

**RULE NO.: R161-21.10****NOTICE OF RULE ADOPTION****ADOPTION DATE: 05/17/2021**

By: Denise Lucas, Director  
Development Services Department

The Director of the Development Services Department has adopted the following rule. Notice of the proposed rule was posted on 04/08/2021. Public comment on the proposed rule was solicited in the 04/08/2021 notice. This notice is issued under Chapter 1-2 of the City Code. The adoption of a rule may be appealed to the City Manager in accordance with Section 1-2-10 of the City Code as explained below.

A copy of the complete text of the adopted rule is available for public inspection and copying at the following location. Copies may be purchased at the locations at a cost of ten cents per page:

Office of the City Clerk, City Hall, located at 301 West 2nd Street, Austin, Texas.

**EFFECTIVE DATE OF ADOPTED RULE**

A rule adopted by this notice is effective on 05/17/2021.

**TEXT OF ADOPTED RULE**

R161-21.10: Notice of Adoption to Sections of the Building Criteria Manual contains no changes from the proposed rule.

**1. Summary for Section 5.6.2 and Subsections: Plumbing Systems Test Requirements**

- Thirteen process sections pertaining to Plumbing Systems Test moved out of the plumbing code into the Building Criteria Manual to minimize local amendments and consolidate all testing requirements.

**2. Summary for Sections 5.5.4 and 5.6.6 and Subsections: Commercial Mechanical and Plumbing Qualifications**

- Qualifications for Commercial Plumbing Supervisor or Inspector and Commercial Mechanical Supervisor or Inspector split up to align with current recruiting processes; and additional qualification requirements added to better serve the needs of the department and the customers. Additional qualifications include:
  - Mechanical Inspectors and Supervisors
    - Technical writing and computer skills
  - Plumbing Inspectors and Supervisors
    - Technical writing and computer skills

- Medical gas piping endorsement
- Multi-purpose residential fire protection sprinkler specialist endorsement

3. **Summary for Section 1.1.2 and Subsections: Building Inspection Processes**

- Building Inspection Processes moved out of local amendments into the Building Criteria Manual to allow for more efficient changes to the process when needed. (ie: Annual Permit, Building Pre-Construction Inspection, Layout Inspection, Foundation Report).
- Austin Water Utility has been changed to Austin Water.

4. **Summary for Section 7: Green Building**

- Modifications to language, web links, fees and number of stories for buildings to reflect current processes and department branding.

## **SUMMARY OF COMMENTS**

The Development Services Department did not receive comments regarding Rule R161-21.10. No changes were made to the Rule.

## **AUTHORITY FOR ADOPTION OF RULE**

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in Chapter 1-2 of the City Code. The authority to regulate construction is established in Chapter 25-12 of the City Code

## **APPEAL OF ADOPTED RULE TO CITY MANAGER**

A person may appeal the adoption of a rule to the City Manager. **AN APPEAL MUST BE FILED WITH THE CITY CLERK NOT LATER THAN THE 30TH DAY AFTER THE DATE THIS NOTICE OF RULE ADOPTION IS POSTED. THE POSTING DATE IS NOTED ON THE FIRST PAGE OF THIS NOTICE.** If the 30th day is a Saturday, Sunday, or official city holiday, an appeal may be filed on the next day which is not a Saturday, Sunday, or official city holiday.

An adopted rule may be appealed by filing a written statement with the City Clerk. A person who appeals a rule must (1) provide the person's name, mailing address, and telephone number; (2) identify the rule being appealed; and (3) include a statement of specific reasons why the rule should be modified or withdrawn.

Notice that an appeal was filed and will be posted by the city clerk. A copy of the appeal will be provided to the City Council. An adopted rule will not be enforced pending the

City Manager's decision. The City Manager may affirm, modify, or withdraw an adopted rule. If the City Manager does not act on an appeal on or before the 60th day after the date the notice of rule adoption is posted, the rule is withdrawn. Notice of the City Manager's decision on an appeal will be posted by the city clerk and provided to the City Council.

On or before the 16th day after the city clerk posts notice of the City Manager's decision, the City Manager may reconsider the decision on an appeal. Not later than the 31st day after giving written notice of an intent to reconsider, the City manager shall make a decision.

#### **CERTIFICATION BY CITY ATTORNEY**

By signing this Notice of Rule Adoption R161-21.10, the City Attorney certifies that the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

#### **REVIEWED AND APPROVED**

  
Denise Lucas, C.F.M., Director  
Department

Date: 4-26-21

  
Deborah Thomas  
City Attorney (Acting)

