



ENERGY STAR MULTIFAMILY HIGH RISE PROGRAM

Photo Template Version 1.1

Project Name:
Address:
Date:

INSTRUCTIONS

Use this template as a sample format to comply with the photo documentation requirements outlined in the *ENERGY STAR MFHR Testing and Verification Protocols and Worksheets*. Add, delete or re-size photo boxes and descriptions as necessary.

EPA suggests compressing the resolution of photos prior to inserting into the template to make the file size more manageable, however all nameplates and details demonstrating compliance must be clearly identifiable.

Tip: Once the cursor is inside the desired photo box, select 'Insert' → 'Picture' → 'From File' from the menu above in order to automatically resize the photos to fit the boxes.

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APPLIANCES – PROTOCOL 1.1

Refrigerators

Notes: Nameplate (list model number here if illegible)	Notes: ENERGY STAR label

Dishwashers

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Notes: Nameplate (list model number here if illegible)

Notes: ENERGY STAR label

Clothes Washers

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Notes: Clothes washer (s) Installed

Notes: Nameplate (list model number here if illegible)

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Notes: ENERGY STAR label	Notes:
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HVAC – HEATING AND DHW SYSTEMS – PROTOCOL 2.1, 2.2, 5.1, 5.3

Heating Units / Systems

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Notes: Apt equipment – (image of mechanical closet, boiler room, etc)	Notes: Apt equipment – nameplate (list model number here if illegible)
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Notes: Common Area equipment – (image of mechanical closet, boiler room,	Notes: Common Area equipment - nameplate (list model number here if

DHW Units / Systems

Notes: DHW system – (image of mechanical closet, boiler room, etc)	Notes: DHW system nameplate (list model number here if illegible)

Notes: Central DHW tank storage insulation (if applicable)	Notes: Central DHW Electronic mixing valve temperature set point

Heating Pipe Insulation

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Notes: Space Heating pipes insulation in boiler room

Notes: Thickness measurement

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Notes: Space Heating pipe riser insulation

Notes: Thickness measurement

DHW Pipe Insulation

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Notes: DHW pipes insulation

Notes: Thickness measurement

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Notes: DHW pipe riser insulation

Notes: Thickness measurement

Duct Insulation

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Notes: Duct insulation (indoors)	Notes: Duct insulation (outdoors)
Notes: Duct insulation (in apartment units if applicable)	Notes:

PLUMBING FIXTURES – APARTMENT UNITS

Fixtures & Flow Rates

Notes: Kitchen faucet GPM (list model and GPM here if illegible)	Notes: Bathroom faucet GPM (list model and GPM here if illegible)

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Notes: Showerhead GPM & WaterSense label (list model/GPM here if illegible)	Notes: Toilet GPF & WaterSense label (list model/GPF here if illegible)
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In-Unit DHW Delivery and Storage Temperature

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Notes: Kitchen faucet temperature (not to exceed 125F)	Notes: Bathroom faucet temperature (not to exceed 125F)
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Notes: Showerhead temperature (not to exceed 125F)	Notes: In-unit Storage DHW temperature (not to exceed 140F)
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ENVELOPE – BELOW GRADE WALLS – PROTOCOL 3.1

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Notes: BG Wall Insulation type	Notes: Thickness measurement
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Notes: Continuous insulation around corner, other challenging details	Notes: Continuous insulation around corner, other challenging details
Notes: Pre-insulation showing application of water/vapor/air barrier	Notes: Post-installation overall

ENVELOPE – ABOVE GRADE WALLS – PROTOCOL 3.1

Notes: AG Wall Insulation type	Notes: Thickness measurement

Notes: Continuous insulation around corner, other challenging details	Notes: Continuous insulation around corner, other challenging details

Notes: Pre-insulation showing application of water/vapor/air barrier	Notes: Barrier general coverage and appropriate thickness

Notes: Post-insulation indicating proper installation	Notes: Pre-installation to verify framing construction

<p>Notes: Completion showing proper drywall installation</p>	<p>Notes: Plank/Slab Edge and Rim Joist insulation between ceiling/floor levels before cladding is installed</p>

