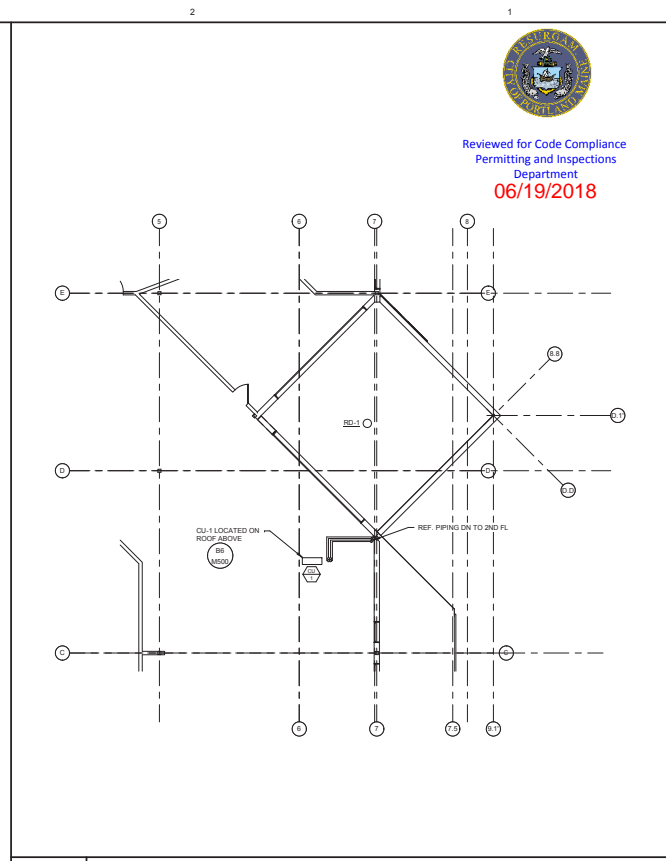
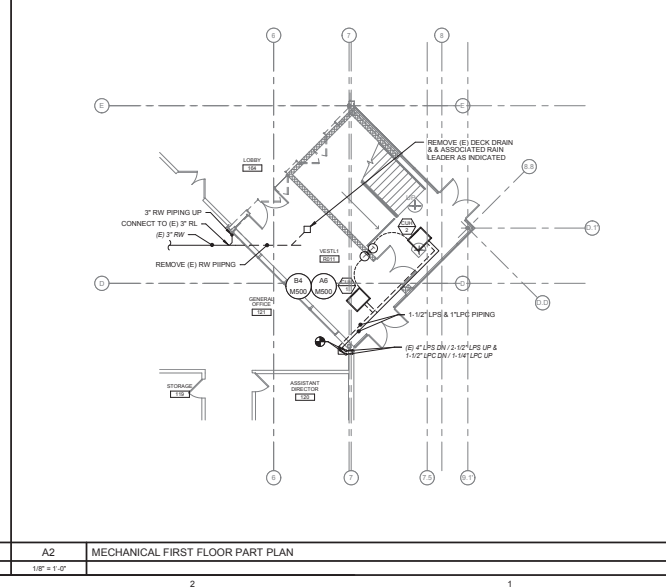




A6 MECHANICAL SECOND FLOOR PLAN
1/8" = 1'-0"



B2 MECHANICAL THIRD FLOOR PART PLAN
1/8" = 1'-0"



A2 MECHANICAL FIRST FLOOR PART PLAN
1/8" = 1'-0"



Reviewed for Code Compliance
Permitting and Inspections
Department
06/19/2018

PDT
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CASCO BAY HIGH SCHOOL EXPANSION
196 Allen Avenue
Portland, ME

1	4/11 Addendum 1/8 AS	
No.	Date	Description
Revision Schedule		



JOB NO.
17056
DRAWN: CHK
SCL: ASD
SCALE:

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
MECHANICAL FIRST, SECOND
AND THIRD
PLANS
SHEET
M100

UNIT HEATER SCHEDULE																
TAG	SERVES	MFR -MODEL	SIZE	TYPE	MBH	CFM	EAT (DEG-F)	LAT (DEG-F)	LB/HR	FLUID	STEAM PRESSURE	MOTOR TYPE	MOTOR HP	ELECT	CONTROL VALVE	NOTES
CUH-1	VESTL1 R0111 1ST FL	TRANE FF- E-B	80	HORIZ RECESSED	33.1	702	70	113.0	34.1	STEAM	2 PSIG	ECM	135 W	120-1-60	2-WAY	1
CUH-2	STAIR1	TRANE FF- N-B	30	HORIZ RECESSED	12.5	277	70	112.0	12.9	STEAM	2 PSIG	ECM	70 W	120-1-60	2-WAY	1
CUH-3	VESTL1 R2111 2ND FL	TRANE FF- N-B	30	HORIZ RECESSED	12.5	277	70	112.0	12.9	STEAM	2 PSIG	ECM	70 W	120-1-60	2-WAY	1

NOTES:
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANSFORMERS BY DIV. 23. DISCONNECT SWITCH: PROVIDE BY UNIT HEATER MANUFACTURER.

