

COMMERCIAL CONSTRUCTION INFORMATION PACKET

Implemented: October 10, 2019

PLAN REVIEW / PERMIT SUBMITTAL

The requirements for permit submittal are:

1. Two (2) complete sets of plans on sheets sized at 24 x 36 with (1) full set of plans in digital format on USB, Flash, or Thumb drive.
2. A cover sheet that includes the following information:
 - a. Building construction type (II-B, V-B, etc.).
 - b. Occupancy classification (E, B, M, F, etc.).
 - c. Number of parking spaces required and provided.
 - d. Total square footage of building.
 - e. Occupant load (based on the International Building Code).
 - f. Exiting requirements. Indicate the number of exits required and provided as well as the exit width required and provided.
 - g. Whether or not the structure contains an automatic fire sprinkler system.
 - h. Whether or not the structure contains a fire alarm and if so what type.
 - i. Complete address of proposed building along with the correct legal description.
 - j. All information typically required on commercial plan set.
3. Electrical plan must include the following information:
 - a. Information indicating how the electrical service will be grounded.
 - b. Electrical fault current calculations.
 - c. Electrical short circuit calculations.
 - d. Electrical load calculations.
4. One (1) site plan indicating all proposed structures and where those structures are to be placed in relation to property lines.
5. One (1) complete floor plan of the structure(s). Indicate room/area sizes and uses.
6. Window and door sizes must be included with each of the floor plans.
6. One (1) elevation drawing showing exterior wall construction.
7. A Geotechnical Engineering Report (soil report)
8. One (1) foundation drawing stamped by a professional engineer licensed by the State of Texas.
9. One (1) original letter from the design engineer that sealed the foundation plans stating that the foundation was designed for the soil conditions on that particular lot. The letter must also state that the foundation design criteria complies with the minimum standards required by the 2015 International Building Code.
10. One COM Check verifying compliance with the 2015 International Energy Conservation Code. The COM Check must include: Envelope, Lighting and Mechanical sections.
11. Verification from TDLR that the project has been registered for review of compliance with Architectural Barriers regulations.
12. One (1) copy of the plans in digital format as stated in step 1.
13. Completed Utility Service Agreement
14. Per Senate Bill 509 an asbestos survey may be required. You may contact the Department of State Health Services at 512-834-6773 or 800-572-5548

GENERAL INSPECTION NOTES

1. All inspections must be requested by current policy. Inspections requested prior to 4:00 pm will be done by 4:00 pm the next business day. After 4:00 pm will be the day after.
2. **Cancellations.** Please cancel within a reasonable time after requesting the inspection and before the inspector arrives for the inspection.
3. No construction, other than setting form boards and lot grading, may begin until a building permit has been issued.
4. Building permit cards must be displayed in an obvious place that can be seen by the public. Permit cards and previous inspection tags must be contained in the plastic bag provided by the City. Construction plans stamped approved by the Building Inspection Division must remain on the job site at all times.
5. Instruct subcontractors and their employees to park in such a way that emergency vehicular traffic will not be obstructed, i.e., fire trucks and ambulances.
6. Building addresses must be posted at each lot at all times. Numbers must be a minimum of six inches (6") in height and face a public street.
7. Addresses must be posted on all temporary electrical poles.
8. Portable restrooms are required prior to starting foundation.

Special Inspections

Certain types of special inspections will also be required. Special inspection can be performed by a qualified testing lab or professional engineer. Reports from the special inspector must be submitted to the Building Inspector for review. Additional reports or testing may be necessary before the special inspection reports can be approved by the Building Inspector. Items requiring special inspection include:

Structural Steel - reports must verify that the structural steel has been installed in accordance with the engineered design. Also, the reports must verify that all connections have been made correctly (i.e. welds, bolts, etc.)

Items that may utilize a special inspector in place of a city inspector include (Provided that prior approval is received from the Chief Building Official to use the services of the special inspector):

Foundation/ Piers – reports/documents must verify structural design and stamped by qualified professional.

Other special inspections or engineered plans or documents may be required by the Chief Building Official as outlined in the International Building Code.

INSPECTION REQUIREMENTS

1. TEMPORARY POWER POLE

- a. Double pole breaker installed for 220 volt plug with GFCI protection.
- b. Single pole breaker installed for 120 volt plug with GFCI protection on all 120 volt receptacles.
- c. Weather resistant receptacles and in use covers are required.
- d. Panel box is to be secured to the pole and NEMA3 (rain tight) rated.
- e. Pole is to be braced.
- f. A full length eight-foot (8') ground rod must be installed.
- g. Legible address numbers must be posted on the T-pole. Numbers must be at least four inches (4") in height.