Date: 5/11/2021

## **5.6.2 - GAS PLUMBING SYSTEMS TEST REQUIREMENTS**

### 5.6.2.1 Gas Pressure Test Required

### 5.6.2.2 Plumbing Gas Rough Inspection

### 5.6.2.3 Final Gas Inspection

### 5.6.2.4 Emergency Pulled Gas Meter

### 5.6.2.4.1 Scheduling Inspection for Emergency Pulled Gas Meter

### 5.6.2.5 Building Sewer Test

### 5.6.2.6 Manhole Test

### 5.6.2.7 Testing Procedures for Drain, Waste, and Vent Piping

### 5.6.2.8 Trench Drains

### 5.6.2.9 Methods of Testing Storm Drainage Systems

### 5.6.2.10 Test Procedures for Material Other than Polyvinyl Chloride (PVC) Drainage Piping

### 5.6.2.11 Testing Procedures for Plastic Roof Drainage Piping

### 5.6.2.12 Testing Requirements for Non-Human Use Medical Gas and Vacuum Systems

#### **5.6.2.1 Gas Pressure Test Required.**

- A. A natural-gas pressure test shall be required as described in sections 5.6.2.2 through 5.6.2.4 the Plumbing Code under the following circumstances:
1. Gas plumbing work has been performed; or
  2. There is evidence of a gas leak; or
  3. A building is declared substandard and gas service has been disconnected for more than 30 days; or
  4. A building is declared dangerous; or
  5. Any condition stipulated by the natural-gas supplier.

**B.** The City shall not approve natural-gas service to a building which has not complied with this rule.

**5.6.2.2 Plumbing Gas Rough Inspection.** A rough inspection is required after all piping authorized by the permit is installed, but before any portions of the piping are covered or concealed, and before any fixture, appliance, or shutoff valve is attached to the pipe. For residential applications the plumbing gas rough inspection shall be included as a part of the plumbing top out inspection.

**A. Low Pressure Gas Test.** This inspection must include an air, carbon dioxide, or nitrogen pressure test. Test pressure must be at least 15 pounds per square inch gauge pressure and held at least 15 minutes with no perceptible drop in pressure. The Building Official may extend the test time. A Bourbon tube ("spring") gauge may be utilized. See "Test Gauge" requirements in the plumbing code.

**B. Medium Pressure Gas Test.** For welded piping and piping that carries gas at pressures that exceed 14 inches water column pressure, the test pressure must be at least 60 pounds per square inch and must be continued for at least 30 minutes with no perceptible drop in pressure. The Building Official may extend the test time. The test may be made using air, carbon dioxide, or nitrogen pressure and must be made in the presence of the inspector. The permittee must furnish any necessary apparatus required to conduct the test. A Bourbon tube ("spring") gauge may be utilized. See "test gauge" requirements in the plumbing code.

**5.6.2.3 Final Gas Inspection.** The final test on gas piping must be made after the water heater, floor furnace, and gas appliance shutoff valves are installed. If changes or extensions are made to any existing gas piping from a point when no gas stop valve was provided in the original gas system, the responsible plumber or person must prepare the entire system to be inspected and tested. Existing gas piping or

portions of the gas piping must be tested consistent with the standards of this section and are not required to meet the test pressures set forth in Plumbing Gas Rough Inspection.

- A. **Low Pressure Final Gas Test.** A low-pressure gas distribution system must be tested with a minimum of five pound per square inch (psi) of air, carbon dioxide, or nitrogen pressure for 15 minutes using a class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span. See “test gauge” requirements in the plumbing code.
- B. **Medium Pressure and Welded Pipe Final Gas Test.** A medium pressure and welded pipe gas distribution system must be tested with 10 pounds per square inch for the entire system using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span. See “test gauge” requirements in the plumbing code. The test must hold tight for at least 30 minutes.
- A.C. The permittee must arrange for access for the inspection, and furnish any necessary apparatus and labor required to conduct the test.
- D. **New Gas Meter Release.** For the installation of a new gas meter, it is the responsibility of the plumbing contractor, general contractor or owner to coordinate with the gas utility purveyor. An approved plumbing final (and mechanical final if applicable) shall serve as the City of Austin’s authorization to release the gas meter.

#### 5.6.2.4 Emergency Pulled Gas Meter.

##### A. Definitions.

**Pulled Gas Meter** - An active gas system that is terminated by the gas supplier due to a leak in the gas distribution system, or in which the gas purveyor tested and determined that the continuance of natural gas service could be hazardous to the occupant(s).

**Emergency Pulled Gas Meter Inspection** - An inspection of a "pulled gas meter" where a plumbing permit has been obtained, or where a plumbing permit will be obtained by a master plumber registered to perform plumbing work in this jurisdiction. This inspection is either pre-scheduled, or under emergency conditions, the inspection may be scheduled by contacting the assigned Supervisor.

- B. Before an inspector may authorize a final inspection on a plumbing permit, the permit holder or responsible plumber must meet the following pulled meter testing pressure requirements.
  - a. **Low Pressure Test.** A five pound per square inch test must be made on the entire low-pressure natural gas system using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm$  one percent of the span. The test must hold tight for at least 15 minutes.
  - b. **Medium Pressure and Welded Pipe Test.** A ten pound per square inch test is required for the entire medium pressure gas system and welded pipe using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm$  one percent of the span. The test must hold tight for at least 30 minutes.
- C. All natural gas piping, valves, connectors, and appliances installed under a pulled meter plumbing permit must comply with current Plumbing and Mechanical Code requirements.
- D. All welded gas piping systems will be tested with a medium pressure test.
- E. An existing gas valve must be capped if it is no longer in use, which occurs when an adequate number of outlets are available to provide a temperature of 70 degrees three feet above the floor in a habitable room. If an existing valve leaks, it must be replaced with a listed valve and connector.

