

## Rough Heat

- All gas piping must be properly supported. G2418
- All ductwork must be properly supported. M1601.4.4
- Gas piping systems must be tested at not less than 1 ½ times the proposed maximum working pressure (not less than 3 psig) for at least 10 min. A gauge must be in place at time of inspection. (Highest end of scale on mechanical gauge cannot be greater than 5 times the test pressure. G2417.4.1
- Each gas appliance must have an appliance shutoff valve in the same room as the appliance and within 6' of the appliance (see exception: 2420.5.2). G2420.5.1
- All gas appliances must be supplied with adequate combustion air in a manner prescribed by code. G2407
- Sediment trap must be downstream of appliance shutoff valve and as close to inlet of appliance as practical (not required for fireplaces, ranges, clothes dryers, outdoor grills). G2419.4
- Ensure code-prescribed access to all equipment. M1305.1
- Provide a level working space 30" x 30" in front of the control side of an appliance. M1305.1
- Each above ground portion of a gas piping system (pipe and tubing) likely to become energized must be electrically continuous and bonded. (It is considered bonded where connected to an appliance that is connected to the equipment grounding conductor of the circuit supplying it.) G2411.1
- Corrugated stainless steel tubing (CSST) must be electrically continuous and bonded. Arc-resistant CSST is considered bonded where connected to an appliance that is connected to the equipment grounding conductor of the circuit supplying it. G2411.2, G2411.3
- Buried gas piping must be at least 12" below grade. Nonmetallic piping must have an 18 AWG yellow-insulated copper tracer wire installed adjacent to piping. G2415.12
- Steel pipe or tubing exposed to soil or other corrosive agents must have a protective coating such as wrapping, epoxy, tape, enamel, sleeve, etc. G2415.11
- Gas piping that penetrates a building foundation below grade must be sleeved and the annular space (between pipe and sleeve) sealed. GA Amendment
- Above ground outdoor piping must be elevated at least 3 1/2" above ground (or roof surface). G2415.9
- Protective steel shield plates (16 gage) for other than black or galvanized steel gas lines needed when less than 1 1/2" from nearest edge. Plate must extend 4" above sole plate, below top plate, and to each side of stud, joist, or rafter. M1308.2
- Single-wall metal pipe vent can be used only for runs directly from the space in which the [appliance](#) is located through the roof or exterior wall to the outdoor atmosphere. Single-wall metal pipe shall not originate in any unoccupied attic or concealed space and shall not pass through any attic, inside wall, concealed space, or floor. G2427.7.4, G2427.7.46
- Gas vents and vent connectors must have clearance from combustibles materials as required by code. G2426, G2427
- Where a gas vent or factory-built chimney passes through insulated assemblies, a steel (at least 26 gage) insulation shield must be installed. The shield must extend at least 2" above the insulation. G2426.4, G2427.5.10
- Vent and chimney connectors must be properly installed, supported, and sloped. M1803.3
- Ensure gas vents are properly sized and terminations are per code. G2427.6.9, G2427.6.4-8