2. FLATWORK (City Sidewalks and Drive Approaches Only)

All City sidewalks and approaches must be inspected prior to placement of concrete by Public Works.

3. PLUMBING ROUGH

a. Water Lines

1. All hose Bibs must have non-removable vacuum breakers installed at all times.
2. All lines under the slab must be of type approved by code for the use.
3. All piping located under the slab must be continuous with no joints.
4. The water meter must be in place with all valves open to allow for testing of the lines at City water pressure. If City water is not available, a 50 p.s.i. air test can be substituted for the water test. A valid air test will not have any water in the lines.
5. Lines extending through concrete beams must be sleeved and or protected

b. Sanitary Sewer

1. All sewer piping and fittings must be used and install according to the current adopted code for the City of Anna.
2. The plumbing rough must be tested with a five-foot (6') head of water at the most upstream stack. Stack must be full to overflowing.
3. Double clean outs must be installed within five feet (5') of building.
4. The sewer tap must be exposed one foot (1') from either side of the sewer connection. (This means that one foot (1') of the City's lateral line adjacent to the tie in must be exposed at the time of inspection).
5. Lines extending through concrete beams must be sleeved.

c. Gas Line

1. Where a gas piping system is utilized that contains a working pressure greater than 1/2 p.s.i., an air test of at least ten pounds per square inch (10 p.s.i) on a diaphragm gauge that has a set hand and has a maximum range of fifteen (15) p.s.i. For portions of gas piping that are regulated to a working pressure of less than 1/2 p.s.i, a 3 psi test with a diaphragm gauge that has a set hand and has a maximum range of six (6) p.s.i. is acceptable.
2. All gas lines must be buried. The top of the line must be located at least 12" below grade.
3. Where poly gas lines are utilized, a number eighteen (18) AWG copper tracer wire yellow only in color must be buried alongside of the line for its complete length.
4. Black pipe gas lines installed in the ground must be factory mill wrapped pipe and all fittings must be properly field wrapped.

4. GREASE TRAP

- a. Grease trap must be full of water and not leaking.
- b. All drain lines to and from the trap must be installed Test port and cleanout must be installed.
- c. All trap vents must be installed per manufacturer's specifications.

5. TILT WALL

All steel is to be in place per engineered drawings.

6. FOUNDATION

All foundation plans must be stamped/sealed by a structural engineer.

Post Tension. Everything must conform to the engineered plans.

1. The post tension drawing must be on the job with the detail sheet and the plot plan (both must be City stamped approved).
2. Electrical conduit, other lines or chases (e.g. Jenn Aire ducts) located in the foundation must be installed.
3. All gas line sleeves must be installed.
4. Original finished floor elevation surveys and engineering letters verifying required piers were installed according to design must be submitted prior to requesting the inspection.
5. No changes can be made to the foundation after inspection approval without requesting another foundation inspection.
6. All plumbing drain lines must run through beams at a ninety-degree (900) angle to the beam.
7. A concrete encased electrode must be installed. Concrete encased electrodes must extend at least 20 feet through the concrete. The preferred method is to use a #3 rebar that is at least 20 feet long (you can splice more than one piece of rebar together to get the 20-foot length as long as the bars are adequately tied together. Near the panel box, bend the bar to that it extends through the location of the bottom plate and extend about 2 feet through the bottom plate. At the electrical rough, extend the ground wire from the main panel to the rebar and clamp the ground wire to the rebar.

Rebar

1. Work must conform to plans approved by structural engineer.
2. Anchor bolts and chairs must be in place.
3. Electrical conduit located in the foundation must be installed.
4. Original finished floor elevation surveys and engineering letters verifying required piers were installed according to design must be submitted prior to requesting the inspection.
5. No changes can be made to the foundation after inspection approval without requesting another foundation inspection.
6. All plumbing drain lines must run through beams at a ninety-degree (900) angle.
7. Poly must cover all pad areas only. Poly is to be cut or not installed in beams.
8. A concrete encased electrode must be installed. Concrete encased electrodes must extend at least 20 feet through the concrete. The preferred method is to use a #3 rebar that is at least 20 feet long (you can splice more than one piece of rebar together to get the 20-foot length as long as the bars are adequately tied together. Near the panel box, bend the bar to that it extends through the location of the bottom plate and extend about 2 feet through the bottom plate. At the electrical rough, extend the ground wire from the main panel to the rebar and clamp the ground wire to the rebar.

7. LEAVE-OUT INSPECTION

- a. Plumbing rough must be inspected and approved.
- b. Rebar must be doweled 16" into existing concrete.
- c. Moisture barrier must be installed.
- d. Any underfloor electrical component must be installed.