ENERGY RECOVERY UNIT SCHEDULE			
GENERAL	TAG	ERU-1	ERU-2
SERVES		R250C & R250B CLASS ROOMS	MAIN OFFICE R100
TYPE		FIXED-PLATE	FIXED-PLATE
MFR		RenovAir	RenovAir
MODEL		HE1XNH EC	EV200
FILTER SECTION		2" MERV-13	2" MERV-8
OUTSIDE AIR FAN		FC	FC
AIRFLOW, cfm		775	125
ESP, in. wc.		0.9"	0.70"
HP		0.5	0.1
TYPE		FC	FC
AIRFLOW, cfm		775	125
ESP, in. wc.		0.65"	0.70"
HP		0.75	SHARED MOTOR
OVERALL DIMENSIONS			
LENGTH		54.75"	33.5"
WIDTH		23.75"	24"
HEIGHT		35.75"	20"
OPERATING WEIGHT, lbs.		275	68
HEAT RECOVERY CORE			
WINTER OA DB		87 / 72	87 / 72
SUMMER SA DB/WB		78.5 / 72.9	78.5 / 72.9
WINTER SA DB		52.8	52.8
TEMP EFF.		72.0%	81.0%
SUMMER EFF.		55.0%	77.0%
WINTER EFF.		66.0%	64.0%
FROST CONTROL		NONE REQUIRED	NONE REQUIRED
V-PH-HZ		208/160	120/160
DISC SWITCH		WITH UNIT	-
STARTER		-	-
UNIT FLA		4.8	1.5
S & R SMOKE DETECTORS		NO	NO
NOTES			

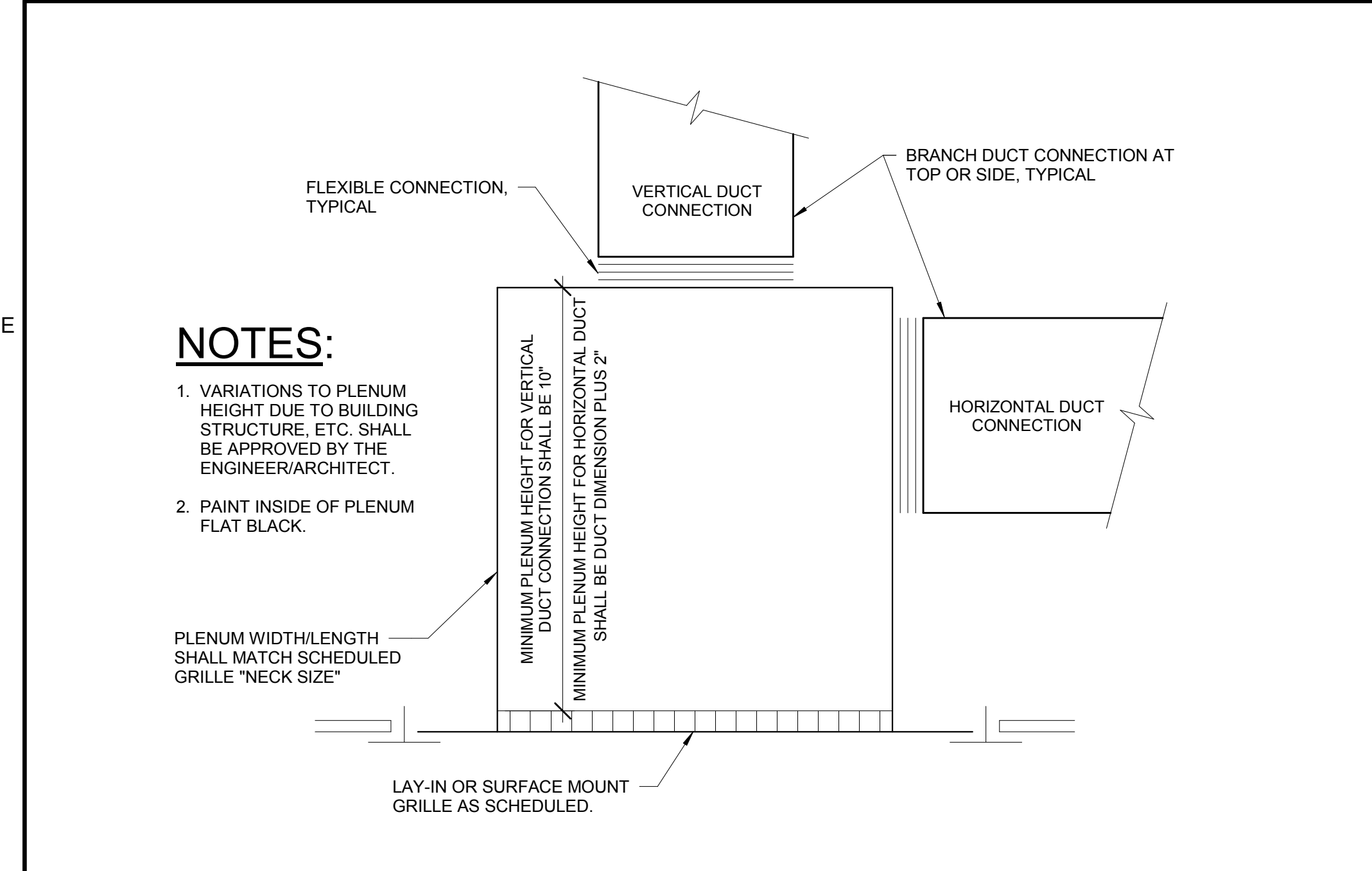
Notes:
1. Provide ECM motor as specified.
2. Provide factory isolation damper at OA/EA as specified.

LOUVER SCHEDULE														
TAG	MAKE - MODEL	AIR SYSTEM	DUTY	CFM	DIMENSIONS					BEGINNING POINT OF WATER PENETRATION AT 0.01 OZ/SF	MAX P.D. MAX W.C.	SCREEN	NOTES	
					HEIGHT (IN)	WIDTH (IN)	MIN. FREE AREA (SF)	GROSS VELOCITY (FT/MIN)	NET VELOCITY (FT/MIN)					% FREE AREA
L-1	RUSKIN ELF445DX	ERU-2	EXHAUST	125	12	18	0.63	83.3	198.4	42.0%	4"	873 FPM	0.06	SEE SPEC
L-2	RUSKIN ELF445DX	ERU-2	INTAKE	125	12	18	0.63	83.3	198.4	42.0%	4"	873 FPM	0.06	SEE SPEC
L-3	RUSKIN ELF445DX	ERU-1	EXHAUST	775	24	48	3.8	96.9	203.9	47.5%	4"	873 FPM	0.06	SEE SPEC
L-4	RUSKIN ELF445DX	ERU-1	INTAKE	775	24	48	3.8	96.9	203.9	47.5%	4"	873 FPM	0.06	SEE SPEC