ENVELOPE – ROOF – PROTOCOL 3.2

Roof Insulation

Notes: Roof Insulation type	Notes: Thickness measurement

Notes: Continuous insulation around corner, other challenging details	Notes: Continuous insulation around corner, other challenging details

<p>Notes: Post-insulation (pre-drywall for cavity insulation, prior to roof finish for exterior grid insulation) showing complete and even distribution of insulation</p>	<p>Notes: Proper enclosure of insulated cavities (if applicable)</p>

ENVELOPE – FLOORS – PROTOCOL 3.3

Floor Insulation

Notes: Floor Insulation type	Notes: Thickness measurement

Notes: Continuous insulation around corner, other challenging details	Notes: Continuous insulation around corner, other challenging details

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Notes: Sub-slab insulation before pouring of concrete or backfilling

Notes: Proper moisture or insect protection (if required)

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Notes: Framed floors, post-insulation showing proper installation and no signs of compromised R-value	Notes:
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ENVELOPE – WINDOWS – PROTOCOL 3.4

Window Thermal Ratings and Sealing

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Notes: Each unique window type with third party verification of U-value, SHGC, and ENERGY STAR Label (if applicable)	Notes: Each unique window type with third party verification of U-value, SHGC, and ENERGY STAR Label (if applicable)
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Notes: Installed window that verifies proper fit and effective connections to envelope's weather and air barriers	Notes: Low-e detector for windows (if applicable)

ENVELOPE – EXTERIOR DOORS – PROTOCOL 3.5

Exterior Doors

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Notes: Installed door that verifies proper fit and effective connections to envelope's weather and air barriers

Notes: Each unique door type with 3rd party verification, NFRC and/or Energy Star label (if applicable)

GARAGES - VENTILATION FANS WITH CO SENSORS (if applicable) – PROTOCOL 4.1

Notes: Garage fan	Notes: Garage fan nameplate (list model number if illegible)
Notes: CO/NO2 Sensors	Notes: Air intake point

HVAC – COOLING – PROTOCOL 5.2, 5.4

Cooling Units

Notes: Apartment equipment nameplate (list model number if illegible)	Notes: Apartment equipment nameplate(list model number if illegible)

Notes: Common area equipment nameplate(list model number if illegible)	Notes: Common Are equipment nameplate(list model number if illegible)

LIGHTING – PROTOCOL 6.1-6.3

Instructions: Include photos of each unique fixture, showing nameplate, wattage, lumens output, fixture type (if T5/T8) or Energy Star label as applicable.

Fixture A

Location (all that apply):

Location:	Notes: General

Notes: Nameplate or wattage	Notes: Bulb or ENERGY STAR label

Fixture B

Location (all that apply):

Location:	Notes: General

Notes: Nameplate or wattage	Notes: Bulb or ENERGY STAR label

Fixture C

Location (all that apply):

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Location:	Notes: General
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Notes: Nameplate or wattage	Notes: Bulb or ENERGY STAR label
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Fixture D

Location (all that apply):

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Location:	Notes: General
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Notes: Nameplate or wattage	Notes: Bulb or ENERGY STAR label
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Fixture E

Location (all that apply):

Location:	Notes: General

Notes: Nameplate or wattage	Notes: Bulb or ENERGY STAR label

LIGHTING CONTROLS – COMMON AREAS

Common Area Lighting Controls

Notes: Corridor occupancy sensors	Notes: Corridor space when sensors are activated

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Notes: Stairwell occupancy sensors

Notes: Stairwell space when sensors are activated

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Notes: Trash room occupancy sensors

Notes: Janitor's closet occupancy sensors

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Notes: Office occupancy sensors

Notes: Bi-level lighting (if applicable)

LIGHTING CONTROLS – EXTERIOR

Exterior Lighting Controls

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Notes: Photo cell or timer

Notes: Photo cell or timer

Notes: Daylight sensor, fixture off during the day	Notes: Daylight sensor, fixture on when daylight sensor is covered

HVAC – MOTORS AND VFDs – PROTOCOL 7.1

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Location and use:	Location and use:
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Location and use:	Location and use:
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ENVELOPE – EXTERIOR AIR BARRIER – PROTOCOL 3.1, 8.1

