

CITY OF BENBROOK BUILDING PERMITS AND INSPECTIONS

911 Winscott Road, Benbrook, TX 76126

Inspection Department Number: (817) 249-6064
Fax: (817) 249-0884

Inspection Request Line: (817) 249-6000
Email: [Link](#)

Construction Project Guidelines

These guidelines are for information purposes only. The contractor is obligated to comply with all adopted codes and ordinances which can be viewed by visiting the Building Permits and Inspections page on the [City website](#) and clicking on the Benbrook “[Codes & Ordinances](#)” link under “Popular Links.”

Contacts:

<u>Staff Member:</u>	<u>Title:</u>	<u>Direct Line:</u>	<u>Email:</u>
Ismael “Izzy” Rivera Jr.	Building Official	(817) 249-6009	Link
Mark Sanderlin	Combination Inspector	(817) 249-3000 x6114	Link
Sue Clark	Permit Clerk	(817) 249-6064	Link

PERMITTING PROCESS GENERAL INFORMATION:

Creation Of A Building Site – Before a Building application may be submitted, the property must be zoned for the use intended and platted as a lot of record.

Permit Application Packets may be left for review and permits picked up between 8:00 a.m. and 5:00 p.m. daily. Our goal is to complete plan reviews within ten (10) working days, excluding day of submittal. Plan reviews will not begin until all application requirements are met. Once the permit is processed and released, the contractor will be notified of all applicable fees and may pick up the permit.

- Water and sewer impact fees, meter charges and water account deposits are **not** included in the Building Permit fees. Contact the Benbrook Water Authority for permits, fees and deposits.
- When applicable, floodplain modification, grading and development work will require separate permits and fees.
- Once plans are released for construction, any revisions must be submitted for review. A \$45.00 per hour fee may be charged for the additional plan review time.
- Residential review is limited to the primary residential structure and all accessory structures and or fences included on the submittal plans. All future accessory structures and uses will require separate review and permitting.

Utility construction in easements and rights-of-way is authorized by the Engineering and Public Works Department. Upon approval by the Engineering and Public Works Department, a right-of-way permit will be issued at the Building Permits and Inspection Department. For more information, contact the Director of Public Works or City Engineer at (817) 249-3000.

BUILDING PERMITS SUBMITTAL REQUIREMENTS:

The following items must be included with the application form. Incomplete plans and/or applications may not be accepted or may create delays.

- A. Permit Application Form. Any plans not picked up within 180 days after notification will be considered abandoned. A new application will be required after expiration of the permit application.
- B. 2 Copies of Plot Plans (maximum sheet size 11" x 17") showing:
- All building setbacks.
 - Street Address.
 - Lot, Block and Subdivision.
 - Scale of drawing (appropriate for sheet size).
 - North arrow.
 - Dimensioned location of house.
 - Drainage/grading plan with arrows showing directional flow of drainage. Submittal must match the subdivision grading plan. For sites that are single lots not within a platted subdivision, an engineered drainage study and plan must be submitted.
- C. 2 Complete Sets of Building Plans (with a maximum sheet size of 30" x 42" and one 11" x 17" copy) including the following:
- Floor plans, 1/8" or 1/4" scale.
 - Plumbing plans.
 - Electrical plans including an outdoor lighting/photometric plan.
 - A typical framing detail that includes a complete floor joist detail and/or truss plan along with all flooring details for any future bonus space.
 - Elevations of all sides of the structures.
 - Wall bracing plans demonstrating compliance with IRC section 602.10 and following sections. This may include standard braced wall panels, alternate braced wall panels, continuous structural panel sheathing or an engineering product or system. It will also require "Required and Provided Calculations/Table."
 - Refer to the City of Benbrook [Zoning Ordinance](#) for additional architectural/building standard requirements.
- D. 1 Complete Set of Plans in an electronic PDF format.
- E. 2 Sets of Engineered Foundation Plans with Seal and Signature if engineered.

