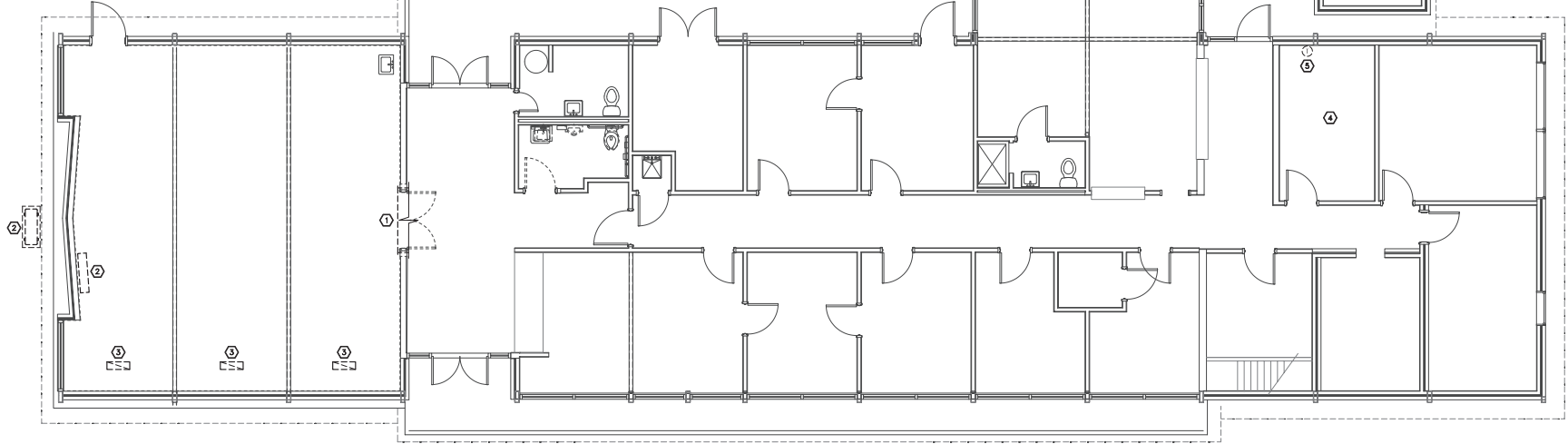


## DEMOLITION SHEET NOTES

- REMOVE 6'-0" LONG, 1'-0" TALL SUPPLY AIR GRILLES ABOVE DOORS ALONG WITH ALL DAMPERS AND ACCESSORIES. REMOVE ASSOCIATED SUPPLY AIR DUCT BACK TO MAIN AND CAP. CAP DUCT WITH MATERIALS AND INSULATE SAME AS EXISTING DUCTWORK. COORDINATE WALL REPAIR WITH THE ARCHITECTURAL DRAWINGS AND WITH THE GENERAL CONTRACTOR IN THE FIELD.
- REMOVE 2-TON MINI-SPLIT HEAT PUMP SYSTEM. REMOVE WALL MOUNTED DUCTLESS AIR HANDLER AND OUTDOOR UNIT. REMOVE ALL INTERCONNECTING REFRIGERANT PIPING. CONDENSATE PIPING. REMOVE OUTDOOR UNIT. CONCRETE EQUIPMENT PADS. COORDINATE EXTERIOR WALL REPAIR WITH THE GENERAL CONTRACTOR IN THE FIELD.
- REMOVE 2-1/2" FLOOR MOUNTED RETURN AIR GRILLES ALONG WITH ANY DAMPERS OR ACCESSORIES. COORDINATE FLOOR REPAIR WITH THE ARCHITECTURAL DRAWINGS AND WITH THE GENERAL CONTRACTOR IN THE FIELD.
- REMOVE ANY SUPPLY OR RETURN AIR GRILLES IN THIS SPACE ALONG WITH ASSOCIATED DUCT RUN-OUTS AND CAP AT MAIN DUCT. CAP DUCT WITH MATERIALS AND INSULATE SAME AS EXISTING DUCTWORK.
- REMOVE THERMOSTAT AND RELOCATE. COORDINATE NEW LOCATION WITH THE OWNERS REPRESENTATIVE IN THE FIELD. PROVIDE ALL NEW WIRING NECESSARY FOR THERMOSTAT TO FUNCTION IN NEW LOCATION.



