



SIGNIFICANT CODE CHANGES

(Effective April 01, 2009)

- **Code Adoption:** The City has adopted the 2006 International Building Codes and the 2008 National Electrical Code as amended in Chapter 8 of the Killeen Code of Ordinances.

- **New Permits Fees: (Chapter 8 Killeen Code of Ordinance)**

- Gas piping systems will require separate permit fee.

Gas piping systems will no longer be included in the common plumbing permit fee cost (except New Single-family). Gas piping systems will require the following applicable inspections:

Gas Yardline - (service line to building)
 Rough-in (building piping to cut-off valves)
 Final (completed system) inspections.

- Created a permit fee cap for remodel and finish out permit fees that prevents any single permit fee from exceeding the specific valuation.

Because permit fees for remodel and commercial permits are calculated from the total project value (sum total of the applicable building, electrical, mechanical, plumbing, gas and fire sprinkler systems) some individual permit fees exceeded its own valuation. The new rule will cap a single permit item fee to not exceed 50% of its individual value.

- Created separate permit, fees and inspections for commercial kitchen hoods.

<i>Commercial kitchen hood permit (each)</i>	
<i>Type I Hood (grease and smoke)</i>	<i>\$ 50.00</i>
<i>Type II Hood (smoke and/or steam)</i>	<i>\$ 25.00</i>

- Clarified that City owned projects do not require permit fees. However, contractor must pay for company registration, temporary construction trailers and re-inspection fees.

Projects for city owned facilities requiring permits shall be exempt from permit fees. However, contractors shall be responsible for contractor registration, construction trailers and/or other temporary construction structures, re-inspection fees or other penalties.

- **New Penalties:**

- Created a minimum \$200 penalty for general contractor's convicted of allowing buildings or homes to be occupied without obtaining a Certificate of Occupancy. Current law only identifies the occupant when such violation occurs.

Sec 8-11 (h) - Occupy without a certificate of occupancy. It shall be an offense for any registered general contractor, whether commercial or residential, to allow an owner or tenant of property to occupy a new or remodeled building or space before the contractor obtains a certificate of occupancy. Upon conviction, a person violating this section shall be fined in an amount not less than two hundred fifty dollars (\$250) nor more than two thousand dollars (\$2000). For the second or subsequent conviction within a twelve month period, such person shall be fined not less than five hundred dollars (\$500) nor more than two thousand dollars (\$2000). Each day a violation continues shall constitute a separate and distinct offense and shall be punishable as such.

- Building Inspector may issue Stop Work Order if missing trash receptacle, toilet facilities, or violation of the "Noise Ordinance."

Sec 8-191 (6) - A stop work order may be issued if any of the following occur:

1. *Litter not kept in an approved receptacle designed in a manner so as not to allow it to be blown, carried, or deposited by the wind upon any private or public property or any right-of- way.*
2. *Construction worker toilet facility missing or not in sanitary condition.*
3. *Excessive construction noise in violation of Chapter 16 – Miscellaneous Provisions and Offenses of the Killeen Code of Ordinances.*

- No inspection will occur if the job site is missing a trash receptacle, address, and worker toilet facilities.

Sec 8-191 (4) - No inspection shall occur if any of the following are not placed at each permitted construction site:

1. *Trash receptacle. Such trash receptacle shall be sufficient in size for the project but not smaller than 24 square feet by 4 feet in height with openings no larger than 9 square inches and must be capable of containing construction debris. Such receptacles must be properly maintained and serviced.*
2. *Project address number posted and visible from street.*
3. *Construction worker toilet facilities as required in 311.1 of the 2006 IPC.
[311.1 General. Toilet facilities shall be provided for construction workers and such facilities shall be maintained in a sanitary condition. Construction worker toilet facilities of the non-sewer type shall conform to ANSI Z4.3. The path of travel to required facilities shall not exceed a distance of 150 feet.]*

■ Inspection Changes:

- Open Ditch Inspections. All plumbing piping systems (water, sewer, or gas) shall be left open until inspected. This includes water or sewer yard lines, whole-house water softener connections, backflow preventers, and gas piping systems.

IPC 107.1 & IRC-P2503 - Required [Plumbing] inspections and testing.

The code official, upon notification from the permit holder or the permit holder's agent, shall make the following inspections and such other inspections as necessary, and shall either release that portion of the construction or shall notify the permit holder or an agent of any violations that must be corrected. The holder of the permit shall be responsible for the scheduling of such inspections.