F. A rubber hose gas connector must be replaced with a listed connector.

A.G. Existing wall vent piping for a gas appliance or water heater may be retained if the vent meets the all of the following conditions:

- a. properly sized for the appliances serviced;
- b. properly connected for the appliance;
- c. not rusted or deteriorated;
- d. terminates above the roof line, and has a minimum of two inch clearance from combustibles at all points.

H. An existing water heater must have operable temperature and pressure relief valves.

I. Each natural gas appliance must be provided with combustion air consistent with the product listing. If an existing gas appliance lacks combustion air, properly sized louvers in doors or ducts must be placed in proper locations.

J. An existing or replacement water heater located in a garage must be at least 18 inches above the finished floor level unless the water heater is listed to be located at finished floor level and is protected from damage as required by the Plumbing Code.

K. A battery operated smoke detector must be installed outside of each separate sleeping area in the immediate vicinity of the bedroom in type R occupancies.

#### **5.6.2.4.1 Scheduling Inspection for an Emergency Pulled Gas Meter.**

A. The City of Austin Building Inspection Division will perform pre-scheduled Emergency Pulled Gas Meter inspections at authorized times based on the time of year and outside temperature as forecasted by the National Weather Service.

B. From April 1<sup>st</sup> through October 31<sup>st</sup>, a pre-permitted Emergency Pulled Gas Meter Inspection will be scheduled for inspection by the master plumber on the next business day. The inspection will occur on the next City business day, unless the outside temperature forecasted by the National Weather Service for Austin is 50 degrees or lower. In this case, the inspection will be performed within a four-hour time frame from when the master plumber has created the request. The request must be made no later than 12:00pm for same day service.

C. From November 1<sup>st</sup> through March 31<sup>st</sup>, an Emergency Pulled Gas Meter Inspection will be inspected within a four-hour time frame from when the master plumber has created the request. The request must be made no later than 12:00 pm for same day service, unless the outside temperature is above 50 degree as forecasted by the National Weather Service for Austin. Then inspection will be scheduled for the next regular business day.

**5.6.2.5 Building Sewer Test.** A building sewer must be tested by plugging the end of the building sewer at its point of connection with the public sewer or private sewage disposal system and completely filling the building sewer with water from the lowest to the highest point, or by an approved equivalent low-pressure air test. A building sewer must be water tight at all points. A building sewer may be vacuum tested by plugging all inlets and outlets and testing with five inches of vacuum for five minutes with no loss.

**5.6.2.6 Manhole Test.** A manhole tested with water must be tested by plugging all outlets and filling the manhole to the overflow. The water test must be performed when the manhole is fully exposed with no visible leakage. A manhole may also be vacuum tested by plugging all inlets and outlets and testing with five inches of vacuum for five minutes with no loss.

**5.6.2.7 Testing Procedures for Drain, Waste, and Vent Piping.** Plumbing, drainage, and venting systems piping must only be tested with water or air. The level of water must be filled to the top and be visible so that an inspector may mark the level of the water. The authority having jurisdiction may require the removal of any cleanouts or similar items to ascertain whether the pressure reached all parts of the system.

A. Except as otherwise provided, a waste and drainage system must **only** be tested with water or air.

B. If moisture conditions make it impractical to verify tightness of joints in a drainage system with a water test, the system must be tested with air using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span. See test gauges in the Plumbing Code for gauge requirements.

C. The water or air test must be maintained for a minimum of 15 minutes prior to the start of the inspection.

D. The entire portion of the system tested must be subjected to a three pound per square inch air test for 15 minutes.

E. If a leak is detected by either test, the leak must be corrected and the system retested and inspected until the work is found to be tight and that it conforms to the requirements of the Plumbing Code.

F. In a water test for single story building, the soil and waste stacks must be plugged and filled with water to provide a minimum of five foot head-pressure at the point where the house sewer connects to the house drain. A riser may not be capped until the entire system is full.

G. In a water test for a multi-story building, sanitary drainage and vent stacks must be plugged and filled to a point that is at least six inches above the re-vent of the uppermost floor. For residential applications filling bath tubs to the waste and overflow level will satisfy this requirement, filling shower pans will not satisfy this requirement. Provisions must be made for the plumbing inspector to see the water level. Each floor may be tested individually or combined as deemed necessary by the authority having jurisdiction.

A-H. A person may not use cement, sealing wax, resin, paint, tallow, or other material that may prevent the detection of cracks, holes, or other imperfections on any material used in the plumbing system.

I. When a floor drain, floor sink, or other indirect waste receptor has a plumbing connection below ground floor level that was not tested during the initial rough-in test, the following requirements apply:

- a. A water test must be re-administered for the portion of the drain waste and vent system below ground floor level;
- b. The drain must be filled to a point of overflow.
- c. Floor sinks must be tested by filling the drain to the point of overflow at the plumbing copper inspection but before the slab is poured.

