



Inspection Checklist – Mechanical Rough in

Property Owner Name:

Property Address:

Permit Number:

Inspectors Name:

Review Date:

Permits and Plans			
	Yes	No	Comments
1. Job address is posted in a visible location. (R319.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Permit and approved plans are on site and accessible to the inspector. (R105.7) and (R106.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Permit information is correct (address, permit number, scope of work, etc). (R106.1.1)	<input type="checkbox"/>	<input type="checkbox"/>	
Forced Air Furnace - General			
	Yes	No	Comments
1. Fuel burning appliances cannot be installed in sleeping rooms, bathrooms, toilet rooms, storage closets, or in a space that opens into such rooms or spaces unless they are direct vent or listed for use within living space. (G2406.1) (G2406.2)	<input type="checkbox"/>	<input type="checkbox"/>	

2. Heat producing equipment installed shall maintain clearances to combustibles as required by the listing of the appliance. (M1402.2) (M1306.1)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Furnace room passageway minimum 24" wide. (M1305.1.2)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Minimum working space around furnace or air handlers is 3 inches. Firebox open to the atmosphere shall have a minimum 6 inch working space along the front combustion chamber side. (M1305.1.1)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Electrical receptacle is required at or near the appliance. (M1305.1.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Switch controlled lighting provided for servicing of equipment. (M1305.1.4.3)	<input type="checkbox"/>	<input type="checkbox"/>	

Forced Air Furnace - Under floor /Attics

	Yes	No	Comments
1. When a furnace is installed in an underfloor area it is suspended a minimum of 6" above grade or installed on a slab extending above adjoining grade. (M1305.1.4.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. When equipment is installed on wood platforms the framing and sheathing is pressure treated when installed within 18" of soil to bottom of framing. (R317.1)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Excavations for equipment have specific requirements. Check the installation instructions for minimum requirements (M1305.1.4.2)	<input type="checkbox"/>	<input type="checkbox"/>	

Forced Air Furnace – Garage

	Yes	No	Comments
1. Equipment which has a flame, generates a spark or uses a glowing	<input type="checkbox"/>	<input type="checkbox"/>	

ignition source is open to the space in which it is installed and is elevated such that the source of ignition is at least 18" above the floor. §(M1307.3)			
2. Ducts which penetrate a wall or ceiling separating the garage from the dwelling are 26 gauge with no openings to the garage. (R302.5.2)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Bollard or wheel stop required in front of or to the side of equipment if subject to impact by automobile. (M1307.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	
Condensing Furnace (High Efficiency)			
	Yes	No	Comments
1. Condensate drain required to drain by gravity to an approved drain or condensate pump. (M1411.3)			
2. Drain pipe minimum 3/4" with 1/8"/ft. slope. (Per manufacturer's installation instructions, and (M1411.3.2)			
Ducting - General			
	Yes	No	Comments
1. Two story maximum vertical rise on factory made duct. (M1601.4.6)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Duct to ground minimum 4" clearance. (M1601.4.7)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Duct in or under concrete, encased in a minimum 2" of concrete. (M1601.1.2)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Round ducts have crimped joints lapped minimum 1 inch and fastened with (3) sheet-metal screws or rivets equally spaced around the joint. §(M1601.4.1)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Joints, seams, and fittings of ducts sealed with mastic or other approved means. §(M1601.4.1)	<input type="checkbox"/>	<input type="checkbox"/>	

6. Flex duct supported per manufacturer's specifications (M1601.4.3)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Metal duct minimum support every 10'. (M1601.4.3)	<input type="checkbox"/>	<input type="checkbox"/>	
8. Venting systems shall not extend into or pass through any fabricated air duct or furnace plenum. (G2427.3.4)	<input type="checkbox"/>	<input type="checkbox"/>	

