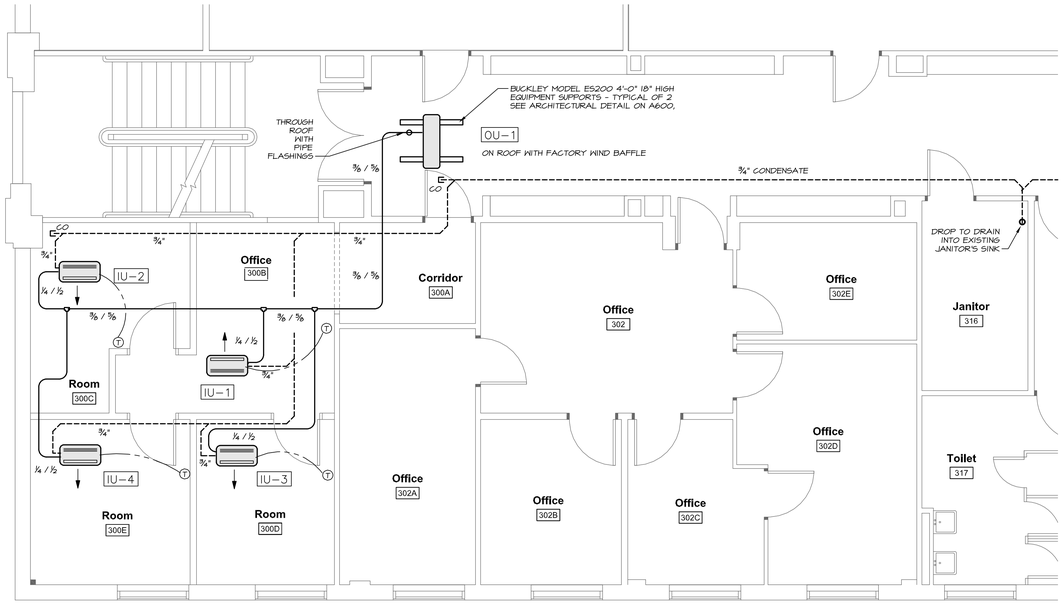
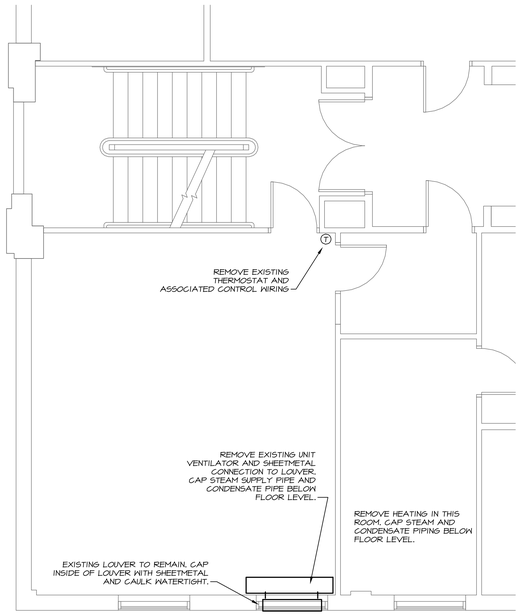


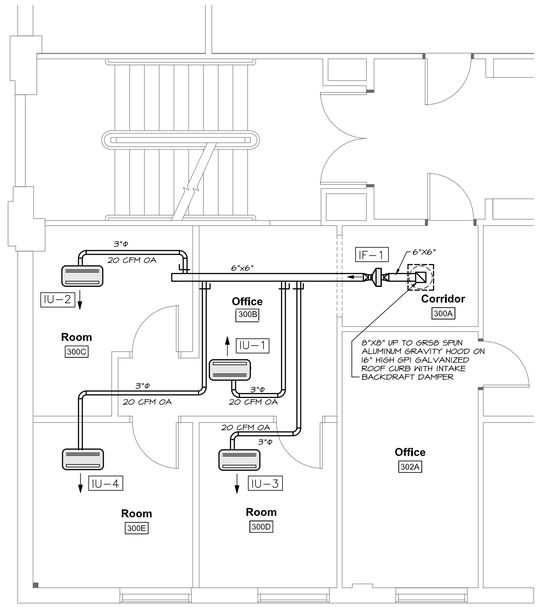
1 MECHANICAL REFRIGERANT & CONDENSATE PIPING PLAN

