

PUMP SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, FLOW RATE (GPM), WORKING FLUID, HEAD LOSS (FT), EFFICIENCY (%), CONSTRUCTION, MOTOR SIZE (HP), MOTOR BHP (HP), MOTOR SPEED (RPM), VOLT/PH/Hz, NOTES.

BOILER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, FUEL TYPE, INPUT LOAD (BTU/H), OUTPUT LOAD (BTU/H), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), MOTOR QUAN., MOTOR SIZE (HP), CONTROL CIRCUIT VOLT/PH/Hz, STACK DIAMETER (IN), LENGTH/WIDTH/HEIGHT (IN), NOTES.

COIL SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, USAGE, AIRFLOW RATE (CFM), LOAD (BTU/H), SENSIBLE LOAD (BTU/H), ENTERING TEMP. (F), LEAVING TEMP. (F), STATIC PRESSURE (IN. WATER), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), NO. COILS, EACH COIL FIN WIDTH/HEIGHT (IN), MINIMUM FACE AREA (FT^2), MINIMUM ROWS/FINS PER INCH, NOTES.

COOLING TOWER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, FAN AIRFLOW (CFM), AMBIENT TEMP. (F), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, INLET/OUTLET HEAD LOSS (FT), MOTOR QUAN., MOTOR SIZE (HP), MOTOR SPEED (RPM), TOWER AND CONTROL CIRCUIT VOLT/PH/Hz, OPERATING WEIGHT (LB), LENGTH/WIDTH/HEIGHT (IN), NOTES.

HEAT EXCHANGER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, USAGE, LOAD (BTU/H), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), SURFACE AREA (FT^2), NOTES.

FAN SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, AIR TYPE, MAXIMUM AIRFLOW RATE (CFM), STATIC PRESSURE (IN. WATER), FAN SPEED (RPM), FAN WHEEL DIAMETER (IN), STATIC EFFICIENCY (%), MOTOR SIZE (HP), MOTOR BHP (HP), MOTOR SPEED (RPM), VOLT/PH/Hz, LENGTH/WIDTH/HEIGHT (IN), NOTES.

AIR HANDLER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, AIRFLOW RATE (CFM), COMPONENTS, COILS, FILTERS, OTHER, SINGLE POINT VOLT/PH/Hz, CABINET LENGTH/HEIGHT (IN), WEIGHT (LB), NOTES.

FILTER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, EFFICIENCY (%), CLEAN STATIC PRESSURE (IN. WATER), DIRTY STATIC PRESSURE (IN. WATER), NUMBER 24"x24" MODULES, NUMBER 12"x24" MODULES, NOTES.

EXPANSION TANK SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, WORKING FLUID, MIN. TANK/ACCEPTANCE (GAL), TANK SIZE (GAL), RELIEF VALVE (PSIG), DIA./HEIGHT (IN), NPT FITTING (IN), NOTES.

AIR SEPARATOR SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, FLOW RATE (GPM), WORKING FLUID, HEAD LOSS (FT), DIA./HEIGHT (IN), NOTES.

PROJECT SCHEDULE

Table with 6 columns: NAME, LOCATION, OUTSIDE AIR HEATING SEASON DB/RH (F/%), COOLING SEASON DB/WB (F), ALTITUDE (FT), NOTES.

WATER TO AIR HEAT PUMP SCHEDULE

Table with 13 columns: UNIT NO, SERVES, GPM, WATER P.D. FT WC, SUPPLY CFM, HEATING EAT F, LOAD MBTUH, HTG COP, EWT F, EAT F, COOLING LOAD BTUH, EER, VOLTS/PHASE, MCA, CLIMATE MASTER MANUFACTURER AND MODEL, NOTES.

SINGLE DUCT TERMINAL UNIT SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, INLET SIZE (IN), USAGE, HEATING SEASON AIRFLOW RATE (CFM), COOLING SEASON AIRFLOW RATE (CFM), 4 ACH MINIMUM AIRFLOW (CFM), LOAD (BTU/H), ENTERING TEMP. (F), LEAVING TEMP. (F), STATIC PRESSURE (IN. WATER), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), MINIMUM ROWS/FINS PER INCH, NOTES.

LOUVER SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, STATIONARY, AIR TYPE, INTAKE, MAXIMUM AIRFLOW RATE (CFM), STATIC PRESSURE (IN. WATER), PHYSICAL WIDTH/HEIGHT/THICKNESS (IN), NOTES.

FLUID-TO-FLUID HEAT PUMP SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, USAGE, LOAD (BTU/H), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), LOAD (BTU/H), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), COP/EER, MCA, VOLT/PH/Hz, LENGTH/WIDTH/HEIGHT (IN), NOTES.

FLUID-TO-AIR HEAT PUMP SCHEDULE

Table with 13 columns: ID, MANUFACTURER AND MODEL NUMBER, SERVES, LOCATION, TYPE, USAGE, AIRFLOW RATE (CFM), LOAD (BTU/H), SENSIBLE LOAD (BTU/H), ENTERING/LEAVING TEMP. (F), EXTERNAL STATIC PRESSURE (IN. WATER), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (F), WORKING FLUID, HEAD LOSS (FT), COP/EER, MCA, VOLT/PH/Hz, INCL. ELEC. WEIGHT (LBS), LENGTH/WIDTH/HEIGHT (IN), NOTES.

HUMIDIFIER SCHEDULE

Table with 8 columns: UNIT NO, SERVES, ENTERING AIR TEMP. F, LB STEAM/HR, KW, VOLTS/PHASE, MANUFACTURER AND MODEL, NOTES.

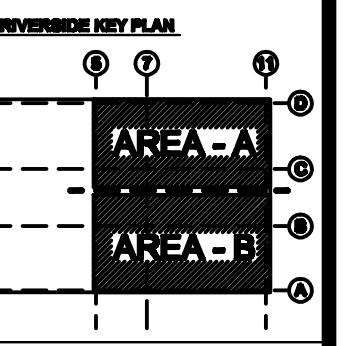
DEHUMIDIFIER SCHEDULE

Table with 10 columns: UNIT NO, SERVES, ROOM DESIGN, LBS/HR, PROCESS AIR, REACTIVATION AIR, REACTIVATION HEATER, VOLTS/PHASE, MFG MODEL, NOTES.

EnviroLogix RIVERSIDE CAMPUS 530 - DNA EXPANSION PORTLAND, MAINE



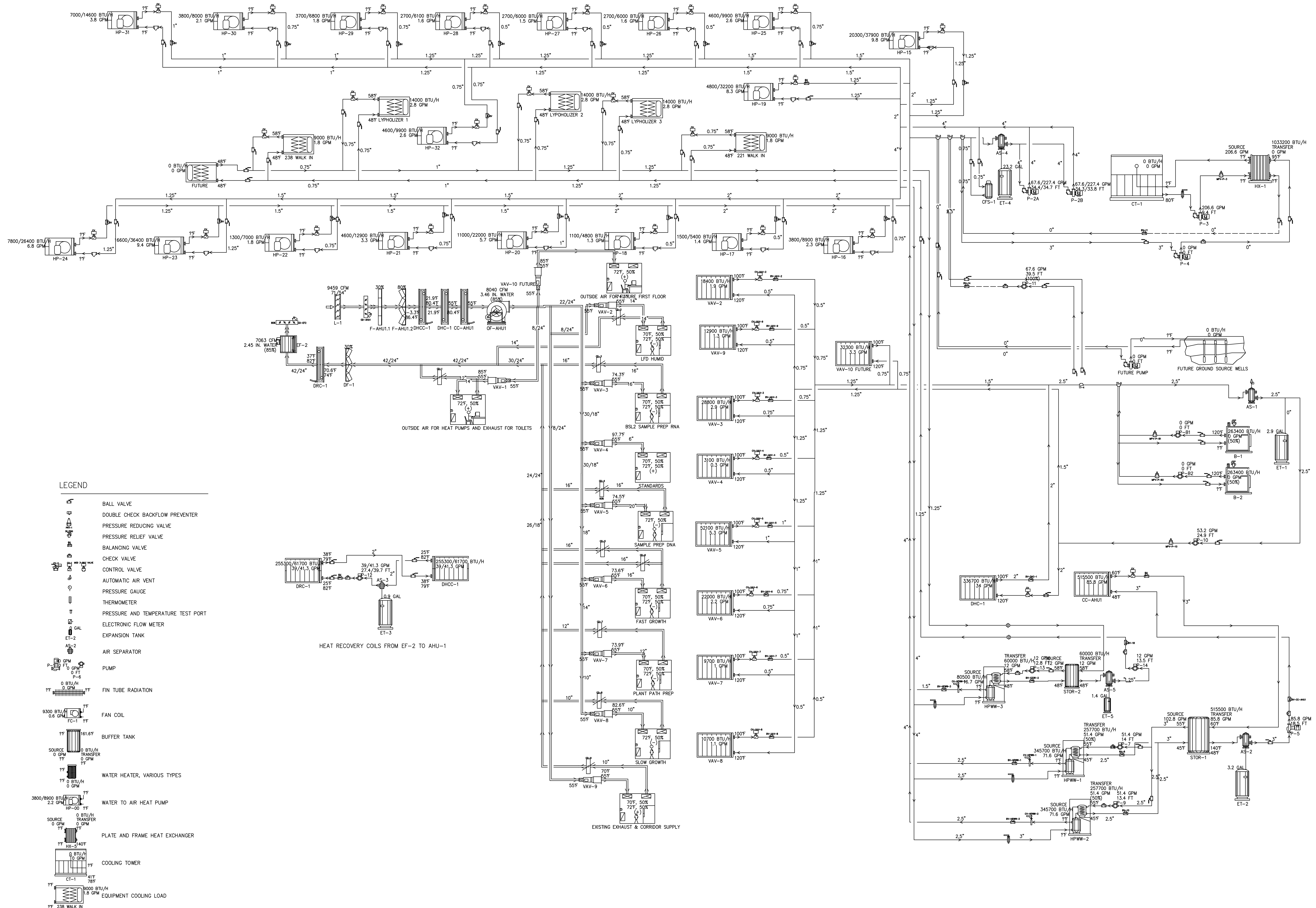
CONSULTANTS: ENVIROLOGIX, 255 GREENWOOD AVENUE, PORTLAND, ME 04106-4400, 207-776-6141. ARCHITECTS: TFH ARCHITECTS, 80 MIDDLE STREET, PORTLAND, MAINE 04101, TELEPHONE 207 776 6141, ARCHITECTURE PLANNING.