- F. 2 Sets of Tree Conservation/Mitigation Plans overlaid with Footprint of the House, Driveway, Swimming Pools, Decks and Utilities. Clearly indicate all existing trees to be saved and to be removed. Include tree size (trunk diameter) and species. See Tree Preservation Ordinance which can be viewed by visiting the City website and clicking on the [Subdivision Ordinance](#) in the Codes and Ordinances link.

2 Sets IC3 Energy Code Analysis. This can be either the IC3 – International Code Compliance Calculator (ICCC) certificate signed and dated by the preparer or the Prescriptive Method derived from the tables of the 2015 IECC ordinance. IC3 - ICCC is a free download from the Texas Energy Systems Laboratory at <http://ic3.tamu.edu>. NOTE: ResCheck is no longer valid in the North Central Texas Region.

CONTRACTOR REGISTRATION/APPLICATION FORMS:

- The General Contractor will submit the permit application form listing the contractors in the licensed trade (Mechanical, Electrical and Plumbing) and other information requested on the form.
- The General Contractor must be currently registered with the City of Benbrook at or prior to issuance of the building permit. Registration costs \$100.00 annually. Subcontractors in state licensed trades (Mechanical, Electrical and Plumbing) shall also be listed on the application with their license number.

PERMIT FEES:

- Building permit fees for a new house will be calculated prior to approval of the plans.
- The fee for additions of entirely new space is based on the value of the new space.
- The fee for additions of space that have existing foundation and roof such as attic or garage conversion is based on value of the proposed improvements.

FENCE OR RETAINING WALL:

Fences and retaining walls meeting the criteria listed below and not included with the original plan submittal will require a separate fence and/or retaining wall permit:

- A retaining wall 48” or greater from the bottom of the footing (Engineer’s seal is required).
- A fence of construction of a height over 30 inches (2’-6”) – (See [Fence Regulations](#)).
- Any fence that is all or part of a swimming pool barrier – (See [Swimming Pool Permit Requirements](#) packet).

CODES:

For a complete list of building construction requirements, refer to the following code books and the adopting ordinances. The following codes with amendments were adopted by Ordinance #1396:

- [2015 International Building Code](#)
- [2015 International Residential Code](#)
- [2017 National Electrical Code](#)
- [2015 International Energy Conservation Code](#)

- [2015 International Plumbing Code](#)
- [2015 International Fuel Gas Code](#)
- [2015 International Fire Code](#)
- [2015 International Mechanical Code](#)
- [2015 International Code Series](#) (Free Viewing from ICC Online Library Website of Entire Codes)

INSPECTION REQUESTS:

Inspection requests are accepted 24 hours daily at (817) 249-6000.

- It is the General Contractor's responsibility to call for all inspections.
- The city-stamped set of plans must be on the jobsite for all inspections.
- The type of inspection and job address must be included with all inspections requested. A contact name and phone number must also be included.
- Inspections must be called in **prior to 8:00 a.m.** for same day inspection.
- No inspections will be performed until **all** re-inspection fees have been paid.
- All inspections held back because of cold weather or rain must be re-scheduled by calling the inspection line.
- No concrete or plumbing rough inspections will be made if it is too wet by the Inspector's standards.
- No concrete inspection will be made unless the temperature is 38 degrees and rising.
- Do not lay brick when it will be below 40 degrees before mortar setting.

Please wait until ready to inspect before calling for an inspection. All reasonable efforts are made to inspect within the time period requested. Even then, circumstances sometimes require some inspection to be moved forward to the next day, if the work is not ready at the time of arrival, a re-inspection fee may be required.

RE-INSPECTION FEE:

A \$45.00 RE-INSPECTION FEE MAY BE CHARGED WHEN:

- The inspection called for is not ready when the inspector arrives.
- The temporary electrical pole does not have an address clearly posted on it.
- The building site does not have an address clearly posted.
- City-approved plans are not on the job site.
- The building is locked or inspection area otherwise inaccessible for inspection.
- The job site is red-tagged twice for the same item.
- The original red tag has been removed from the job site.
- Violations exist on the property including erosion control, trash control, or tree protection.