8. FRAMING/ELECTRICAL/PLUMBING WALL

a. Framing

1. Wood Stud Framing

- a. Wood rafter and joist spans must conform to the International Building Code.
- b. Treated wood exterior bottom plates must be secured to the foundation by 7" anchor. Other installation requirements will be considered if the contractor submits the manufacturer's installation instructions or an ICC ES report.
- c. Wood top plate splices must be offset a minimum of twenty-four inches (24").
- d. Rafters must be framed directly opposite each other at the ridge.
- e. Valleys, and hip rafters must not be less than two inches (2") nominal thickness and not less in depth than the cut end of the rafter.
- f. Purlins must be the same size as the rafter. Braces must be installed every four feet (4') from the purlin to the wall or beam.
- g. Any joist over four feet (4') in length must be pressure blocked on both sides -- or a joist hanger must be used.
- h. Furr downs, ceilings of different heights, and all concealed spaces must be fire blocked at ceiling level.
- i. Load bearing studs must be sixteen inches (16") on center or the rafter must be within five inches (5") of the stud. Studs with masonry veneer wall ties attached cannot exceed spacing's of sixteen inches (16") on center.
- j. All lumber must be grade stamped. Unstamped lumber is unacceptable as a framing structural framing member.
- k. Where air handling units are supported by ceiling joists, those joists will be calculated as floor joists. Where air handling units are supported by rafters, those rafters will be calculated as rafters supporting a drywall ceiling.
- l. Brick/veneer wall ties must be installed.

2. Metal Stud Framing

(Structural steel requires an inspection report from the engineer or approved testing lab and must be turned in at least 24 hours prior to requesting the inspection)

- a. Studs must be screwed to the top and bottom track.
- b. Required fire rated wall assemblies (fire walls) must exactly match the specifications of the UL, FM or other testing agency.

b. Electrical Rough

1. A grounding electrode system must be installed per the city approved drawings and Article 250 of the National Electrical Code.
2. Where a panel or disconnect device is tapped more than one-time, approved lugs must be provided.
3. Disconnect with overcurrent protection must be provided at the outside of the structure and next to the electrical meter.
4. Electrical conduit and cables shall be strapped per the NEC.
5. All metal boxes must be bonded.
6. Circuits installed in or under a concrete foundation must meet the requirements for wet locations.

c. Plumbing Wall

1. All fixtures must be stack vented and all vents must extend through the roof with flashings installed at the roof.
2. No vents may be less than 45 degrees from the horizontal until they are at least six inches (6") above the flood rim of the fixture.
3. All copper lines must be braced.
4. Hammer arresters must be installed where required.
5. Plumbing vents must be at least ten feet (10') from or two feet (2') above any window that can be opened.
6. Frost proof hose Bibbs with integral vacuum breakers must be installed.
7. Lead solder and fluxes containing lead are prohibited materials to be used in potable water pipes.
8. Gas appliance vents must be at least four feet (4') away from or two feet (2') above windows that can be opened.
9. Where a gas piping system is utilized that contains a working pressure greater than 1/2 p.s.i., an air test of at least ten pounds per square inch (10 p.s.i) on a diaphragm gauge that has a set hand and has a maximum range of fifteen (15) p.s.i. For portions of gas piping that are regulated to a working pressure of less than 1/2 p.s.i, a 3- psi test with a diaphragm gauge that has a set hand and has a maximum range of six (6) p.s.i. is acceptable.
10. For wood frame construction, holes cut for gas lines may only be large enough for the line to penetrate.
11. Gas lines must be properly supported.
12. Gas lines located between bricks and studs must be mill wrapped.

9. ENERGY INSULATION

- a. All wall insulation must be installed per the Comtech.
- b. All windows and doors must meet the minimum requirements contained in the Comtech document. (U-factors for windows must be determined by utilizing chapter 1 of the International Energy Conservation Code.
- c. Ceiling insulation must comply with the minimum requirements contained in the Comtech document.

10. CEILING INSPECTION

- a. Mechanical Rough
 1. Metal ducts must be screwed and taped or sealed with an approved mastic material.
 2. Flex duct must be sealed with tape or mastic at the register. Zip tying at the register is not an approved method.
 3. Flexible ducts must be supported and turns made in such a way that the air flow is not deterred.
 4. A minimum one-inch (1") clearance from combustible materials must be maintained around gas appliance vents.
 5. Air conditioning condensate drains must be tied into a wet trap.
 6. Where air-conditioning condensate drain pans are located in an attic, a secondary drain must be installed with the condensate line discharging over a window, door, patio or other approved location.
 7. Condensate drain lines must be a minimum of three-fourth (3/4") inch in diameter.