J. Drain waste and vent piping may be vacuum tested by plugging all inlets and outlets and testing with five inches of vacuum for five minutes with no loss.



**5.6.2.8 Trench Drains.** A pre-manufactured trench drain must be tested in place to assure the tightness of the drain by plugging the drain and filling the drain with water to the overflow of the trench drain. This test must be performed before concrete is poured into place.

**5.6.2.9 Methods of Testing Storm Drainage Systems.** Except for outside leaders and perforated or open jointed drain tile, the piping of a storm drain system must be tested when rough piping installation is complete, by water or air, and proven tight. The authority having jurisdiction may require cleanout plugs to be removed to determine if the pressure reached all parts of the system. A test required by this section must be conducted consistent with Section 5.6.2.10 or 5.6.2.11.

**5.6.2.10 Test Procedures for Material Other than Polyvinyl Chloride (PVC) Drainage Piping.**

- A. A storm drainage system may be tested with water or air.
- B. Air testing will require manufacturer's approval.
- C. When utilizing a water test, the level of water must be visible so that an inspector can mark the level of the water unless the system is filled to the point of overflow.
- D. A water or air test must be maintained for at least 15 minutes prior to the start of the inspection.
- E. If tested with air, the entire portion of the system tested must be subjected to a five pound per square inch air test for 15 minutes.
- F. If moisture conditions make it impractical to verify tightness of joints in a drainage system with a water test, the system must be tested with air using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span. See test gauge requirements in the plumbing code.
- G. To test with water in a single story building, the storm water system stacks must be plugged and completely filled with water to provide a minimum of ten feet head-pressure at the highest portion of the system being tested or to a point of roof drain overflow.
- H. To test with water in a multi-story building, the storm water system stacks must be plugged and filled to a point of overflow at the roof drain or in a sectional test. The roof drainage system must be tested with a minimum of 10 foot of head water.
- I. If a leak is detected from the water or air test, the leak must be corrected and the system re-tested and inspected until the work is found to be tight and that it conforms to the requirements of the Plumbing Code.

**5.6.2.11 Testing Procedures for Plastic Roof Drainage Piping.**

- A. A PVC drainage system must be tested with water or air.
- B. The level of water must be visible so that an inspector can mark the level of the water.
- C. To test with water in a single story building, the storm water system stacks must be plugged and completely filled with water to provide a minimum of 10 feet head pressure at the highest portion of the system being tested or to a point of roof drain overflow.
- D. To test a multi-story building, the storm water system stacks must be plugged and filled to a point of overflow at the roof drain or a sectional test of the roof drainage system is allowed when tested with a minimum of 10 foot of head water, or a three pound per square inch air test for 15 minutes.
- E. If moisture conditions make it impractical to verify tightness of joints in a drainage system with a water test, the system must be tested with air using a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span. See test gauge requirements in the plumbing code.



- F. A water or air test must be maintained for a minimum of 15 minutes prior to the start of the inspection.
- G. In an air test, the entire portion of the system tested must be subjected to a three pound per square inch air test for 15 minutes.
- H. If a leak is detected from the water or air test, the leak must be corrected and the system re-tested and inspected until the work is found to be tight and that it conforms to the requirements of the Plumbing Code.

**Exception:** In multi-story structures and occupied buildings where water damage could result from water testing leakages an air test can be utilized. The air test must be conducted in accordance with all sections of A.S.T.M. designation F1417-11a. If the system is to be tested with air a Class 1A diaphragm test gauge that is calibrated to an accuracy of  $\pm 1$  percent of the span must be utilized. See test gauge requirements in the plumbing code

#### **5.6.2.12 Testing Requirements for Non-Human Use Medical Gas and Vacuum Systems.**

- A. The test pressure for positive-pressure gas piping installed in medical gas systems for non-human uses must be 1.5 times the system working pressure, but no less than a gauge pressure of 1035 kpa (150 psi).
- B. The test pressure for a copper vacuum system installed for non-human uses must be a gauge pressure of 105 kpa (15 psi).
- C. Piping for a field installed vacuum system using PVC pipe and fittings for non- human uses must be subjected to a vacuum of not less than 485 mm (19 inches) gauge HgV, using either the vacuum source equipment or a test pump.

## 5.5.4 - COMMERCIAL ~~PLUMBING AND~~ MECHANICAL INSPECTOR QUALIFICATIONS

**5.5.4.1 - Qualified Inspectors.** An inspector who performs inspections under this Code must meet the following qualifications:

### 5.5.4.2 - ~~Chief Plumbing and~~ Mechanical Inspector Supervisor

The ~~plumbing/mechanical~~ inspection supervisor must:

- A. Be an employee of the City of Austin;
- B. Maintain a current certification as a mechanical ~~and plumbing~~ inspector under the certification program established by the International Code Council (ICC) or International Association of Plumbing and Mechanical Officials (IAPMO);
- ~~C. Maintain a current plumbing inspector license issued by the Texas State Board of Plumbing and the Texas State Board of Examiners;~~
- ~~D. Maintain a current certification in the International Energy Conservation Code (IECC) for residential and commercial established by ICC; Have at least ten years of craft experience in the HVAC industry. as a licensed master plumber or equivalent experience as a state licensed air conditioning and refrigeration contractor. Five years of inspection experience may be substituted for five years of craft experience; and~~
- D. Have good technical writing and computer skills.