From the Exterior

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Notes: Areas with liquid-applied membranes showing appropriate thickness	Notes: A/C Openings
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Notes: Windows	Notes: Door Openings
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Notes: Door Frame	Notes: Transition between wall and roof barrier
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<p>Notes: Transition between wall and foundation barrier</p>	<p>Notes: Plank/Slab Edge (Masonry and Steel Construction) or Rim Joist (Wood Framed Construction)</p>

From the Interior

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Notes: Rough openings to windows and doors

Notes: A/C Openings

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Notes: Additional photos (if necessary)

Notes: Additional photos (if necessary)

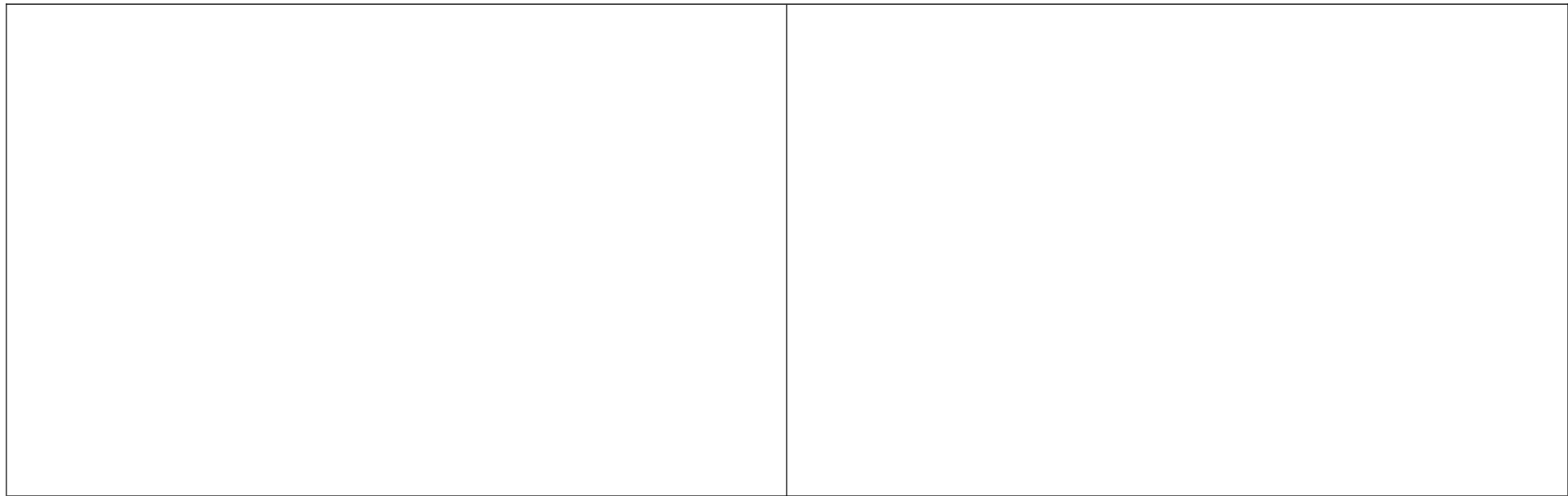
INFILTRATION – COMPARTMENTALIZATION AND BLOWER DOOR TEST – PROTOCOL 8.1

From the Interior

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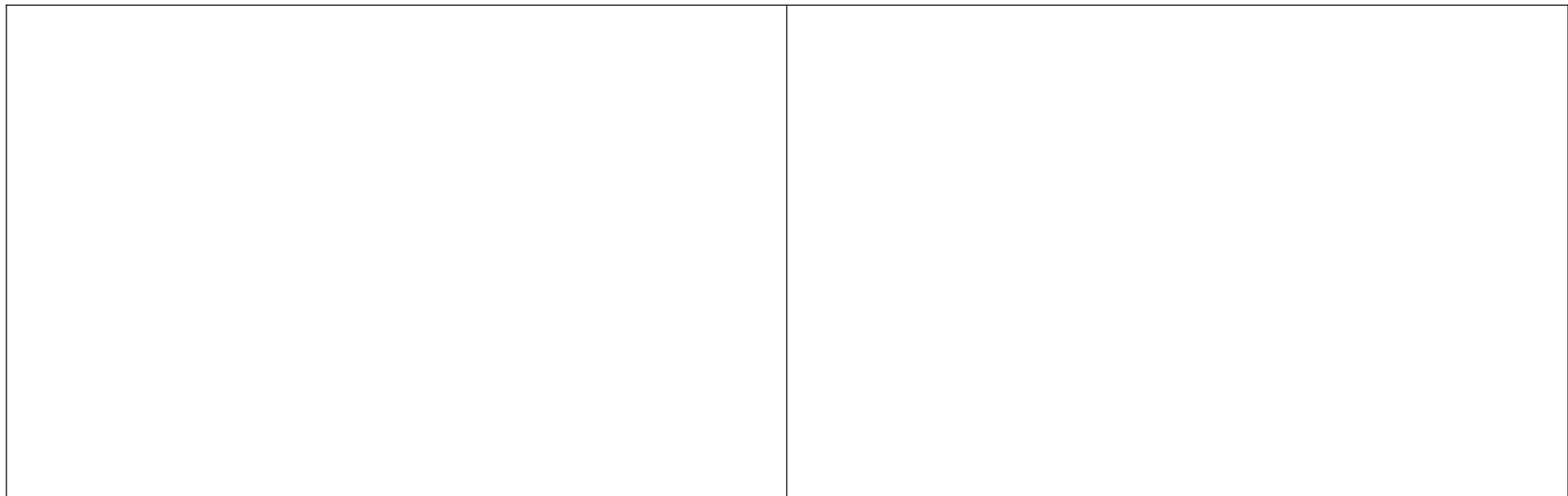
Notes: Window to interior gypsum board	Notes: Air conditioner sleeve to drywall (cover is installed if A/Cs provided by building)
Notes: Outlet/Electrical Box – Exterior to Demising Walls	Notes: Heating pipe penetrations through exterior walls
Notes: Heating pipe penetrations through interior walls	Notes: Plumbing/sprinkler pipe penetrations

