



Standard Operating Procedures

For Single-Family Residential Inspections

This guide lists all normally required inspections for single-family residential construction. There may be more or fewer required inspections at the discretion of the Building Official in order to verify code compliance. It is the responsibility of the job superintendent to assure that the project is ready for inspection and accessible for the inspector. The City of League City adheres to and enforces the 2015 International Residential Codes, 2015 International Building Codes, and the 2014 National Electrical Code.

1. All inspections

- 1.1 Proper address clearly visible from the street.
- 1.2 City approved plans on site.
- 1.3 Leave correction or approval notice at all inspections.
- 1.4 Verify previous notice on re-inspections.
- 1.5 Verify inspections comments from printout on re-inspections.
- 1.6 Check general cleanliness of job site.
- 1.7 Debris containment provided on site.
- 1.8 Construction barrier on job sites bordering occupied residence.
- 1.9 Check the streets are clear of debris.
- 1.10 Proper extension cords are in use.
- 1.11 Water used for construction from hose bibs or fire hydrants shall have an approved back-flow prevention device.
- 1.12 Provide temporary restroom facilities on location.
- 1.13 Provide silk screen fencing at curbs and sand bags at storm sewers.
- 1.14 Provide a "wash-out" area for concrete.
- 1.15 A minimum of one portable restroom supplied on site. Must have a portable restroom within 200 feet of every home under construction.

1. T-Pole inspections

- 2.1 Pole is secure in ground.
- 2.2 Outlets with GFCI Protection and provided with proper weatherproof covers.
- 2.3 Ground wire secure to ground rod.
- 2.4 Box is weatherproof, in good condition, and displaying location of address.

2. Ground plumbing inspections (Schedule with water line inspection.)

- 3.1 DWV test: Hydrostatic test with stack 10' above finished floor inside forms, visually check joints for leaks; or provide gauge test to 5 psi inside forms, observe pressure for 15 minutes.
- 3.2 Building drain minimum 12" depth at building exit.
- 3.3 Pipe properly sloped.
- 3.4 Pipe is continuous bedded in solid material.
- 3.5 Sleeve all plumbing in structural beams with a minimum 24" long SDR pipe 2 sizes larger than the pipe being sleeved.

3. Water line inspection (Schedule with ground plumbing inspection.)
 - 4.1 Proper materials and fittings used.
 - 4.2 Line is located minimum 5' horizontally from sewer or on shelf 12" above sewer.
 - 4.3 Line is continuous bedded in solid material and will have minimum 12" of cover.
 - 4.4 Line is air tested to 60 psi minimum or city water is on.

Water Line Tap Inspection (Line Repair Department: 281-554-1390)

4. Sewer line inspection
 - 5.1 Provision is made to allow a minimum of 12" of fill over sewer line.
 - 5.2 Sewer is properly sloped and bedded in sand.
 - 5.3 Clean out provided at transition from building drain to building sewer (no more than 3' away from foundation).
 - 5.4 Sewer is tested with water stack 10' above finished floor, outside form.

Sewer Tap Inspection (Line Repair Department: 281-554-1390)

6. Foundation inspection (Engineer certified foundation available in lieu of inspection on city approved form with approved form survey prior to foundation pouring.)
 - 6.1 Closed form survey on site of inspection
 - 6.2 Provide a FEMA elevation certificate for the following areas:
 - 6.2.1 For VE zones, the bottom of the lowest horizontal structural member must be above base flood elevation by a minimum of 18".
 - 6.2.2 For AE zones, the top of the bottom floor (including crawlspace or enclosure floor) must be above base flood elevation by a minimum of 18".
 - 6.2.3 For shaded X zones, the top of the bottom floor must be above the nearest base flood elevation by a minimum of 18".
 - 6.2.4 For all other areas, the top of the bottom floor must be 18" above crown of street or highest adjacent grade. For unshaded X zones, a form survey with pertinent elevations may be submitted in lieu of a FEMA elevation certificate.
 - 6.3 Beam layout, beam sizes, tendon count, corner bars, and reinforcing steel per city approved plans
 - 6.4 Provide an electrode located near bottom of foundation consisting of 20' of reinforcing bar minimum 1/2", or 20' of bare copper not smaller than 4 AWG.
 - 6.5 Pads are firm and even.
 - 6.6 Provide string lines to verify slab thickness.
 - 6.7 Beams are firm in bottom, no water covering steel or tendons.
 - 6.8 No holes in vapor barrier, vapor barrier taped at all seams.
 - 6.9 No structural steel in slab shall be supported by steel supports in contact with ground (tape or wrapped steel supports not allowed).
 - 6.10 Mastic barrier on all exposed PVC to 4" above finished floor minimum.
 - 6.11 Plumbing DWV system shall be tested after installation by water (10-foot head of water on stack) or air (5lbs psi) both test maintained for 15 minutes. Any repairs to PVC must be re-inspected.

- 6.12 Pipes passing under a footing or passing thru a beam shall be provided a pipe sleeve, two pipe sizes larger than the pipe passing through it.
 - 6.13 All leave tub buckets to have a minimum of 4" of clearance to vapor barrier on all sides.
 - 6.14 The use of 6-inch diameter or larger pipe sleeves will require an engineered detail provided with drawings.
 - 6.15 Four (4) inch sleeves are allowed for 3" pipes at foundations per Building Official.
7. Cover-up inspections – *Structure is dried-in: roofing complete, all doors and windows installed sheathing and moisture barrier installed and sealed.* The plumbing and gas shall have a pressurized test on system. Install temporary guard rails at stairs and balconies (frame, electric, plumbing, gas, mechanical, and fire blocking).
- 7.1 WALLS
 - 7.1.1 Studs shall be a minimum No. 3, standard or stud grade lumber.
 - 7.1.2 The size, height, and spacing of studs shall be in accordance with table R602.3 (with exceptions).
 - 7.1.3 Where joists, trusses or rafters are spaced more than 16" on center and the bearing studs are spaced 24" on center, such members shall bear within 5" of studs beneath (with exceptions).
 - 7.1.4 Notching of any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Nonbearing partitions may not exceed 40% of a single stud.
 - 7.1.5 Drilling and boring of any stud, the diameter of the resulting hole shall not be more than 60% of the stud's width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior walls or bearing partitions drilled over 40% and up to 60% shall be doubled with no more than 2 successive doubled studs bored (with exception).
 - 7.1.6 Top plates shall not be less than 2" nominal thickness and have a width at least equal to the width of the stud (with exception).
 - 7.1.7 Bottom (sole) plate, studs shall have full bearing on a nominal 2-by or larger plate or sill having a width at least equal to the width of the studs.
 - 7.1.8 Drilling and cutting of the top plate by more than 50% of its width shall require a galvanized metal tie to be fastened across and to the plate at each side of the opening with not less than 8 16D nails at each side (with exception).
 - 7.1.9 Fire blocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form a barrier between stories and between a top story and roof space.
 - 7.1.10 Headers over all openings sized properly.
 - 7.1.11 Where opening of an operable window is located more than 72" above finish grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24" above finish floor of the room located (with exception).
 - 7.1.12 Glazing requirements for windows shall refer to section R308.

7.2 CEILING/FLOOR

- 7.2.1 Ceiling joists sized per city-approved plans
- 7.2.2 Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms, and basements shall have a ceiling height of not less than 7' measured from finish floor to lowest projection of ceiling (with exceptions).
- 7.2.3 Ends of joist shall not have less than 1.5" of bearing on wood or metal and not less than 3" on masonry or concrete.
- 7.2.4 Joist framing from opposite sides of bearing wall shall lap a minimum of 3" and nailed together with a minimum (3) 10D face nails.
- 7.2.5 Ceiling joist shall be supported by approved framing anchors or on ledger strips not less than nominal 2" x 2".
- 7.2.6 Ceiling joist shall be supported laterally at the ends by full depth solid blocking (minimum 2" nominal thickness), or by attachment to a full-depth header, band, or rim board/joist, or to an adjoining stud or otherwise provided with lateral support to prevent rotation (Rat Run).
 - 7.2.6.1 Ceiling joist exceeding a nominal 2" x 12" shall be supported laterally by solid blocking, diagonal bridging or a continuous 1" x 3" strip nailed across bottom in intervals not exceeding 8'.
 - 7.2.6.2 Drilling and notching of structural ceiling/floor members shall not be cut bored or notched in excess of the limitations allowed.
- 7.2.7 Buildings with combustible ceiling or roof construction shall have an attic access opening (22 x 30) to attic areas that exceed 30 square feet and have a vertical height of 30" or more.

