 Code, ch. 5, sec. 2.02)

Sec. 5.04.004 Amendments

The adoption of the 2000 **International** Fire Code, as provided in [section 5.04.002](#), is modified and amended by the following:

Section 103, Department of fire prevention, is amended to read as follows:

Sec. 3.02.055 Building permit and plan review fees

State law references—**Building** and residential **codes**, V.T.C.A., Local Government Code, sec. 214.211 et seq.; International **Building** Code adopted as municipal commercial **building** code, V.T.C.A., Local Government Code, sec. 214.216; International Residential Code adopted as a municipal residential **building** code, V.T.C.A., Local Government Code, sec. 214.212.