### 5.5.4.3 - Commercial Mechanical Inspector

A commercial mechanical inspector must:

- A. Be an employee of the City of Austin;
- B. Maintain a current certification as a mechanical inspector under the certification program established by the International Code Council (ICC) or International Association of Plumbing and Mechanical Officials (IAPMO);
- C. Maintain a current certification in the International Energy Conservation Code (IECC) for residential and commercial established by ICC;
- D. Have at least five years of inspection and/or craft experience;
- E. Have good technical writing and computer skills; and
- F. A person hired by the City as a commercial mechanical inspector must become certified through the certification program established by ICC or IAPMO not later than one year after the date of employment, and must become certified in the International Energy Conservation Code not later than two years after the date of employment.

## 5.5.6 - COMMERCIAL ~~PLUMBING AND MECHANICAL~~ INSPECTOR QUALIFICATIONS

### 5.5.6.1 - ~~Chief Plumbing and Mechanical~~ Inspector Supervisor

The commercial plumbing~~mechanical~~ inspection supervisor must:

- A. Be an employee of the City of Austin;

- B. Maintain a current certification as a ~~mechanical and~~ plumbing inspector under the certification program established by the International Code Council (ICC) or International Association of Plumbing and Mechanical Officials (IAPMO);
- C. Maintain a current plumbing inspector license issued by the Texas State Board of Plumbing Examiners;
- D. Maintain a current medical gas piping endorsement, and a multi-purpose residential fire protection sprinkler specialist endorsement, not later than two years after the date of employment.
- ~~B.E.~~ E. Maintain a current certification in the International Energy Conservation Code (IECC) for residential and commercial established by ICC;
- F. Have at least ten years of experience as a licensed master plumber ~~or equivalent experience as a state licensed air conditioning and refrigeration contractor~~. Five years of inspection experience may be substituted for five years of craft experience; and
- G. Have good technical writing and computer skills

#### **5.6.6.2 - Commercial Plumbing Inspector**

A commercial plumbing inspector must:

- A. Be an employee of the City of Austin;
- B. Maintain a current certification as a plumbing inspector under the certification program established by the International Code Council (ICC) or International Association of Plumbing and Mechanical Officials (IAPMO);
- C. Maintain a current plumbing inspector license issued by the Texas State Board of Plumbing Examiners;
- D. Maintain a current medical gas piping endorsement, and a multi-purpose residential fire protection sprinkler specialist endorsement, not later than two years after the date of employment.
- ~~D.E.~~ E. Maintain a current certification in the International Energy Conservation Code (IECC) for residential and commercial established by ICC;
- ~~E.F.~~ F. Have at least five years of experience as a state licensed master or journeyman plumber.
- G. A person hired by the City as a commercial plumbing inspector must become certified through the certification program established by ICC or IAPMO not later than one year after the date of employment; and must become certified in the International Energy Conservation Code not later than two years after the date of employment.
- H. Have good technical writing and computer skills

### 1.1.2 - Building Inspection ~~Processes~~ Procedures

Building inspections and permits can be viewed on the City of Austin permit website. Results are documented in the permitting and inspection software system and become a permanent City record.

#### 1.1.2.1 Authorized scope of work under the annual permit is limited to the following:

##### **Building:**

- 1) Work that does not alter a bearing wall or other structural elements; and
- 2) Does not require a change to an exit system; and
- 3) Does not alter fire-resistive construction; and
- 4) Is performed on a building or structure for which a certificate of occupancy for the existing occupancy had been issued by the building official; and
- 5) Does not alter fuel gas piping or medical gas piping systems beyond the discharge connection of the 1<sup>st</sup> stage pressure regulator of the oxygen or nitrous oxide medical gas supply; and
- 6) Alteration of hazardous production material (HPM) piping in areas of a building classified as a Group H occupancy; and
- 7) Does not remove, relocate, replace, or install a backflow prevention device; and
- 8) Does not increase the existing square footage of a building; and
- 9) Otherwise complies with all other applicable provisions of this title; and
- 10) It is performed by licensed contractors as required by the Plumbing Code, Electrical Code or Mechanical Code.

##### **Electrical:**

- 1) The work is limited to the repair, modification, or installation of equipment or branch circuits. Work involving sub-panels, panels, electrical service, or other similar work requires permits issued under Section 80.19 of the Electric Code; and
- 2) The work is performed by an electrical contractor employee with the proper license classification or licensed master electrician employed by the facility, and in accordance with Section 80.40 (Supervision) of the Electric Code; and
- 3) The facility shall maintain records on all work performed under the annual permit in accordance with Section 105.1.2 (*Annual permit records*).