**HVAC DEMOLITION FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

## GENERAL NOTES

- THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES ALL REQUIRED OPENINGS IN WALLS, FOUNDATIONS, FLOORS, AND ROOFS.
- ALL OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY EXHAUST AIR OUTLET OR PLUMBING VENT STACK. COORDINATE WITH THE PLUMBING AND THE GENERAL CONTRACTOR IN THE FIELD.
- THE MECHANICAL CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS AND BE RESPONSIBLE FOR ALL RELATED CLEARANCES IN THE FIELD. PROVIDE ADEQUATE MAINTENANCE CLEARANCE AROUND EACH PIECE OF EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS AND OTHER ELECTRICAL EQUIPMENT FOR THE NATIONAL ELECTRICAL CODE REQUIREMENTS. COORDINATE WITH THE ELECTRICAL AND GENERAL CONTRACTOR IN THE FIELD. COORDINATE THE EXACT LOCATION OF ALL OUTDOOR UNITS IN THE FIELD WITH THE OWNER AND ARCHITECT.
- PROVIDE WATER-PROOF SEALING OF ALL PIPE AND DUCT PENETRATIONS OF EXTERIOR WALLS, FLOORS, AND/OR ROOF.
- ALL DUCTWORK AND PIPING PENETRATING FIRE RATED WALLS SHALL BE FIRE STOPPED. FIRE DAMPERS SHALL BE PROVIDED IN ALL DUCTWORK PENETRATIONS OF FIRE RATED WALLS AND FLOORS WHEREVER INDICATED OR NOT.

## SEQUENCE OF OPERATION

PROVIDE PACKAGED HEAT PUMP UNIT (PHU) WITH AN AUTOMATIC OUTSIDE AIR DAMPER. THE OUTSIDE AIR DAMPER SHALL REMAIN OPEN DURING BALANCED POSITION AND THE INDOOR FAN SHALL REMAIN ENERGIZED DURING ALL OCCUPIED TIMES.

THE HEAT PUMP SHALL USE THE MANUFACTURER'S STANDARD SEQUENCE OF OPERATION INCLUDING A HOT GAS REHEAT COIL.

### COOLING DEMAND OPERATION

A CALL FOR COOLING FROM THE SPACE THERMOSTAT SHALL ENERGIZE THE REFRIGERATION CIRCUITS IN STAGES AS DICTATED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS. ALL REFRIGERATION CIRCUITS SHALL BE DE-ENERGIZED WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

A CALL FOR DEHUMIDIFICATION FROM THE SPACE HUMIDISTAT SHALL OVERRIDE THE SPACE TEMPERATURE REQUIREMENT AND FORCE ALL REFRIGERATION CIRCUITS TO RECOME ENERGIZED. REFRIGERATION CIRCUITS SHALL REMAIN ENERGIZED UNTIL SPACE HUMIDITY IS BELOW PRESET LEVEL. THE HOT GAS REHEAT COIL SHALL MODULATE ITS REFRIGERANT FLOW TO MAINTAIN A CONSTANT 70 DEGREE F LEAVING AIR TEMPERATURE.

### HEATING

A CALL FOR HEATING FROM THE SPACE THERMOSTAT SHALL ENERGIZE THE REFRIGERATION CIRCUITS IN STAGES IN REVERSE MODE AS DICTATED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS. ALL REFRIGERATION CIRCUITS SHALL BE DE-ENERGIZED WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

IF THE SPACE HEATING REQUIREMENTS CAN NOT BE MET USING THE REVERSE CYCLE ALONE, THE ELECTRIC HEATER WILL BE ENERGIZED BY STAGES AND CONTROLLED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS TO PROVIDE SUPPLEMENTAL HEAT. THE ELECTRIC HEATER AND THE REFRIGERATION CIRCUITS SHALL BE DE-ENERGIZED WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

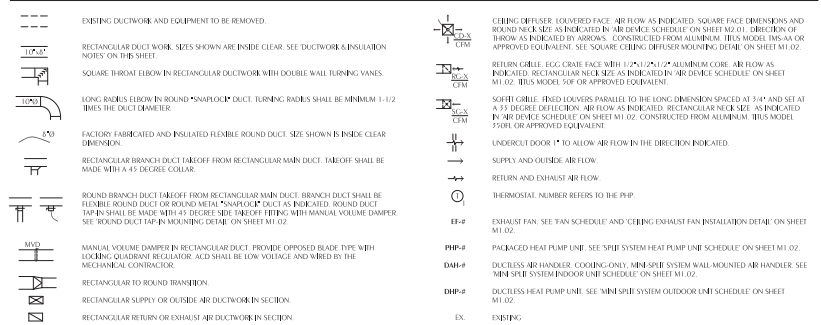
### UNOCCUPIED MODE

WHEN THE SPACE IS UNOCCUPIED, THE UNITS SHALL OPERATE SAME AS DESCRIBED ABOVE. THE OUTSIDE AIR DAMPER, CONTROL DAMPERS SHALL REMAIN COMPLETELY CLOSED.