1. *Underground inspection shall be made after trenches or ditches are excavated and bedded, piping installed, and before any backfill is put in place.*
- Documents Required on Site. (IBC 106.3.1 & IRC 106.3.1) Copies of city-approved plans and documents must be on site for the inspection process. Such copies shall have a City Seal stamp on them. Field changes not recognized on the approved drawings will forfeit the inspection.
 - Commercial building, site plans and engineered structural shop drawings
 - Energy code report (RES Check or Com Check form copies)
 - Landscape plans

- Final & Certificate of Occupancy. The Final and C.O. approval process for new commercial projects (including apartment complexes) containing any public water, sewer, street, sidewalk, or engineered drainage improvements will now require a Public Works approval signature. Listed below are the approving final & C.O. departments (as applicable):

Permits & Inspections	254-501-7762	(Building inspections)
Fire Department	254-501-3701	(Fire inspections)
Public Works	254-501-7620 or 7625	(Drainage & public infrastructure)
Bell Co. Health Dept	254-526-8371	(Food establishments)

Contractors can contact the Permits Department to make an appointment for the initial Final / C.O. Inspection. Public works and Health Department must be contacted individually and usually prior to the building department inspection. All re-inspections are through each department individually.

- **Floodplain permits and Elevation Certificates.** (Sec 12-62) The use of a current FEMA Elevation Certificate [<http://www.fema.gov/business/nfip/elvinst.shtm>] is required for regulating construction in the floodplain. Section C of the EC and Chapter 12 requires this form to be submitted as follows:
 1. Construction Drawings (when submitted for permit application)
 2. Building Under Construction (prior foundation / slab inspection)
 3. Finished Construction (prior final / certificate of occupancy)

Sec. 12-62. Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in section 12-7, section 12-37(8), or section 12-63(c), the following provisions are required:

1. *Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated at least **two (2) feet** above the base flood elevation. A Texas registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this section as proposed in section 12-39(a)(1), is satisfied.*
2. *Nonresidential construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated at least **two (2) feet** above the base flood level (confirmed by an elevation certification submitted by a Texas registered professional engineer, architect, or land surveyor) or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A Texas registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification, which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the floodplain administrator.*

■ Significant Changes in the Construction Codes:

▶ Building Code

- Fire sprinkler system is required for A-2 Assembly Uses (restaurants, banquet halls, night clubs, taverns and bars) with a fire area exceeding 5000 square feet or occupant load of 100 persons (previously 300 persons).

[F] 903.2.1.2 Group A-2.

An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. *The fire area exceeds 5,000 square feet (465 m²);*
 2. *The fire area has an occupant load of 100 or more; or*
 3. *The fire area is located on a floor other than the level of exit discharge.*
- Single exit for a room in Group E – Daycare has changed from 50 persons down to 10 persons Per T1015.1, Footnote (a)

▶ Residential Building Code (1 & 2-Family Dwellings)

- Code requires smoke alarms to be installed and hard-wired through out the house when permits are required for repair, remodel, addition or creation of a sleeping room.

R313.2.1 Alterations, repairs and additions. *When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hard wired.*

Exceptions:

1. *Inter connection and hard-wiring of smoke alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.*
 2. *Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.*
- Exhaust air from bathrooms and toilet rooms shall exhaust directly to the outdoors (not into an attic, etc.)

M1501.1 Outdoor discharge. *The air removed by every mechanical exhaust system shall be discharged to the outdoors. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space.*

- Exterior Covering

R703.1 General [Exterior covering]. *Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer as required by Section R703.2. and a means of draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Chapter 11 of this code. [See all of Section R703 in its entirety for compliance]*

► **Electric Code (2008 NEC)**

- Arc-Fault Circuit Interrupter (breaker) use has expanded beyond bedrooms to now include all rooms except garages, bathrooms, kitchen counters and outside receptacles.

Section 210.12 Arc-Fault Circuit Interrupter (AFCI)

(B) Dwelling Units. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.

- All receptacles are required to be tamper resistant.

Section 406.11 Tamper-Resistant Receptacles in Dwelling Units. *In all areas specified in 210.52, all 125- volt, 15- and 20-ampere receptacles shall be listed tamper-resistant receptacles.*

► **New Local Electrical Requirements**

- Electrical upgrade (rewire)

Electrical system upgrade required (rewire). *The electrical system shall be upgraded on a structure when any of the following occur:*

1. *Dangerous or unsafe electrical hazards*
2. *Substantial damage to electrical system over 50%*
3. *Change from residential use to commercial use. For the purpose of this section, apartment dwellings are considered residential use and hotel/motel structures are considered commercial use.*

- Two ground rods required

Each service shall be supplied with two (2) 5/8 inch by 8 feet ground rods spaced a minimum of 6 feet apart. Other grounding methods may be used with special permission from the code official.

- Electrical panels within 6-feet of water source

Unless separated by a minimum 3 foot wide by 8 foot tall permanent wall, partition or barrier, a minimum clearance of 6 feet shall be required separating electrical panels from any water fixture, (water) appliance or (water) outlet.