- Protective 0.062" thick steel shield plate for dryer exhaust must extend 2" above sole plate and 2" below top plate. M1502.5
- Protective steel shield plate (1.6 mm) for refrigeration lines must extend 2" above sole plate and 2" below top plate if less than 1 1/2" from edge of member. M1308.2
- In concealed locations, where a vent is installed through holes or notches in studs, joists, rafters or similar members less than 1 1/2 inches from the nearest edge of the member, the vent shall be protected by 16 gage steel shield plates. Protective steel shield plates shall cover the area of the vent where the member is notched or bored and shall extend not less than 4 inches above sole plates, below top plates and to each side of a stud, joist or rafter. G2426.7
- Protective steel shield plates (16 gage) for other than black or galvanized steel gas lines needed when less than 1 1/2" from nearest edge. Plate must extend 4" above sole plate, below top plate, and to each side of stud, joist, or rafter. G2415.7
- Clothes dryer exhaust duct length must be at least 4" nominal in diameter and cannot exceed 35' in length unless a power ventilator is installed. M1502.4.1, M1502.4.5.1
- 4" round clothes dryer exhaust cannot be deformed or diminished in size and must terminate at least 3' in any direction from openings into buildings. M1502.3, M1502.3.1, M1502.4.2
- Clothes dryer exhaust duct joints must be sealed and mechanically fastened (cannot be joined with screws that protrude more than 1/8" into the inside of the duct.) M1502.4.2
- Ensure exhaust duct terminations are per code. M1502.3
- Where required, ensure supply and return air ducts and plenums are insulated per code. IECC
- Seal HVAC ducts per code at joints registers, and plenums. For flex duct, use 181 B-FX (pressure-sensitive) tape, 181 BM (mastic) tape, or liquid mastic. M1601.4
- Return air for HVAC systems cannot be taken from closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room, furnace room, or unconditioned attic. M1602.2
- HVAC ducts in crawl space must be at least 4" above earth. M1601.4.8
- Furnaces and air-handling systems that supply air to living spaces cannot supply air to or return air from a garage. M1601.6
- Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage sheet steel or other approved material and shall not have openings into the garage. R302.5.2
- HVAC disconnects must be in sight from, and readily accessible from, HVAC equipment. Disconnects must meet the working space requirements of NEC 110.26(A) and be capable of being locked if accessible to unqualified persons. E4101.5, NEC 440.11, NEC 440.14
- Bathroom/toilet room fans must have 50 cfm (intermittent) exhaust capacity. Flex duct must be at least 4" in diameter and terminate at the exterior. Table M1504.2, Table M1505.4.4 (A listed Air Connector is limited to 14' in length.)
- Ensure all gas appliances have adequate combustion air. G2407.1
- Wood-burning fireplaces must have outdoor combustion air. R1006.1
- Chimneys must terminate 3' above roof and at least 2' above any portion of a building within 10'. G2427.5.3
- Fireblock duct and chimney chases at floor and ceiling level. R302.11

- Gas-fueled appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, or storage closets (see exceptions) G2406.2

### Final Heat

- Appliance fuel connectors cannot exceed 6' in length (one connector for each appliance) G2422.1.2.1
- Appliance connectors shall not be concealed within, or extended through, walls, floors, partitions, ceilings or appliance housings. Connectors must be entirely in the same room as the appliance. G2422.1.2.3, 2422.1(3)
- Ensure all exhaust and intake vents have proper clearances where terminating at exterior. M1502.3
- Add corrosion-resistant screen/louvers at exterior air intake/exhaust vent covers (not dryer). R303.6
- Dryer and cooking exhaust ducts must have backdraft dampers. M1502.3, G2439.3, M1503.3
- Transition dryer ducts cannot be more than 8' in length and cannot be concealed within construction. M1502.4.3, G2439.7.3
- Ensure condensate line from air-handler is properly sloped. M1411.3
- Secondary drain pan required under HVAC unit where damage to any building components will occur as a result of overflow or stoppage. Pan must have a properly sloped drain line (or prescribed alternative) M1411.3.1
- Ensure there is no debris, blown insulation, etc. in secondary drain pans. M1401.1
- Exterior HVAC units must be on level concrete slabs or approved pads at least 3" above adjoining ground. M1305.1.3.1
- Refrigerant circuit access ports located outdoors shall be fitted with locking-type tamper-resistant caps. M1411.8
- Single-wall metal pipe cannot originate in any unoccupied attic or concealed space and cannot pass through any attic, inside wall, concealed space, or floor. G2427.7.6
- Ducts serving domestic cooking exhaust equipment must be constructed of galvanized steel, stainless steel, or copper. It must have a smooth interior and be air-tight. M1503.4
- Masonry fireplace must have code-compliant hearth extension. (Factory-built fireplace hearth extensions must be installed in accordance with the listing of the fireplace.) The hearth extension must be readily distinguishable from the surrounding floor area. R1001.9, R1004.2
- Seal around gas line penetration in wood-burning fireplace with fireplace mortar or non-combustible sealant per manufacturer's installation instructions.
- Energy code compliance certificate with blower door test (building envelope air leakage) & duct air-leakage test results should be posted at distribution panel or air handler. (Duct air-leakage test not needed if ducts and air handlers are entirely within building thermal envelope 2015/2018 IECC)
- Ensure proper vertical clearance above the cooking top. G2447.5
- Ensure insulation shield is properly installed when required. G2426.4, G2427.5.10
- Bollard or wheel stop required if equipment is subject to mechanical damage from a vehicle. M1307.3.1
- All HVAC, ventilation, fireplaces, and cooking equipment/appliances must be properly installed and operational at time of final heat inspection. (This includes all registers/grilles and exterior vent covers)