8. Condensate drain lines located on a roof must be copper. Traps located on the roof must be protected from freezing.
9. Bath fan exhaust ducts must terminate at the outside of the building.
10. Horizontal runs on gravity type water heater and furnace flue vents must not exceed seventy-five percent (75%) of the height of the vent. One offset can be a maximum of sixty (60) degrees. All other offsets are limited to a maximum of forty- five (45) degrees.
11. Fire Wall penetrations must be properly sealed.

b. Electrical Ceiling

1. All electrical boxes and circuits in the ceiling area are to be complete.
2. All metal boxes and fixtures must be properly bonded.
3. All light fixtures must be installed.
4. Cables or conduits to be supported by their own ceiling wires.
5. Fire wall penetrations must be properly sealed.

11. DUCT WRAP

All ducts are to be insulated per the requirements of the COM-Check document. The sealing is inspected on this inspection.

12. UTILITY FINAL

(Inspection approval allows for release of utility meters)

- a. Covers must be off of electrical panel.
- b. Grounding electrode system must be complete.
- c. Neutral and ground conductors must be properly coded and identified.
- d. Required fixtures and equipment installed and wired.
- e. Required receptacles switches and fixtures installed and wired.
- f. Where a gas piping system is utilized that contains a working pressure greater than 1/2 p.s.i., an air test of at least ten pounds per square inch (10 p.s.i) on a diaphragm gauge that has a set hand and has a maximum range of fifteen (15) p.s.i. For portions of gas piping that are regulated to a working pressure of less than 1/2 p.s.i, a 3-psi test with a diaphragm gauge that has a set hand and has a maximum range of six (6) p.s.i. is acceptable.
- g. All open gas lines and shut-off valves must be capped. A shut-off valve does not eliminate the requirement to cap the line.

13. BUILDING FINAL

- a. All equipment must be installed, wired and working properly.
- b. A permanent address must be installed on the front of the building with numbers of contrasting color to background. The address must also be installed on the back door (if there is a back door)
- c. Knox box must be installed.
- d. Street, alley, and all flatwork must be clean and clear of mud and debris
- e. Parking areas must be properly striped. Fire lanes must be properly striped. Accessible parking spaces must be properly marked with signs and painting.
- f. All landscape work must conform to the approved landscape plan. Trees and shrubs must not be damaged or dead.
- g. The site must conform to the approved site plan.
- h. Yard must be clear of debris and final grade completed.
- i. Exit signs must clearly identify the exit path from the building.

- j. All panic hardware must be installed. Exit doors must be openable from the inside of the building without the use of a key or any special knowledge.

All wall surfaces adjacent to toilets and urinals must be composed of a hard, smooth easily cleanable surface.

14. MECHANICAL FINAL

- a. Combustion air vents must be installed in the top and bottom portion of closets enclosing gas appliances. Each vent must total 100 square inches.
- b. All mechanical must be installed with all connections complete.
- c. Controls and devices in the system must be operational.

15. ELECTRICAL FINAL

- a. Electrical meter must be installed.
- b. All receptacles and light fixtures must be installed, wired and working properly, including emergency lighting.
- c. Circuits must be labeled with ink or typewriter in the breaker box.
- d. All temporary power (lighting and t-pole) must be removed.
- e. All receptacles within 6' of a sink and all receptacles located in locker rooms, shower rooms and indoor wet locations must be GFCI protected.
- f. Isolated ground receptacles will not be permitted in patient care areas.
- g. Branch circuits serving patient care rooms shall not be multi-wire branch circuits.
- h. The calculated short circuit rating must be marked on industrial control panels, motor controls, HVAC equipment and machinery.
- i. Receptacles installed in hotels, motels and child care facilities must be tamper resistant.

16. PLUMBING FINAL

- a. Gas meter must be installed.
- b. All gas lines must be connected. Gas stops and caps must be installed on any gas line installed for future use.
- c. Accessible toilets must have a clearance of at least 18" from any side wall or partition to the center of the toilet.
- d. All non-accessible toilets must have a clearance of at least 15" from any side wall or partition to the center of the toilet and a clearance of at least 21" in front of the toilet.
- e. All hose bibs must be frost proof with integral vacuum breakers.
- f. PVC vent stacks exposed to the sun should be UV ray protected.
- g. Hot water must correspond to the left side of fittings on plumbing fixtures.

17. ENERGY FINAL

3rd. party final compliance report is required for new buildings.

The Lighting portion of the COM check must be available for the inspector to verify compliance with the energy code

E. ADOPTED CODES

The above requirements are only a general list of building, electrical, plumbing, and mechanical code regulations.

2015 International Building Code

2015 International Mechanical Code

2015 International Plumbing Code

2015 International Fuel Gas Code

2015 International Energy Conservation Code

2014 National Electrical Code

Please be advised that this not an all-inclusive list and a code item may need correction in the field. This is merely a guide to assist in the completion of your project