SCALE: 1/4" = 1'-0"



2 MECHANICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



3 MECHANICAL VENTILATION & HEATING PIPING PLAN

SCALE: 1/4" = 1'-0"

HEAT PUMP OUTDOOR UNIT SCHEDULE

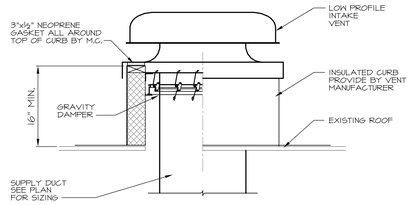
TAG	DESIGN MANUFACTURER & MODEL	NOMINAL SIZE	REFRIGERANT	ELECTRIC POWER	ELECTRIC MCA	ELECTRIC MOP	SEER	HSPF	WEIGHT	REMARKS
OU-1	MITSUBISHI PUMY-P36NKMU1	3.0 TONS	410A	208/60/1	31	40	15.6	10.5	264 LBS	WITH FRONT WIND BAFFLE AND BACNnet INTEGRATION, OR EQUAL BY TRANE, SAMSUNG OR DAIKIN

HEAT PUMP INDOOR UNIT SCHEDULE SCHEDULE

TAG	DESIGN MANUFACTURER & MODEL	TYPE	COOLING CAPACITY BTUH	HEATING CAPACITY BTUH	CFM	MCA	MOP	WEIGHT	REMARKS
IU-1	MITSUBISHI PMFY-P06NBMU-ER5	CEILING CONCEALED 1-WAY THROW	6,000	6,700	230-307	0.25	15	31 LBS	WITH THERMOSTAT, OR EQUAL BY TRANE, SAMSUNG OR DAIKIN
IU-2	MITSUBISHI PMFY-P06NBMU-ER5	CEILING CONCEALED 1-WAY THROW	6,000	6,700	230-307	0.25	15	31 LBS	WITH THERMOSTAT, OR EQUAL BY TRANE, SAMSUNG OR DAIKIN
IU-3	MITSUBISHI PMFY-P06NBMU-ER5	CEILING CONCEALED 1-WAY THROW	6,000	6,700	230-307	0.25	15	31 LBS	WITH THERMOSTAT, OR EQUAL BY TRANE, SAMSUNG OR DAIKIN
IU-4	MITSUBISHI PMFY-P08NBMU-ER5	CEILING CONCEALED 1-WAY THROW	8,000	9,000	230-345	0.25	15	31 LBS	WITH THERMOSTAT, OR EQUAL BY TRANE, SAMSUNG OR DAIKIN

IN-LINE FAN SCHEDULE

TAG	DESIGN MANUFACTURER & MODEL	TYPE	CFM	ESP	SONES	ELECTRIC POWER	ELECTRIC FLA	REMARKS
IF-1	FANTECH FG4XL	IN-LINE FAN	80	0.4	1.7 MAX	115 / 60 / 1	0.65	WITH BACKDRAFT DAMPER



4 INTAKE VENT

NO SCALE

LEGEND

- MANUAL DAMPER - LOCKING QUADRANT
- T THERMOSTAT
- CO CLEAN OUT
- REFRIGERANT PIPING
- CONDENSATE PIPING

SHEETMETAL NOTES

1. All ductwork to be fabricated and installed per SMACNA Low Pressure Ductwork Standards.
2. Ductwork is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
3. All Outside Air Ductwork from the Air Intake Hood to the Indoor Air Handlers to be 1½" Foil Faced Duct Wrap.
4. Install heavy duty locking quadrant at takeoffs from the main duct.
5. Provide and Install Buckley Equipment support as shown on plan view. Coordinate with Roofing Contractor. Refer to installation detail on A600.
6. Provide and install roof curb, intake backdraft damper and spun aluminum aluminum gravity hood as shown on plan.
7. Start and Test all equipment per manufacturer's recommendations.
8. Provide 1-year warranty on all parts. labor and refrigerant
9. Provice 5- year warranty on compressors (parts only)
10. Provide Owner with Maintenance Manuals - Neatly bound.