##### **Mechanical:**

- 1) Replacement, modification, or relocation of existing ductwork, fan coil units, VAV boxes volume dampers, environmental make-up air systems and related equipment; and
- 2) Alteration of existing hazardous production material (HPM) piping systems and HPM hazardous exhaust systems in areas of a building classified as a Group H occupancy, and in exterior areas to accommodate the alteration of equipment.

##### **Plumbing:**

- 1) Installation, repair, and replacement of fixtures, traps, shut-off valves, water distribution piping, drains, building waste piping, vent stacks and water heaters with a capacity of 100 gallons or

less and a rating of 75,000 BTU or less, provided the work does not require approval of the Austin Public Health, Austin Water, or the Texas Department of Licensing and Regulation

**Fire:**

- 1) See the Austin Fire Department Fire Protection Criteria Manual for scope of work allowed under the Annual Permit.

**1.1.2.2 Building Pre-Construction Inspection.** This is the first inspection conducted. The inspector verifies the permits that were issued for work and meets with the contractor or owner at the site or other available means as determined by commercial inspection staff to review plans and identify potential issues. The inspector notifies the contractor of the inspector's work hours and identifies required inspections, and communicates other requirements as determined by the building official. Approved plans will be required to be available electronically or printed on site.

**1.1.2.3 Layout Inspection.** A Layout Inspection shall be made after the permanent footprint of the structure is established and foundation forms and/or piers have been erected and are in place. The Layout Inspection must be performed by a surveyor registered in the State of Texas. The surveyor will provide an as-built survey or a concurrence letter. The survey or concurrence letter shall illustrate compliance with all new and existing improvements, legal boundaries, easements, encroachments, lot size square footage and all required dimensions.

**1.1.2.4 Foundation Report.** City Inspectors will not perform foundation inspections for new construction projects, additions or remodels. The Builder shall provide a report to the City that is prepared by a registered design professional verifying that all required special inspections have been completed with all noted deficiencies addressed and the foundation has been constructed in accordance with the adopted building code or engineered design. A copy of this report shall be provided at the final building inspection. Report shall be uploaded and attached to the building permit in the AMANDA system by the responsible contractor.

## SECTION 7 – AUSTIN ENERGY GREEN BUILDING PROGRAM

### 7.1.0 - GENERAL PROVISIONS

Section seven describes the processes, requirements, and procedures necessary to obtain a site plan permit, building permit, and Certificate of Occupancy for the construction of a building requiring a Green Building Program Rating. Included are requirements for Commercial, Multi-Family, and Single Family developments.

#### 7.1.1 - PURPOSE

The purpose of the Austin Energy Green Building (AEGB) Program is to cultivate innovation in building and transportation for the enrichment of the community's environmental, economic, and human well-being, to lead the transformation of the building industry to a sustainable future. Green Building building is the art and science of designing and constructing buildings to reduce their negative effect on human health and the natural environment, and promote positive sustainability impacts. A project that earns an AEGB rating embodies good practice in regard to community, health, and the management of energy, water, and material resources. It also bolsters the local economy by promoting the use of locally-sourced construction materials. AEGB offers three distinct programs ratings (Single-Family, Multi-Family and Commercial) based on building type/use. Each program utilizes a different tool to rate buildings - each tool has been optimized for a particular building type. AEGB representatives can provide guidance as to which tool is appropriate.

#### 7.1.2 - DEFINITIONS

For the purpose of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**COMMERCIAL RATINGS-** The Commercial Rating is applicable to projects which do not qualify for the Multi-Family or Single Family ratings.

**CONDITIONAL APPROVAL** - Approval by GBP AEGB Staff staff, based on contents of construction documentation and necessary supporting evidence, prior to building plan review. For projects in which GBP an AEGB Star Rating is required, Conditional Approval is a required submittal as part of the Building Permit Application. CONDITIONAL APPROVAL under this section shall not be deemed or construed to constitute approval of any building or other permit required pursuant to other applicable provisions of this manual and any other ordinances of the city.

**DENIED** - The requirements for conditional approval or final approval have not been met and the development shall not receive an Austin Energy Green Building Program Star Rating.

**GREEN BUILDING - (AEGB) RATING TOOL** - The applicable tool utilized by the Austin Energy Green Building Program to determine the correct Star Rating for a project or development.

**GREEN BUILDING - REPRESENTATIVE (AEGB Rep)** - The Austin Energy Green Building Program staff person who is the main point of contact for use by a Participant participant.

**GREEN BUILDING (AEGB) STAR RATING** - Completion of all requirements of AEGB Rating Tool to achieve a AEGB Star Rating, AND the payment of any applicable fees as specified in Section 7.3.1 of this manual, AND receipt of documentation from AEGB that will include the Project Name, Parties involved, and AEGB Star Rating achieved.

**INCOMPLETE** - Approval has been temporarily denied due to missing or incomplete information.

**MULTI-FAMILY RATING** - The Multifamily Rating is applicable for multifamily and mixed-use developments ~~six~~seven stories or less in height above grade. Multifamily and mixed-use developments taller than ~~six~~seven stories must use the Commercial Rating. Townhouses (that meet the definition of in the IRC) must use the Single-Family ~~Home~~ Rating. If there are multiple buildings in a development, each building must individually meet AEGB requirements and credits.