CONSTRUCTION BEFORE PERMIT IS PICKED UP:

Absolutely **NO WORK** (This means no dirt removal, dumping and grading) is to commence until a building permit or earth disturbance/grading/development permit is issued. Work without a permit is subject to an investigation fee.

CONSTRUCTION HOURS:

The City of Benbrook Code of Ordinance regulates noise very strictly. Between the hours of 7:00 p.m. and 7:00 a.m., only work that does not create noise audible at the property line is permitted. Contractors are advised to check with the Homeowners' Association regarding work hour limitations.

BUILDING ADDRESS NUMBERS:

Building addresses must be posted at each building site at all times.

During construction, address numbers must be a minimum of eight inches (8") in height.

At final inspection, address numbers must be posted on the building and mailbox and meet the following standards:

- All numbers must comply with the Building Code for height and stroke width requirements.
- Be clearly visible from the street near the main entrance (numbers may need to be larger due to distance).
- If the numbers at the front door cannot be seen from the street, an additional set of numbers shall be posted at or near the driveway entrance.

PLANS ON-SITE:

City approved building plans must be available on the job site when inspections are conducted. If the approved plans are lost, an additional set must be submitted to the city to be stamped. After the first re-stamp, a fee of \$45.00 will be charged for an additional plan review time.

LITTER:

- Provide a litter container of sufficient size on the job site at all times. Require all sub-contractors to place trash in this container each day before leaving the job site.
- See that all paper and boxes from building materials and lunch wrappers are not allowed to blow about the job site and area.
- All inspections may be canceled and re-inspection fees assessed if trash is blowing or loose on the job site. No inspections will be made until all trash has been contained.
- If a commercial container is used per the City of Benbrook franchise agreement, [Allied Waste/Republic Services](#) must be contracted for that service at (817) 332-7301.

JOB TOILETS:

- Provide a portable restroom facility on ALL job sites until an indoor toilet is available.
- No inspections will be made if a restroom facility is not provided.
- Adjacent sites may share grouped facilities with approval from each general contractor.

CONSTRUCTION ACCESS/STAGING:

The use of an adjacent lot for construction access or storage of materials is prohibited unless an earth disturbance permit has been obtained and erosion control is in place.

EROSION CONTROL:

- Erosion control must be installed according to city specifications prior to construction.
- Erosion control must be maintained at all times throughout the project.
- All inspections may be canceled and re-inspection fees assessed at any time erosion control conditions are inadequate.
- All activity on a site shall comply with City, State and Federal statutes for storm water pollution control.

CONSTRUCTION OFFICE/PORTABLE BUILDING:

If a portable office building is placed on the job site, then a separate building permit is required for that building. Electrical and/or plumbing installations must be inspected.

UTILITIES INSPECTION:

The contractors may request the temporary utility service prior to Certificate of Occupancy. Electric and gas meters must be installed before requesting building finals.

The release of utilities for construction purposes does not authorize occupancy of the building.

The following are inspected before release of utilities:

Electrical Meter Release:

- The entire electrical system must be made safe and be maintained in a safe manner at all times. Any circuit unprotected openings or exposed conductors must be isolated from the power source at the circuit breaker.
- All wiring must be terminated or capped in an approved method.

Gas Meter Release:

- The gas piping and heating system must be fully installed. Non-fixed equipment, such as barbeque grills and ranges, are not required to be installed but there must be a cutoff valve with a cap and nipple installed on the down-stream side.
- Gas valves have been installed on all gas outlets.
- Access must be provided for the inspection of furnace units in the attic by means of an approved ladder.
- CSST systems shall have a shut-off valve for each outlet at the manifold.

INSPECTIONS REQUIRED:

1. **TEMPORARY POLE.**
2. **LOT GRADING/TREE PROTECTION/EROSION CONTROL.** Call when the forms are set to verify elevation. Tree protection and erosion control shall be in place.