REVISIONS:

DATE: 8/17/11 PROJECT NO: 1026A DRAWN BY: AZZ CHECKED BY: RFG SCALE: AS NOTED SHEET TITLE: SCHEDULES

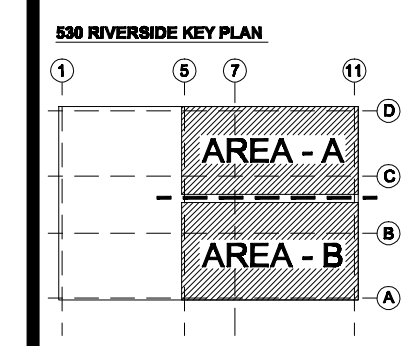
M-2



LEGEND

- BALL VALVE
- DOUBLE CHECK BACKFLOW PREVENTER
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- BALANCING VALVE
- CHECK VALVE
- CONTROL VALVE
- AUTOMATIC AIR VENT
- PRESSURE GAUGE
- THERMOMETER
- PRESSURE AND TEMPERATURE TEST PORT
- ELECTRONIC FLOW METER
- EXPANSION TANK
- AIR SEPARATOR
- PUMP
- FIN TUBE RADIATION
- FAN COIL
- BUFFER TANK
- WATER HEATER, VARIOUS TYPES
- WATER TO AIR HEAT PUMP
- PLATE AND FRAME HEAT EXCHANGER
- COOLING TOWER
- EQUIPMENT COOLING LOAD

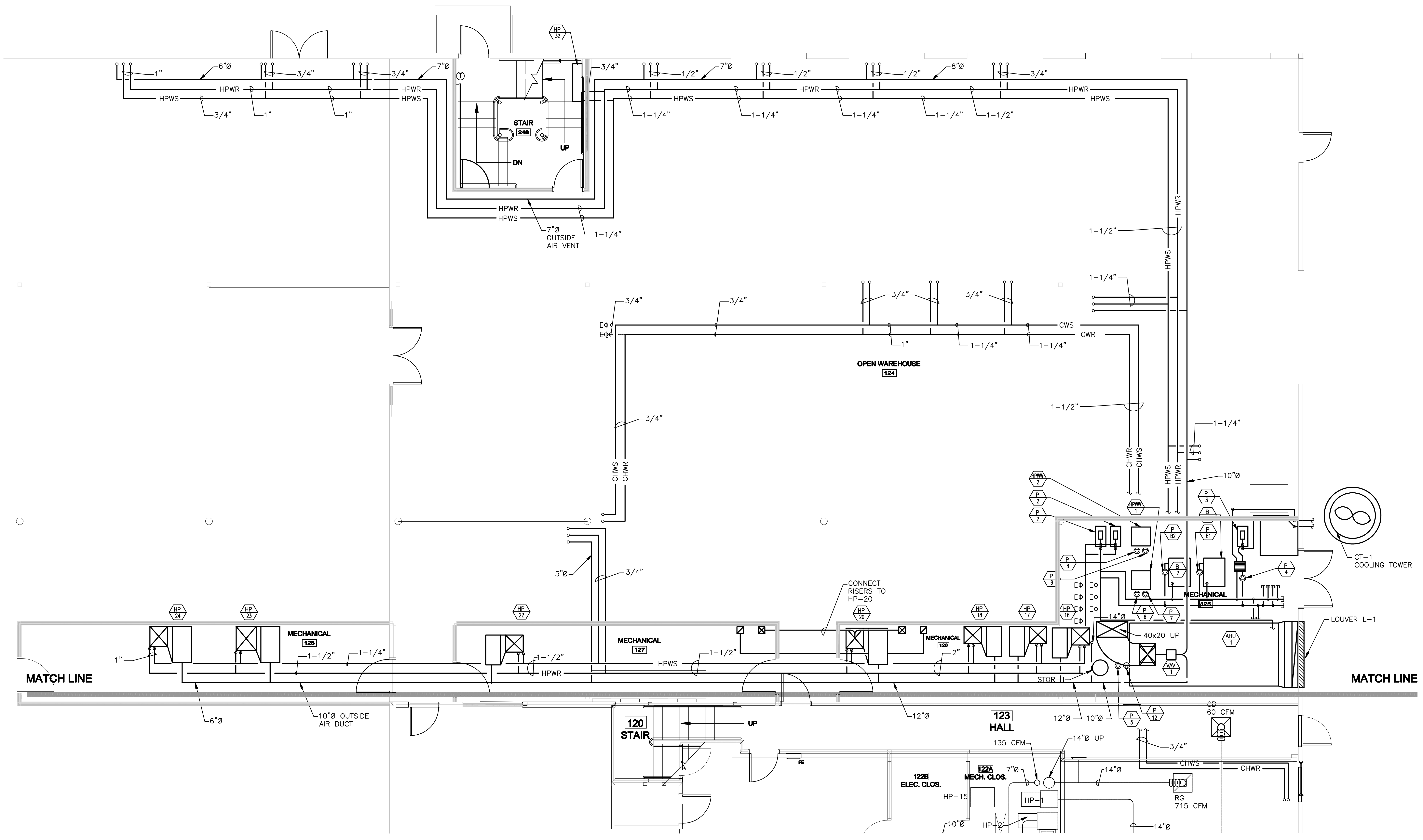
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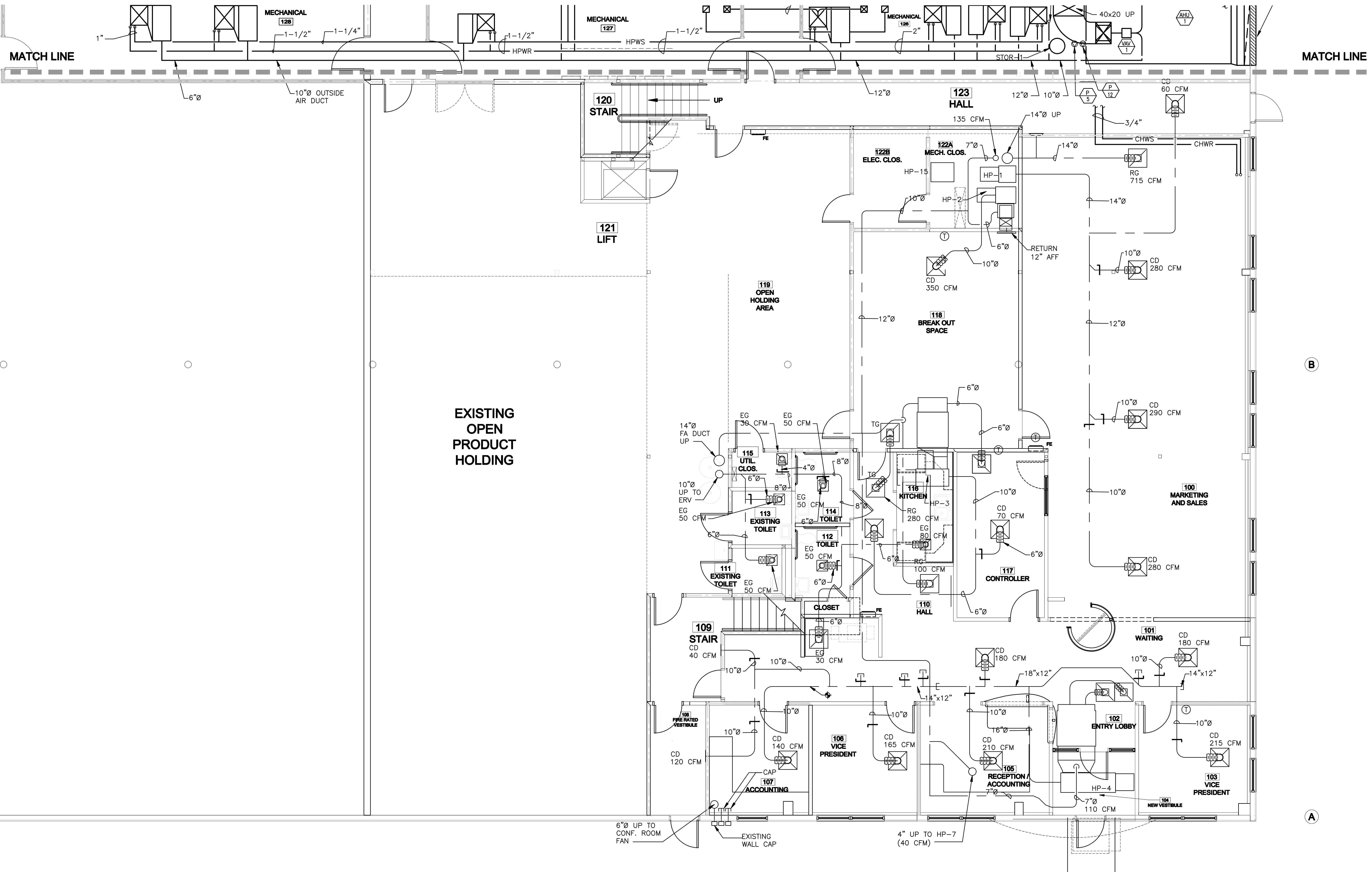
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DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: A22
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SCALE: AS NOTED