**PARTICIPANT** - The responsible party who represents the owner of a project or development that is involved in any part of the process to achieve an AEGB Star Rating.

**SCHEMATIC DESIGN PHASE** - The design phase during which time building orientation, occupied spaces, space functions, and some material choices are made. Schematic Design Phase occurs prior to the development of Construction Documents including specifications.

**SINGLE-FAMILY RATING PROGRAM** - The Single Family Rating is applicable to detached one and two family dwellings and multiple single family dwellings (townhouses) not more than ~~three~~four stories in height with a separate means of egress and their accessory structures.

### 7.1.3 - PROCESS

The different AEGB ~~programs~~ratings (single-family, multi-family and commercial) have similar - yet distinct - procedures under which a rating is earned. The differences in these processes reflect the differences in building types and the differences in professional need that each program covers.

Beginning October 2010 all AEGB projects will be rated using a web-based online system developed to facilitate the management of said projects. This online platform allows the rating process to be tailored to the requirements of each of the three programs. The process flow for each program is unique to that program.

Certain City of Austin ordinances and programs (for example, the S.M.A.R.T. Housing Program) ~~mandate~~come with an agreement that a particular AEGB star rating be achieved. In addition, an AEGB rating can be required of projects located in defined areas of the city. Since every project will have its own, unique set of characteristics, each project is responsible for determining what requirements it must meet.

To begin the ratings process, participants will need to register and set up a participant profile within the online system:

[https://www.greenbuildingsystem.austinenergy.com/User/Project\\_Request\\_Review.aspx](https://www.greenbuildingsystem.austinenergy.com/User/Project_Request_Review.aspx)

#### 7.1.3.1 - Single Family Program

Single-family program participants are required to attend an orientation session prior to submitting their first project. The orientation covers the rating process and provides detailed information on the rating, especially the basic requirements needed for a single-family, one-star rating.

#### 7.1.3.2 - Commercial and Multi-Family Programs

##### A. **Getting Started:** Log on to the AEGB Rating System at:

<https://www.greenbuildingsystem.austinenergy.com>

1. *Create a User Profile for your Company:* If you are not already registered, we need to know more about the services that you provide and contact information about the project professionals. You can update this information as needed, and we encourage you to do so



regularly. (Should you elect to be part of our professional directory, this is the information that will be used.)

2. *Start a New Project:* The information that you provide about your project will enable us to verify that your project is eligible for a rating within our program, and assign the appropriate Rating and AEGB staff to the project.
3. *Accept the Terms and Conditions:* Once AEGB has accepted the project and assigned AEGB representatives to your project, we will send you an e-mail requesting you log-on to the system and accept the Terms and Conditions for participation.

\* - Now that you have accepted the Terms and Conditions, you will find new tabs are available on the web page.

4. *"Worksheet" Tab:* This is where you will find all of the specific information about the requirements for achieving and documenting points in the Rating.
5. *"Team" Tab:* Invite the other professionals working on the project to participate in the online AEGB Rating System. Click on "Add Team Member". In the "Select Organization" field begin typing the name of the Organization you wish to add. The Organization you are adding may already have a profile- it is important to select their name from the drop down menu, if it is available. Failure to do so will result in multiple profiles for an Organization and confusion. If the Team member you wish to add does not have a User Profile, add them and include an e-mail address so that we can contact them. Team members you may want to include are: the project owner, architect, interior designer, commissioning agent, engineers (mechanical, electrical, structural, and civil), landscape architect, and the general contractor.
6. *"Documents" Tab:* Here you will find important documents such as the Terms and Conditions and the Letter of Intent (LOI). It is also a great place to upload your SMART Housing Certificate, if you have one. As you achieve milestones, additional documents will become available to you.

*An Important Note about the Letter of Intent: When zoning or other City of Austin criteria requires an AEGB Rating, please download, execute and upload the signed AEGB Letter of Intent. This will enable AEGB staff to sign and return the LOI. You will need to present the completed LOI to Land Use Review in order to receive a Site Development Permit.*

**B. The Planning Phase:** The planning phase is the time for planning, meeting, establishing goals, and developing plans and designs.

1. *Meeting:* AEGB Staff would like to meet with the entire design team as early in the process as possible. This will provide an opportunity to walk through the online AEGB Rating System, introduce features of the Rating program you might not be familiar with and provide an opportunity to answer any questions you may have. Meeting early in the process is a great way to set the tone for a successful project.

~~2. *Fees:* AEGB cannot approve planning phase documents until receipt of Registration Fee.~~

- ~~3~~2. *Regular Updates to the online AEGB Rating System:* The system should be updated at the following project milestones: Schematic Design, 50% and 100% Design Development, 50% Construction Documents, the Building Permit Set, and Pre-Construction. Take note that the Online Rating System details when specific information should be uploaded.

- ~~4~~3. *Approval:* AEGB will "Approve" requirements and points in the planning phase, indicating that the contract documents reflect that the team is on track to achieve the point.