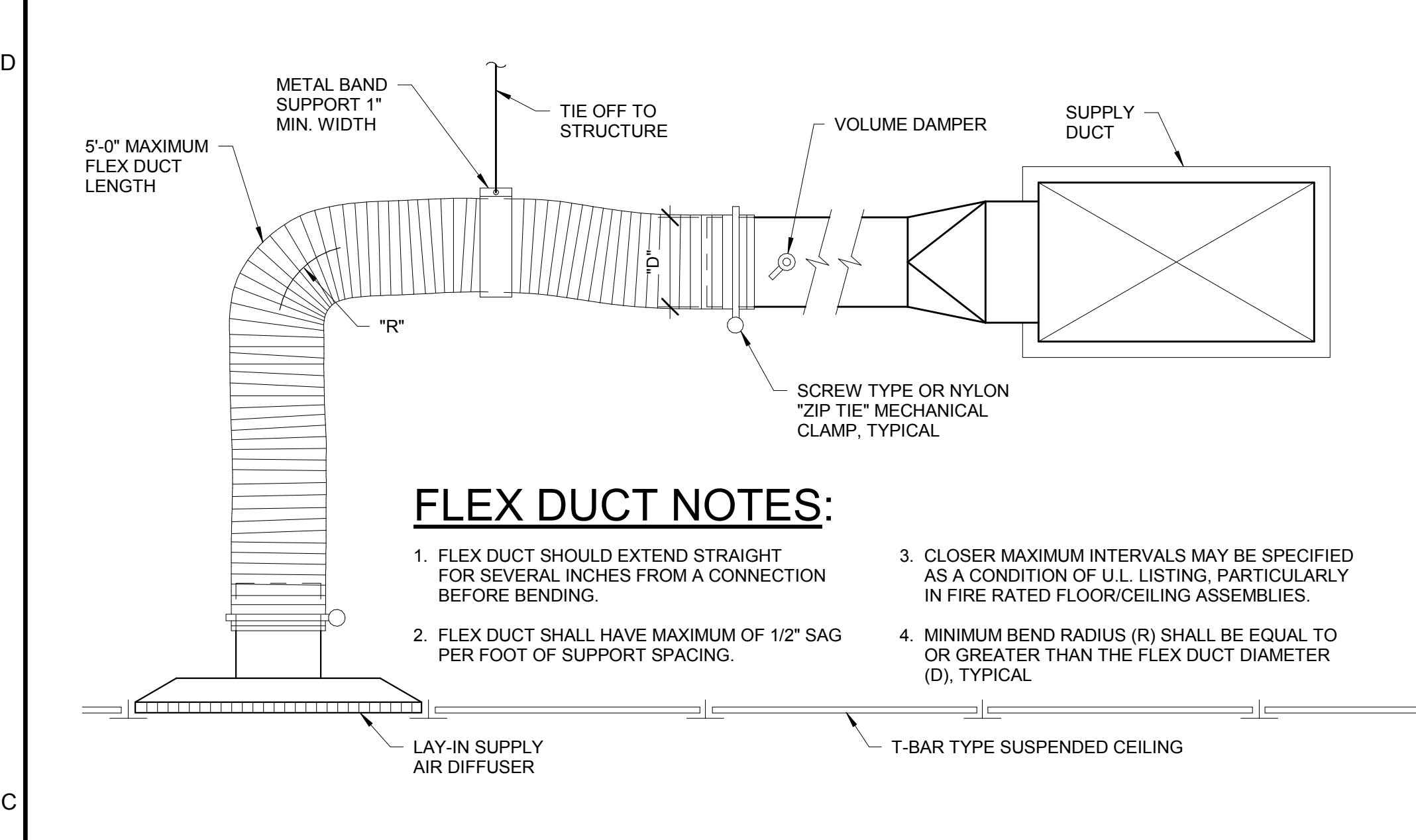
REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE										
TAG	PRICE MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	SCD	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" X 24"	0-150	0.07"	16	LAY-IN	4-WAY	
S-2	SCD	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	151-275	0.07"	19	LAY-IN	4-WAY	
S-3	SCD	SQ. CEILING SUPPLY DIFFUSER	10" DIA	24" X 24"	276-440	0.07"	22	LAY-IN	4-WAY	
S-4	SCD	SQ. CEILING SUPPLY DIFFUSER	12" DIA	24" X 24"	441-630	0.07"	24	LAY-IN	4-WAY	
R-1	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	8" X 8"	8" X 8"	0-170	0.05"	23	SURFACE MT.		
R-2	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	12" X 12"	12" X 12"	171-440	0.05"	27	SURFACE MT.		
R-3	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	22" X 22"	22" X 22"	440-940	0.05"	27	LAY-IN		

ELECTRIC DUCT HEATING COIL SCHEDULE													
TAG	MANUFACTURER - MODEL	SERVES	AIRFLOW W	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MAX APD	BTUH	KW	AMPS	VOLT / PH
DC-1	INDEECO	ERU-1	775	14	14	569	40	75	0.2"	29,295	8.6	10.3	480/3
DC-2	INDEECO	ERU-2	125	10	6	300	40	75	0.2"	4,725	1.4	1.8	208/3