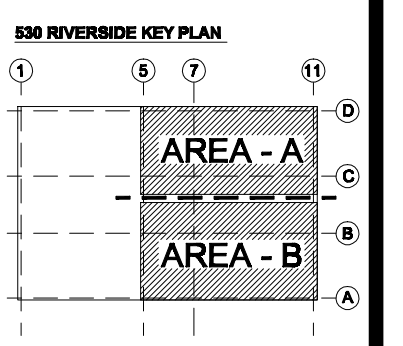
SHEET TITLE:
FIRST FLOOR
PLAN - PART A
MECHANICAL



1 FIRST FLOOR PLAN - PART A
M-4 1/4" = 1'-0"



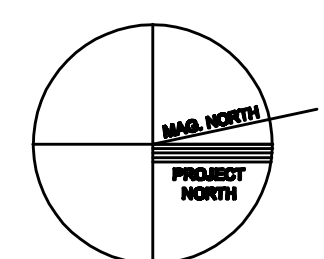
1 FIRST FLOOR PLAN - PART B
M-5 1/4" = 1'-0"

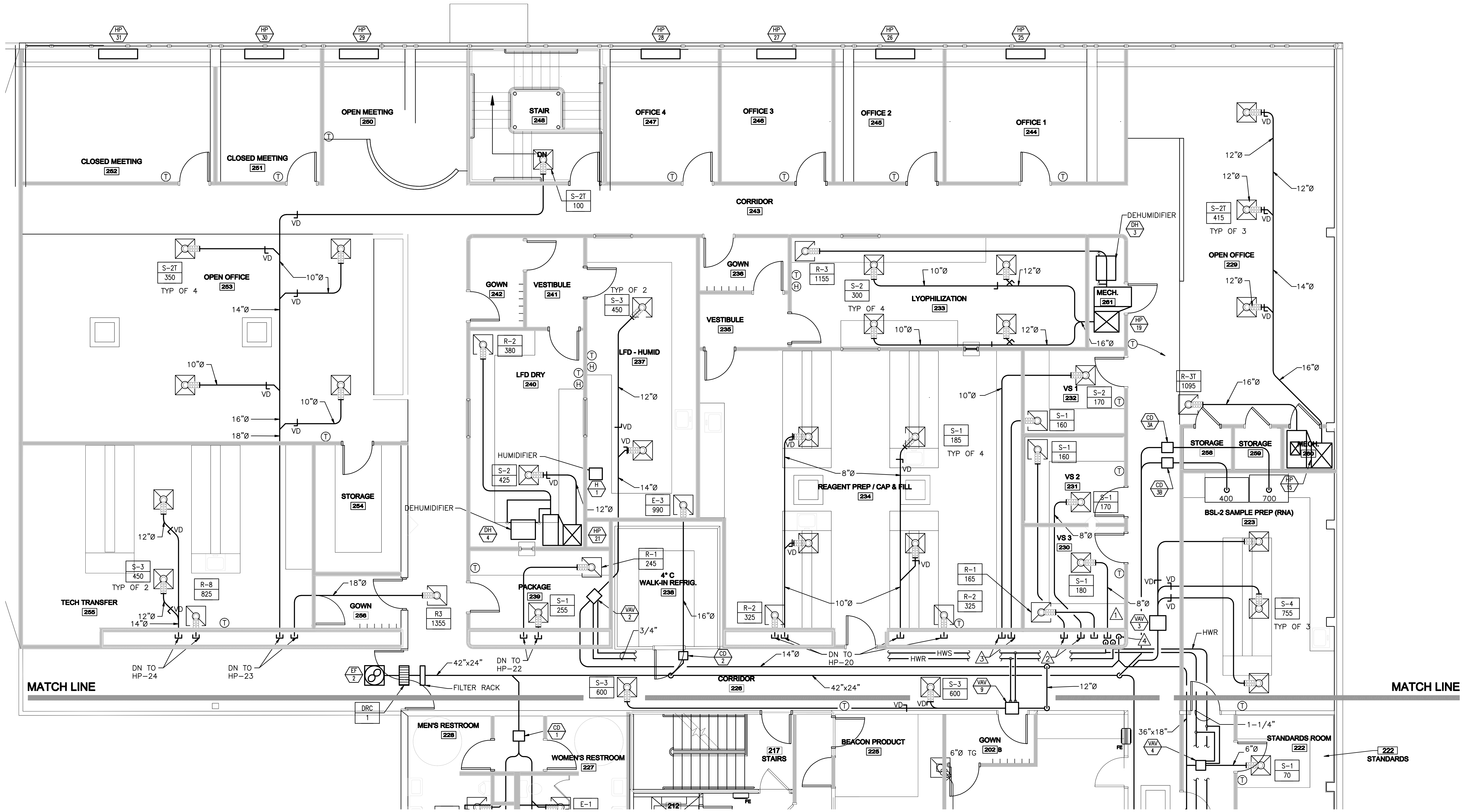


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DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: A22
CHECKED BY: RPG
SCALE: AS NOTED

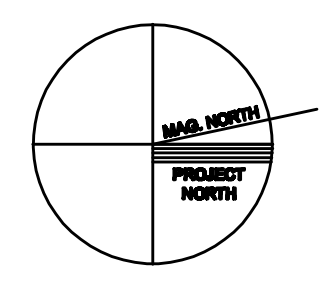
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FIRST FLOOR PLAN - PART B
MECHANICAL

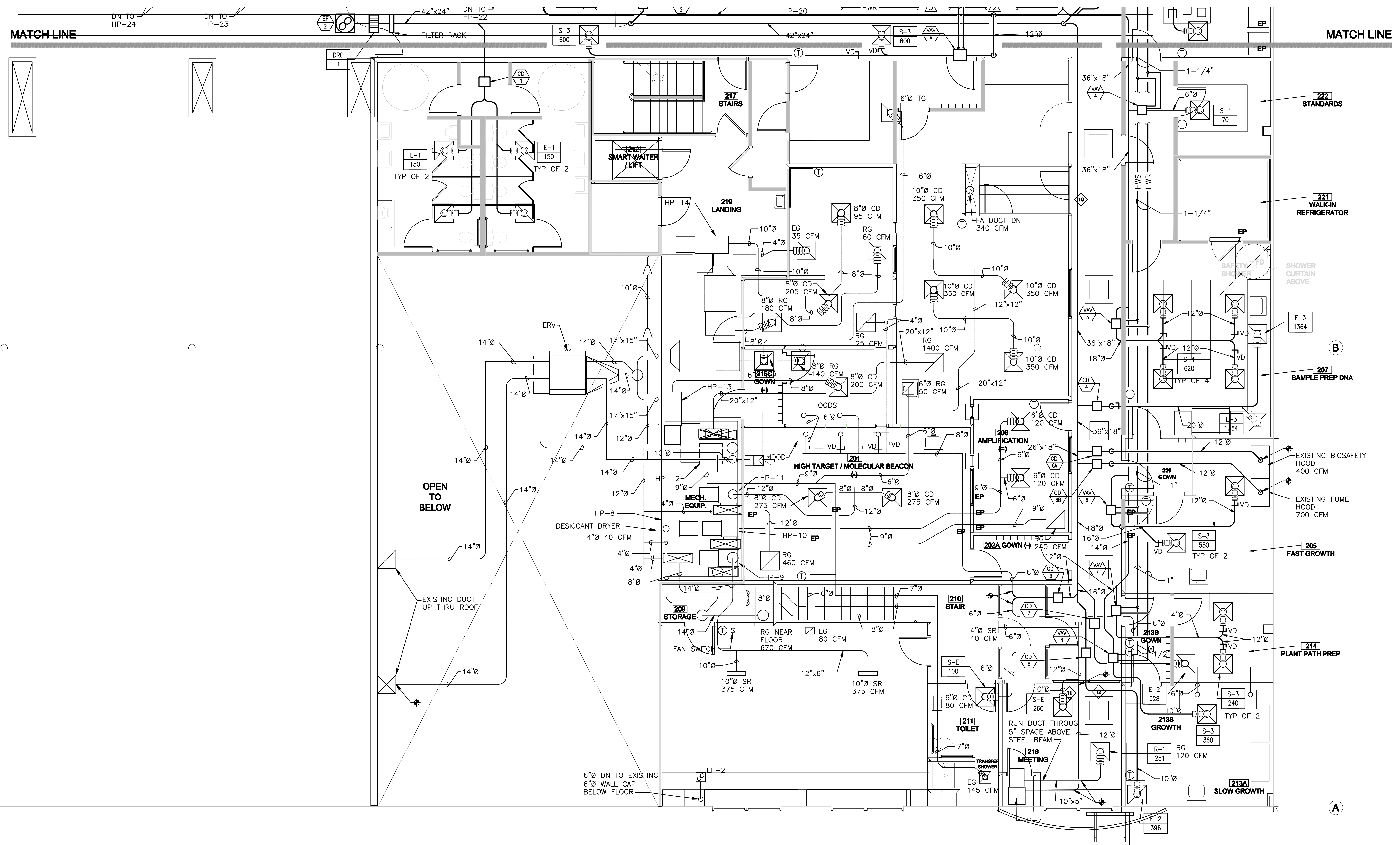




1 SECOND FLOOR PLAN - PART A
M-6 1/4" = 1'-0"

- DRAWING NOTES
- 1 DN TO HP-16
 - 2 DN TO HP-17
 - 3 DN TO HP-18
 - 4 46x18 DN TO AHU-1





1 SECOND FLOOR PLAN - PART B
M-7
1/4" = 1'-0"

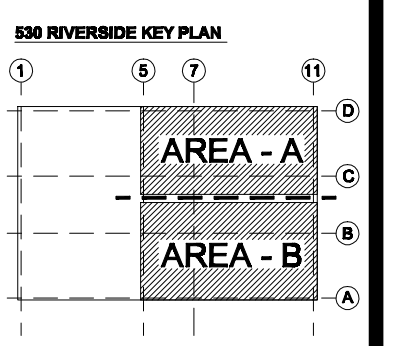
DRAWING NOTE
1. SEE M-3 FOR BRANCH PIPING SIZES