## DUCTWORK & INSULATION NOTES

- ALL SUPPLY, RETURN, OUTSIDE, AND EXHAUST AIR DUCTWORK SHALL BE LOW PRESSURE. RECTANGULAR OR ROUND GALVANIZED METAL AS INDICATED. MAGNESA STATE PRESSURE CLASS "P" W.G. SEAL CLASS B. EXTERNALLY INSULATED WITH 1" THICK DUCT WRAP WITH A MINIMUM INSULATED R-VALUE OF 6.0. EXHAUST AIR DUCTWORK MAY BE UNINSULATED.
- AT OWNERS DISCRETION, 1-1/2" THICK FIBROUS GLASS DUCTBOARD WITH A MINIMUM INSULATED R-VALUE OF 6.0 MAY BE SUBSTITUTED FOR MESH SUPPLY AND RETURN AIR DUCTWORK ONLY (NOT OUTSIDE AIR DUCTWORK). DUCT SIZES INDICATED AIR INSIDE CLEAR DIMENSIONS. MASTICS SHALL BE PLACED OVER THE ENTIRE JOINT BETWEEN ALL MATED SURFACES. MASTICS SHALL NOT BE DILUTED. TWO 45 DEGREE ELBOWS MAY BE SUBSTITUTED FOR CURVED 90 DEGREE ELBOWS INDICATED. MIXED 90 DEGREE ELBOWS SHALL NOT BE USED FOR THESE FITTINGS. TWO 45 DEGREE ELBOWS MAY ALSO BE SUBSTITUTED FOR MIXED 90 DEGREE ELBOWS WITH TURNING VANES. IF 90 DEGREE MIXED ELBOWS ARE USED FOR THESE FITTINGS, THEY SHALL BE PROVIDED WITH TURNING VANES AS INDICATED. ALL METAL ROUND HANG-UP DUCT AND VORN FITTINGS SHALL BE EXTERNALLY INSULATED WITH 1" THICK DUCT WRAP WITH A MINIMUM INSULATED R-VALUE OF 6.0.
- DUCTWORK THAT IS EXPOSED TO WEATHER SHALL BE EXTERNALLY INSULATED METAL DUCT SAME AS DESCRIBED ABOVE WITH THE ADDITION OF THE FOLLOWING:
  - THE ENTIRE OUTER SURFACE OF THE INSULATION SHALL BE COVERED WITH TWO COATS OF WEATHER BARRIER MASTIC, REINFORCED WITH FIBER-GLASS MESH DESIGNED FOR OUTDOOR APPLICATION. EACH COAT SHALL BE MINIMUM 1/16 INCH IN THICKNESS.
  - AFTER THE APPLICATION OF THE WEATHER BARRIER MASTIC, THE ENTIRE EXTERIOR SHALL BE COVERED WITH A MINIMUM 0.015 INCH THICK SMOOTH ALUMINUM DUCT. DUCT SHALL BE INSTALLED SO THAT THE LONGITUDINAL SEAMS ARE POSITIONED TO SEED WATER.
  - AVOID ROUTING DUCTWORK OVER LIGHTS WHEREVER POSSIBLE. WHERE DUCTWORK MUST BE ROUTED OVER LIGHTS, MAINTAIN A 2" CLEARANCE BETWEEN DUCT INSULATION AND TOP OF LIGHTS.
- ALL DUCTWORK WALL PENETRATIONS SHALL BE SEALED AIR TIGHT REGARDLESS WALL FIRE RATING STATUS.

## HVAC LEGEND



Steven L. Day

WATFORD ENGINEERING



HVAC DEMOLITION FLOOR PLAN

M1.01

City of Milton Utility Workforce Training / Operations Facility in Conjunction with Agreement HL173

City of Milton, FL

GMC Project #: AFEN240038

ISSUE DATE

Bid 09/26/2025

Documents

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