<p>Notes: Range gas line penetrations</p>	<p>Notes: Gypsum board to concrete ceiling plank connection – exterior walls and all interior partition walls</p>



Notes: Gap between take off duct and gypsum board

Notes: Electrical panel



Notes: HVAC access doors

Notes: Thermostats

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Notes: Intercoms

Notes: Lighting fixtures

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Notes: Door latch hole

Notes: Medicine cabinet

VENTILATION – SCHEDULE AND OPERATION – PROTOCOL 8.2

Notes: Fan installation	Notes: Kitchen exhaust outlet to exterior (through-wall systems only)

Notes: Exhaust fan nameplate (list model number if illegible)	Notes: Exhaust fan nameplate (list model number if illegible)

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Notes: Exhaust fan nameplate (list model number if illegible)

Notes: Exhaust fan nameplate (list model number if illegible)

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Notes: Exhaust fan nameplate (list model number if illegible)

Notes: Exhaust fan nameplate (list model number if illegible)

VENTILATION – DUCT TIGHTNESS TEST – PROTOCOL 8.2

For central ventilation systems

Notes: Sealed roof curb penetration	Notes: Mastic or other UL-181 compliant material applied within temperature range and according to all other manufacturer's requirements at ALL transverse joints and take offs

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Notes: All duct transitional junctions sealed with mastic or other UL-181 compliant material