Ducting - Return Air

	Yes	No	Comments
1. Return air taken from a room or space >25% of the total volume served. See item #3. (M1602.2)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Cannot be taken from bathroom, kitchen, toilet room, mechanical room, closet, furnace room, other dwelling unit, or garage. See item #4. §(M1602.2)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Return air inlets not located within 10' of any fuel burning appliance fire box or draft hood located in the same space. See item #5. §(M1602.2)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Minimum return air duct size is 2 sq.in./kBtu/hr. output rating of the furnace or as otherwise specified by the manufacturer. (G2442.2)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Building cavities may not be used as ducts (N1103.2.3)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Venting systems shall not extend into or pass through any fabricated air duct or furnace plenum. (G2427.3.4)	<input type="checkbox"/>	<input type="checkbox"/>	

Combustion Air

	Yes	No	Comments
1. The minimum cross section dimension for combustion air ducting is 3" (M1701.1) and (G2407.6)	<input type="checkbox"/>	<input type="checkbox"/>	

<p>2. Venting systems shall not extend into or pass through any fabricated air duct or furnace plenum. (G2427.3.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>3. Combustion air ducts cannot be screened when terminating in an attic space. See item #5. (G2407.11) and (M1701.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>4. In buildings of unusually tight construction, combustion air shall be obtained from outside the building. (M1701.1) (G2407.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>5. Indoor combustion air openings - each opening shall be 1 sq. in. per 1,000 Btu/h input of all appliances, but not less than minimum of 100 square inches (M1701.1) and (G2407.5.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>6. Two permanent combustion air openings shall communicate directly / freely with the outdoors. (M1701.1) (G2407.6.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>7. Where two vertical ducts are used to provide combustion air from the outdoors, each opening requires 1 sq. in. of opening per 4,000 Btu/h of total input rating of all appliances in the space. (M1701.1) (G2407.6.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>8. Where two horizontal ducts are used, each opening requires 1 sq. in. of opening per 2,000 Btu/h of total input rating of all appliances in the space. (M1701.1) (G2407.6.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>9. When the one opening method is used the opening requires 1 sq. in. of opening per 3,000 Btu/h of total input rating of all appliances in the space and be within the top 12" of the space. The openings shall communicate directly / freely with the outdoors. (M1701.1) (G2407.6.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

<p>10. Outside combustion air openings are to be screened with ¼ to ½ inch mesh corrosion-resistant material. (M1701.1) (G2407.10)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>11. Combustion air may be drawn from inside the building if of ordinary tightness and the conditioned space is greater than 50 cubic feet per 1,000 Btu/h input for all fuel burning appliances combined (M1701.1) (G2407.5.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
Vents and Connectors			
	Yes	No	Comments
<p>1. Venting systems are to be adequately supported for the weight of the material used. (M1801.7) (G2427.6.9)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>2. Where two gas appliances are vented through a common vent connector it is equal to largest connector plus 50% of the smaller flue outlet and not less than the combined area of the flue outlets for which it acts as a common connector. (G2427.10.3.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>3. Vent connector clearances to combustibles per manufacturer’s listing or performance standards. (M1803.3.4) (M1306.1) (G2427.7.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>4. Single wall vents cannot penetrate a wall, floor or ceiling without a listed pass through assembly, except for gas vents - exterior combustible walls only – with a “ventilated metal thimble”. (M1801.1) (G2427.7.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>5. Vent terminations installed per the manufacturer’s listing. (M1804.2) (G2427.6.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

<p>6. Exhaust vent terminations for mechanical draft and direct venting correct distance from a door, operable window or a gravity air inlet into a building. §(M1804.2.6) (G2427.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>7. Gas vent terminations for listed caps, for roof / wall size and clearances. Gas vents < 12", and not less than 8' from vertical wall or obstruction, shall terminate above roof per table (pitch of roof). Gas vents > 12" shall terminate 2' above, and 10' away from roof. (G2427.6.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>8. Vent terminal (except direct-vents) not mounted directly above or within 3' horizontally of a gas meter or oil tank. §(M1804.2.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>9. Vent terminal no closer than 3' to an interior corner formed by (2) perpendicular walls. §(M1804.2.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>10. Power exhaust terminals not located within 10' of property line and adjacent buildings, and 7' above any finished ground level public walkway. (M1804.2.6 / G2427.3.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>11. Venting systems shall not extend into or pass through any fabricated air duct or furnace plenum. (G2427.3.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>12. A chimney or vent connector shall not pass through any floor or wall ceiling, and shall not pass through a wall or partition unless the connector is listed and labeled for wall pass-through, and installed per the listing. (M1803.3.1) (G2427.7.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