7.3 ROOF

- 7.3.1 Rafters shall be framed to ridge board (1 inch minimum) nominal thickness and hip and valley ridges (2 inch minimum) nominal thickness and shall be supported by a brace to a bearing partition to distribute load.
- 7.3.2 Where ceiling joists are not connected at rafters, rafter ties shall be installed to provide a continuous tie, minimum 2 x 4 nominal.
- 7.3.3 Hip and valley ridges that are spliced must be laminated on both sides with 1/2-inch plywood extending a minimum of 18" from both sides of splice.
- 7.3.4 Purlins shall be sized no less than the required size of the rafters they support. Purlins shall be continuous and supported by 2 x 4 braces installed to bearing walls at a slope not less than 45° from horizontal and spaced not more than 4' on center and the unbraced length of braces not to exceed 8'.
- 7.3.5 The ends of rafters and ceiling joist shall have not less than 1-1/2" of bearing on wood/metal and not less than 3" on masonry/concrete.

- 7.3.6 Rafters and ceiling joist exceeding 2 x 10 (nominal dimension) shall be provided with lateral support at points of bearing to prevent rotation.
- 7.3.7 Rafters and ceiling joists exceeding 2 x 12 (nominal dimension) shall be supported laterally by solid blocking, diagonal bridging or continuous 1 x 3 nailed across at intervals not exceeding 8'.
- 7.3.8 All valleys, hip ridges, and braces to be supported with 2 or more studs at load bearing walls (departmental policy).

7.4 STAIRS

- 7.4.1 Stair minimum width of 36" in clear width at all points above the permitted handrail height and below the required headroom height.
- 7.4.2 The minimum headroom in all parts of the stairway shall not be less than 6' 8".
- 7.4.3 Stair risers 7-3/4" maximum with 3/8 of inch variance over all.
- 7.4.4 Minimum tread depth of 10" with a nosing of no less than 3/4" and not greater than 1 1/4" with 3/8 inch variance over all (with exceptions).
- 7.4.5 Handrails shall be provided on at least one side of each continuous run of treads or flight with 4 or more risers.
- 7.4.6 Handrail height, measured vertically from nosing shall not be less than 34" and no more than 38" (with exceptions).

7.5 ELECTRICAL

- 7.5.1 Wiring is properly imbedded in walls
- 7.5.2 Minimum wire size of 12 gauge per City ordinance
- 7.5.3 Aluminum wire not allowed past meter per City ordinance
- 7.5.4 Outlets shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6'.
- 7.5.5 A wall space is considered any space 2' or more in width, including around corners and unbroken along floor line.
- 7.5.6 Hallways 10' or more in length shall have at least one outlet.
- 7.5.7 Outlets installed at kitchen counter tops 12" or wider and no point along wall is more than 24" horizontally from an outlet (with exception).
- 7.5.8 Island and Peninsular counter spaces shall have at least one outlet installed.
- 7.5.9 Outlets are allowed to be located above, but not more than 20" above countertop.
- 7.5.10 Outlets at islands are to be located 12" below countertop. Outlets shall not be located below a countertop where the countertop extends more than 6" beyond its base at kitchen and dining rooms.
- 7.5.11 At least one outlet shall be installed in bathrooms within 36" of the outside edge of each basin (with exception).
- 7.5.12 Proper box fill (number of conductors and appliances in embedded electrical box).
- 7.5.13 Where subject to damage, wiring methods thru notched/bored holes less than 1-1/4" from the nearest edge of the stud shall be protected with a nail plate 1/16-inch thick and appropriate length.

- 7.5.14 All smoke detectors shall be listed in accordance with UL 217 and installed with the provision of this code and the household fire warning equipment provision of NFPA 72.

7.6 PLUMBING

- 7.6.1 Water distribution piping tested to 60 psi or on city water pressure, visually check system for leaks.
- 7.6.2 DWV test: hydrostatic test to minimum 8' above finished floor, visually check joints for leaks; or provide a gauge test to 5 psi, observe pressure for 15 minutes.
- 7.6.3 All installed shower pans on test for inspection (filled with water 2" at a minimum).
- 7.6.4 Water distribution piping properly sized, correct material used, joints properly made water portability correctly protected.
- 7.6.5 Drains properly sized and sloped, correct materials used, fitting properly utilized, joints properly made, traps correctly protected with vent.
- 7.6.6 Drilling or notching of structural members within allowable limits or correctly repaired.
- 7.6.7 All piping (other than steel or cast iron) within 1-1/2" of edge of wood members shall be protected with 16 gauge shield plates.
- 7.6.8 Lead test; check solder content in water distribution piping joints for lead content.
- 7.6.9 Fixtures provided with adequate space and clearances.
- 7.6.10 No plumbing vent terminal within 10' of operable windows, doors, or soffit vents unless 2' above opening.
- 7.6.11 Toilet flanges on wood decking secured with minimum of 4 fasteners.
- 7.6.12 Plumbing cleanouts provided with proper clearance.
- 7.6.13 Water heater installed properly; T&P discharge pipe made of correct materials and joints, not trapped, contains no more than (4) 90° fittings and no longer than 30' in developed length unless pipe is upsized (manufacturer); drain pan required where leakage may cause damage with minimum 1" drain line.