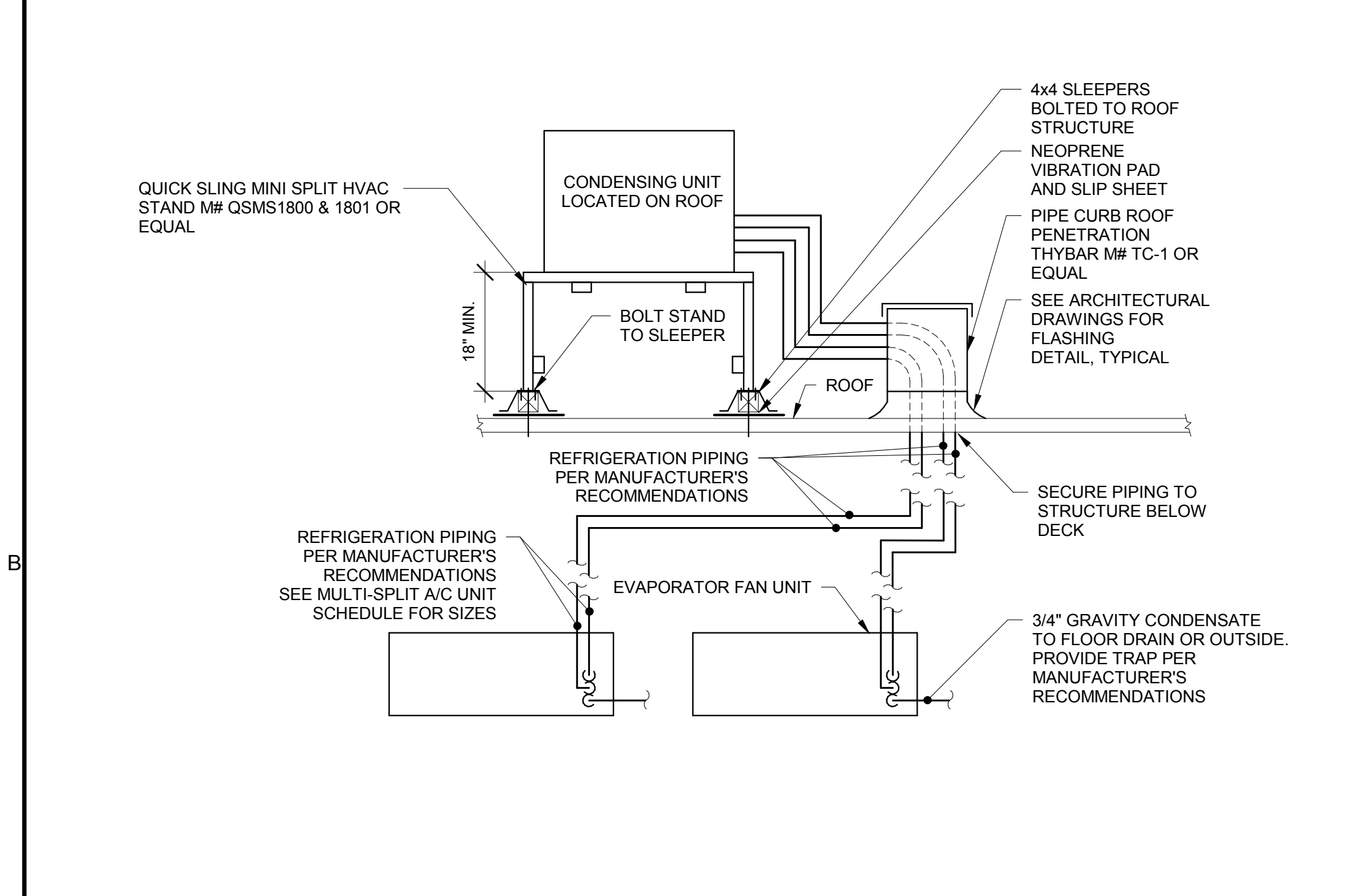
NOTES:
1. Provide SCR Heating Control
2. Provide disconnect switch.
3. Accessories: Airflow switch, duct thermostat, magnetic contactor, and pilot light.
4. Coordinate control box location - LH or RH for proper maintenance access.
5. Provide duct mounted thermostat