3. **FORM BOARD SURVEY.** Approval required a minimum 24 hours before foundation inspection. The form board survey shall verify the location of the building on the lot and elevation in cases where a minimum finish floor elevation is specified. Form Board surveys may be faxed to (817) 249-0884 or e-mailed to sclark@benbrook-tx.gov. However, a follow-up hard copy should be mailed or brought into the City office. The City is not responsible for lost faxes.
4. **PLUMBING ROUGH.** Must comply with 2015 IRC. A five foot (5') head of water on last stack in house (five [5] pound on drainage with diaphragm gauge and 60 pounds on water with spring gauge). Pipe shall be bedded in sand. Hot water lines must have minimum ½" insulation. Sprinkled structures shall have a minimum of two inch (2") uninterrupted water service from tap to fire line riser.
5. **ELECTRIC CONDUIT IN SLAB.** Materials and installation shall be per the 2014 NEC – inspected during foundation inspection. Electrical conduit may not displace concrete in the pad area unless the foundation engineer signs off on the installations.
6. **FOUNDATION.** A form survey is required 24 hours before a foundation inspection. Foundations placed on fill dirt must have soil compaction tests submitted that are approved by the structural engineer that designed the foundation. All foundations must comply with Chapter 4 of the 2015 IRC. Foundation plates or sills shall be treated per IRC section R319. Foundation plates or sills must be bolted to the foundation into the concrete or masonry and spaced no more than six feet (6') apart. See IRC section R403.1.6. There must be a minimum of one bolt located within 12" of each end of each piece of sill plate. A properly-sized nut and washer must be tightened on each bolt to the plate.
7. **WOOD SHAKE AND SHINGLE ROOFS (NO INSPECTION PERFORMED).**
 - a. The roof coverings shall have a Class C fire rating.
 - b. Installation shall comply with instructions printed on the packaging and with IRC section R905.7 or R905.8.
8. **TRUSS INSPECTION.** An inspection of the trusses must be called for after all floor trusses are installed but prior to the installation of the electrical, plumbing and mechanical systems if pier and beam.
9. **CONSTRUCTION INSPECTIONS.** All trades must be ready. It is the general contractor's responsibility to call for the inspection. The house shall be enclosed, roof on and windows and doors set for seconds inspection. Temporary windows or doors may be used to keep out the weather if the permanent ones are not available.
 - a. **Plumbing Top-Out** shall comply with 2015 IRC, Chapter 25 through 32. All vents must extend through the roof with flashing installed at the roof.
 - See Chapter 31 of the IRC for venting options.
 - No vents may be less than 45 degrees from the horizontal until they are at least 42" in height.

- Air Admittance Valves may be permitted in limited use for islands and bar sinks only. Building Official approval is required for any other locations before installation.
 - All water lines must be braced.
 - Hot water lines must have minimum ½” insulation.
 - Pop-off and pan drain lines must run separately to the minimum one inch (1”) diameter due to ID fitting reduction.
 - Pex-piping is not an approved material for use as a T & P drain.
 - All water heaters must have a drip pan with drain. Two (2) pan drains can be combined to a single drain.
 - Removable, self-draining, frost-proof hose bibs must be installed.
 - Screw-on vacuum breakers on hose bibs are prohibited; they must be built-in.
 - Combustion air inlet s and grills must be installed at water heater closets.
- b. **Gas Line** shall comply with Chapter 24 of the 2015 IRC.
- A pressure test must be performed. See Test Pressure Measurement under Utilities Inspection above.
 - All gas lines, regardless of their location, must be properly secured and protected.
 - Air gauges must be located outside the house, preferable from the meter location.
 - Gas pipe in contact with masonry must be galvanized or properly sleeved.
 - The log lighter valve must be outside firebox wall with key in place for inspection.
 - CSST systems shall have a shut-off valve for each outlet at the manifold.
- c. **Electrical Rough** shall comply with 2017 NEC.
- Ground clamps used on ground rods and pool belly steel must be listed for direct burial.
 - Ground and neutral conductors will be made up in all indoor panels at rough-in stage. Bonding screws (when required) must also be installed at this time.
 - A grounding electrode conductor must connect to the cold water piping with a supplemental grounding rod or to any approved grounding electrode.
- d. **Mechanical Rough** shall comply with 2015 IRC, Chapters 12 through 23.
- Flexible ducts must be supported and turns must be made in such a way that the air flow is not deterred. See duct manufacturer’s specifications.
 - Combustion air vents must be installed in closets enclosing gas appliances at the top and bottom portion of closets enclosing gas appliances, and comply with Chapter 18, IRC.
 - Provide draft stop at each ceiling level around chimneys of factory built fireplaces unless more restrictive in manufacturers listing requirements.
 - Ducts shall be sealed with approved tapes or mastics, not duct tape. Duct insulation must comply with the current IECC.