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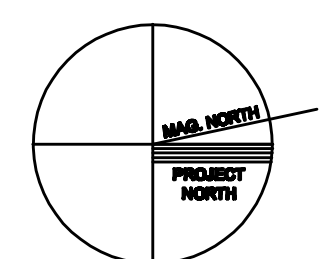
CONSULTANTS:
STRUCTURAL: Bechtel Structural Engineers, Inc.
75 York Street
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207-675-1500
MECHANICAL: Integrated Energy Systems, LLC
212 Middle Street
Portland, ME 04105
207-781-4200
ELECTRICAL: BENNETT ENGINEERING
7 Bennett Road
Portland, ME 04102
207-865-9475



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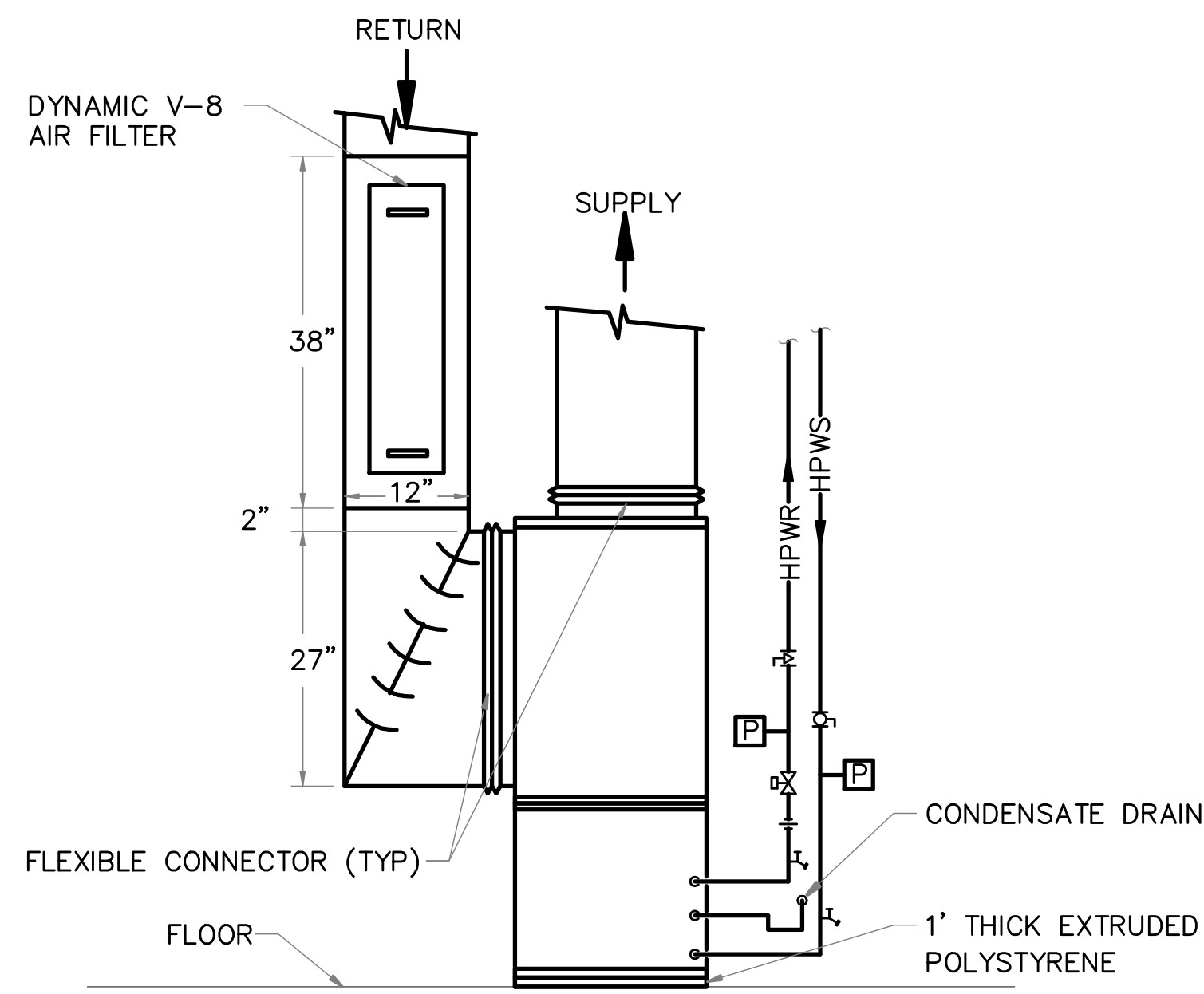
DATE: 8/17/11
PROJECT No.: 1026A
DRAWN BY: AZZ
CHECKED BY: RPG
SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR
PLAN - PART B
MECHANICAL