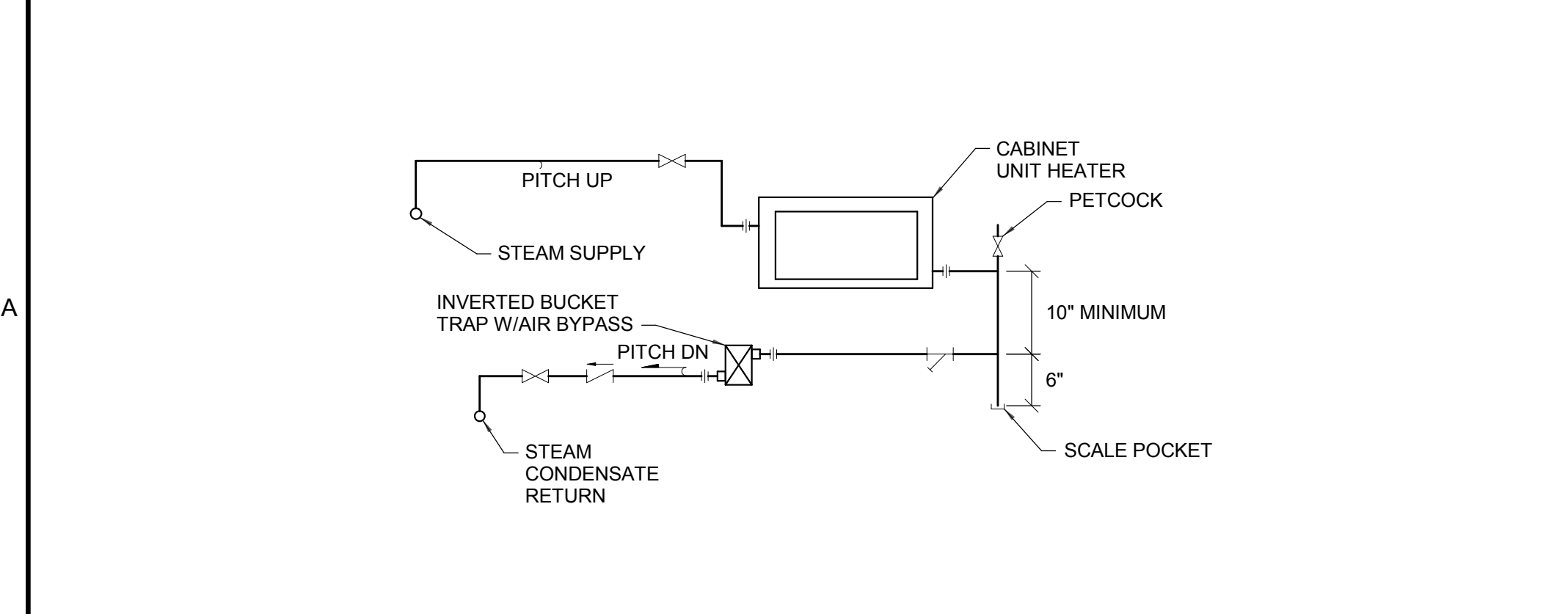
E6 15855 - RETURN AIR REGISTER BOOT



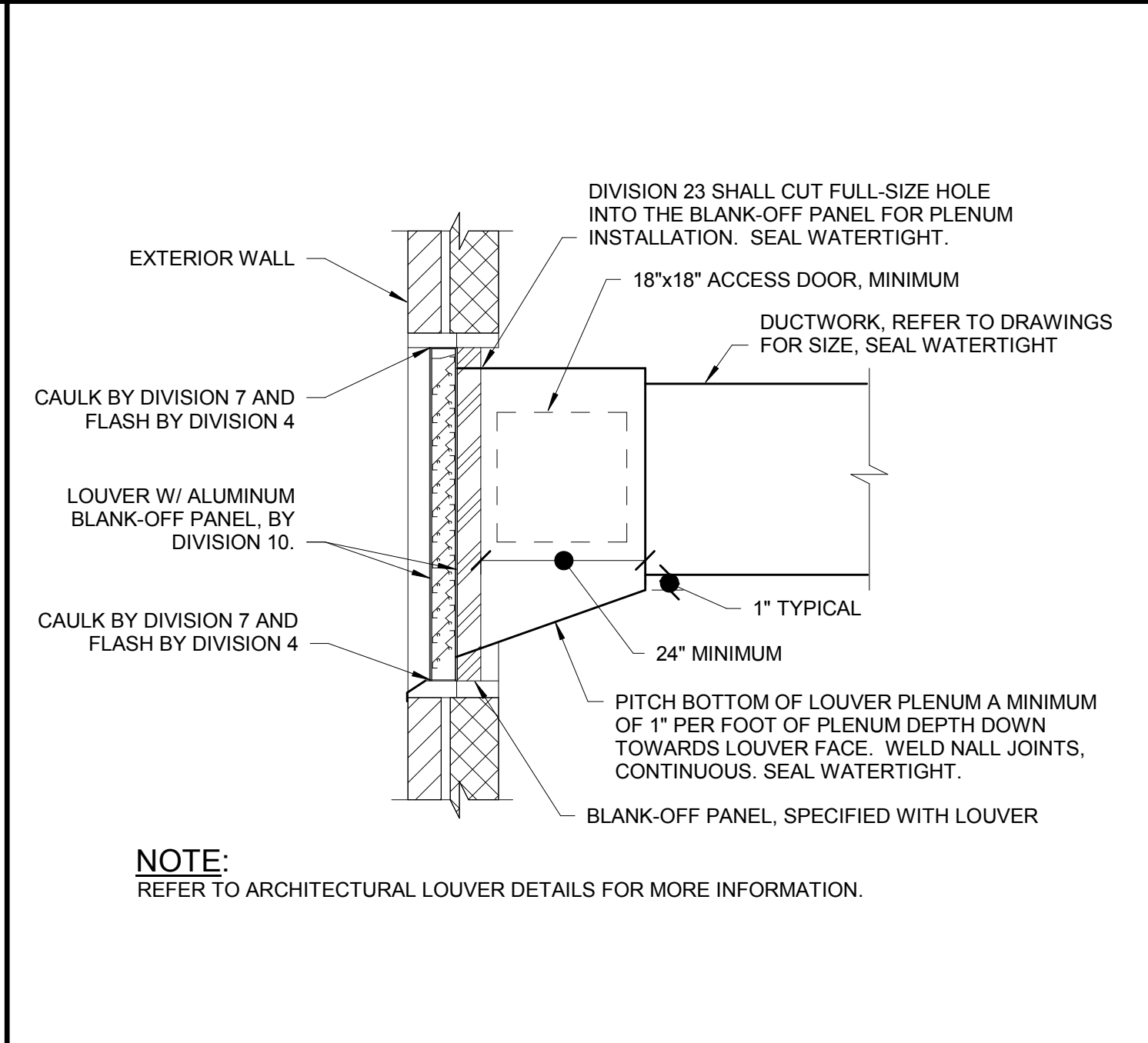
C6 15855 - SUPPLY AIR BRANCH CONNECTION