7.7 GAS

- 7.7.1 Gas test minimum 5 psi on diaphragm gauge
- 7.7.2 Gas piping proper size, correct pipe material, fittings, and joints; no piping in HVAC ducts or chases, or clothes chutes; no unions, tubing fittings, etc. in concealed locations; piping properly supported; boring and notching in structural members within allowed limits or correctly repaired.
- 7.7.3 Gas piping within structural concrete foundations shall be installed inside conduit, sealed where piping enters/exits conduit, and conduit is vented to outside.
- 7.7.4 All gas vents terminated with approved cap the correct distance above roof and away from walls, windows, soffits, etc.; roof penetration properly flashed.

7.8 MECHANICAL

- 7.8.1 Appliances installed in rooms shall be accessed by an opening or door, unobstructed passageway not less than 24" wide, a level service space not less than 30" deep and the height of the appliance.
 - 7.8.2 Appliances installed in attics shall be provided with an opening and clear and unobstructed passageway for removal of largest appliance, passageway 24" wide, a level service space 30" deep and 30" wide, with a clear access opening a minimum 20" x 30" (with exceptions).
 - 7.8.3 A luminaire shall be located at the required opening controlled by a switch and a receptacle outlet at or near appliance.
 - 7.8.4 Pipes installed thru bored holes, notches in studs, joist, and rafters less than 1.5" from nearest edge to be protected with shield plates to extend 2" above bottom plate and 2" below top plate.
 - 7.8.5 Foundations and supports for outdoor mechanical systems shall be raised a minimum 3" above finished grade.
 - 7.8.6 Secondary A/C drains terminated at an exterior conspicuous point of disposal, or installation for float switch in drain pan wired to disable the mechanical unit in place of a secondary drain line.
 - 7.8.7 Condensate drain line size shall be not less than 3/4-inch (internal diameter), shall not be decreased in size from drain to point of disposal and installed at a uniform slope.
 - 7.8.8 Primary drain line to be insulated from unit to point of entry at top plate (departmental policy).
 - 7.8.9 Mechanical units and ducts properly supported to building structure.
 - 7.8.10 Prohibited locations for return air for air heating or cooling systems (with exceptions).
 - 7.8.11 Fireplace appliances with class B gas vents installed per manufacturer instructions.
 - 7.8.12 Overhead exhaust hoods, a clearance of 24" shall be maintained between the cooking surface and the combustible material or cabinet.
 - 7.8.13 Exhaust ducts for clothes dryers shall terminate to outside and not less than 3' in any direction from openings into building.
 - 7.8.14 Four (4) inch clothes dryer exhausts ducts shall not exceed 25' with deductions of 2.5' for 45° and 5' for 90° changes of direction (with exceptions). BOOSTER FANS ARE NOT ALLOWED.
- 7.9 FIRE BLOCKING
- 7.9.1 Fire blocking shall be provided to cut off all concealed draft openings (vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and a roof space.
 - 7.9.2 Fire blocking shall be provided for chimneys and fireplaces.
 - 7.9.3 The integrity of all fire blocks shall be maintained.
 - 7.9.4 Interior fire places must be fire blocked at or below the projected ceiling and furr downs within chase with noncombustible material securely fastened in place.
 - 7.9.5 Fire blocking material shall consist of nominal lumber, 2 layers of 5/8" OSB, 3/4" plywood, 1/2" sheetrock, or 1/4" hardiplank. Batts

and blankets of mineral wool or glass fiber or other approved materials installed and secured in place shall be permitted.

7.10 CHIMNEYS AND FIREPLACES

- 7.10.1 Hearth extensions shall extend at least 16" in front and 8" beyond each side of the fire place opening. Where the fire place opening is 6 square feet or larger, the hearth extension shall extend 20" in front and 12" beyond each side of the opening.
- 7.10.2 Fire place clearance of all wood beams, joists, studs and other combustible material shall have a clearance of not less than 2" (with exceptions).
- 7.10.3 All spaces between chimneys and floors and ceilings through which chimneys pass shall be fire blocked with noncombustible material securely fastened in place.
- 7.10.4 Factory-built fire places shall be listed and labeled and shall be installed in accordance with the conditions of the listing (manufacturer).
- 7.10.5 Hearth extensions of approved factory-built fireplaces shall be installed in accordance with the listing of the fireplace.
- 7.10.6 Factory-built chimneys shall be listed and labeled and shall be installed and terminated in accordance with the manufacturer's installation instructions.

8. Brick tie inspections and lathe inspections (separate inspections)

- 8.1 Ties 16" on center vertically and horizontally (departmental policy 16" o.c.e.w. with exception).
- 8.2 Masonry veneer shall be anchored to the supporting wall with corrosion-resistant metal ties.
- 8.3 Ties shall be placed around all wall openings greater than 16" in either dimension.
- 8.4 A water-resistive barrier shall be applied as a means of draining water to the exterior of the veneer; not less than a 2-inch overlap applied horizontal and a 6-inch overlap applied vertical.
- 8.5 All lath and lath attachments (weep screeds) shall be corrosion-resistant material.
- 8.6 Service entrance conductors entering or on the exterior of building shall be insulated.
- 8.7 Exterior wall penetrations shall be made water tight, sealed, and rodent-proof. All electrical, plumbing, and gas lines penetrating exterior walls shall be insulated and protected from corrosion.

9. Driveway/sidewalk/flatwork inspection(s) (See City detail.)

- 9.1 No vegetation within formed area.
- 9.2 Level grade properly (4" depth minimum).
- 9.3 Number 6 gauge wire mesh with chairs throughout form.
- 9.4 Proper tie in to street per city detail.
- 9.5 Two (200) hundred square feet maximum without expansion joints.
- 9.6 Sidewalks, doweled expansion joint 36' and 4' to control joints.
- 9.7 Rebar splices will overlap 30 times the diameter of rebar spliced.

- 9.8 Expansion joint provided between structure and outdoor paving (dowels not required).
 - 9.9 Minimum #4 rebar dowels 12" minimum through expansion joints in driveways, #3 rebar minimum at sidewalks and patios (not required into foundations) maximum 24" O.C." or #6 wire mesh.
10. Electrical inspection for temporary utilities, TCI (TCI form must be received and approved in office prior to inspection request.)
- 10.1 Grounding electrodes properly connected to service panel.
 - 10.2 Rod and pipe electrodes not less than 8' in length.
 - 10.3 Verify metal water piping shall be bonded to the service equipment.
 - 10.4 Verify Gas system is bonded back to service equipment.
 - 10.5 Main disconnect located at exterior of building next to meter, not higher than 6'-7" above grade.
 - 10.6 Proper meter can per utility provider, HL&P, or Texas New Mexico. Service panel is weather tight and no slots are left open in panel.
 - 10.7 A minimum clear space is provided at front of the service panel 30" wide and 36" deep.
 - 10.8 **Aluminum** wire is not allowed as conductors past the meter to the service panel. Service provider will feed aluminum wire from transformer to meter. (This only applies to Texas New Mexico. Center Point will not do this service.)
 - 10.9 A meter inspection without an approved TCI form requires all wiring to be terminated to fixtures, outlets, and switches – no open wires.
11. Gas meter inspection
- 11.1 All gas-fired and vented appliances properly installed and safe to operate.
 - 11.2 Sediment trap installed on furnace and water heaters not equipped with integrated trap.
 - 11.3 Gas-fired water heater relief valve(s) and discharge piping complete.
 - 11.4 Gas test minimum 5 psi on diaphragm gauge; observe 15 minutes for pressure drop.
 - 11.5 All gas piping complete to equipment shut-off valve which is within 6' maximum of appliance and readily accessible; gas line is connected to appliance or line is capped past valve if appliance will be added later (clothes dryer, range, grill); sediment trap correctly installed between shut-off valve and water heater or furnace
 - 11.6 All gas vents properly installed and (manufacturer); supported; terminated with approved cap the correct distance above roof and away from walls, windows, soffits, etc.; roof penetration properly flashed {G2426.7.5}; sloped minimum 1/4" per foot; horizontal run of vent connector does not exceed vertical rise from draft hood to terminal; proper clearance to combustibles maintained (manufacturer).
 - 11.7 Clearances around appliances maintained (manufacturer).
 - 11.8 Appliances provided with correct combustion and ventilation air
 - 11.9 Appliances in attic provided with minimum 30"x 22" opening, a clear and unobstructed minimum 24" wide and 30" high continuous path that is no longer than 20' from opening to appliance and terminating with a minimum 30" x 30" platform in front of the service side of appliance.