- Kitchen and Dining room receptacles

Receptacle outlets installed in the kitchen and dining room of each dwelling shall have a maximum of two (2) duplex receptacles on each 20 amp small appliance circuit. Such receptacles shall be rated 20 amps. Note: 15 amp rated receptacles shall not be allowed on such circuits.

► **Commercial & Hotel/Motel receptacle requirements**

Receptacle requirements.

- 1. Minimum of one (1) receptacle shall be required for each interior wall four (4) feet or longer of occupied space. Walls over fifteen (15) linear feet shall have receptacles spaced no greater than thirty (30) feet apart, measured horizontally around the interior walls at the floor level.*
- 2. Receptacle circuits and outlets for counter spaces in kitchen, break room or similar areas shall be installed in accordance with section 8-221(b)...*
- 3. Receptacles and switches in commercial buildings shall be rated a minimum of 20 Ampere.*

► **Plumbing / Gas Code**

- Local amendment requires the test gauge be limited to 30 psi for a standard 10 lb test.

406.4.1 Test pressure. The test pressure to be used shall be no less than 1 1/2 times the proposed maximum working pressure but not less than 10 psig (69 kPa gauge) and the test gauge shall not be rated higher than 30 PSI, or at the discretion of the code 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, low pressure diaphragm gauge or slope gauge. For welded piping, and for piping carrying gas at pressures in excess of 0.5 psig or fourteen (14) inches water column pressure (3.48 kPa), the test pressure shall not be less than sixty (60) pounds per square inch (413.4 kPa). 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.

- Whole House Water Softeners (Clarification)

- 1. Entire piping system must be exposed for inspection*
- 2. Must use code approved backflow prevention device (dual check - ASSE 1024). A simple spring check will not be recognized*
- 3. All discharge must connect to the sewer or drainage system with a code approved air gap or an air gap device that meets the requirements of NSF 58*

- Lawn Irrigation Program (Clarification).

The TCEQ has adopted their new Lawn Irrigation rules effective January 01, 2009. However, the City of Killeen has NOT adopted these laws at this time. The Permit staff will continue to enforce the adopted plumbing codes and will require proper connection and backflow prevention to the public water system. All connections from the city system to the backflow preventer(s) will require open ditch inspections.

► **Mechanical Code**

- Commercial kitchen exhaust hoods now require a witness of a smoke test and grease hoods now require a light test during inspection.

507.16.1 Capture and containment test.

The permit holder shall verify capture and containment performance of the exhaust system. This field test shall be conducted with all appliances under the hood at operating temperatures, with all sources of outdoor air providing makeup air for the hood operating and with all sources of recirculated air providing conditioning for the space in which the hood is located operating. Capture and containment shall be verified visually by observing smoke or steam produced by actual or simulated cooking, such as with smoke candles, smoke puffers, etc.

506.3.2.5 Grease duct test.

Prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed in the presence of the code official. Ducts shall be considered to be concealed where installed in shafts or covered by coatings or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide the necessary equipment and perform the grease duct leakage test. A light test or an approved equivalent test method shall be performed to determine that all welded and brazed joints are liquid tight. A light test shall be performed by passing a lamp having a power rating of not less than 100 watts through the entire section of duct work to be tested. The lamp shall be open so as to emit light equally in all directions perpendicular to the duct walls.

► **Energy Code**

- Requires insulation behind the tub and shower tubs (outside wall) and between dwelling units.

402.4.1 Building thermal envelope.

The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material:

1. *All joints, seams and penetrations.*
2. *Site-built windows, doors and skylights.*
3. *Openings between window and door assemblies and their respective jambs and framing.*
4. *Utility penetrations.*
5. *Dropped ceilings or chases adjacent to the thermal envelope.*
6. *Knee walls.*
7. *Walls and ceilings separating a garage from conditioned spaces.*
8. *Behind tubs and showers on exterior walls.*
9. *Common walls between dwelling units.*
10. *Other sources of infiltration.*

- Change RES Check forms to reflect 2006 IECC

► **Other:**

- Historical Overlay District (zoning)

New law requiring pre-approval of certain work regulated with the downtown historical zoning district before a building permit can be issued. Any questions can be directed to the Planning & Development Department at 254-501-7630.

- Steel plate washers minimum of 3/16 inch thick X 3 inches square (2308.12.8)
- Septic tank approval

701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or upon approval by the city engineer, an approved private sewage disposal system designed and accepted in accordance with the Bell

County Health District rules and regulations. No permit for new construction shall be issued without proof of the accepted design. In addition, no building final inspection or certificate of occupancy inspection shall occur without proof of acceptance by the Bell County Public Health District.

- Condensate drainage (clarification)

307.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance. [Note: Condensate drainage may be piped into the plumbing drainage system in accordance with the adopted plumbing code]