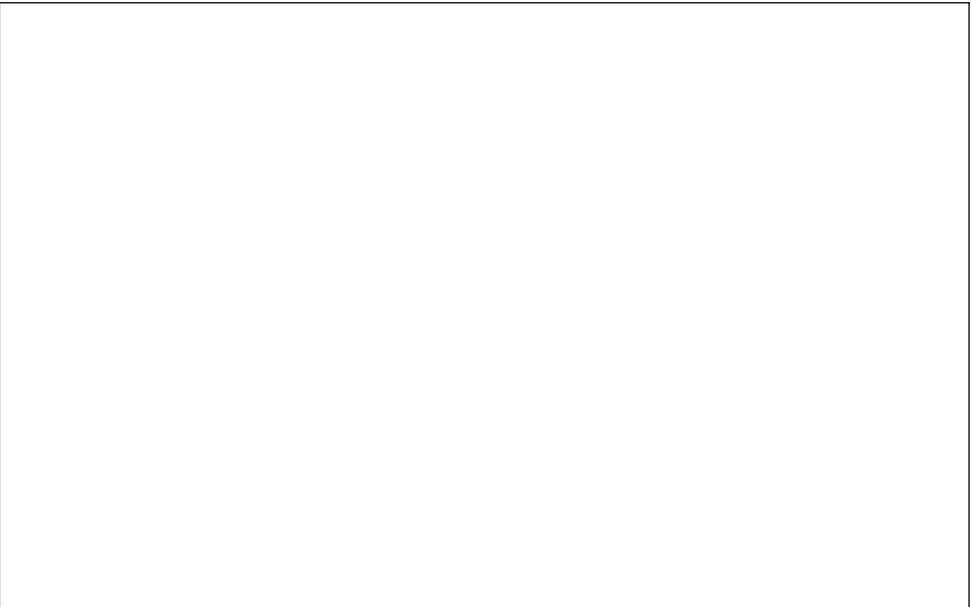
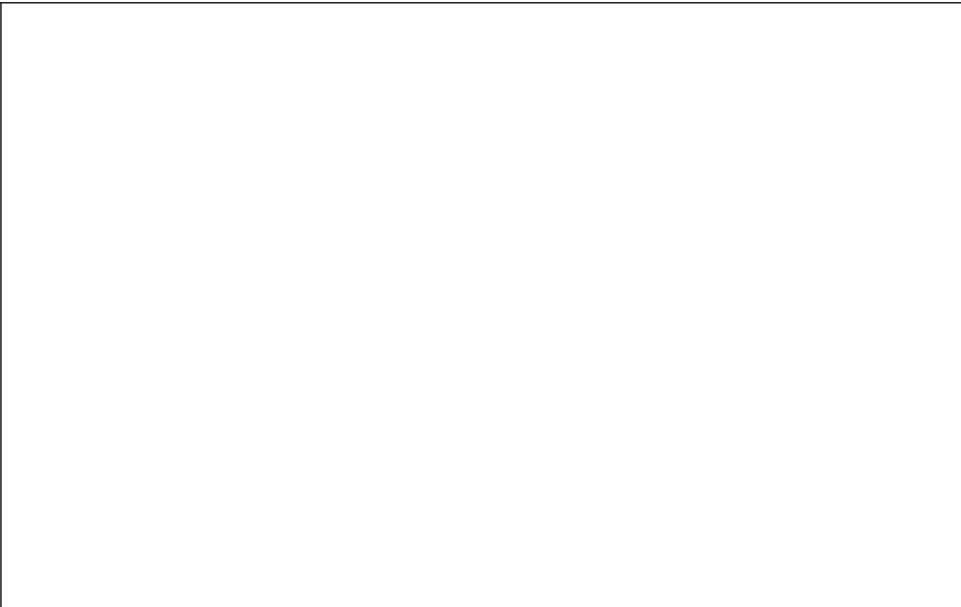
Notes: Gap between take off duct and gypsum board effectively sealed

For in-line fan exhaust systems

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Notes: Mastic or other UL-181 compliant material applied within temperature range and according to all other manufacturer's requirements at ALL transverse joints and take offs

Notes: All duct transitional junctions sealed with mastic or other UL-181 compliant material



Notes: If plank core is to be used as a duct – ceiling plank penetration sealed

Notes: If plank core is to be used as a duct – plank core effectively connected



Notes: Appropriate plank core selected that aligns with exterior louver

Notes: Additional photos (if necessary) connected to exterior of building

METERS – CONFIGURATION – PROTOCOL 9.1

Gas, Water, Electric Meters

Notes: Gas meters	Notes: Water meter

Notes: Electrical meters	Notes: Electrical meters

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