- 11.10 Disappearing attic Ladder installed correctly “with a minimum of (8) 16D nails or 4 1/2” x 4” lag screws.
 - 11.11 Clearance around gas meter from ignition sources maintained per utility provider requirements minimum 3’-0”.
 - 11.12 Gas piping system bonded back to service panel per electrical code.
12. Public works inspection (Line Repair Department staff: 281-554-1390) Must be completed before final occupancy inspection.
13. Final occupancy inspection
- 13.1 Provide Final Energy Certification report, WPI-2, or WPI-8 certification.
 - 13.2 Provide finished construction elevation certificates – “Finished Construction.” If located in an AE or VE flood zone, final inspection will be performed by a Certified Floodplain Manager.
- 13.3 BUILDING
- 13.3.1 Permanent address in place.
 - 13.3.2 Portable restrooms and silk screen fencing removed from site.
 - 13.3.3 Windstorm panels and connections located on site.
 - 13.3.4 Weep holes open at bottom of brick walls and over all lintels, maximum spacing of 33”.
 - 13.3.5 Tendon ends grouted, nails removed.
 - 13.3.6 Lot graded for proper drainage, minimum of two rows of sod at street for run-off protection.
 - 13.3.7 Doors operate properly and without the use of keys.
 - 13.3.8 Hands rails (34” to 38” height) and guardrails (36” minimum height) with guards spaced no greater than 4” apart.
 - 13.3.9 All penetrations at exterior of structure are properly sealed.
 - 13.3.10 All construction debris, port-a-cans removed from site.
- 13.4 ELECTRICAL
- 13.4.1 Main disconnect located at exterior next to meter, at a maximum height of 6’ 7” above grade.
 - 13.4.2 All circuits and main labeled in service panel and face plate secured in place.
 - 13.4.3 T-Pole disconnected and removed from site.
 - 13.4.4 All exterior receptacles shall have ground-fault circuit-interrupter protection.
 - 13.4.5 Operable switch, lights, and plugs in all habitable rooms.
 - 13.4.6 All light fixtures installed interior and exterior and sealed properly, no blank plates at boxes, install “key list” fixtures.
 - 13.4.7 Check for operation of dishwasher, food waste grinder, cook top, cook top exhaust/microwave, and oven.
 - 13.4.8 Required GFCI protected receptacles function properly, reset on same floor, outside resets in garage.
 - 13.4.9 Kitchen receptacles that serve countertop surfaces shall have ground-fault circuit-interrupter protection.
 - 13.4.10 Spa tub disconnect in proper location – 5’ minimum from tub.
 - 13.4.11 Check all outlets, switches, and appliances for proper operation.

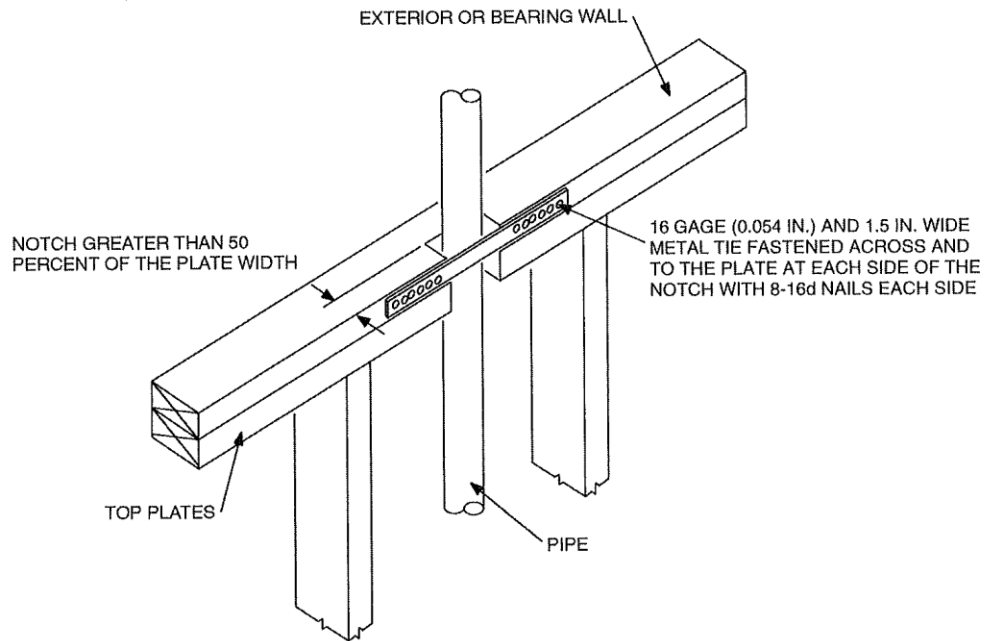
13.5 PLUMBING

- 13.5.1 Plumbing fixtures set and connected correctly to supply and drain.
- 13.5.2 Fixtures provided with adequate space and clearances.
- 13.5.3 Hot water provided and is on the left-hand side of fitting/fixture.
- 13.5.4 Pipes above grade or in attic protected from freezing.
- 13.5.5 All required valves accessible: main shutoff, water heater supply, and water closet supply.
- 13.5.6 Clean outs installed correctly with proper access and spacing.
- 13.5.7 All potable water outlets properly protected from backflow/backsiphonage; hose bibs have permanently-attached vacuum breakers.
- 13.5.8 Water heater temperature and pressure relief valve(s) operate freely without leaks.

13.6 MECHANICAL

- 13.6.1 Outdoor condenser is secured against uplift per Inland 1 Windstorm Requirements and breaker properly sized per manufacturer's specifications.
- 13.6.2 All penetrations and exhaust vents sealed properly.
- 13.6.3 Central air conditioning is operable.
- 13.6.4 Heater/furnace flue pipe is properly installed per manufacturer's specifications.
- 13.6.5 Heating and cooling equipment and ducts are properly supported by building structure.
- 13.6.6 Manufactured fire places functioning properly.
- 1.6.7 Pan under cooling coil is installed with proper slope to drain line.

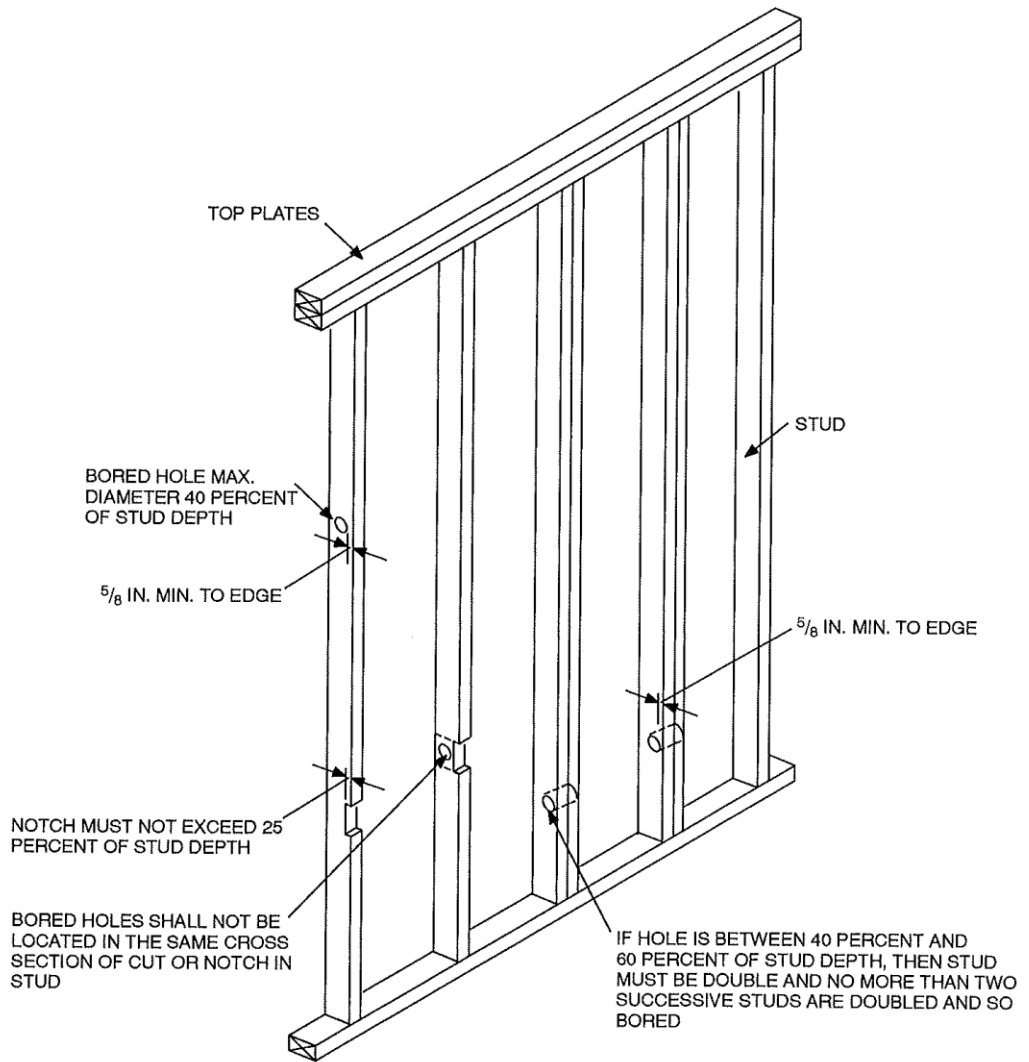
Figures for boring and notching of structural members (IRC 2009)



For SI: 1 inch = 25.4 mm.

FIGURE R602.6.1
TOP PLATE FRAMING TO ACCOMMODATE PIPING

Figures for boring and notching of structural members Cont. (IRC 2009)

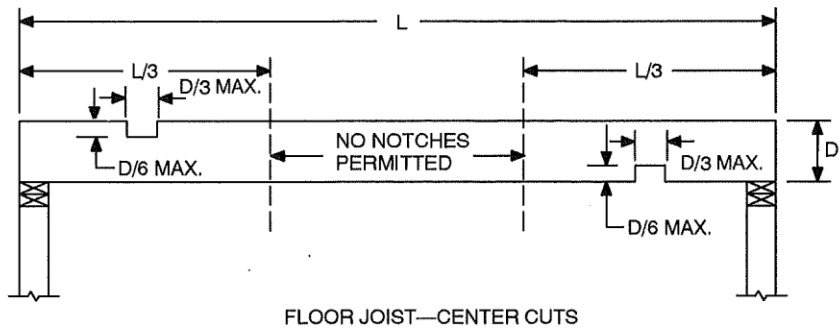


For SI: 1 inch = 25.4 mm.

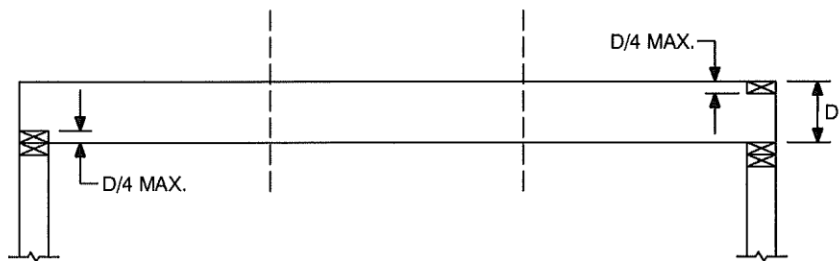
NOTE: Condition for exterior and bearing walls.

FIGURE R602.6(1)
NOTCHING AND BORED HOLE LIMITATIONS FOR EXTERIOR WALLS AND BEARING WALLS

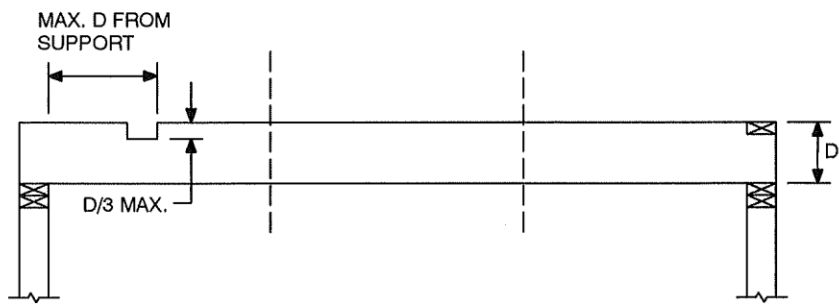
Figures for boring and notching of structural members Cont. (IRC 2009)



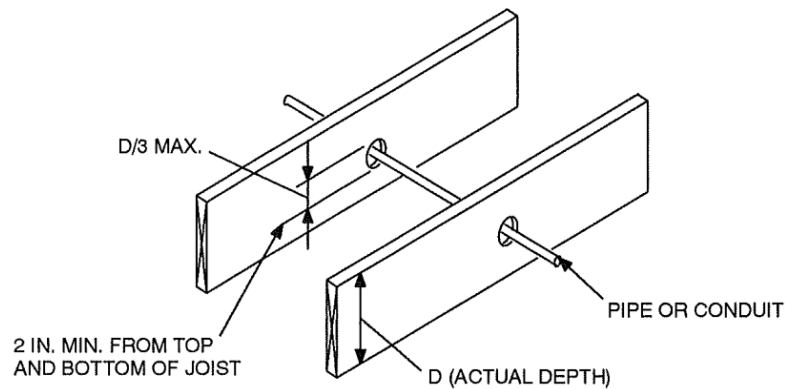
FLOOR JOIST—CENTER CUTS



FLOOR JOIST—END CUTS



RAFTER/CEILING JOISTS (R802.7.1)



1 inch = 25.4 mm.

**FIGURE R502.8
CUTTING, NOTCHING AND DRILLING**