13. Where vents extending into an attic pass through insulated assemblies, an insulation shield of 26 gage sleeve not less than 2 inches above the insulation, secured in place and shall be installed to provide clearance between the vent and the combustible insulation materials, specified by the vent manufacturer. (G2426.4)	<input type="checkbox"/>	<input type="checkbox"/>	
14. Venting supported per manufacturer's listing. (M1801.1) (M1801.7)	<input type="checkbox"/>	<input type="checkbox"/>	
Appliances – Clothes Dryers			
	Yes	No	Comments
1. Exhausted per manufacturer's instructions. (M1502.1) (G2439.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Clothes dryer exhaust ducts of metal with smooth interior surfaces, with joints running in the direction of air flow. (M1502.4) (G2439.5)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Protective shield steel plates of 0.062 thickness, where nails or screws are likely to penetrate clothes dryer exhaust duct – incl. @ framing members < 1-1/4" between duct and finished face of framing member. (M1502.5) (G2439.5.3)	<input type="checkbox"/>	<input type="checkbox"/>	
4. No screws used to attach connector to duct. §(M1502.4.2) (G2439.5.2)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Duct connector 4" minimum or appliance outlet size. §(M1502.4.1) (G2439.5)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Dryer duct correct length. (M1502.4.4) (G2439.5.5)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Clothes dryer ducting run independently of other ducted systems, and shall convey moisture to the outdoors (except listed and labeled condensing ductless clothes dryers). (M1502.2) (G2439.1)	<input type="checkbox"/>	<input type="checkbox"/>	

8. Exterior termination is backdraft dampered, with no screens, and 3' min. from away from any openings into building. Clothes dryer exhaust ducts shall not connect to: vent connectors; vent; or chimney. (M1502.3) (G2439.3)	<input type="checkbox"/>	<input type="checkbox"/>	
9. Clothes dryer ducting concealed in construction must be labeled with the equivalent length. Label shall be located within 6' of the exhaust connection. (M1502.4.5) (G2439.5.6)	<input type="checkbox"/>	<input type="checkbox"/>	
10. Dryer exhaust duct required at time of occupancy. If dryer not installed, exhaust duct shall be capped at the location of the future dryer (except listed and labeled condensing ductless clothes dryers) (M1502.4.6) (G2439.5.7)	<input type="checkbox"/>	<input type="checkbox"/>	
11. Electric dryer transition duct shall be single length, listed and labeled, UL 2158A, and maximum length 8' long. Transition ducts shall not be concealed within construction. (M1502.4.3) (G2439.5.4)	<input type="checkbox"/>	<input type="checkbox"/>	
12. Gas dryer gas connectors maximum 6' long, measured along centerline of the connector. One connector only. (G2422.1.2.1)	<input type="checkbox"/>	<input type="checkbox"/>	
13. Gas shutoff valve installed immediately ahead of connector, and in the same room. (G2422.1.2.4)	<input type="checkbox"/>	<input type="checkbox"/>	
Appliance - Range			
	Yes	No	Comments
1. Vertical clearance to combustibles is 30" minimum or per manufacturer's listing. Minimum clearance reduced to 24" (Gas cooking appliance) with one of three exceptions. §(M1901.1) (G2447.5)	<input type="checkbox"/>	<input type="checkbox"/>	