- e. **Framing** shall comply with 2015 IRC.
- Fur downs, chimneys, ceilings of different heights and vertical wall spaces over 10' must be fire blocked. See section R602.8 IRC.
 - Roof drains that are concealed within the construction must comply with the Plumbing Code piping (i.e. PVC or cast iron). Such installations shall be tested.
 - There must be a two inch (2") gap between masonry fireplace walls and wood studs or any other combustible material. This includes ISOKERN and FIREROCK fireplace systems.
 - Stairways shall comply with IRC section R311.
 - Maximum riser height 7 ¾". Minimum tread depth 10". ¾" nosing required on treads <11".
 - Winding stairway treads are to be at least 6" at the inside of each tread and 12" out from the inside winder, a full run of 10" is required.
 - All studs must conform to the maximum allowed for cutting, notching and boring.
 - All brick shall bear on foundation unless specifically permitted.
 - Wall bracing shall be installed as designed and specified. For engineered wall bracing systems, an engineer's letter of substantial compliance is required.
 - Weather resistant sheathing paper per IRC 703.2. This may be a house wrap type product, 15# asphalt saturated felt or a sheathing product listed to provide equivalent protection.
10. **FIREPLACE** shall comply with 2015 IRC. Inspection should be called when firebox, damper, and first flue tile are in place. Do not lay face brick before inspection.
- Gas line shall comply with 2015 IRC, Chapter 24.
- A pressure test must be performed.
 - All gas lines, regardless of their location, must be properly secured and protected.
 - Air gauges must be located outside the house, preferably from the meter location.
11. **INSULATION INSPECTION** shall comply with Chapter 11, IRC. An insulation inspection is required before walls and ceilings are covered up. Blown insulation shall be inspected at final inspection. For residential projects, schedule an inspection with our Department. For commercial projects, contact a third party Certified Energy Code Inspector for inspections and provide copy of inspection report to this Department.
12. **WALL-TIE/SHEATHING** (Call sheathing inspection prior to stucco or other finish). Wall-tie may be called at time of framing inspection or may be called separately. For brick veneer provide one tie per 3/4 square feet (for 16" framing, one every 24" high or, for 24" framing, one every 16" high) unless structural engineer or architect specifies more. Moisture barrier may be applied before inspection.