CONTROL NOTES

1. It will be the Mechanical Contractor's responsibility to provide and install all controls and all control wiring. Mechanical Contractor to subcontract ATC work to:
   IB Controls (Brian Lajeunesse) brian@ibcontrols.com
   3 Pope Road
   Windham, ME 04062
   207-843-0080
2. All control wiring that is run in concealed spaces to be plenum rated.
3. All control wiring that is run exposed shall be in electrical conduit provided and installed by the ATC contractor.
4. All thermostats to be provided by the Equipment Manufacturer and installed by the ATC contractor.
5. All zone valves and transformers to be provided by the ATC contractor for installation by mechanical contractor.
6. Heat Pump Manufacturer to supply BACnet gateway for integration into the campus Building Management System
7. Sequence of operation
   - 7.1. On a call for heating enable heating.
   - 7.2. On a call for cooling enable cooling.
   - 7.3. During the occupied cycle enable IF-1.
   - 7.4. Monitor and control IF-1 through the Building Management System. IF-1 to run during the occupied cycle only.

PIPING NOTES

1. Piping is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
2. All refrigerant piping to be Type "K" copper or ACR Tube
3. All condensate piping to be Schedule 40 PVC.
4. Insulate all refrigerant piping with ½" closed cell insulation (Armaflex or equal).
5. All outdoor refrigerant piping to be painted with paint approved by insulation manufacturer

GENERAL NOTES

1. All systems are to be to meet the following Codes and Standards.
   - 1.1. ASHRAE 90.1 2007 - Energy Standard for Commercial Buildings.
   - 1.2. ASHRAE 60.1 2007 - Standard for Indoor Air Quality in Commercial Buildings.
   - 1.3. 2009 IECC - International Energy Conservation Code.
   - 1.4. NFPA - National Fire Protection Association Standards.

FIRE SPRINKLER NOTES

1. Provide all design services, construction documents, labor, Transportation, Equipment, permits, materials, tools, Inspections, Incidentals, tests and perform all operations in connection with the modification of the existing Pipe Sprinkler System in the building.
2. Comply with requirements of all Authorities Having Jurisdiction.
3. Rearrange sprinkler coverage as required for new partitions.
4. Coordinate with interfacing trades
5. Submit equipment and components for review. Prepare sprinkler drawings and Record Drawings.
6. Provide 1 year guarantees and warranties on all new work.
7. The Automatic Sprinkler System shall meet the standards of the most recent edition of the National Fire Protection Association's (NFPA) ___ NFPA 13 Standard for the Installation of Sprinkler Systems.
8. Rooms to have sprinkler head relocations include;
   - 8.1. Room 301D -refer to Architectural Drawings
   - 8.2. Rooms 300 A,B,C,D & E

REVIEW ONLY NOT FOR CONSTRUCTION

¼" = 1'-0" 0' 1' 2' 3' 4' 8' 12' 16'

MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 108
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS

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PDT ARCHITECTS
PORTLAND, MAINE
04101
207-775-1059
www.pdtarchs.com

Date: 10/06/17

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Payson Smith 3rd Floor Renovations

Falmouth St, Portland ME

No.	Date	Description

Revision Schedule

JOB NO. 17064

DRWN. K.F.M. CHK

SCALE: 1/4"=1'-0"

ISSUE 08/04/17

TITLE PIPING FIRE SPRINKLER SHEETMETAL ROOMS 300&301

SHEET M100