



Mechanical Rough Inspection Checklist

Residential Inspections

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This checklist is provided as a reference tool, and it is not intended to be exhaustive of all possible requirements. Please refer to the latest adopted International Building Code (IBC), International Residential Code (IRC), International Energy Conservation Code (IECC), International Swimming Pool and Spa Code (ISPSA), Uniform Plumbing Code (UPC), Uniform Mechanical Code (UMC), National Electric Code (NEC), Local Amendments (LA), Austin Energy Design Criteria (AE Design), City of Austin Building Criteria Manual (BCM) and City of Austin Land Development Code (LDC) for code sections listed below. Items without a code reference are included for advisory purposes or based on departmental policy.

- International Codes <https://codes.iccsafe.org/public/collections/I-Codes>
- Uniform Codes <http://www.iapmo.org/>
- NEC <https://www.nfpa.org/>
- Local Amendments, AE Design, BCM, LDC <https://library.municode.com/TX/Austin>

Please verify the following before scheduling the inspection:

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- The mechanical contractor has confirmed the work is complete and ready for inspection.
- Job address is posted in a visible location. *IRC R319.1*
- All other required inspections have passed. *IRC R109.4*
- All materials are approved for use. *IRC M1301*
- Appliances installed on exterior of home are listed and labeled by manufacturer for outdoor use. *IRC M1302, M1401.4*
- Appliance installation, anchorage, elevation and protection from impact conform to code requirements. *IRC M1307, M1401, M1408*
- Clearance to combustibles meets manufacturer's specifications. *IRC M1306*
- Consideration was given to the type of insulation and heating and/or cooling equipment used. Sealed spray-foamed attics cannot use equipment introducing combustion air into the thermal envelope. *IECC-LA R402.7*
- Vented floor and wall furnaces are listed for current use and maintain all clearance for unit and registers as required. *IRC M1408, M1409*
- Combustion air is sized to manufacturer recommendations for Btu rating and has a 6-inch minimum clearance in front of the openings. *IRC M1701*
- Drilled, notched or altering of framing members is in accordance with code. *IRC M1308*
- Piping protection is provided with No.16 gauge steel nail protectors when within 1½ inch of frame edge, deck and sheathing surfaces. Protection extends 2 inches beyond the frame member. *IRC M1308, M1411.7*
- Appliance access for service, repair, replacement and electrical requirements includes 22x30-inch attic access, with 30-inch minimum head height large enough to remove the largest piece of equipment and maximum distance of 20 feet from the entry opening. There is a solid, continuous and unobstructed catwalk, at least 24 inches wide and constructed using approved floor deck material, from the access opening to the unit, with 30 inches minimum head height. There is a work platform (at least 30x30 inches) in front of the unit's serviceable parts. There is an outlet for light and service power at the unit and a light switch at attic access point that does not require attic entry. *IRC M1305*

- A/C duct insulation is at least R-8 if located outside the thermal envelope of the home. R-6 duct is allowed if within the envelope of the building. If the rated efficiency of the installed cooling equipment is 15 SEER or higher, duct return boots and plenums outside the thermal envelope may be insulated to R-6.
IECC-LA 403.3.1 also
- Support of ducts meets manufacturer's specifications. *IRC M1604*
- HVAC system serving living spaces does not supply air to, or return from, garage. *IRC M1601.6*
- Return air openings do not draw air from kitchens, closets, toilet rooms, mechanical rooms, garages, or from within 10 feet of gas-fired equipment or similar areas. *IRC M1602.2*
- Return and supply air duct connections are sealed with approved material and in approved manner.
IRC M1601.4.1, N1103.3.5
- Condensate disposal has $\frac{1}{8}$ inch per foot of continuous minimum fall in direction of termination and discharge does not cause a nuisance. *IRC M1411.3*
- Condensate auxiliary and secondary drain systems meet requirements. *IRC M1411.3.1, M1411.3.1.1*
- Insulation of refrigerant vapor (suction) lines is rated at least R-4. *IRC M1411.6*
- Exhaust systems, other than dryer or range, are sized according to table IRC M1506.2, and exhaust is sealed to exterior with flapper and screen using approved terminations. *IRC M1501, M1506*
- Dryer ducts are constructed of metal with a minimum thickness of 0.0157 (28 gauge), a minimum diameter of 4 inches, with no fasteners protruding more than $\frac{1}{8}$ inch inside the duct. All seams and joints are sealed and do not exceed the maximum length allowed after deduction for transition fittings. *IRC M1502.4.1, Table M1502.4.5.1*
- Dryer ducts are supported at intervals not more than 12 feet and are secured in place. The inserted end of joints extends into the adjoining duct or fitting in the direction of travel. *IRC M1502.4.2*
- Range and overhead exhaust hood and duct have a smooth, airtight interior surface, and terminate and are sealed from the exterior of home unless listed and labeled otherwise by the manufacturer. Ducts are galvanized steel, stainless steel or copper. *IRC M1503/M1505*
- Make-up air is in place for range exhaust more than 400 CFM. *IRC M1503.4*
- Range and overhead exhaust terminate independently from all other exhaust systems. *IRC M1503.1*
- All duct and exhaust systems are sealed and secured with approved material and methods. *IRC M1601.4.1*