13. **TUB ENCLOSURE (WHERE APPLICABLE).** Must comply with 2011 NEC and 2012 IRC Section P2720. Electrical bonding and GFCI. Inspection required before sealing of any whirlpool or garden tub.
14. **LOT GRADING: APPROACHES AND SIDEWALKS.** Both, lot grade and approach inspection must be called in at the same time. Driveways and flat work must be approved before any concrete pour is initiated (see Lot Grading requirements).
 - Approaches must have a depth of 6” and be reinforced with Number 3 bars, 18” on center.
 - A turn radius of 5’ is required unless greater is shown on plans.
 - For streets with curb and gutter, dowel 6” and be reinforced with Number 3 deformed bars, 18” on center with expansion joint as required.
 - For asphalt streets without curb and gutter, saw cut a straight edge and use existing street as the form. Expansion joint only required at right-of-way line.
 - Where public walks are provided, they shall be 4” deep and reinforced with number 3 bars, 18” on center. Expansion joints at least every 20’. Use smooth dowel bars through expansion joints.
 - If there is a bar ditch, a culvert may be required. Contact the Benbrook City Engineer or Public Works Inspector for approval of culvert size and design.
15. **FINAL LOT GRADING INSPECTION.** A letter and as-built drawing(s) must be prepared by a civil engineer. The letter must state that the site has been inspected and found to accept and convey water in accordance with approved plans and industry standards.
16. **LANDSCAPE FINAL INSPECTION.** Conducted with the Building Final inspection.
17. **UTILITIES INSPECTION.** Electric and gas meters must be installed before requesting building final.
18. **BUILDING FINAL.** Electric and gas meters must be installed before requesting a building final/certificate of occupancy.
 - Final grading must be completed.
 - Electric panel must be specifically and clearly labeled.
 - The permanent address must be posted on the house or mailbox.
 - The water cut-off valve at the house must be operable with a valve box lid set 2” above the grade.
 - A water meter box must be set 2” above grade with dirt removed from the top of the meter.
 - A permanent electrical outlet and lighting fixture, controlled by a switch located at the required attic opening, must be provided at or near any mechanical equipment.

- A gas line pressure test must be performed. Cap the gas line in the firebox and leave the gas log lighter valve open with the key in place. Test pressure measurement. Test pressure shall be measured with a monometer 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. For tests requiring a pressure of 3 psig, mechanical gauges shall utilize a dial with a minimum diameter of 3½", 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 gauges shall utilize a dial with a minimum diameter of three and one half inches 3½", a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi.
- A permanent ladder must be installed to access an attic water heater. An access opening is required to all attic areas.
- All light fixtures on switched receptacles must be installed.
- All plumbing fixtures must be installed.
- A removable access panel must be provided for whirlpool tubs.
- Sewer clean-outs must be 2" above grade.
- Street, alley and all flatwork must be clean and clear of mud and debris.
- Chimneys must be extended 2' above any portion of the roof within 10'.
- The yard and garage must be clear of debris and trash.
- At least 1 full-length continuous handrail must be installed at each stairway. Ends must be returned to the wall or terminate at a Newel post. Handrails must be installed at a height of 34"-38".
- Guards, a.k.a. guardrails, are required at floors, landings or stairs where the drop-off is 30" or more. The minimum guardrail height is 36". Intermediate spaces shall be such that a 4" diameter ball cannot pass through. A 4 3/8" ball may be used for openings on the sides of stair treads.
- If a lawn sprinkler system is installed, a separate permit must be issued and the final back-flow prevention testing certification form must be submitted. Rain/freeze sensors are required.
- Safety glazing shall be identified in a permanent manner (etched on glass) where required by Section R308.4 IRC.
- Final energy inspection items include check labels, on windows, doors, water heaters, HVAC equipment and recessed light fixtures. Also, blown insulation and duct insulation is checked. Blown insulation must have depth markers every 300 square feet and certificate from installer stapled to framing member near attic access. Blower door test results.
- Structures equipped with an automatic sprinkler system shall be provided with a water flow alarm located on the building front exterior.
- Alarm shall be tested and approved prior to final certificate of occupancy,
- Sprinkled structures shall be inspected and approved by the Fire Department prior to final certificate of occupancy.

EXPIRED PERMITS

It is the responsibility of the permit holder to obtain final inspection prior to the expiration of the permit. If there are circumstances beyond your control such that this cannot be done, then provide a written explanation to the Building Official prior to the expiration date. We will try to work with you on these issues when possible. Permits expire after 180 days of no inspections or activity. A new permit will be required prior to continue any further work.

TEMPORARY CERTIFICATE OF OCCUPANCY

No Temporary or Conditional Certificate of Occupancy will be issued when life safety or hazardous conditions exist. A Fire Department inspection may be required.