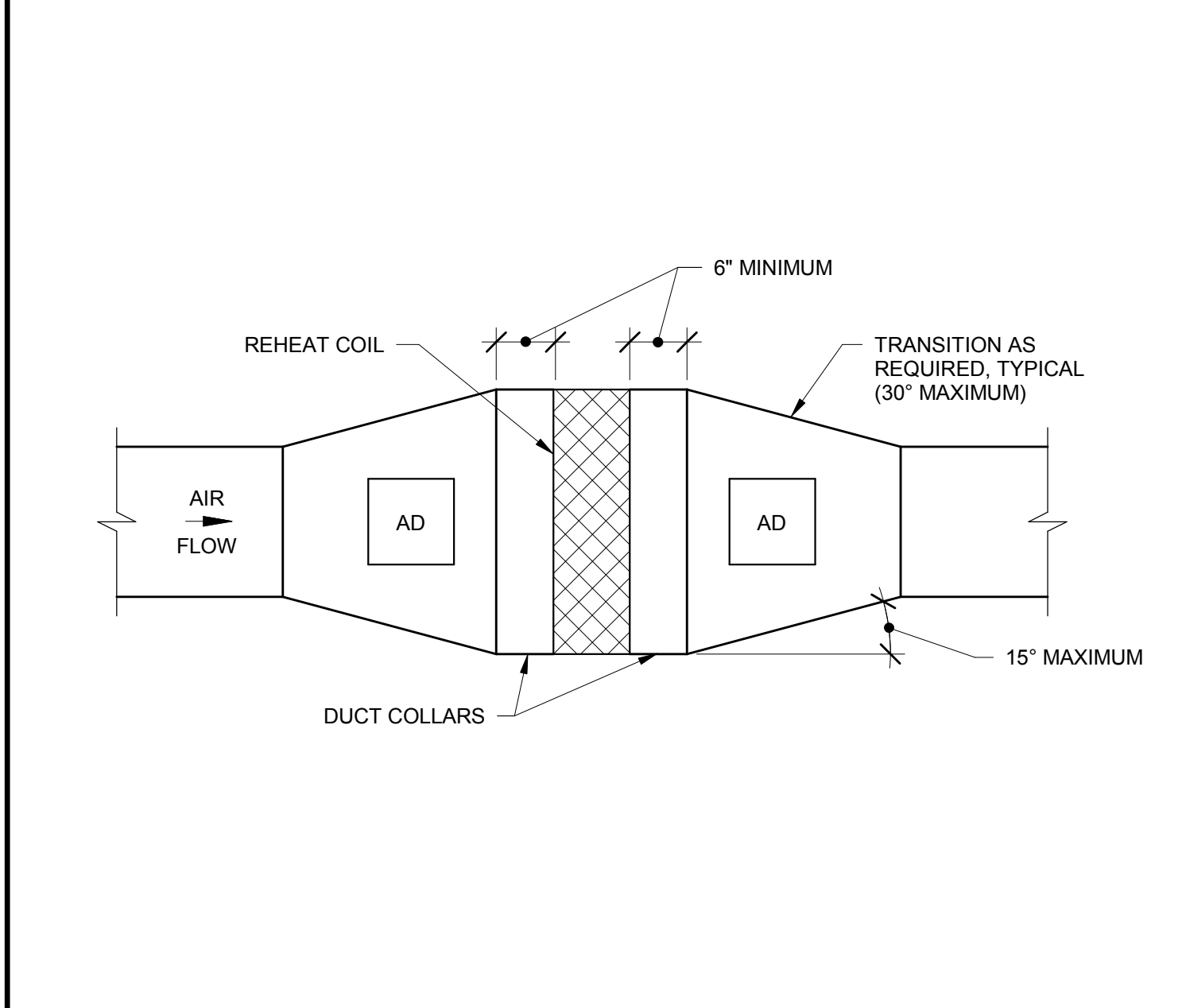
B6 DETAIL - DUCTLESS SPLIT SYSTEM INSTALLATION



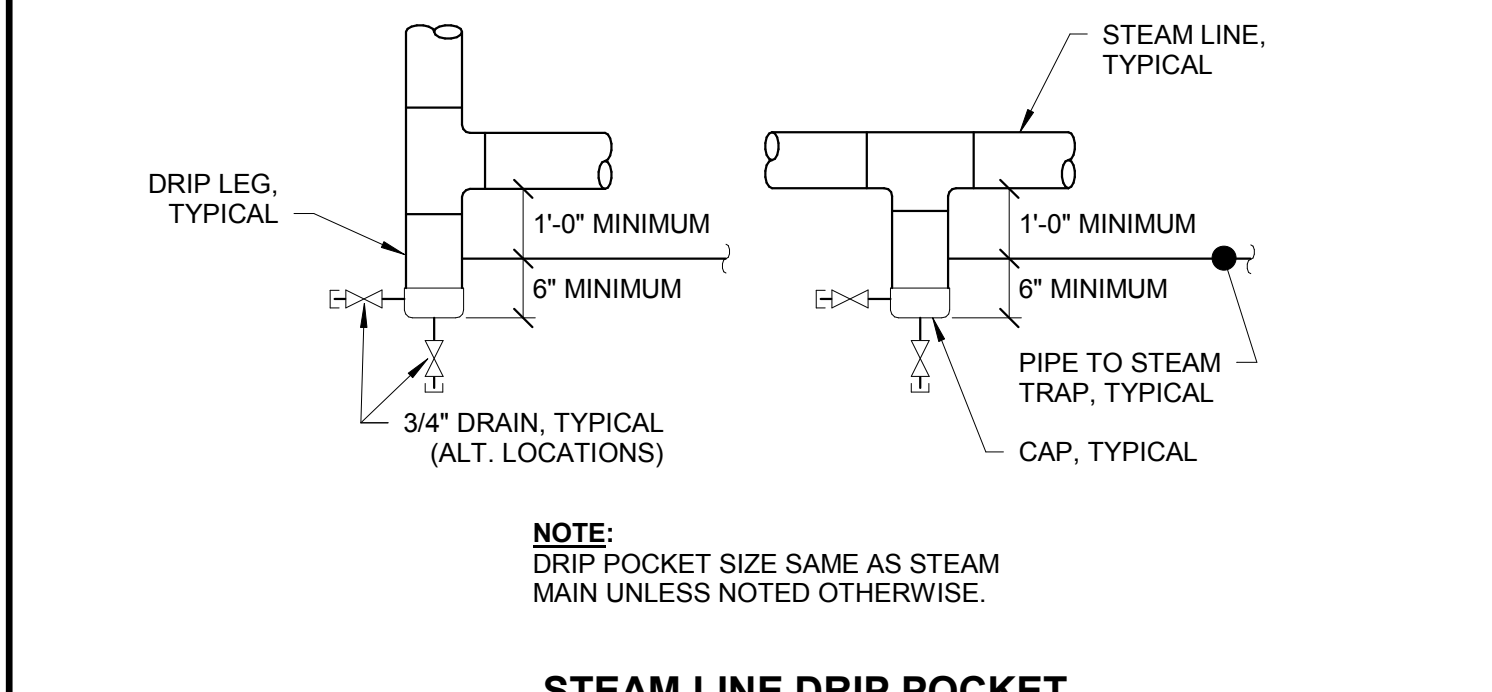
A6 DETAIL - STEAM CABINET UNIT HEATER PIPING



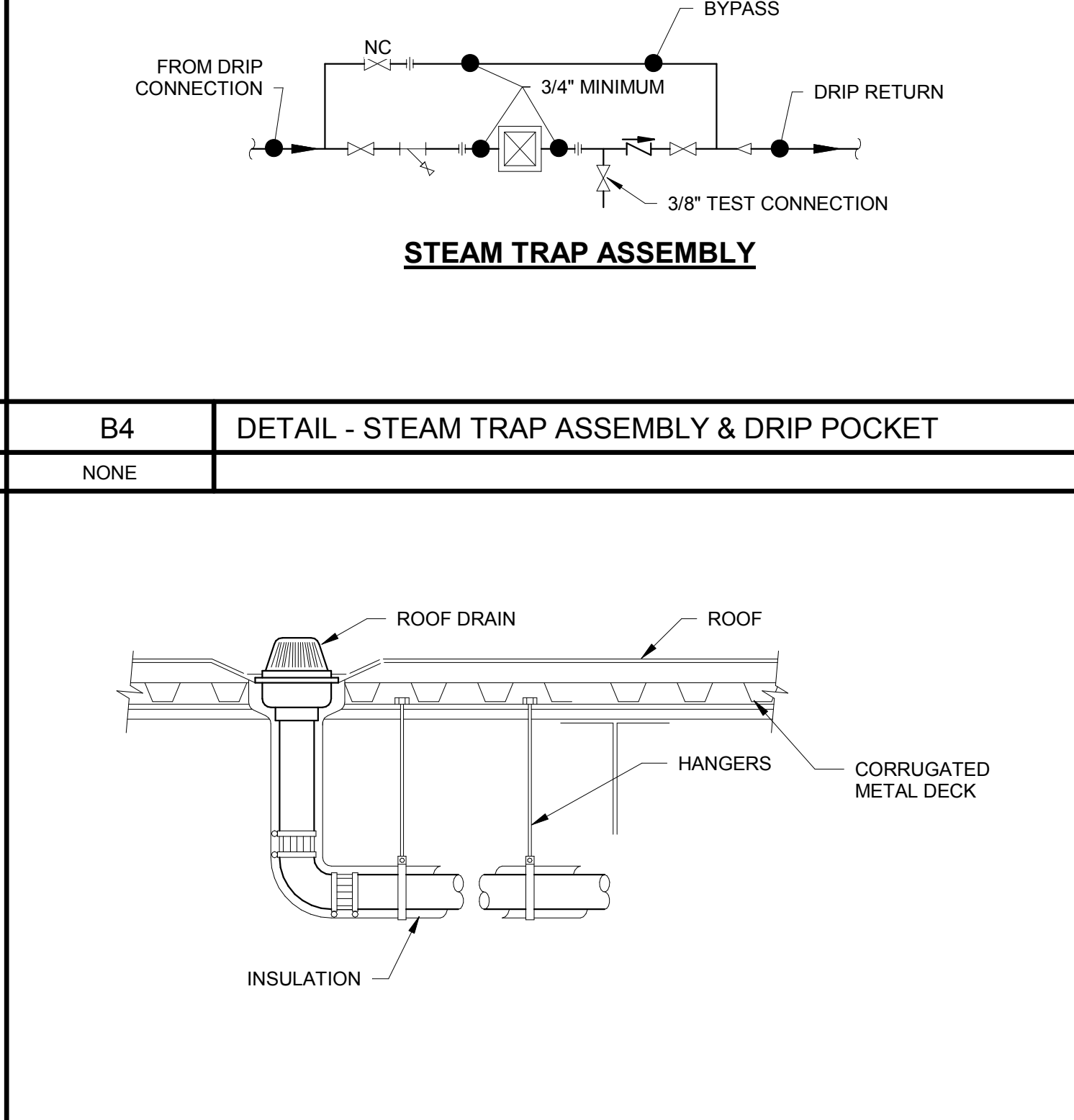
E4 DETAIL - EXTERIOR LOUVER



C4 DETAIL - REHEAT COIL DUCT CONNECTION



B4 DETAIL - STEAM TRAP ASSEMBLY & DRIP POCKET



A4 DETAIL - ROOF DRAIN PIPING

A3 MECHANICAL SCHEDULES



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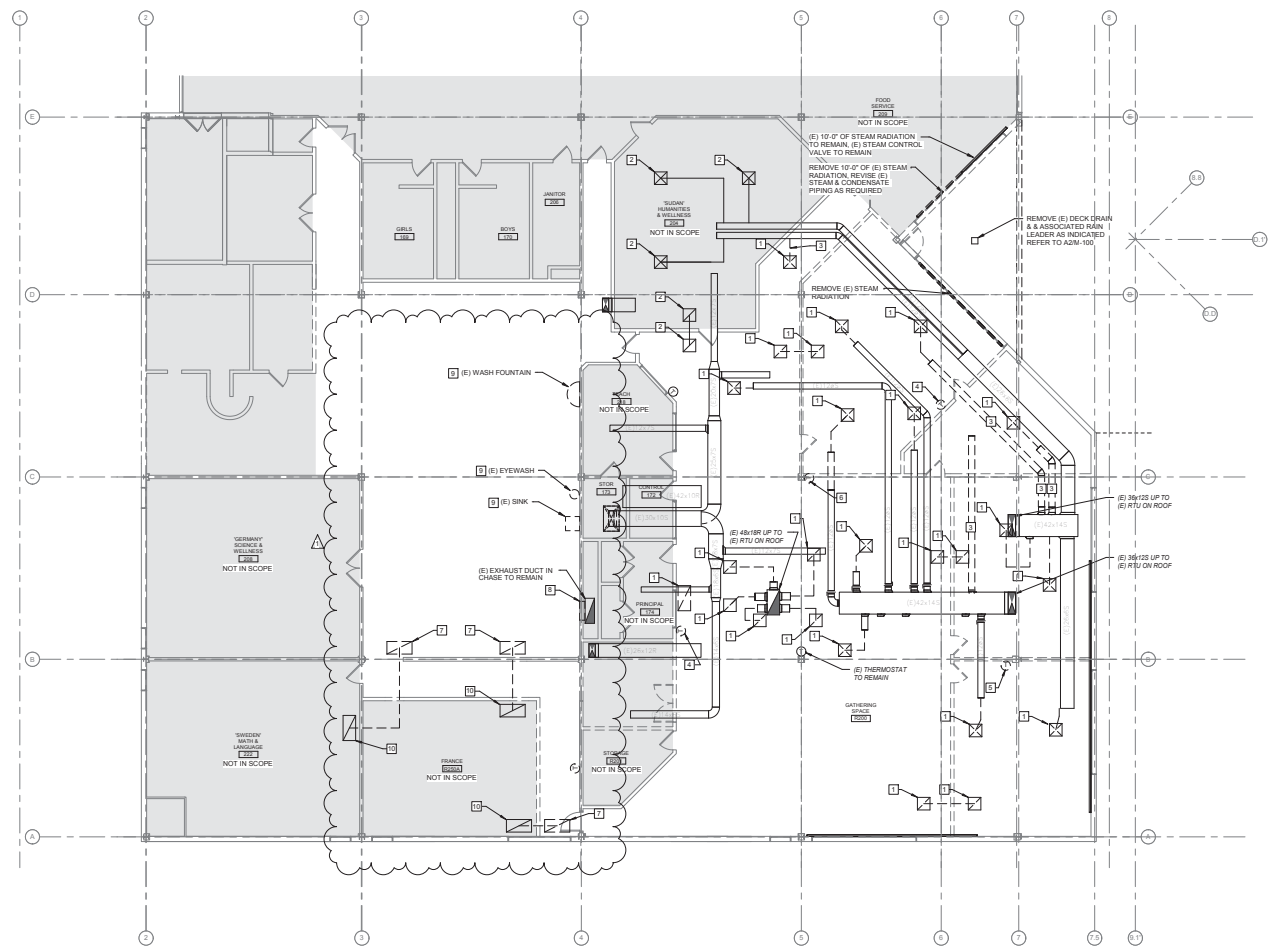
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Allied Project No: 17013

CASCO BAY HIGH SCHOOL EXPANSION
196 Allen Avenue
Portland, ME



- GENERAL NOTES:**
- PRIOR TO THE START OF RENOVATIONS, THE CONTRACTOR SHALL TRAVERSE THE AIR FLOW TO EACH MAJOR DUCT BRANCH FOR THE ROOF TOP UNIT SERVING THE GREAT ROOM TO DOCUMENT PRE-EXISTING CONDITIONS. THESE RESULTS SHALL BE SUBMITTED TO THE OWNER AND A/E FOR REVIEW AND COMPARISON TO AS BUILT REQUIREMENTS. SUBSEQUENT TO COMPLETION OF RENOVATIONS, REBALANCE THE ROOF TOP UNIT INCLUDING NEW AND EXISTING TERMINALS TO RESTORE TO AS BUILT CONDITION FOR ALL EXISTING AREAS AND SPECIFIED CONDITIONS FOR RENOVATED AREAS. RE-CALIBRATE EXISTING TERMINALS AND MAKE ADJUSTMENTS TO VOLUME DAMPERS AS REQUIRED.
- DEMOLITION KEY NOTES:**
- 1 REMOVE/RELOCATE EXISTING DIFFUSERGRILLE & ASSOCIATED DUCTWORK AS INDICATED ON PLANS. (APPROXIMATELY 13 SUPPLY DIFFUSERS & 6 RETURN GRILLES ARE TO BE RELOCATED FOR REUSE AS INDICATED ON SHEET M100).
 - 2 EXISTING DIFFUSERGRILLE TO REMAIN.
 - 3 REMOVE EXISTING DUCTWORK AS INDICATED ON PLANS.
 - 4 REMOVE EXISTING TSTAT.
 - 5 RELOCATE (E)TSTAT TO COLUMN TO FACILITATE WALL DEMO AS SHOWN.
 - 6 VERIFY THAT EXISTING PNEUMATIC THERMOSTATS ARE OPERATIONAL AND REMOVE COMPLETE.
 - 7 REMOVE (E) TRANSFER GRILLE.
 - 8 REMOVE (E) 36x36 EXHAUST GRILLE. CAP & SEAL DUCT RISER.
 - 9 (E) PLUMBING FIXTURE TO BE REMOVED COMPLETE. CAP DOWN/IN ABOVE CEILING. CAP WASTE BELOW FLOOR.
 - 10 (E) TRANSFER GRILLE TO REMAIN FOR REUSE.

1	4/11	Addendum #3
Revision Schedule		



JOB NO. 17059
DRWN: CHK ASD
SCALE:

ISSUE ISSUED FOR BID 20 March 2018

TITLE MECHANICAL DEMO

SHEET MD100