This approval does not guarantee award of any requirement or point, but enables project teams to assess likelihood of credit achievement and requires follow-through to ensure the design is executed in the construction phase according to the design specifications.

*An Important note about Conditional Approval: Upon satisfactory review of these documents AEGB will issue Conditional Approval. This document will appear within the "Documents" tab. When zoning or other City of Austin criteria require an AEGB Rating, the AEGB Conditional Approval letter must be attached to the front of the Building Permit set at the time of intake with the Development Services Department (DSD). Planning and Development Review Department (PDRD).*

C. **The Construction Phase:** This is the time for action by following through with the well laid plans and updating AEGB on a monthly basis with your progress towards your goals.

1. *Regular Updates to the AEGB Rating System:* During Construction, provide monthly updates of the "Worksheet" tab including: building materials information, construction waste management calculations, and submittals.

2. ~~*Fees:* Payment of the Services Fee is due before AEGB can perform site visits.~~

32. *Site Visits:* Please coordinate access to the building site with your AEGB project representatives, as necessary.

43. *Approval:* AEGB will "Approve" requirements and points in the Construction phase, indicating the requirement or point has been awarded.

*An Important note about Final Approval: Upon satisfactory review, AEGB will issue a Final Approval. This document will appear in the "Documents" Tab after the Rating Requirements for the project have been met. When zoning or other City of Austin criteria require an AEGB Rating, this Final Approval may be necessary to acquire a Certificate of Occupancy.*

D. **The Close-Out Phase:** This phase will give you an opportunity to reflect on the project's accomplishments and celebrate the team's successes.

*Professional Directory:* Ensure that the Company profile is correct, and indicate whether or not you want to be added to the AEGB Professional Directory.

*Publish Case Studies:* Work with AEGB to publish a case study on the AEGB website celebrating the project's accomplishments.

## 7.2.0 - RATING SYSTEMS

### 7.2.1 - Commercial Rating

- Please refer to the AEGB Commercial Guidebook

<https://www.greenbuildingsystem.austinenergy.com/Login/Help.aspx>  
<https://my.austinenergy.com/wps/wcm/connect/3241bd0043363fddb3e4f3ae1623868e/aegbCommercialGuidebook.pdf.pdf?MOD=AJPERES> for detailed information on the requirements of the Commercial Rating System.

### 7.2.2 - Multi-Family Rating

- Please refer to the AEGB Multi-Family Guidebook

<https://www.greenbuildingsystem.austinenergy.com/Login/Help.aspx>  
<https://my.austinenergy.com/wps/wcm/connect/dbb29e0043364031b3f1f3ac1623868e/aegbMultifamilyGuidebook.pdf.pdf?MOD=AJPERES> for detailed information on the requirements of the Multi-Family Rating System.

### 7.2.3 - Single-Family Rating

- Please refer to the AEGB Single Family Guidebook

<https://www.greenbuildingsystem.austinenergy.com/Login/Help.aspx>  
<https://my.austinenergy.com/wps/wcm/connect/b9a73300433640a6b40ef7ac1623868e/aegbSingleFamilyHomeRatingGuide.pdf?MOD=AJPERES> for detailed information on the requirements of the Single Family Rating System.

### 7.3.0 - MISCELLANEOUS

#### 7.3.1 - Fees

A registration fee and an AEGB services fee is assessed per project based on the development type and size of the built structures.

Development Type	Size	Registration	Services	Total
Single Family	Any	\$50 per home certified	N/A	\$50
Multifamily/Commercial	<50,000 ft <sup>2</sup>	\$250 per building	\$1,000 per building	\$1,250
Multifamily/Commercial	50,000-25,000 ft <sup>2</sup>	\$250 per building	\$3,500 per building	\$3,750
Multifamily/Commercial	>250,000 ft <sup>2</sup>	\$250 per building	\$7,000 per building	\$7,250

#### Invoicing

##### Registration fee

Once your project application has been accepted, the primary contact will receive an electronic invoice via email from AE Accounts Receivable for the registration fee. The primary contact is the person or team that initiated the project in the AEGB online rating system. Your AEGB representative cannot approve your planning phase documents until the fee has been paid.

##### AEGB Services Fee

When AEGB has received and approved all design documents and your project has advanced to the construction phase, the primary contact will receive an electronic invoice via email for the AEGB Services Fee. Your AEGB representative cannot perform site visits until the fee has been paid.

#### Payment Reminders

The primary contact will receive a payment reminder via email every 20 days until your fees have been paid.

### **How to Pay**

Fees can be paid by check only, made out to AE Cash Receipts, with the invoice number printed on the check. Mail the check to the address designated in the invoice.

### **Waivers**

By City code, only S.M.A.R.T. housing and other City of Austin supported affordable housing developments are eligible to receive fee waivers. AEGB staff reviews eligibility before the registration fee is invoiced.

For projects outside the Austin Energy service area, consult the Austin Energy Green Building Program for a current fee schedule.

### **7.3.2 Failure to Comply**

A site plan may not be approved unless the development complies with this section.