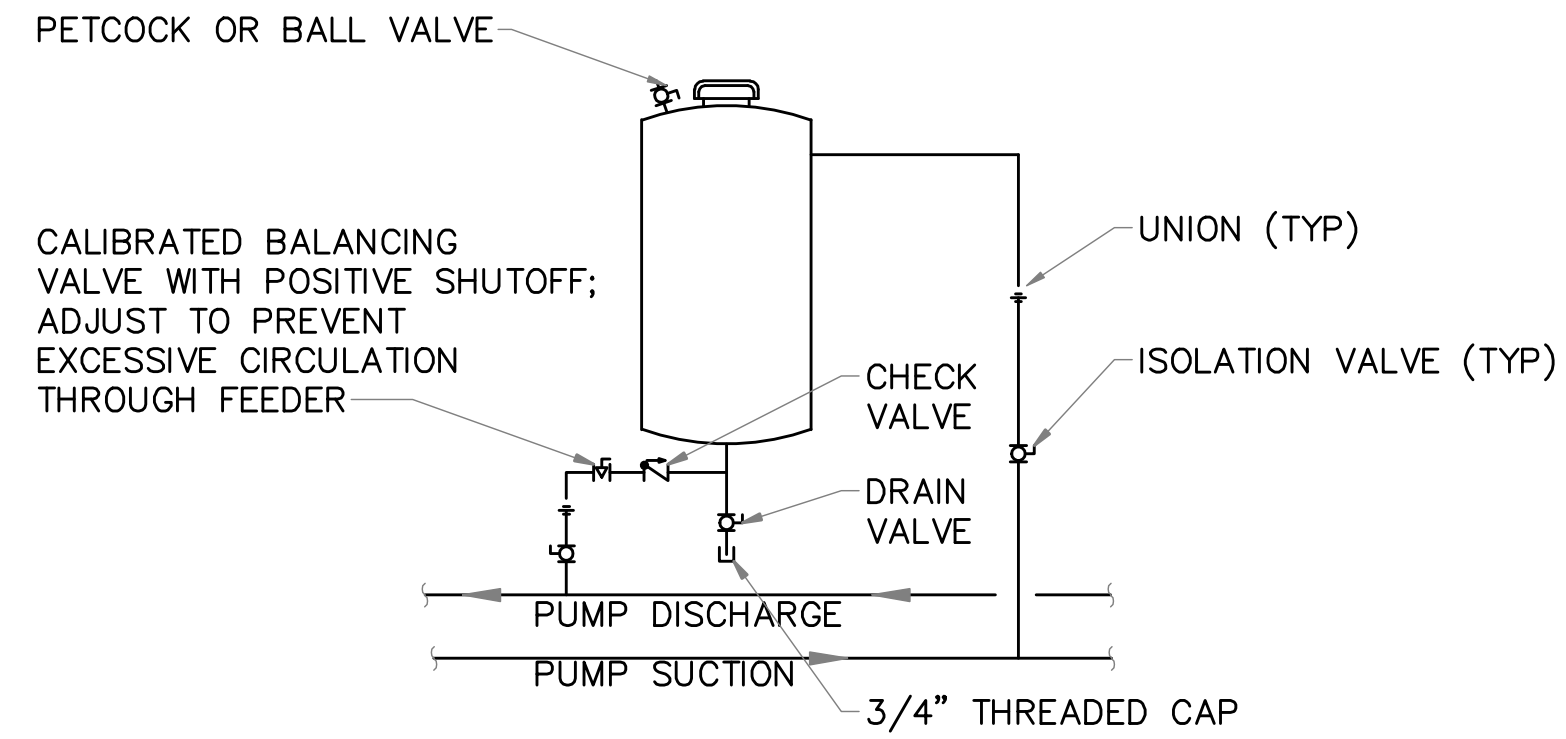


M-7

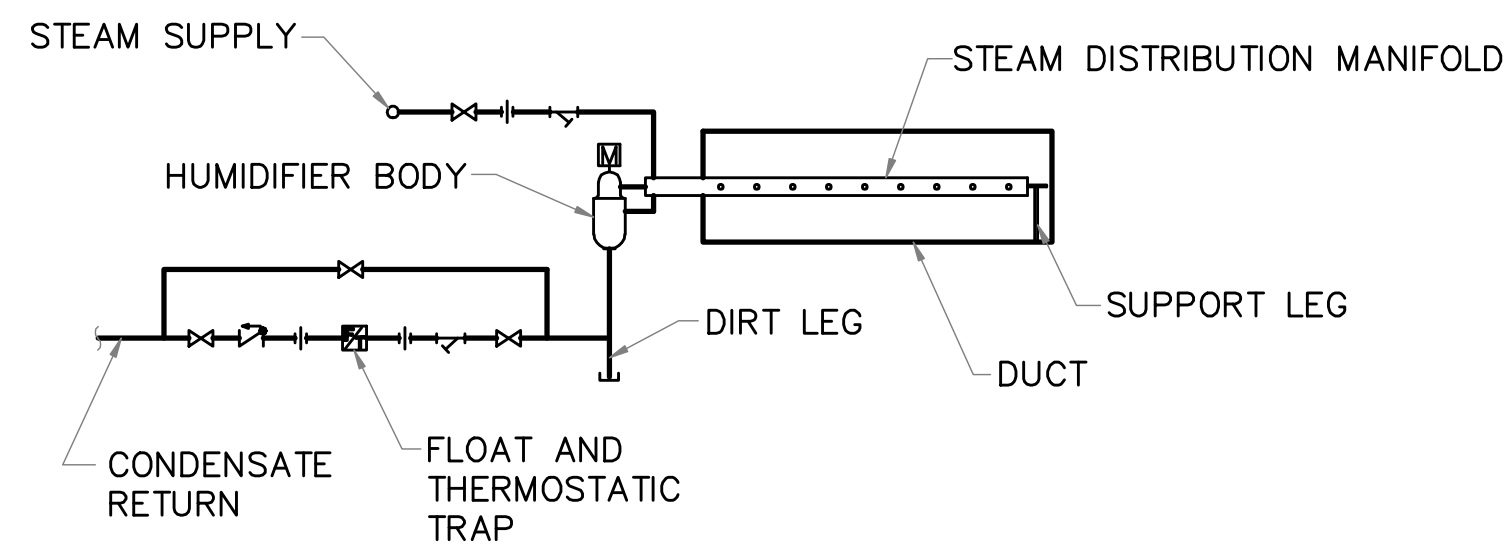
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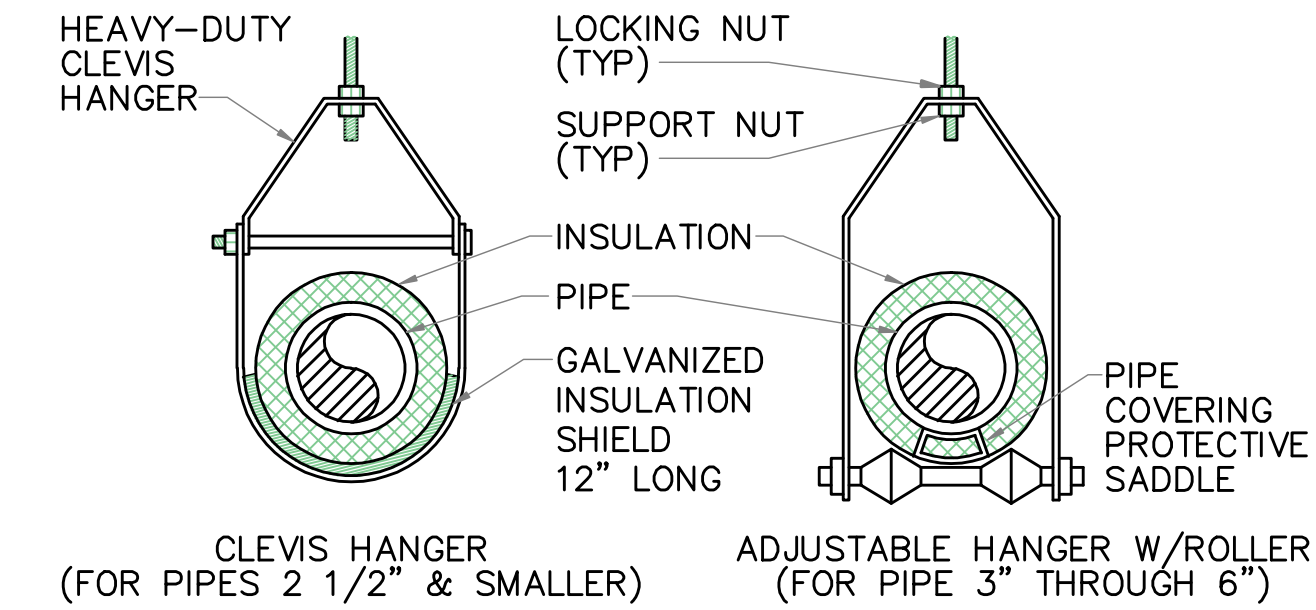
WATER TO AIR HEAT PUMP
NOT TO SCALE



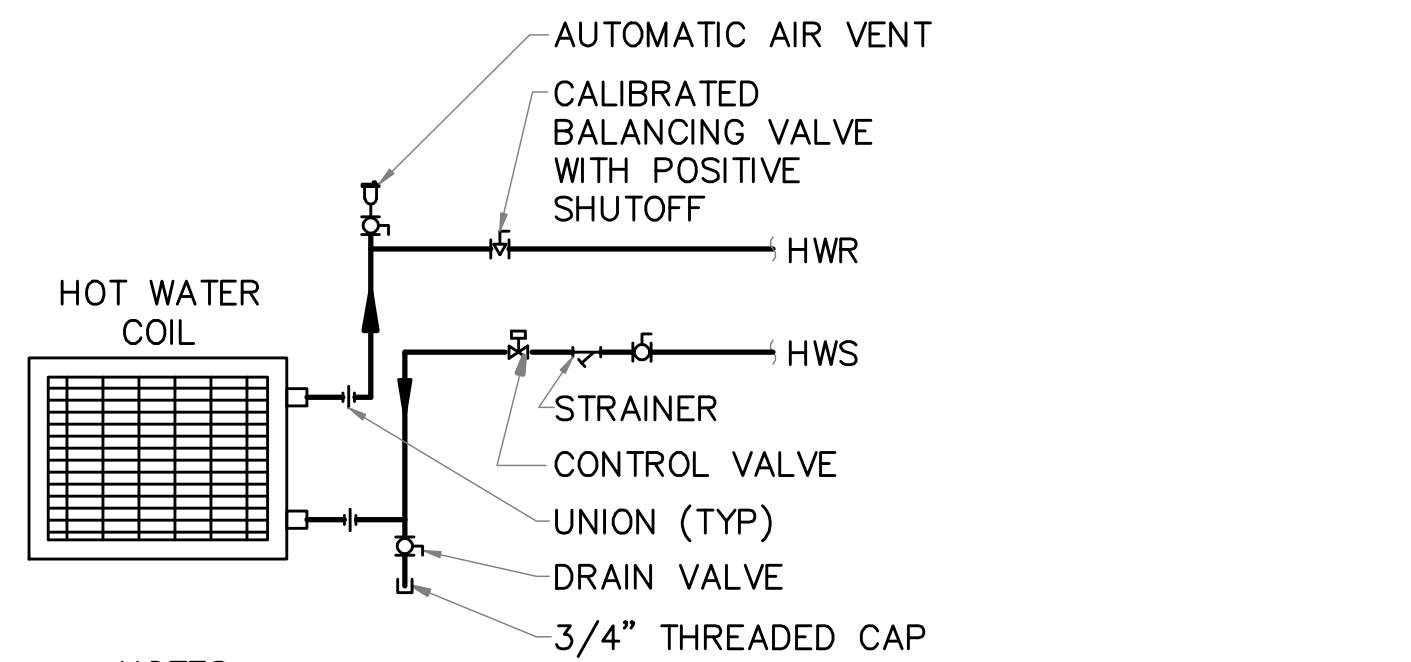
BYPASS CHEMICAL FEEDER PIPING SCHEMATIC
NOT TO SCALE



DUCT MOUNTED STEAM HUMIDIFIER PIPING SCHEMATIC
NOT TO SCALE

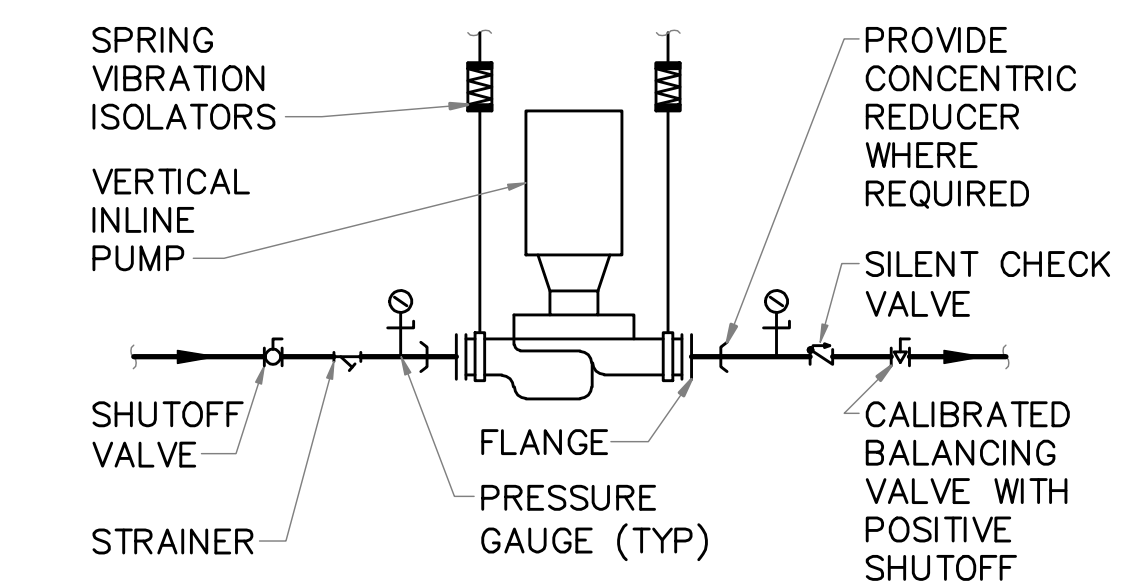


PIPE HANGER ATTACHMENT DETAILS
NOT TO SCALE



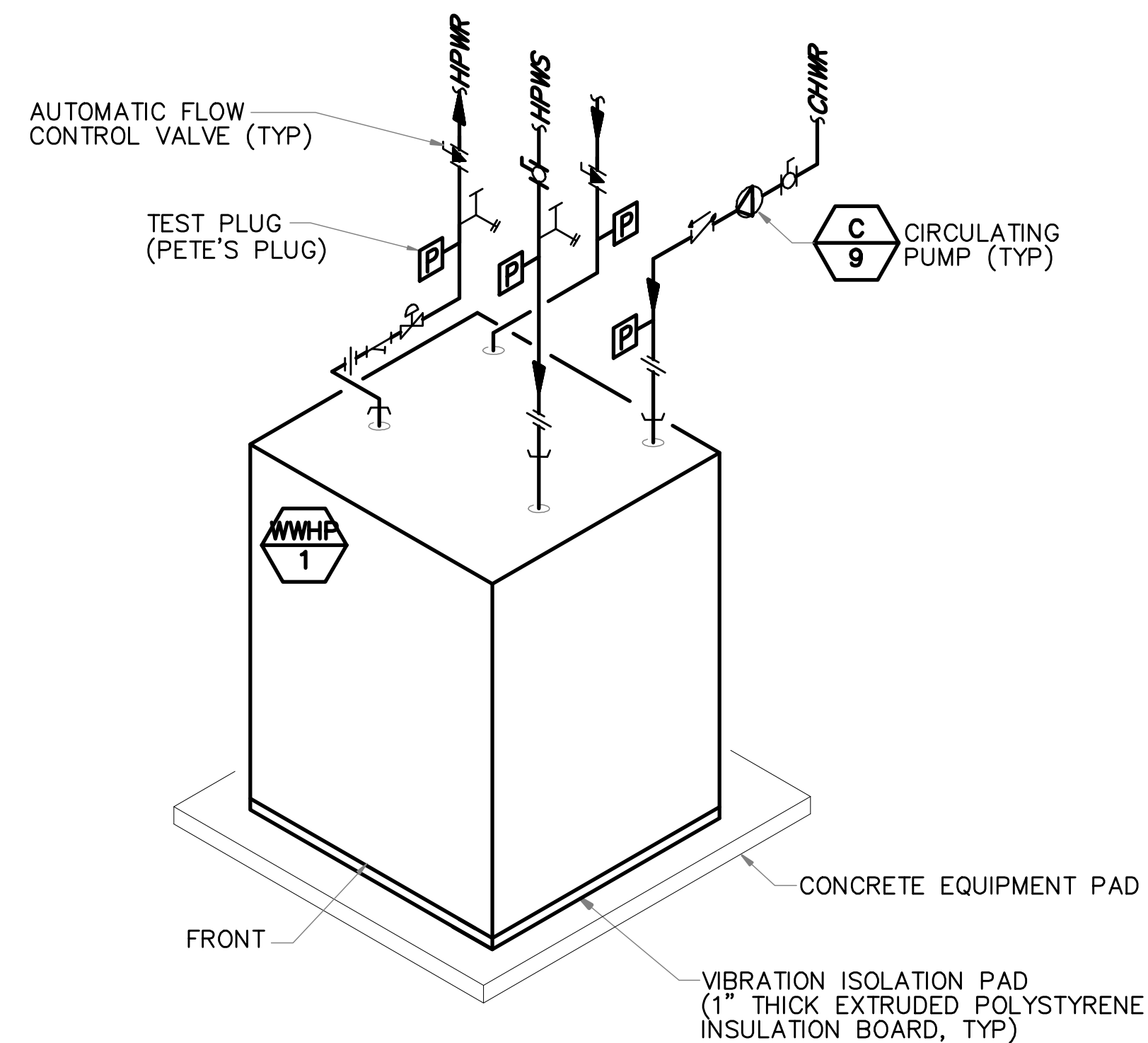
- NOTES**
1. PROVIDE (2) 90° ELBOWS ON SUPPLY AND RETURN AT COIL CONNECTION.
 2. COIL SHALL BE HORIZONTALLY MOUNTED IN DUCT. PROVIDE 30 DEGREE TRANSITION ON EACH SIDE OF COIL.

DUCT MOUNTED HOT WATER COIL PIPING SCHEMATIC
NOT TO SCALE



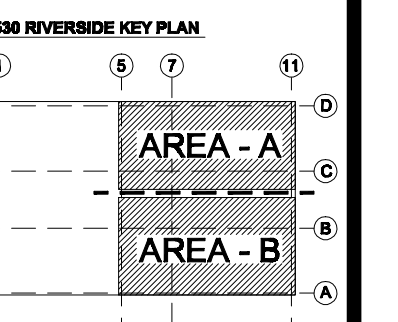
- NOTES**
1. VALVES SHALL BE SAME SIZE AS PIPE.
 2. PROVIDE SPRING VIBRATION ISOLATORS FOR PUMP.

INLINE PUMP PIPING DETAIL
NOT TO SCALE



WATER-TO-WATER HEAT PUMP PIPING DIAGRAM
NOT TO SCALE

POINT DESCRIPTION	GRAPHIC	ANALOG INPUT	BINARY INPUT	ANALOG OUTPUT	BINARY OUTPUT	ALARM POINT	NON-DDC POINT	OTHER	NOTES
HP-15 THRU HP-32									
ROOM TEMP	X	X							
FAN ON/OFF	X				X				
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
TROUBLE	X		X						
WATER SOURCE VALVE							X		
HPWW-1									
WATER SUPPLY TEMP	X	X							
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
SECOND STAGE	X				X				
TROUBLE	X		X						
HPWW-2									
WATER SUPPLY TEMP	X	X							
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
SECOND STAGE	X				X				
TROUBLE	X		X						
P-3 PUMP START/STOP & STATUS	X		X		X				
P-4 PUMP START/STOP & STATUS	X		X		X				
P-6 PUMP START/STOP & STATUS	X		X		X				
P-7 PUMP START/STOP & STATUS	X		X		X				
P-8 PUMP START/STOP & STATUS	X		X		X				
P-9 PUMP START/STOP & STATUS	X		X		X				
P-B1 PUMP START/STOP & STATUS	X		X		X				
P-B2 PUMP START/STOP & STATUS	X		X		X				
P-12 PUMP START/STOP & STATUS	X		X		X				
P-2A PUMP START/STOP & STATUS	X		X		X				
P-2A VFD	X			X					
P-2B PUMP START/STOP & STATUS	X		X		X				
P-2B VFD	X			X					
P-5 PUMP START/STOP & STATUS	X		X		X				
P-5 VFD	X			X					
P-10 PUMP START/STOP & STATUS	X		X		X				
P-10 VFD	X			X					
P-11 PUMP START/STOP & STATUS	X		X		X				
P-11 VFD	X			X					
HP SUPPLY LOOP TEMPERATURE	X	X							
HP RETURN LOOP TEMPERATURE	X	X							
BOILER HWS LOOP TEMPERATURE	X	X							
BOILER HWR LOOP TEMPERATURE	X	X							
CHILLED WATER SUPPLY(BOTTOM OF TANK)	X	X							
CHILLED WATER RETURN(TOP OF TANK)	X	X							
CT-1 COOLING TOWER INLET	X	X							
CT-1 COOLING TOWER OUTLET	X	X							
HX-1 INLET TEMPERATURE	X	X							
HX-1 OUTLET TEMPERATURE	X	X							
HUMIDITY ROOM 233	X	X							
HUMIDITY ROOM 237	X	X							
HUMIDITY ROOM 240	X	X							
DH-3 DEHUMIDIFIER FOR ROOM 233	X				X				
DH-4 DEHUMIDIFIER FOR ROOM 240	X				X				
H-1 HUMIDIFIER FOR ROOM 237	X				X				
EF-2 START STOP & STATUS	X		X		X				
EF-2 VFD	X			X					
DRC-1 INLET WATER TEMPERATURE	X	X							
DRC-21OUTLET WATER TEMPERATURE	X	X							
AHU-1									
DISCHARGE SUPPLY AIR TEMPERATURE	X	X							
FAN START/STOP & STATUS	X		X		X				
FAN VFD	X			X					
OUTSIDE AIR DAMPER	X			X					
FACE & BYPASS DAMPER	X			X					
PREFILTER PRESSURE DIFFERENTIAL	X						X		
FINAL FILTER PRESSURE DIFFERENTIAL	X						X		
COOLING CONTROL VALVE	X			X					
HEATING CONTROL VALVE	X			X					
SMOKE DETECTOR	X							X	
FREEZESTAT	X							X	
DISCHARGE AIR RESET BASED ON OA TEMP	X							X	
DHCC-1 INLET WATER TEMPERATURE	X	X							
DHCC-1 OUTLET WATER TEMPERATURE	X	X							
SUPPLY DUCT PRESSURE SENSOR	X	X							
EXHAUST DUCT PRESSURE SENSOR	X	X							
VAV-1 THROUGH VAV-9									
ROOM TEMPERATURE	X	X							
AIRFLOW, CFM	X	X							
DAMPER ACTUATOR	X				X				
REHEAT VALVE	X				X				
CD-1, 2, 3A, 3B, 4, 5, 6A, 6B, 7, 8, 9									
AIRFLOW, CFM	X	X							
DAMPER ACTUATOR	X				X				
EQUIPMENT COOLING									
238 WALK-IN COOLER VALVE	X				X				
LYPHOLIZER #1 VALVE	X				X				
LYPHOLIZER #2 VALVE	X				X				
LYPHOLIZER #3 VALVE	X				X				
221 WALK-IN COOLER VALVE	X				X				

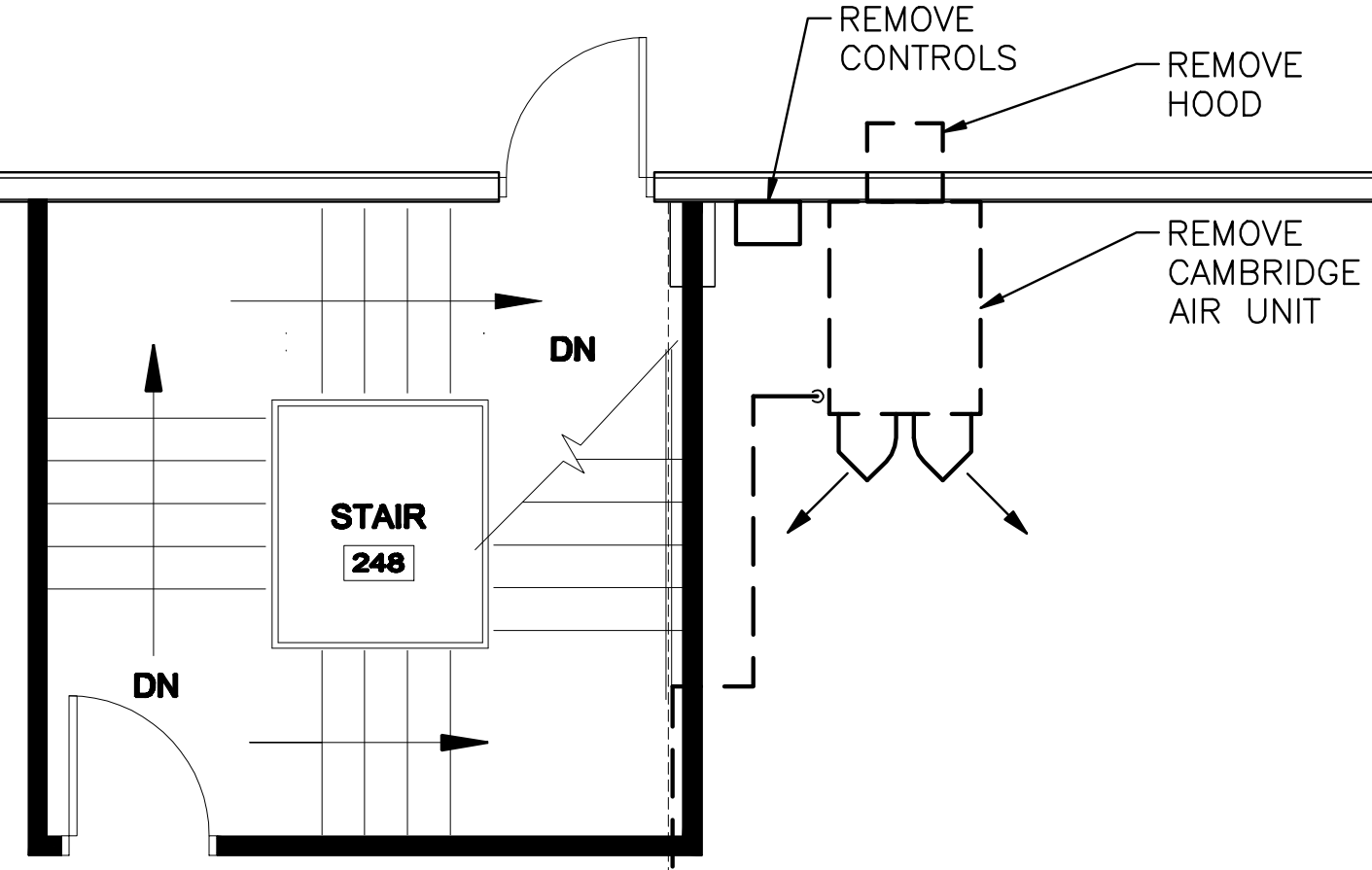


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PROJECT No: 1026A
DRAWN BY: AZZ
CHECKED BY: RPG
SCALE: AS NOTED
SHEET TITLE: DETAILS

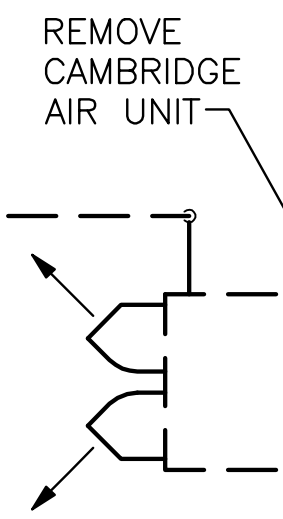
5 6 7 8 9 10 11

D



OPEN WAREHOUSE 265

REMOVE GAS PIPING (TYP)



C

MECHANICAL 269

MECHANICAL 266

MECHANICAL 267

MECHANICAL 268

MATCH LINE

MATCH LINE

120 STAIR

123 HALL

122B ELEC. CLOS.

122A MECH. CLOS.

RG 715 CFM

135 CFM

14"Ø UP

60 CFM

HP-1

HP-2

HP-19

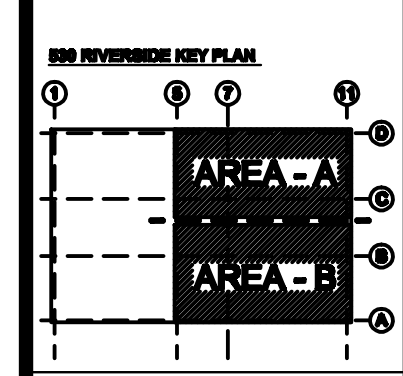
1 FIRST FLOOR PLAN - PART A
MD-1 1/4" = 1'-0"

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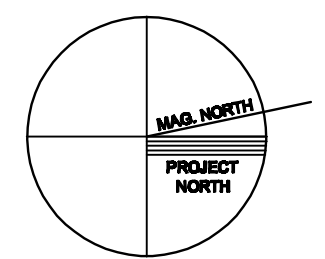
CONSULTANTS:
STRUCTURAL: TFC Structural Engineers, Inc.
Portland, ME 04101-4400
207-625-4100
MECHANICAL: Environmental Control Systems/PLC
Portland, ME 04101
207-771-5200
ELECTRICAL: Portland Engineering
Portland, ME 04101
207-625-9475



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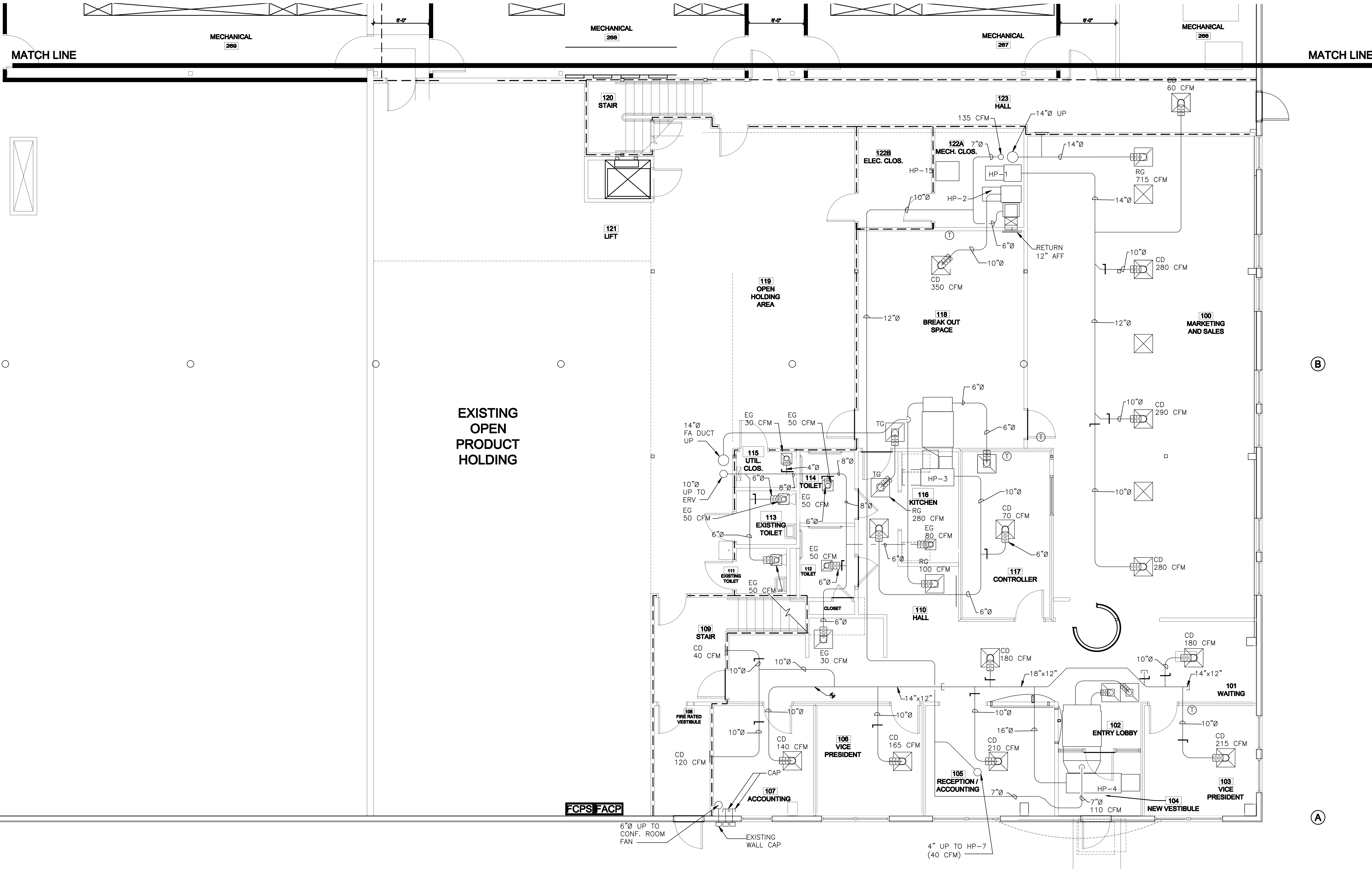
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PROJECT No. 1028A
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SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR
PLAN - PART A
MECHANICAL



MD-1

8/19/2011 10:45:27 AM



1 FIRST FLOOR PLAN - PART B
1/4" = 1'-0"

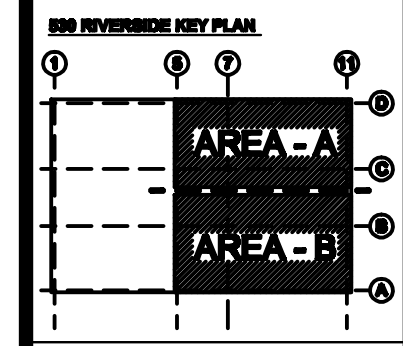
DRAWING NOTE
1. THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY. NO WORK IN THIS AREA

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CONSULTANTS:
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ELECTRICAL: EnviroLogix
PLUMBING: EnviroLogix
HVAC: EnviroLogix
MECHANICAL: EnviroLogix
ELECTRICAL: EnviroLogix
PLUMBING: EnviroLogix
HVAC: EnviroLogix



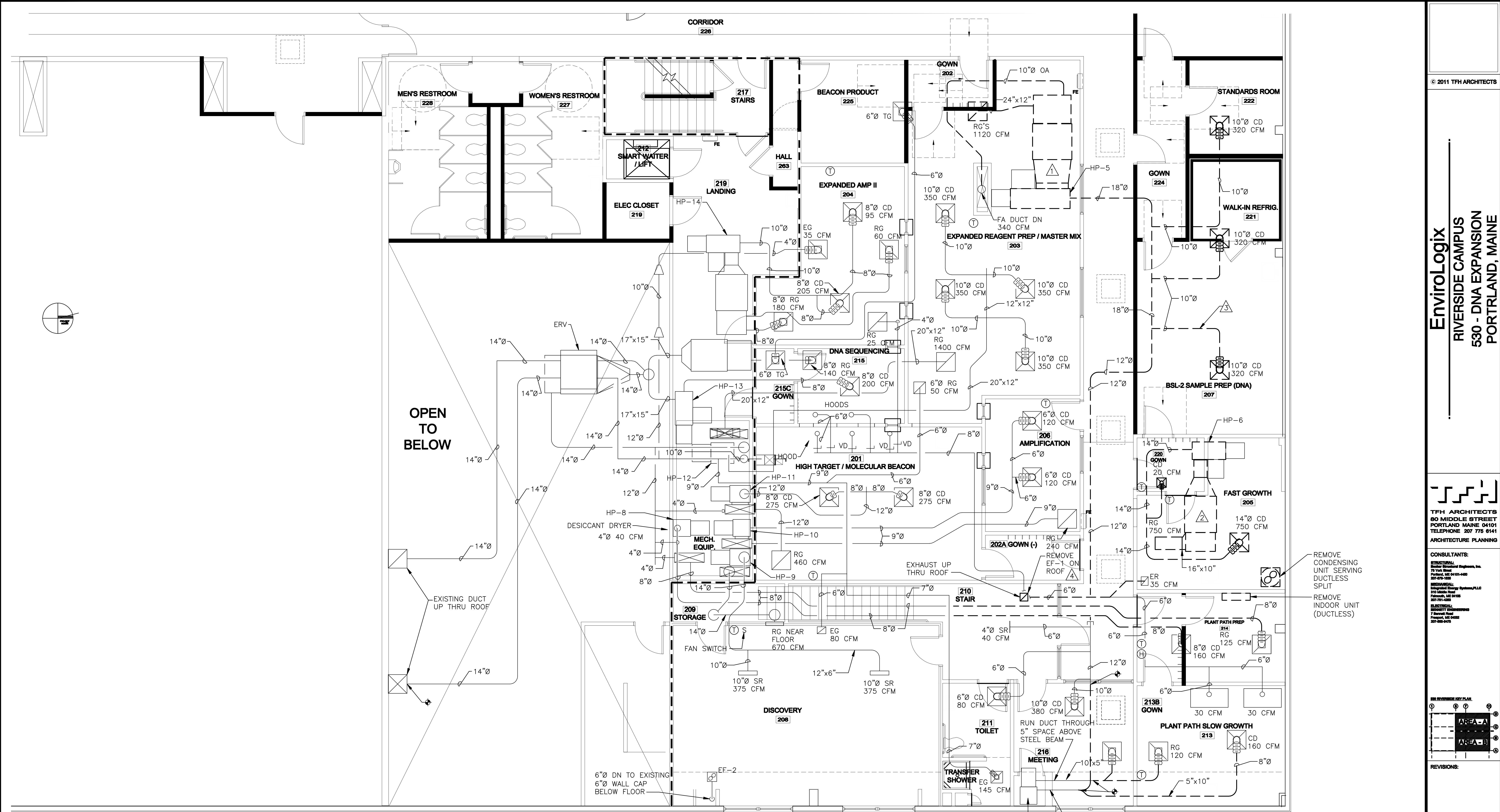
REVISIONS:

DATE: 8/17/11
PROJECT No.: 1028A
DRAWN BY: AZZ
CHECKED BY: RFG
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR
PLAN - PART B
MECHANICAL

MD-2

8/19/2011 10:45:44 AM



1 SECOND FLOOR PLAN - PART B
1/4" = 1'-0"

- DRAWING NOTES**
- 1 REMOVE HP-5 AND DYNAMIC V-8 FILTER. DELIVER TO OWNER. REMOVE ASSOCIATED DUCTWORK, WATER SOURCE PIPING
 - 2 REMOVE HP-5 AND DYNAMIC V-8 FILTER. DELIVER TO OWNER. REMOVE ASSOCIATED DUCTWORK, WATER SOURCE PIPING
 - 3 REMOVE DUCTWORK, TYPICAL
 - 4 REMOVE EF-1 ON ROOF AND EXHAUST DUCT.

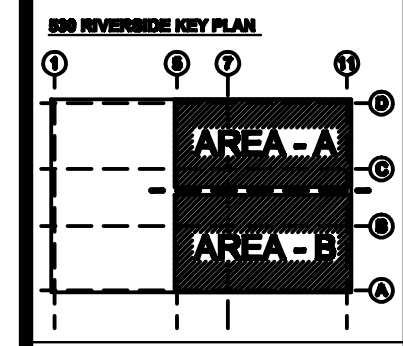
REMOVE CONDENSING UNIT SERVING DUCTLESS SPLIT
REMOVE INDOOR UNIT (DUCTLESS)

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EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
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ARCHITECTURE PLANNING

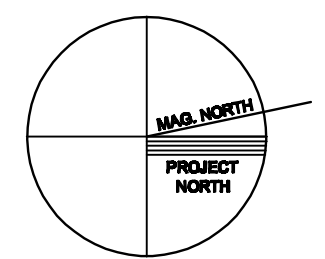
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REVISIONS:

DATE: 8/17/11
PROJECT No.: 1028A
DRAWN BY: AZZ
CHECKED BY: RPG
SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR
PLAN - PART B
MECHANICAL



MD-3

8/19/2011 10:45:39 AM