2. Gas connector maximum 6' long maximum. (G2422.1.2.1)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shutoff valve installed immediately ahead of connector. (G2422.1.2.4)	<input type="checkbox"/>	<input type="checkbox"/>	

Appliance – Range Hood Duct

	Yes	No	Comments
1. Terminates outside, is air tight and is equipped with a backdraft damper. §(M1503.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Ducting is galvanized steel, stainless steel, or copper, with a smooth interior. Exception: Ducts for domestic cooking appliances equipped with downdraft exhaust system, can be schedule 40 PVC, and comply with all 5 exception requirements. (M1503.2)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Domestic open-top broiler units shall have a metal exhaust hood, having a minimum thickness of 28 gauge with ¼” clearance between hood and the underside of combustible materials or cabinets, and clearance of min. 24” between cooking surface to combustible materials or cabinets, unless listed and labeled for broiler units with integral exhaust system. (M1505.1)	<input type="checkbox"/>	<input type="checkbox"/>	

Appliances - Fireplaces

	Yes	No	Comments
1. Factory built fireplaces certified, listed and labeled. (R1004.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Masonry and Concrete fireplaces, and heaters – listed and labeled. (M1415.1)	<input type="checkbox"/>	<input type="checkbox"/>	

3. Exterior intake capable of supplying all combustion air from exterior. Not located within the garage or basement or at an elevation higher than the firebox. (R1006.2)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Hearth extensions are to be readily distinguishable from the surrounding floor and in accordance with the fireplace listing. §(R1004.2)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Decorative appliances in fireplaces installed per manufacturer's installation instructions. (G2432.1)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Appliance shutoff valves shall be located in the same room, and within 6' of the appliance. Appliance shutoff valves located in fireplace firebox shall be installed per the appliance manufacturer's instructions. (G2420.5)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Shutoff valves for vented decorative appliances and room heaters shall be permitted to be installed in a remote area from the appliance where such valves are provided with: ready access; permanent identification; and serve no other appliance. Shutoff valve installed at a manifold – within 50' of appliance, but other req's apply, as above. (G2420.5.2)	<input type="checkbox"/>	<input type="checkbox"/>	
8. Decorative shrouds used at chimney terminations are to be listed and labeled for use with specific chimney system. (R1004.3) (R1005.2)	<input type="checkbox"/>	<input type="checkbox"/>	

Appliances – Air Conditioning

	Yes	No	Comments
1. Cooling coils installed downstream (return side) from heat exchanger. (M1411.2)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Working space around appliance is a minimum 30" x 30". (M1305.1)	<input type="checkbox"/>	<input type="checkbox"/>	

3. Condensate disposal line to an approved place of disposal, but not to public street, alley, or create a nuisance. (M1411.3)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Auxiliary and secondary drain systems (incl. pan) in addition to condensate disposal, where damage to any building components will occur from overflow or stoppage of condensate drain piping are present. (M1411.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Condensate sloped to drain – 1/8 unit in 12 units (1-percent slope). (M1411.3)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Refrigerant lines are to be pressure tested prior to start up of the compressor if required by manufacturer’s installation instructions for residential systems, or when piping is brazed. (M1404.1) and (M1411.1)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Refrigerant lines shall be insulated to R-4, and perm rating of max. 0.05. (M1411.5)	<input type="checkbox"/>	<input type="checkbox"/>	
8. Refrigerant circuit access ports shall be fitted with the locking-type tamper-resistant caps. (M1411.6)	<input type="checkbox"/>	<input type="checkbox"/>	
Exhaust Venting			
	Yes	No	Comments
1. Source specific ventilation fans are required in kitchens, bathrooms, water closet rooms, laundry rooms and indoor swimming pools, spas, or other rooms where water vapor or cooking odor is produced. §(M1507.1) and §(M1507.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	
2. Bathroom fans 50 cfm minimum, and kitchen fans 100 cfm minimum. §(M1507.3.1)	<input type="checkbox"/>	<input type="checkbox"/>	

General Comments: