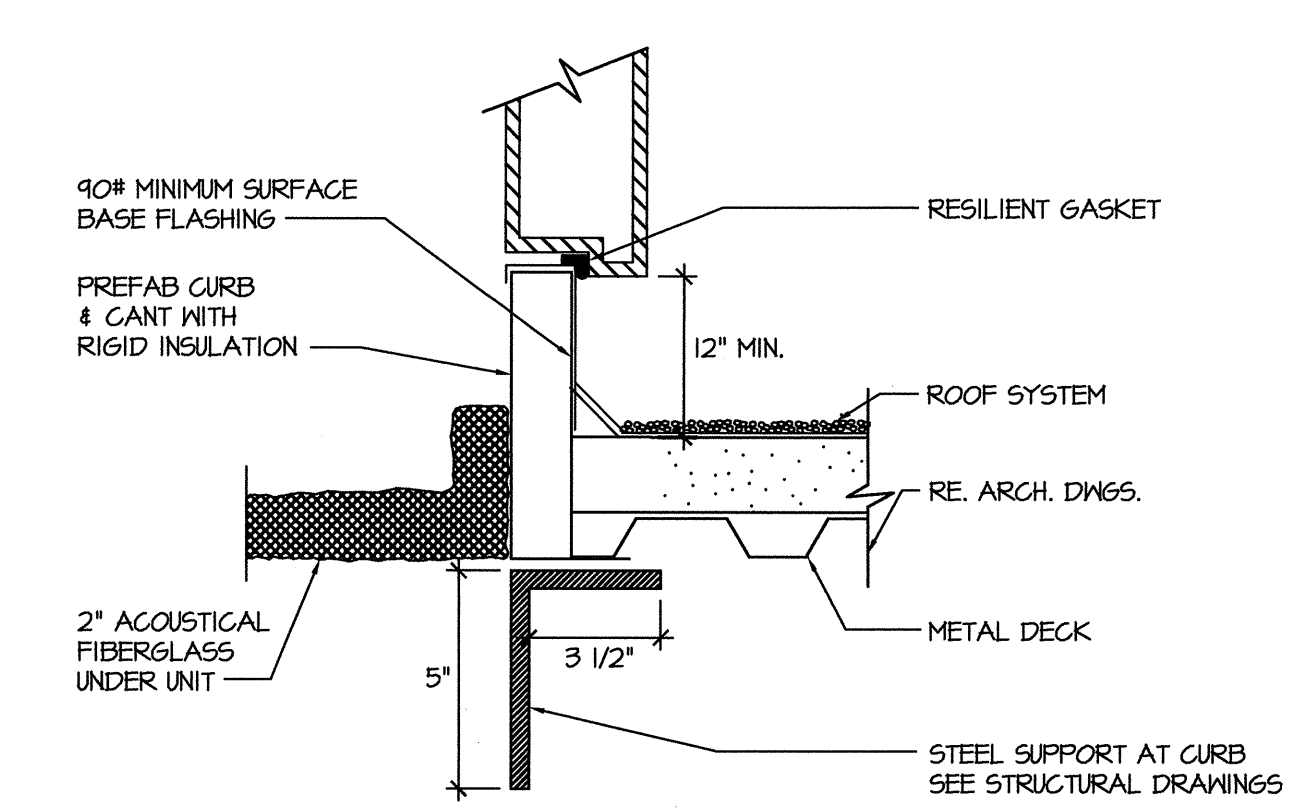
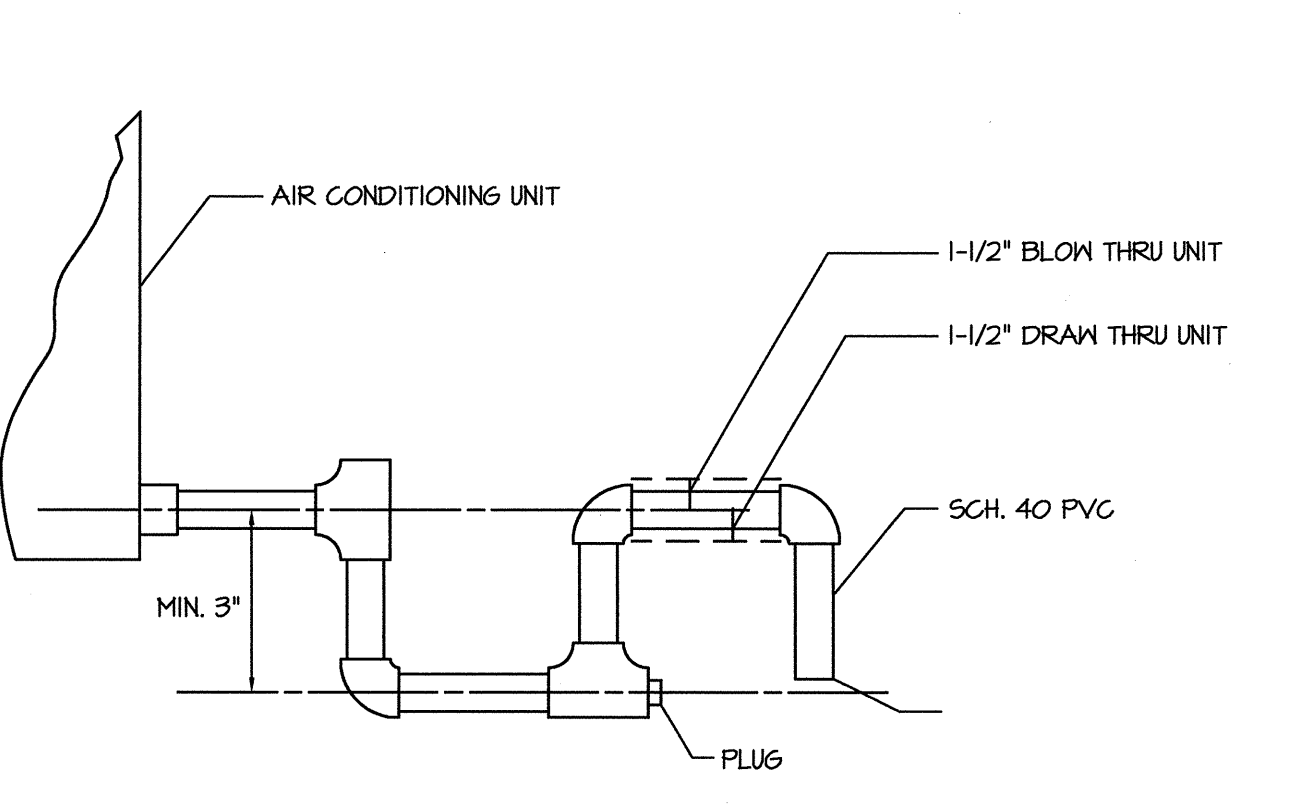


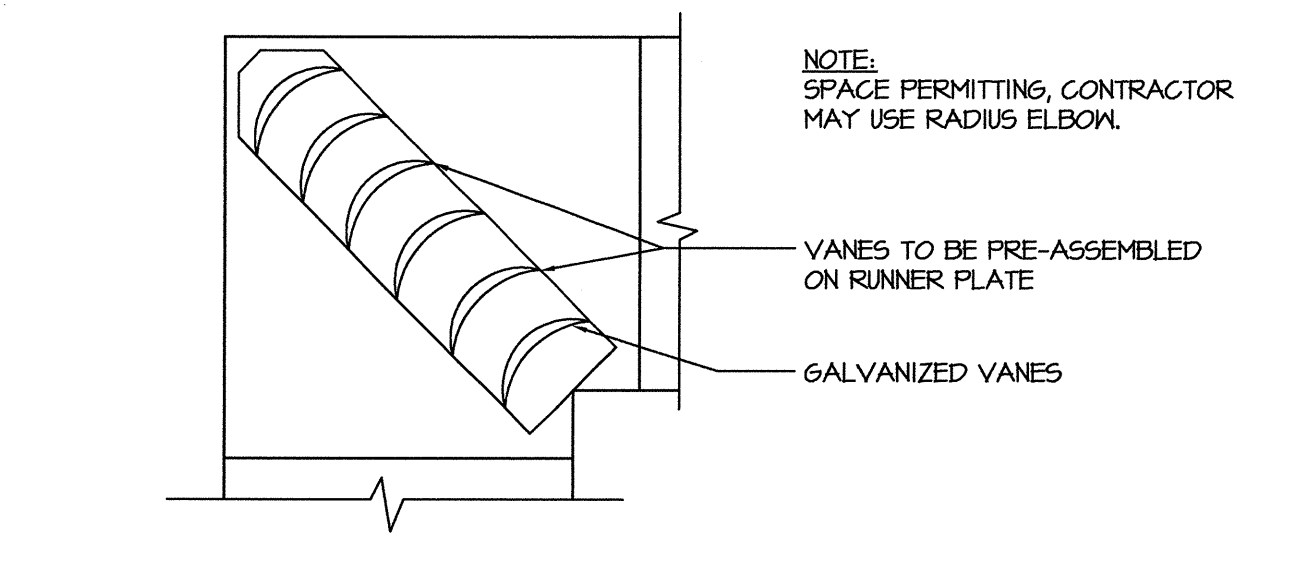
2 ROOFTOP UNIT DETAIL
SCALE: NONE



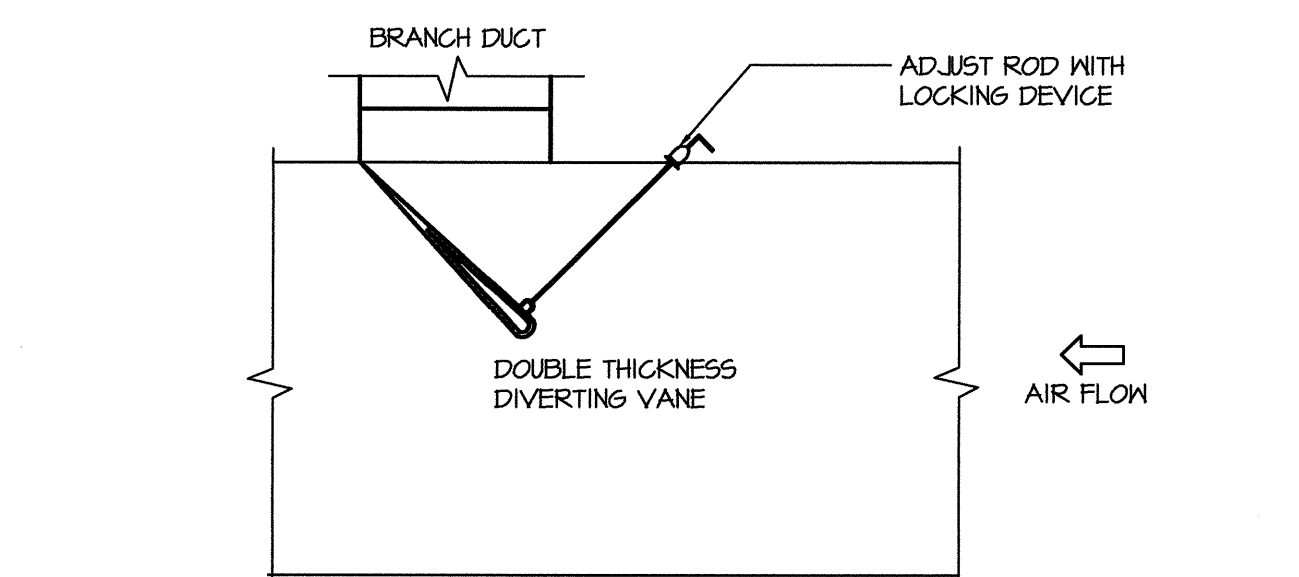
3 ROOFTOP UNIT CURB DETAIL
SCALE: NONE



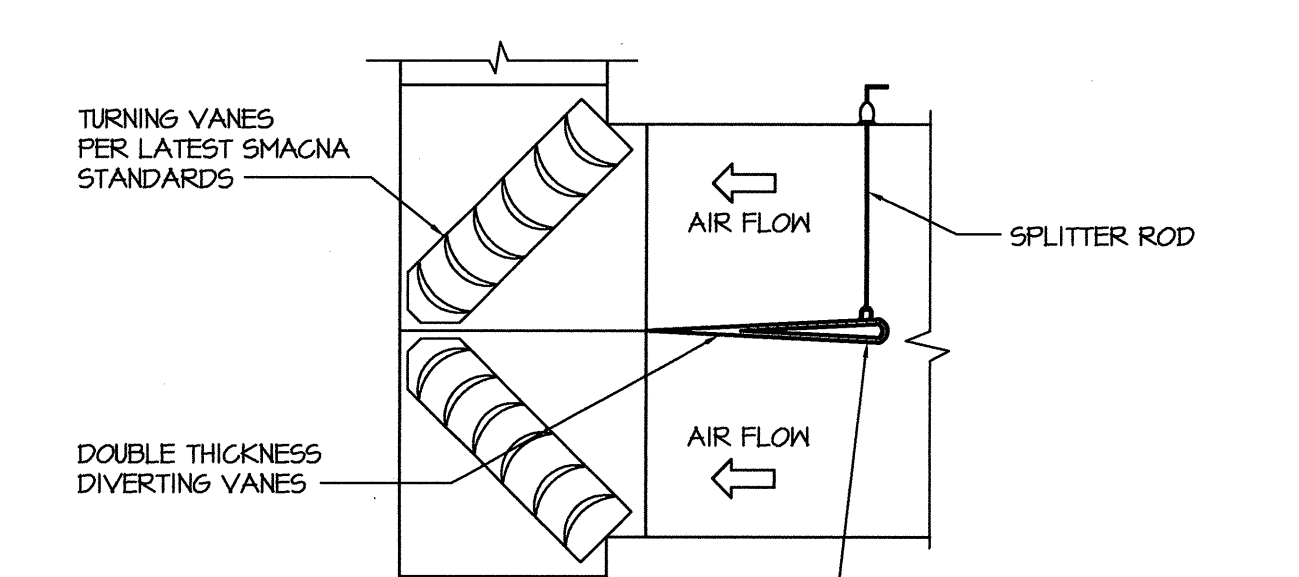
4 CONDENSATE TRAP DETAIL
SCALE: NONE



5 SQUARE ELBOW WITH DOUBLE THICKNESS VANES
SCALE: NONE



6 BRANCH DUCT SPLITTER DETAIL
SCALE: NONE



7 SPLITTER DAMPER DETAIL
SCALE: NONE

HVAC LEGEND & ABBREVIATIONS

☒	SUPPLY DIFFUSER
☐	RETURN GRILLE
○	AIR DISTRIBUTION TAG
⊕	TEMPERATURE SENSOR
⊖	HUMIDITY SENSOR
⊕	HAND VOLUME DAMPER
⊖	SPLITTER DAMPER
⊕	FIRE DAMPER
⊖	DOUBLE THICK TURNING VANE
⊕	DOOR LOUVER
RTU-1	ROOFTOP UNIT
EQ-1	FAN COIL UNIT
EE-	ELECTRIC FAN
GH-	GAS UNIT HEATER
HT-	KITCHEN HOOD
CU-	CONDENSING UNIT
EDH-	ELECTRIC DUCT HEATER

NOTE:
THIS PROJECT IS A RENOVATION OF AN EXISTING FACILITY AND OF NECESSITY, PREVIOUS RECORD DRAWINGS FORM THE BASIS FOR MANY OF THESE DRAWINGS. IT IS THEREFORE EVEN MORE IMPORTANT THAN IN NEW CONSTRUCTION THAT ALL DIMENSIONS SHALL BE FIELD VERIFIED BEFORE FABRICATION OR PURCHASE OF DIMENSION CRITICAL EQUIPMENT, MATERIALS, AND ASSEMBLIES. THERE MAY EXIST FIELD CONDITIONS NOT ACCESSIBLE DURING DESIGN WHICH DIFFER FROM THOSE SHOWN ON THE DRAWINGS. ANY SUCH DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND KROGER ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH ANY CONSTRUCTION, FABRICATION, OR MATERIAL/EQUIPMENT PURCHASES WHICH WOULD BE UNSABLE UNDER THOSE CIRCUMSTANCES.

GENERAL NOTES:

1. THESE DRAWINGS ARE BASED ON ORIGINAL STORE DRAWINGS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING OF PROJECT. WHERE ANY EQUIPMENT ON ROOF IS DISTURBED, IT IS THE HVAC CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE GC FOR THE REPAIR OF ANY ROOFING ITEMS AFTER THE COMPLETION OF HVAC WORK.
2. ALL EQUIPMENT SHALL BE CONSIDERED EXISTING UNLESS OTHERWISE NOTED. EXISTING EQUIPMENT NOT SHOWN SHALL REMAIN UNCHANGED.
3. DAMAGED DIFFUSERS: IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND REPAIR ANY DAMAGED DIFFUSERS. PRE-BID, LOCATE AND ITEMIZE EXPECTED QUANTITY OF DAMAGED DIFFUSERS TO BE REPLACED. CONSTRUCTION: COORDINATE WITH KROGER ENGINEER FOR REPLACING OF DAMAGED DIFFUSERS.
4. DEMOLISHED DUCTWORK & DIFFUSERS SHALL BE TAKEN DOWN AND PROPERLY DISPOSED.
5. CONTRACTOR SHALL INCLUDE IN HIS BID TO ADJUST DIFFUSERS TO MATCH ANY MODIFICATIONS TO THE CEILING GRID.

AIR DISTRIBUTION SCHEDULE

MARK	TYPE	SIZE IN INCHES		FINISH	O.B.D.	BASIS OF DESIGN (TITUS)	NOTES
		NECK	FACE				
A	SUPPLY	8"φ	24"x24"	WHITE	NO	TDC-A4	①
B	SUPPLY	10"φ	24"x24"	WHITE	NO	TDC-A4	①
C	SUPPLY	12"φ	24"x24"	WHITE	NO	TDC-A4	②
D	SUPPLY	14"φ	24"x24"	WHITE	NO	TDC-A4	①
E	RETURN	20"x20"	24"x24"	WHITE	NO	50 F	①
F	SUPPLY	12"φ	24"x24"	WHITE	NO	TDC-A4	①

- ① DIFFUSER MOUNTING STYLE SHALL BE CONFIRMED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- ② ACCUTHERM THERMA-FUSER, MODEL TF-HC.

ROOFTOP UNIT SCHEDULE

MARK	CFM	O.A. CFM	TSP W.G.	BREAK H.P.	COOLING			HEATING		BASIS OF DESIGN (AAON)	NOM. TONNAGE	NOTES
					EAT°Fdb	EAT°Fwb	CAP.MBH	INPUT BH	OUTPUT BH			
RTU-1	2,800	610	1.3"	1.12	80°F	67°F	88.43	90,000	72,900	RM-00T-3-0-BA01-221	7.0	①②③④⑤

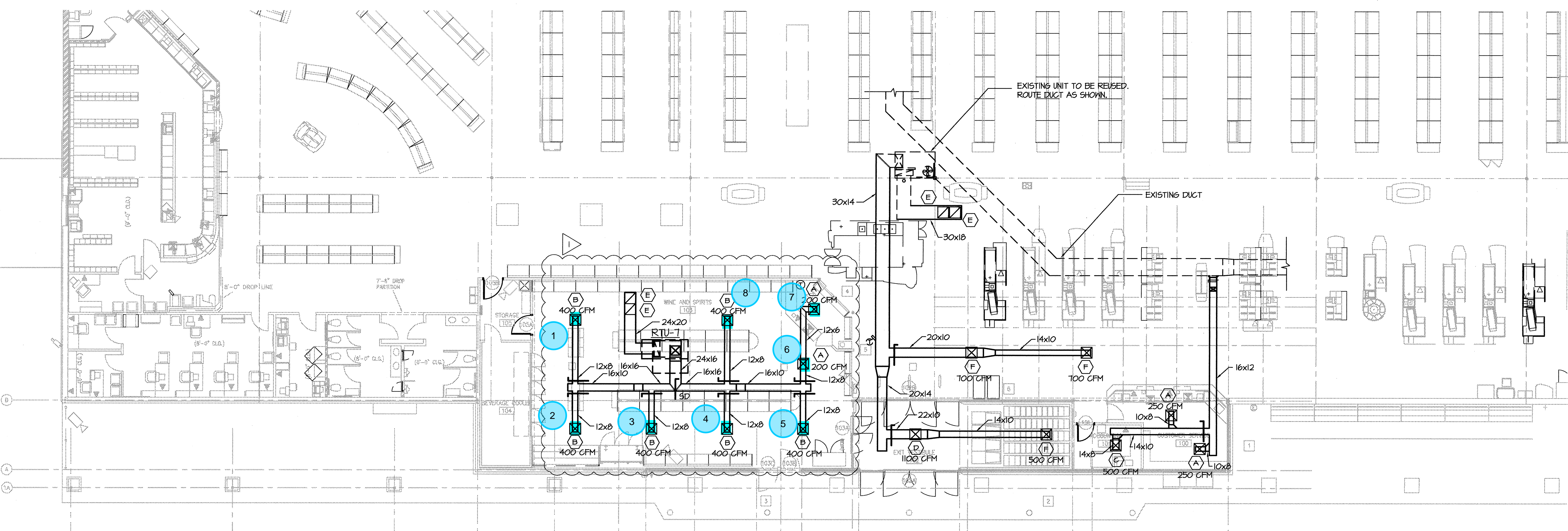
- ① KROGER MAINTAINS A NATIONAL ACCOUNT WITH AAON, INC. UNITS & CURBS WILL BE PROVIDED BY KROGER. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING, RECEIPT, AND COMPLETE INSTALLATION OF ROOFTOP UNITS.
- ② PROVIDED WITH FULL PERIMETER FACTORY ROOF CURB PROVIDED AS PART OF NATIONAL ACCOUNT.
- ③ UNIT SHALL HAVE SENSORS/THERMOSTATS AS SPECIFIED FOR CFC ENERGY MANAGEMENT SYSTEM.
- ④ INSTALL SMOKE DETECTORS IN RETURN AIR STREAM. PROVIDED WITH FIRE ALARM BY CONTRACTOR.
- ⑤ SEE SPECIFICATIONS FOR OPTIONS, CONTROLS, & ACCESSORIES REQUIRED.

NOTES TO GENERAL CONTRACTOR REGARDING KROGER SUPPLIED, CONTRACTOR INSTALLED EQUIPMENT:

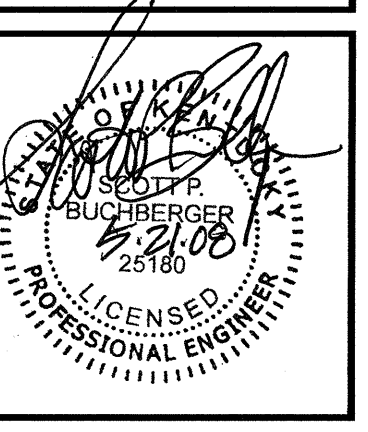
1. CONTRACTOR TO OBTAIN APPROVAL OF ANY DELIVERY DATE CHANGES FROM KMA PROJECT ENGINEER AND COORDINATE WITH VENDOR.
2. CONTRACTOR TO RECEIVE EQUIPMENT, PROVIDE INSPECTION, AND NOTIFY VENDOR & KMA PROJECT ENGINEER OF MISSING AND/OR DAMAGED MATERIALS WITHIN 48 HOURS AFTER DELIVERY (20 DAYS FOR CONCEALED DAMAGE).
3. CONTRACTOR TO PROVIDE SAFE HARBORING, INSTALLATION, AND REMOVAL OF ANY SALVAGE MATERIALS.
4. CONTRACTOR TO HANDLE ANY WARRANTY CLAIMS (PRIOR TO STORE OPENING) DIRECTLY WITH VENDOR.

MECHANICAL NOTES

1. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
2. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL AND SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW-PRESSURE DUCT CONSTRUCTION STANDARDS. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
3. INTERNALLY LINE THE FIRST 15' OF ALL SUPPLY AND RETURN DUCT WITH FIBERGLASS DUCT LINER PER SPECIFICATIONS. INSTALL IN ACCORDANCE WITH SMACNA DUCT LINER APPLICATIONS STANDARDS. ALL DUCTWORK DIMENSIONS ARE NET INSIDE DIMENSIONS. ALL DUCTWORK ELBOWS SHALL BE INSTALLED WITH TURNING VANES. ALL DUCTWORK ENCLOSED BY CEILING OR WALL SHALL BE INSULATED. EXPOSED DUCTWORK DOES NOT REQUIRE INSULATION.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES REQUIRED FOR THIS WORK.
5. PROVIDE CONDENSATE DRAINS FOR ALL EQUIPMENT REQUIRING THEM. ALL CONDENSATE DRAINAGE PIPING SHALL BE SCHEDULE 40 PVG WITH SOCKET JOINTS USING SOLVENT CEMENT. PIPING SHALL BE RUN FULL SIZE OF CONNECTION AND THE PIPING SHALL HAVE AN ADEQUATE AIR SEAL TRAP AT EACH UNIT CONNECTION WITH A VENT DOWNSTREAM OF THE TRAP.
6. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOW THE RELATIONSHIP BETWEEN EQUIPMENT AND CONNECTIONS. DO NOT SCALE THE DRAWINGS FOR EXACT SIZE OR LOCATIONS. BUILDING DIMENSIONS SHALL BE TAKEN FROM CERTIFIED EQUIPMENT DATA.
7. IN AIR SYSTEMS GREATER THAN 2000 CFM, SMOKE DETECTORS SHALL BE LOCATED IN THE RETURN AIR STREAM DOWNSTREAM OF THE AIR FILTERS AND AHEAD OF ANY BRANCH CONNECTIONS. SMOKE DETECTORS SHALL AUTOMATICALLY SHUT DOWN THE RTU WHEN HEAT WITHIN THE SYSTEM BECOMES EXCESSIVE OR EXCEEDS 36°F.
8. ALL FANS OF 2000 CFM OR MORE SHOULD HAVE A MEANS OF AUTOMATIC SHUTDOWN.
9. ROOFTOP UNITS TO HAVE FACTORY-MOUNTED FUSED DISCONNECT SWITCH. MAY HAVE NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
10. CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
11. COORDINATE THE LOCATION OF ALL PENETRATIONS OF THE STRUCTURE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
12. EXACT LOCATION OF ALL CEILING DIFFUSERS TO BE COORDINATED WITH LIGHTING LAYOUT AND REFLECTED CEILING PLAN.
13. ALL FANS 1/2 H.P. AND ABOVE SHALL HAVE FUSED DISCONNECT SWITCH MOUNTED AT THE FAN. MAY BE EQUIPPED WITH NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
14. PROVIDE TYPE B DOUBLE WALL FLUES FROM ROOF TO BREIDERT CAP. SIZE AS REQUIRED. COORDINATE ROOF PENETRATIONS FOR DELIBAKERY OVEN VENTS WITH THE FINAL LOCATION OF THE OVEN. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO INSTALL THE VENTS AND MAKE ALL FINAL CONNECTIONS.
15. COORDINATE WITH KROGER ENGINEER FOR EXACT LOCATION OF CFC CONTROL PANEL.
16. ALL RTUS TO BE CONTROLLED BY COMPUTER PROCESS CONTROLS (CPC) ENERGY MANAGEMENT SYSTEM.
17. ALL DUCTWORK TO BE MOUNTED TIGHT TO BAR JOISTS, AND IN NO CIRCUMSTANCE LESS THAN 16"-18" A.F.F. UNLESS OTHERWISE NOTED.
18. CONDENSATE DRAIN INSULATION: INSULATE ALL HORIZONTAL CONDENSATE DRAIN PIPING WITHIN THE BUILDING WITH 3/8" WALL THICKNESS ARMAFLEX TYPE INSULATION.
19. MOUNT THERMOSTATS AT 48" A.F.F. UNLESS OTHERWISE NOTED. THERMOSTATS LOCATED ON AN OUTSIDE WALL SHALL BE MOUNTED ON AN INSULATED BASE.
20. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY, RETURN AND EXHAUST SYSTEMS WHERE BRANCHES LEAD FROM LARGE DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL AT A MINIMUM OF TWO DUCT WIDTHS FROM BRANCH TAKEOFF.



1 FLOOR PLAN - HVAC
SCALE: 3/32" = 1'-0"

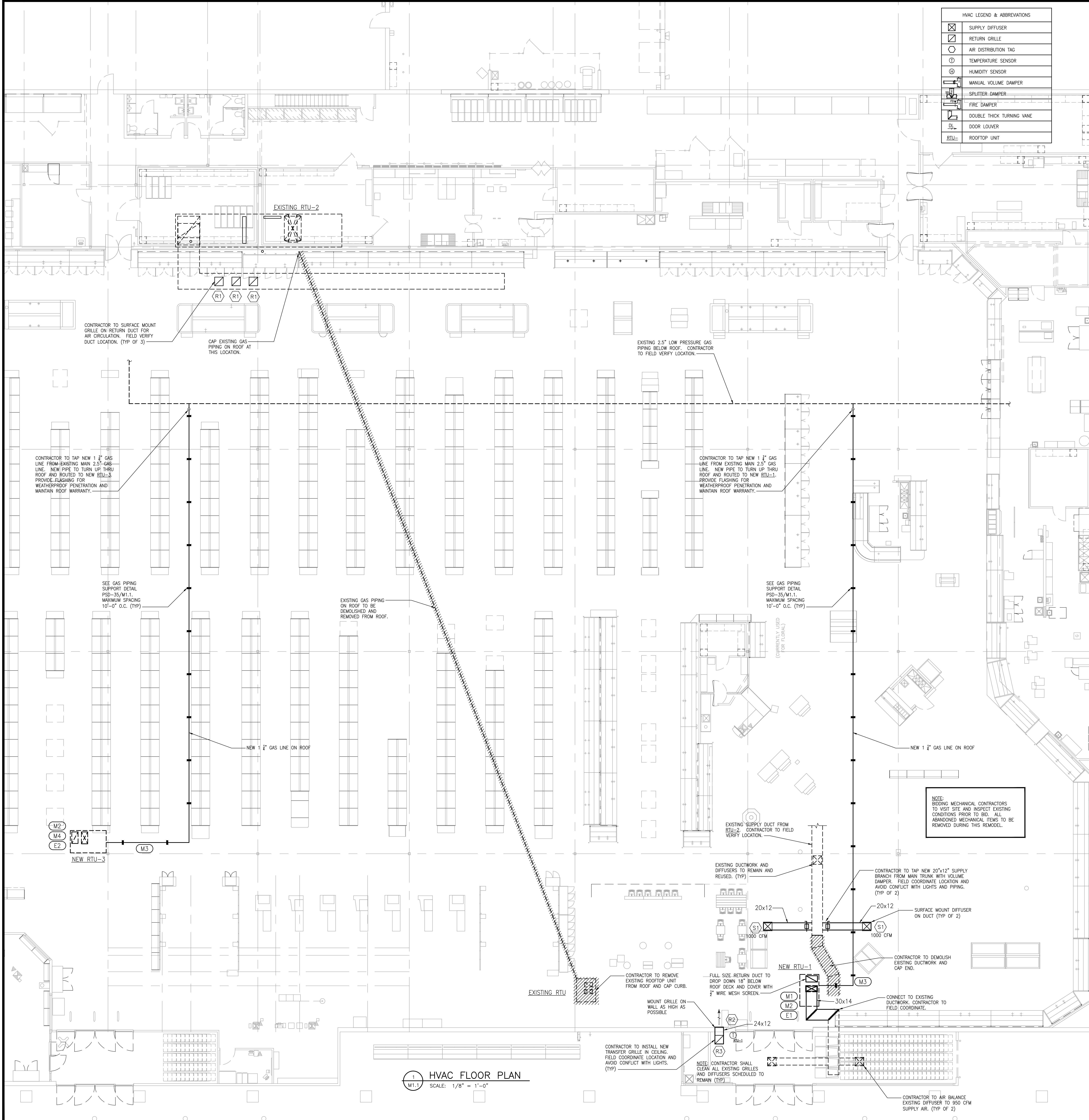


REVISIONS
05/21/08 ADDENDUM #1

DATE: 03-25-08

PROJECT NUMBER: 08-137

SHEET NUMBER: H1.2 OF 1



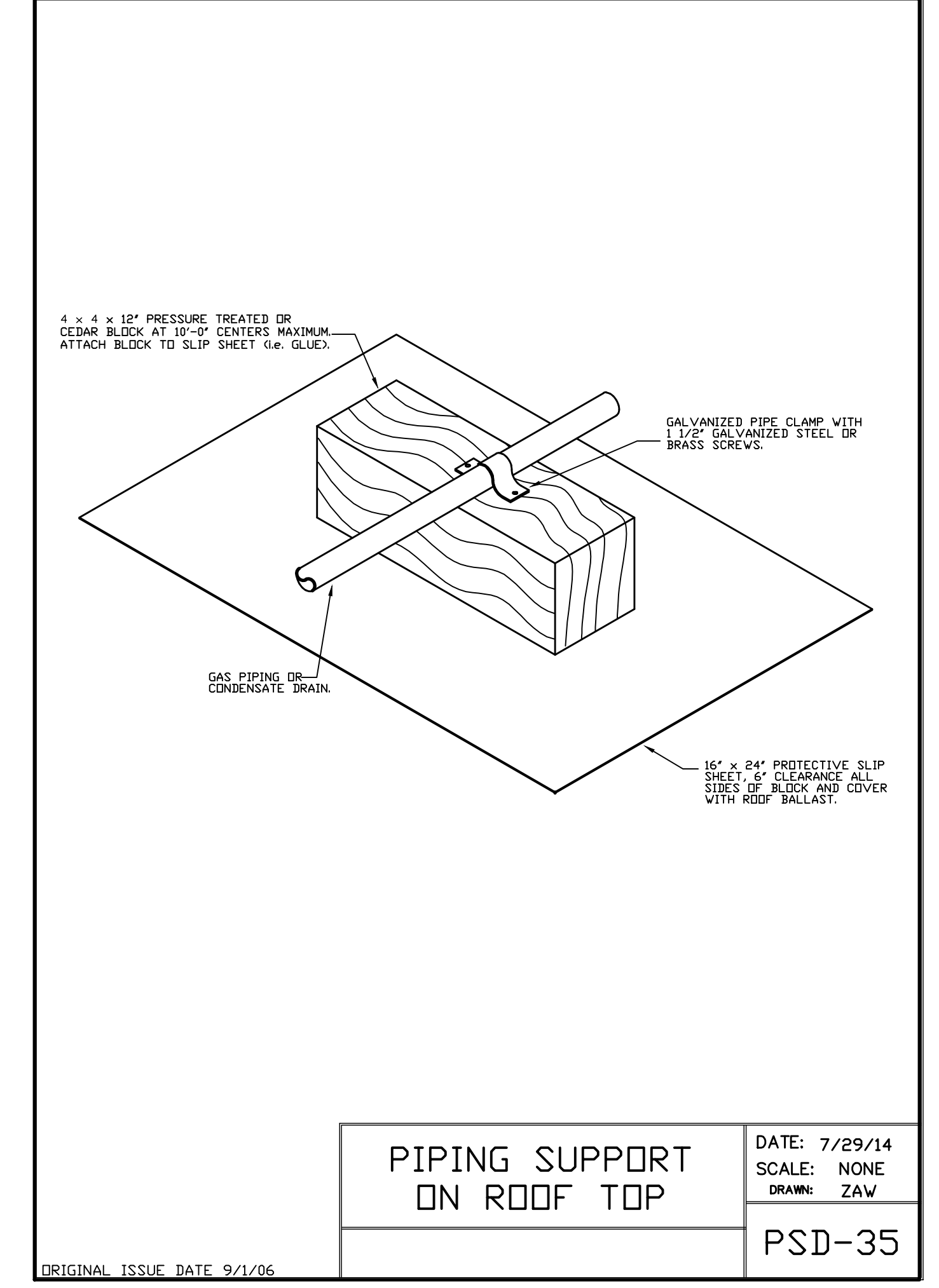
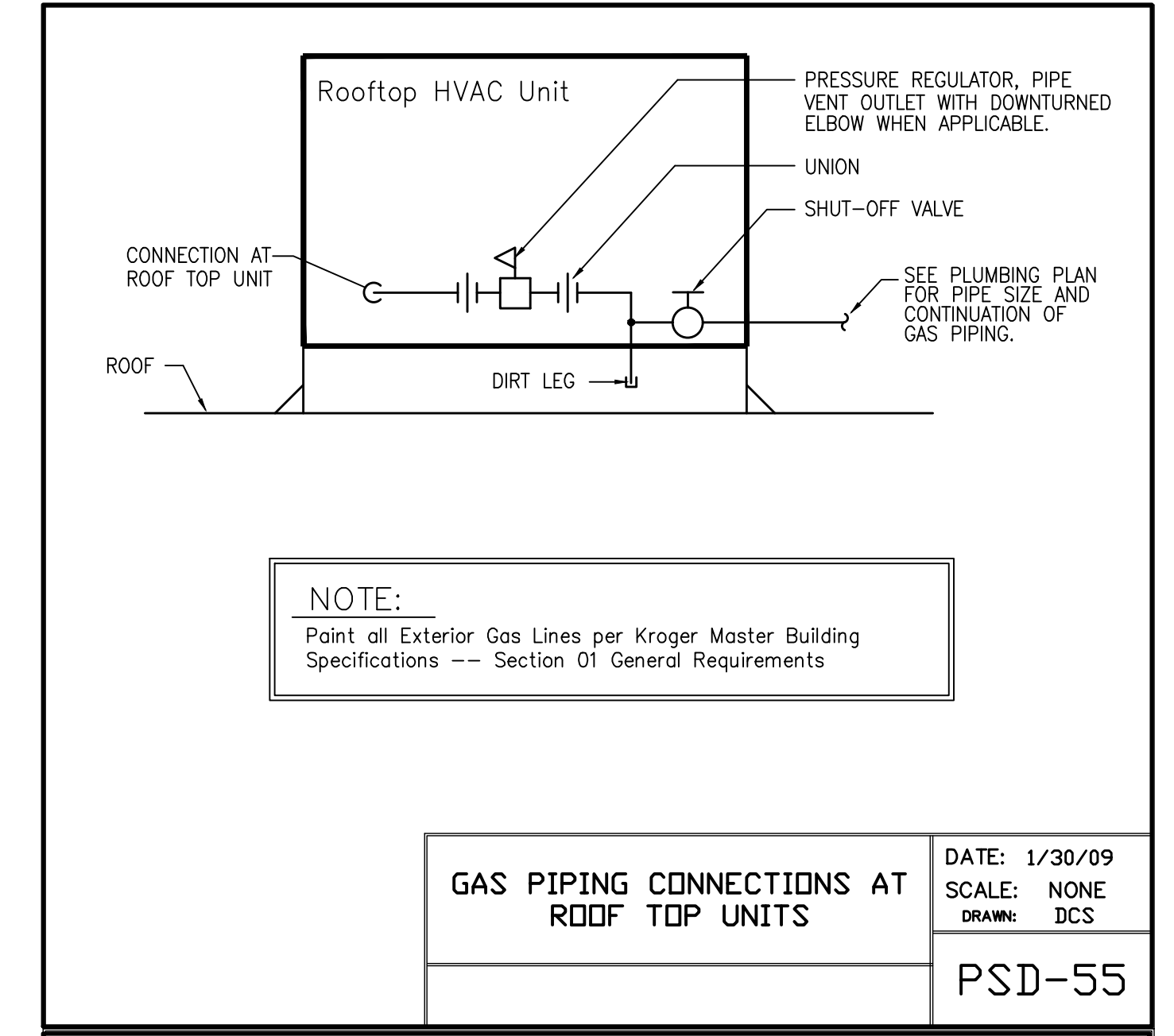
HVAC LEGEND & ABBREVIATIONS	
	SUPPLY DIFFUSER
	RETURN GRILLE
	AIR DISTRIBUTION TAG
	TEMPERATURE SENSOR
	HUMIDITY SENSOR
	MANUAL VOLUME DAMPER
	SPLITTER DAMPER
	FIRE DAMPER
	DOUBLE THICK TURNING VANE
	DOOR LOUVER
	ROOFTOP UNIT

MECHANICAL KEY NOTES

- M1 NEW ROOFTOP UNIT RTU-1 AT THIS LOCATION. SEE STRUCTURAL DRAWINGS FOR SUPPORT. CONTRACTOR TO INSTALL UNIT PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND MAINTAIN ALL REQUIRED CLEARANCES.
- M2 PRIOR TO INSTALLATION, CONTRACTOR TO FIELD VERIFY LOCATION OF ROOFTOP UNIT AND BRING ATTENTION TO KROGER ENGINEER ANY CONFLICT BETWEEN EXISTING JOISTS AND SUPPLY/RETURN DUCT RUNS.
- M3 CONNECT NEW GAS LINE TO NEW UNIT. FIELD VERIFY EXACT LOCATION AND SIZE. PROVIDE REGULATOR AT GAS CONNECTION AS REQUIRED. SEE ROOFTOP CONNECTION DETAIL PSD-55/M1.1
- M4 CONTRACTOR SHALL REPLACE EXISTING 7.5 TON (208V/3P) ROOFTOP UNIT IN THIS LOCATION WITH NEW UNIT. CONTRACTOR TO PROVIDE ROOF CURB ADAPTER FOR NEW UNIT. CONTRACTOR TO DISCONNECT ALL UTILITIES AND RECONNECT TO NEW UNIT AS REQUIRED. CONNECT EXISTING SUPPLY AND RETURN DUCTWORK TO NEW UNIT. CONTRACTOR TO INSTALL UNIT PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND MAINTAIN ALL REQUIRED CLEARANCES.

ELECTRICAL KEY NOTES

- E1 CONTRACTOR TO PROVIDE NEW CIRCUIT FROM EXISTING PANEL M2 FOR RTU-1. PROVIDE 3P2 + #4G - 1-1/4" C. PROVIDE NEW 45A/3P BREAKER AS REQUIRED. PROVIDE ALL ELECTRICAL DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. IF NECESSARY, CONNECT MAINTENANCE RECEPTACLE TO NEARBY 120V RECEPTACLE CIRCUIT WITH AVAILABLE CAPACITY. MAKE ALL FINAL CONNECTIONS.
- E2 CONTRACTOR TO CONNECT NEW ROOFTOP UNIT (RTU-3) TO EXISTING CIRCUIT PREVIOUSLY SERVING DEMOLISHED ROOFTOP UNIT. CONTRACTOR TO VERIFY WIRE SIZE MEETS MINIMUM REQUIREMENTS (3#6#10G CU) AND PROVIDE NEW AS REQUIRED. PERFORM VOLTAGE DROP CALCULATIONS TO CONFIRM WIRE SIZE IS ADEQUATE. PROVIDE NEW 50A, CLASS RK-1 FUSE IN EXISTING SWITCH OR 50A BREAKER AS REQUIRED. PROVIDE ALL ELECTRICAL DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. MAKE ALL FINAL CONNECTIONS.

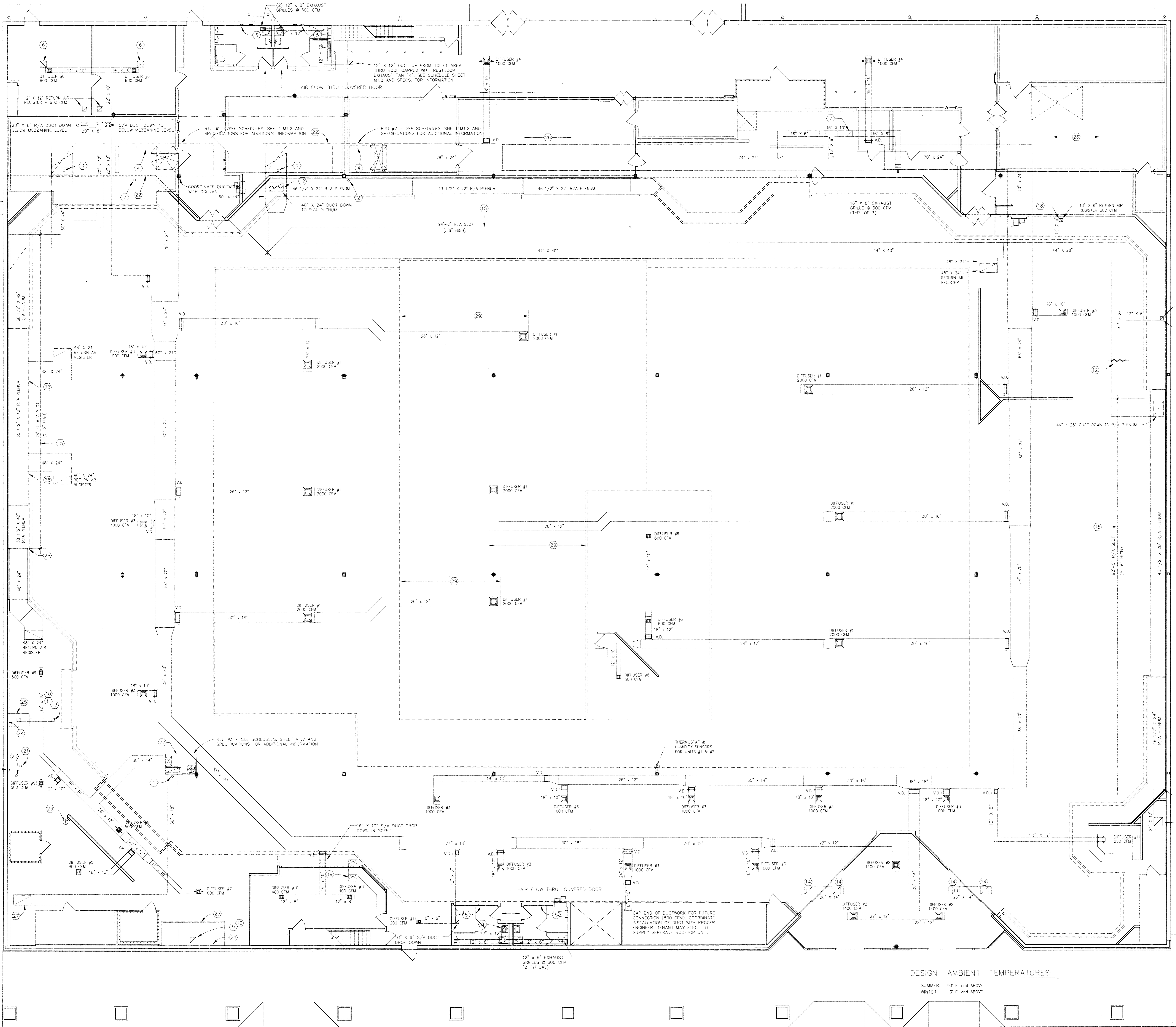
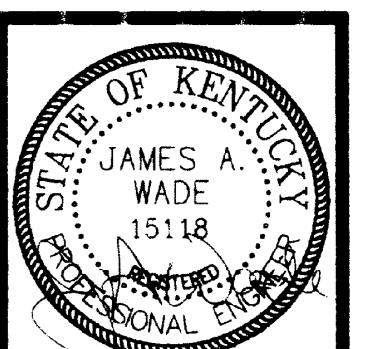


DUCTWORK LEGEND	
	EXISTING DUCT WORK, REMOVE AND DISCARD.
	EXISTING DUCT WORK TO REMAIN AND BE REUSED.
	NEW, INSTALLED DUCTWORK

1 HVAC FLOOR PLAN
SCALE: 1/8" = 1'-0"

NOTE: THIS PROJECT IS A RENOVATION OF AN EXISTING FACILITY AND, IF NECESSARY, PREVIOUS RECORD DRAWINGS FORM THE BASIS FOR MANY OF THESE DRAWINGS. IT IS THEREFORE EVEN MORE IMPORTANT THAN IN NEW CONSTRUCTION THAT ALL DIMENSIONS SHALL BE FIELD VERIFIED BEFORE FABRICATION OR PURCHASE OF DIMENSION CRITICAL EQUIPMENT, MATERIALS, AND ASSEMBLIES. THERE MAY EXIST FIELD CONDITIONS NOT ACCESSIBLE DURING DESIGN WHICH DIFFER FROM THOSE SHOWN ON THE DRAWINGS. ANY SUCH DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND KROGER ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH ANY CONSTRUCTION, FABRICATION, OR MATERIAL/EQUIPMENT PURCHASES WHICH WOULD BE UNUSABLE UNDER THOSE CIRCUMSTANCES.

PROJECT NUMBER	11/02/2022
SHEET NUMBER	22238
SHEET TITLE	HVAC FLOOR PLAN



- HVAC GENERAL NOTES:**
- HVAC SYSTEMS WILL BE BALANCED AS PER SPECS. KROGER WILL HIRE AN INDEPENDENT CONSULTANT TO TEST THE HVAC SYSTEM AND THE HVAC CONTRACTOR WILL MAKE ANY CORRECTIONS NECESSARY.
 - COORDINATE ELECTRICAL REQUIREMENTS OF HVAC EQUIPMENT WITH ELECTRICAL CONTRACTOR TO INSURE PROPER INSTALLATION OF EQUIPMENT.
 - HVAC CONTRACTOR, ROOFING CONTRACTOR AND STEEL CONTRACTOR SHALL COORDINATE TO INSURE PROPER SIZE, LOCATION AND PLACEMENT OF OPENINGS THRU ROOF FOR HVAC EQUIPMENT.
 - HVAC CONTRACTOR SHALL VERIFY CLEARANCES BETWEEN TOP OF COOLER/FREEZER, ETC. AND BOTTOM OF NEAREST OBSTRUCTION PRIOR TO FABRICATION OF DUCT.
 - ALL EXHAUST FANS SHALL BE INSTALLED LEVEL. MODIFY ROOF CURVE AS REQUIRED.
 - PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL GAS FIRED EQUIPMENT (I.E. OVEN, GENERATOR, WATER HEATER, ETC.) INCLUDING EQUIPMENT FLEXIBLES BY OTHERS. INFORMATION ON FIELD AS REQUIRED TO MATCH ACTUAL PLACEMENT OF SUSPENDED CEILING.
 - NO STRUCTURAL STEEL JOISTS, SPRINKLER WORK, CONDUIT, ETC. WILL BE PERMITTED TO BE ROUTED ACROSS OPENINGS TO COMPRESSOR ROOM INTAKE FENTHOUSES OR EXHAUST FANS.
 - VENTILATED COMPRESSOR ROOMS SHALL BE SEALED AIR TIGHT AT FLOOR AND CEILING TO PREVENT AIR BEING DRAWN FROM INTERIOR OF STORE. NEAREST STAIR JOISTS, GASK JOISTS AND SEAL OPENINGS WHERE ELECTRICAL CONDUIT ENTERS ROOM. REFRIGERATION LINE OPENINGS TO BE SEALED BY KROGER.
 - SEE SPECIFICATIONS FOR ALL SCHEDULES AND ADDITIONAL INFORMATION.
 - HVAC CONTRACTOR SHALL VERIFY CLEARANCES WITH STEEL CONTRACTOR PRIOR TO FABRICATION OF DUCTWORK.
 - SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON CONSTRUCTION OF RETURN AIR PLENUM SLOTS.
 - NO MECHANICAL PIPING OR DUCTWORK SHALL BE INSTALLED PRIOR TO COORDINATION WITH THE KROGER ENGINEER AND REFRIGERATION CONTRACTOR. SOME ADJUSTMENTS TO DUCT HEIGHT MAY BE NECESSARY TO AVOID CONFLICT WITH REFRIGERATION LINES.
 - SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL GRILLES AND DIFFUSERS.

- HVAC KEY NOTES:**
- INSTALL AN APPROVED SMOKE DETECTOR SYSTEM PER SECTION 9-309 OF THE 1993 BOCA NATIONAL MECHANICAL CODE.
 - PROVIDE ONE VALVED GAS LINE FOR RTU #1 (500.00 BTU INPUT). COORDINATE WITH UNIT MANUFACTURER.
 - PROVIDE ONE VALVED GAS LINE FOR RTU #2 (500.00 BTU INPUT). COORDINATE WITH UNIT MANUFACTURER.
 - 8\"/>

DESIGN AMBIENT TEMPERATURES:
SUMMER: 80° F. and ABOVE
WINTER: 3° F. and ABOVE

CARRIER MODEL NUMBER	FEDDERS WHISPER MODEL NUMBER	G.E. SUPER MIN. THURST MODEL NUMBER	MIN. BTU COOLING	MIN. BTU HEATING	VAC/AMPS	MIN. EER	REMARKS
SIFTE1121	AST 12F2 HKC	AD 913 F7	12,000	-	120/12.0	9.4	SEE NOTES #1, #2 & #3

1. TOP OF WINDOW TYPE UNITS TO BE 7"6" ABOVE ELEVATED FINISHED FLOOR.
 2. COORDINATE UNIT PLACEMENTS, ORIENTATION, WALL OPENINGS SIZE, ETC. FOR UNIT ACTUALLY USED WITH OTHER TRADES.
 3. CONTRACTOR SHALL PROVIDE CONDENSATE PAN FOR UNIT AND DISCHARGE TO NEAREST DRAIN.

CARRIER MODEL NUMBER	FEDDERS WHISPER MODEL NUMBER	G.E. SUPER MIN. THURST MODEL NUMBER	MIN. BTU COOLING	MIN. BTU HEATING	VAC/AMPS	MIN. EER	REMARKS
QFA-3153	ARL16E7HKC	14,400	14,400	12,200	208/8.1	8.5	SEE NOTES #1, #2 & #3

1. TOP OF WINDOW TYPE UNITS TO BE 7"6" ABOVE ELEVATED FINISHED FLOOR.
 2. COORDINATE UNIT PLACEMENTS, ORIENTATION, WALL OPENINGS SIZE, ETC. FOR UNIT ACTUALLY USED WITH OTHER TRADES.
 3. CONTRACTOR SHALL PROVIDE CONDENSATE PAN FOR UNIT AND DISCHARGE TO NEAREST DRAIN.

ROOF-TOP UNIT NUMBER	COMFORTMAKER MODEL NUMBER	CARRIER MODEL NUMBER	TRANE MODEL NUMBER	WEIGHT	MCA	MOCP	CFM	VOLTAGE	CURB TYPE	FILTERS	REMARKS
RTU-1	NOT APPROVED	480,0054 KR02	NOT APPROVED	9000	305.4	400	22,000	208/3 PHASE	FULL PERIMETER	2" THROWAWAY	SEE NOTE #1 & #3
RTU-2	NOT APPROVED	480,0054 KR02	NOT APPROVED	9000	305.4	400	22,000	208/3 PHASE	FULL PERIMETER	2" THROWAWAY	SEE NOTE #1
RTU-3	R-080-C-0-000-1	500DD08	NOT APPROVED	750	37.7	45	3,200	208/3 PHASE	FULL PERIMETER	2" THROWAWAY	SEE NOTE #1 & #2

A/C UNIT (ROOF-TOP) NOTES:
 1. COORDINATE UNIT PLACEMENT, ORIENTATION, ROOF OPENING SIZE, ETC. FOR UNIT ACTUALLY USED WITH OTHER TRADES.
 2. PROVIDE 1 1/2" H.P. 208V. 3 PHASE BLOWER MOTOR ADJUSTED TO CFM LISTED ABOVE AT ESTIMATED 0.6" EXTERNAL S.P.
 3. UNIT SHALL HAVE A LARMIN HEAT RECLAIM COIL SUPPLIED BY KROGER AND INSTALLED IN UNIT BY MANUFACTURER.

HVAC CONTROL SEQUENCE

- 1ST STAGE COOLING - FIRST COMPRESSOR IN UNITS # 1 & 2 (AC FANS LOW SPEED)
- 2ND STAGE COOLING - REMAINING COMPRESSORS IN UNITS # 1 & 2 (AC FANS HIGH SPEED)
- 1ST STAGE HEATING - SIZE OF RECLAIM VALVES "ON" FOR RECLAIM COOL. (AC FANS LOW SPEED) UNITS #1 & #2
- 2ND STAGE HEATING - 100% OF RECLAIM VALVES "ON" FOR RECLAIM COOL. (AC FANS LOW SPEED) UNITS #1 & #2
- 3RD STAGE HEATING - CONDENSER FAN RELAYS ENERGIZED FOR ALL UNITS WITH HEAT RECLAIM VALVES (AC FANS HIGH SPEED)
- 4TH STAGE HEATING - GAS HEATERS IN UNITS #1 & #2 COME ON.

Designation	Grilles Model	Neck Size	CFM	Air Flow
DIFFUSER #1	SK8A40	24 X 24	2000	4-WAY
DIFFUSER #2	SK8A40	21 X 21	1400	4-WAY
DIFFUSER #3	SK8A40	18 X 18	1000	4-WAY
DIFFUSER #4	SK8A20	18 X 18	1000	2-WAY
DIFFUSER #5	SK1A40	15 X 15	800	4-WAY
DIFFUSER #6	SK7A40	12 X 12	600	4-WAY
DIFFUSER #7	SK7A20	12 X 12	600	2-WAY
DIFFUSER #8	SK7A40	12 X 12	500	4-WAY
DIFFUSER #9	SK7A20	12 X 12	500	2-WAY
DIFFUSER #10	SK7A40	12 X 12	400	4-WAY
DIFFUSER #11	SK7A40	9 X 9	200	4-WAY

FAN SCHEDULE

FAN USE	FERNI MODEL NUMBER	DRIVE	TYPE	START TEMP.	CFM	STATIC PRESS.	VOLTAGE	RPM	H.P.	CURB SIZE	REMARKS
A COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	60 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
B COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	72 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
C COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	68 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
D COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	80 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
E COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	64 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
F COMPRESSOR ROOM	48H6KR	DIRECT	AXIAL UPBLAST	76 DEG.	28,000	3/8"	208/3P	860	5	48" X 48"	SEE NOTES #3 & #4
G 14" SUP./EXH. HOOD	FMX-UL-189	BELT	ALUM. CENTRIFUGAL UPBLAST	MAN.	3,500	30"	208/3P	725	1/2	26" X 28"	
H 3" SUP./EXH. HOOD	FMX-UL-10TL	BELT	ALUM. CENTRIFUGAL UPBLAST	MAN.	750	18"	208/3P	1040	1/12	20" X 20"	
J MANAGER'S OFFICE	Z-8	DIRECT	PACKAGE CENTRIFUGAL CEILING	MAN.	200	1/10"	120/1P	1050	1/6	NONE	
K RESTROOM	XR94	DIRECT	ALUM. CENTRIFUGAL ROOF	MAN.	600	1/8"	120/1P	1550	1/10	18 1/2" X 18 1/2"	
L SEAFOOD	BB-45	DIRECT	ALUM. CENTRIFUGAL ROOF	MAN.	1,200	1/8"	120/1P	860	1/6	24 3/4" X 24 3/4"	
M 14" SUP./EXH. HOOD	-	DIRECT	CENTRIFUGAL DUCT FAN	MAN.	266	99"	115/1P	2700	1/10	N/A	SEE NOTE #5
N 3" SUP./EXH. HOOD	-	DIRECT	CENTRIFUGAL DUCT FAN	MAN.	76	71"	115/1P	2300	1/20	N/A	SEE NOTE #5

1. SEE SPECIFICATIONS FOR APPROVED ALTERNATE MANUFACTURERS, HORSEPOWER, ELECTRICAL REQUIREMENTS, ETC.
2. MANUFACTURED ROOF CURBS ARE RECOMMENDED FOR ALL ROOF MOUNTED EXHAUST FANS.
3. COMPRESSOR ROOM EXHAUST FAN STARTING: A - C = B - D. SEE ESD-18.
4. CONTRACTOR SHALL STENCIL OR MARK PERMANENTLY, WITH PAINT, THE PROPER TEMPERATURE SETTING ON THE THERMOSTATS CONTROLLING COMPRESSOR ROOM EXHAUST FANS.
5. "CAPTURE" GELT FAN TO BE SUPPLIED BY HOOD MANUFACTURER. FAN SHALL BE CAPABLE OF DELIVERING SPECIFIED CFM AT SPECIFIED STATIC PRESSURE.

HVAC GENERAL NOTES:

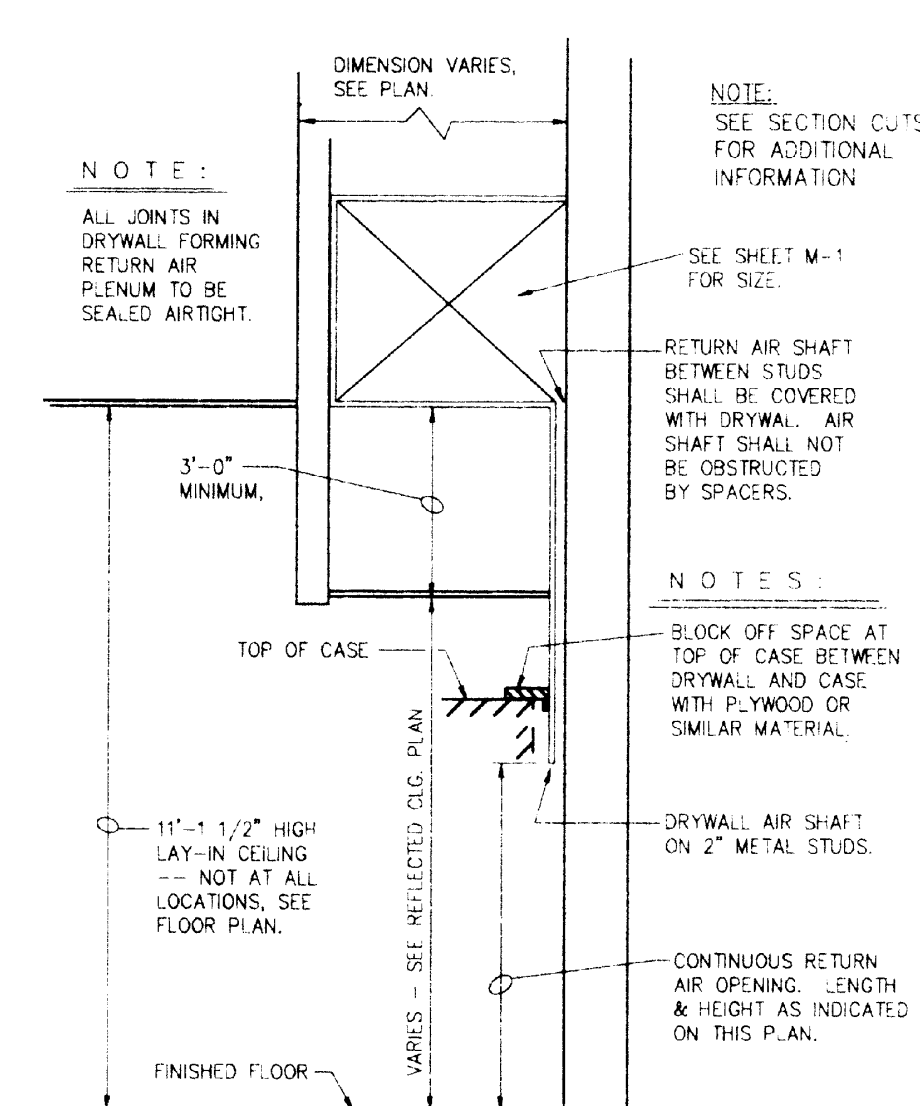
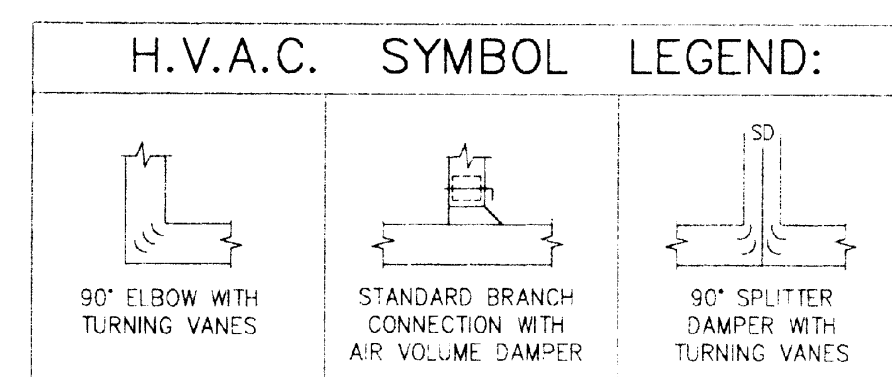
1. HVAC SYSTEMS SHALL BE BALANCED AS PER SPECS. KROGER WILL HIRE AN INDEPENDENT CONSULTANT TO TEST THE HVAC SYSTEM AND THE HVAC CONTRACTOR WILL MAKE ANY CORRECTIONS NECESSARY.
2. SEE HEATING, VENTILATING AND AIR CONDITIONING SPECIFICATIONS AND GENERAL CONDITIONS.
3. COORDINATE ELECTRICAL REQUIREMENTS OF HVAC EQUIPMENT WITH ELECTRICAL CONTRACTOR TO INSURE PROPER INSTALLATION OF EQUIPMENT.
4. HVAC CONTRACTOR ROOFING CONTRACTOR AND STEEL CONTRACTOR SHALL COORDINATE TO INSURE PROPER SIZE, LOCATION AND PLACEMENT OF OPENINGS THRU ROOF FOR HVAC EQUIPMENT.
5. HVAC CONTRACTOR SHALL VERIFY CLEARANCES BETWEEN TOP OF COOLER/FREEZER ETC. AND BOTTOM OF NEAREST OBSTRUCTION PRIOR TO FABRICATION OF DUCT.
6. ALL EXHAUST FANS SHALL BE INSTALLED LEVEL. MODIFY ROOF CURBS AS REQUIRED.
7. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL GAS FIRED EQUIPMENT (I.E. OVEN, GENERATOR, WATER HEATER, ETC.), INCLUDING EQUIPMENT FURNISHED BY OTHERS.
8. SUPPLY PREFABRICATED CURBS ON ALL OPENINGS LARGER THAN 12" SQUARE (SEE ASD-78). STEEL FABRICATOR TO SUPPLY BURGULAR BARS.
9. ALL DUCT DIMENSIONS SHOWN ON PLAN ARE FOR INTERIOR CLEAR OPENING SIZES.
10. ALL DIMENSIONS SHOWN ON PLAN FOR DIFFUSERS LOCATED IN SUSPENDED CEILING ARE APPROXIMATE AND MAY BE ADJUSTED IN FIELD AS REQUIRED TO MATCH ACTUAL PLACEMENT OF SUSPENDED CEILING.
11. NO STRUCTURAL, STEEL, JOISTS, SPRINKLER WORK, CONDUIT, ETC. WILL BE PERMITTED TO BE ROUTED ACROSS OPENINGS TO COMPRESSOR ROOM INTAKE, PEN-HOUSES OR EXHAUST FANS.
12. VENTILATED COMPRESSOR ROOM MUST BE SEALED AIR TIGHT AT FLOOR AND CEILING TO PREVENT AIR BEING DRAWN FROM INTERIOR OF STORE. WEATHERSTOP DOORS, CAULK JOINTS AND SEAL OPENINGS WHERE ELECTRICAL CONDUIT ENTERS ROOM. REFRIGERATION LINE OPENINGS TO BE SEALED BY KROGER.
13. SEE SPECIFICATIONS FOR ALL SCHEDULES AND ADDITIONAL INFORMATION.
14. HVAC CONTRACTOR SHALL VERIFY CLEARANCES WITH STEEL CONTRACTOR PRIOR TO FABRICATION OF DUCTWORK.

HVAC KEY NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL AN 8" GALVANIZED OUTER CASING WITH ALUMINUM INNER RING SUCH AS "MFA BESTDST" AND CARPED WITH TYPE BREEDERT AIR-X-HAUSTERS TO GAS UNIT HEATER.
2. PROVIDE A VALVED GAS LINE FOR GAS FIRED UNIT HEATER (200,000 BTU INPUT).
3. PROVIDE TWO (2) 6" PVC PIPES FOR COMBUSTION AIR. TERMINATE 2'0" ABOVE FLOOR USING A 180 DEG. TURN AND CARPED WITH BIRD SCREEN.
4. PROVIDE FLUE FOR GAS WATER HEATER. TERMINATE FLUE 4'0" ABOVE ROOF. PENETRATE ROOF A MINIMUM OF 10"0" FROM MAIN AIR HANDLER FRESH AIR INTAKE.
5. NOTE NOT USED.
6. 12,000 BTU WINDOW A/C UNIT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
7. INSTALL A CONDENSATE DRAIN PAN UNDER WINDOW TYPE A/C UNIT OR HEAT PUMP. PAN TO EXTEND 4" PAST EDGE OF UNIT MINIMUM. ROUTE DRAIN LINE FROM DRAIN PAN TO NEAREST FLOOR DRAIN.
8. 24" X 24" WALL LOUVER WITH FUSIBLE LINK FIRE DAMPER.
9. 24" X 12" PRESSURE RELIEF DUCT DOWN FROM ELEVATED OFFICE TO A 24" X 12" CARNES MODEL 6495AN CEILING ALUMINUM GRILLE IN SALES AREA CEILING.
10. 12,000 BTU HEAT PUMP UNIT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11. CEILING VENTILATOR (TO ATIC SPACE) WITH MANAGER'S OFFICE OR CONFERENCE ROOM EXHAUST FAN (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION).
12. PROVIDE A VALVED GAS LINE FOR WATER HEATER (180,000 BTU INPUT).
13. 30" X 30" AIR INTAKE GRILLE (SEE SPECIFICATIONS AND ASD-150). PROVIDED FUSIBLE LINK AUTOMATIC FIRE DAMPERS IF REQUIRED BY CODE.
14. PROVIDE A VALVED GAS LINE FOR EMERGENCY GENERATOR (350,000 BTU INPUT).
15. 24" X 42" HIGH ALUMINUM AUTOMATIC GRAVITY WALL SHUTTER ON DISCHARGE SIDE OF WALL. PROVIDE FUSIBLE LINK AUTOMATIC FIRE DAMPERS AS REQUIRED BY CODE (SEE ASD-150, FOR ADDITIONAL INFORMATION).
16. TEMPERATURE PROBE FOR CONTROL ON EXHAUST FANS THROUGH "COM-TROL" CONTROL SYSTEM.
17. "COM-TROL" MSC-4000 CONTROL PANEL INSTALLED 6'0" ABOVE FLOOR.

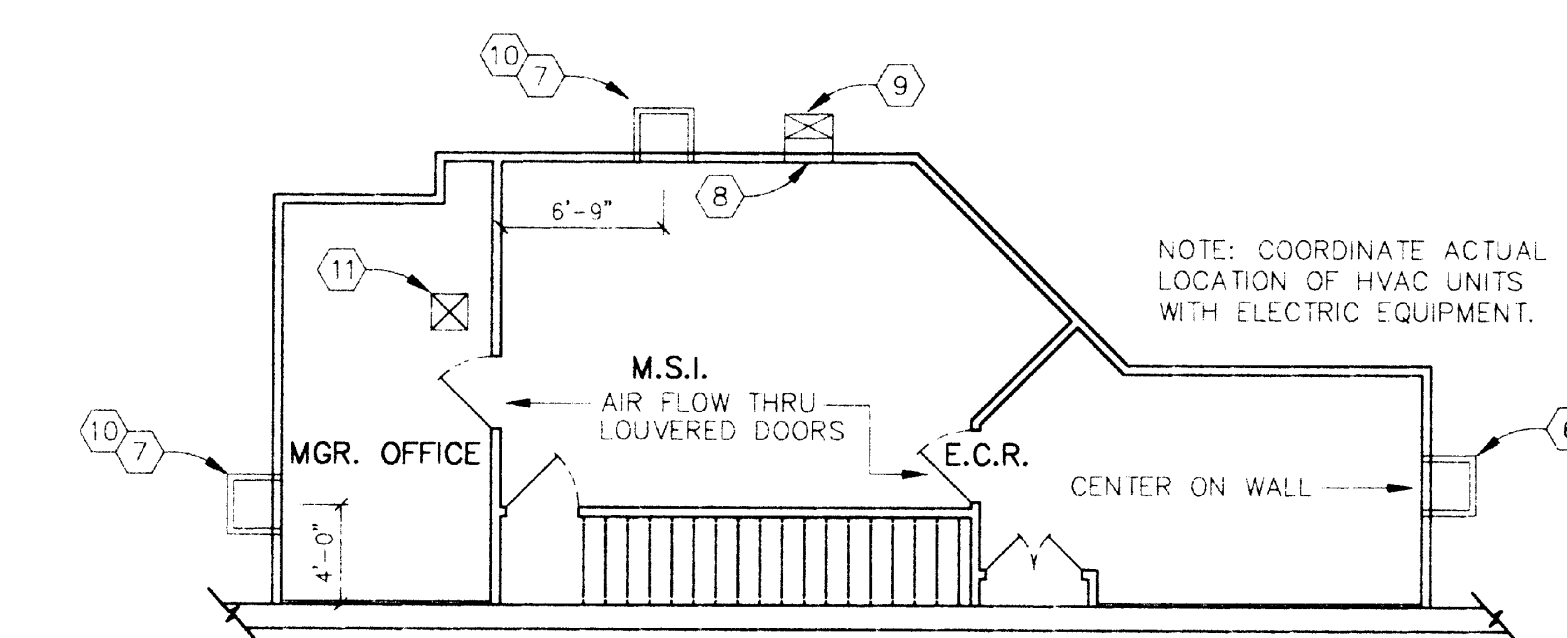
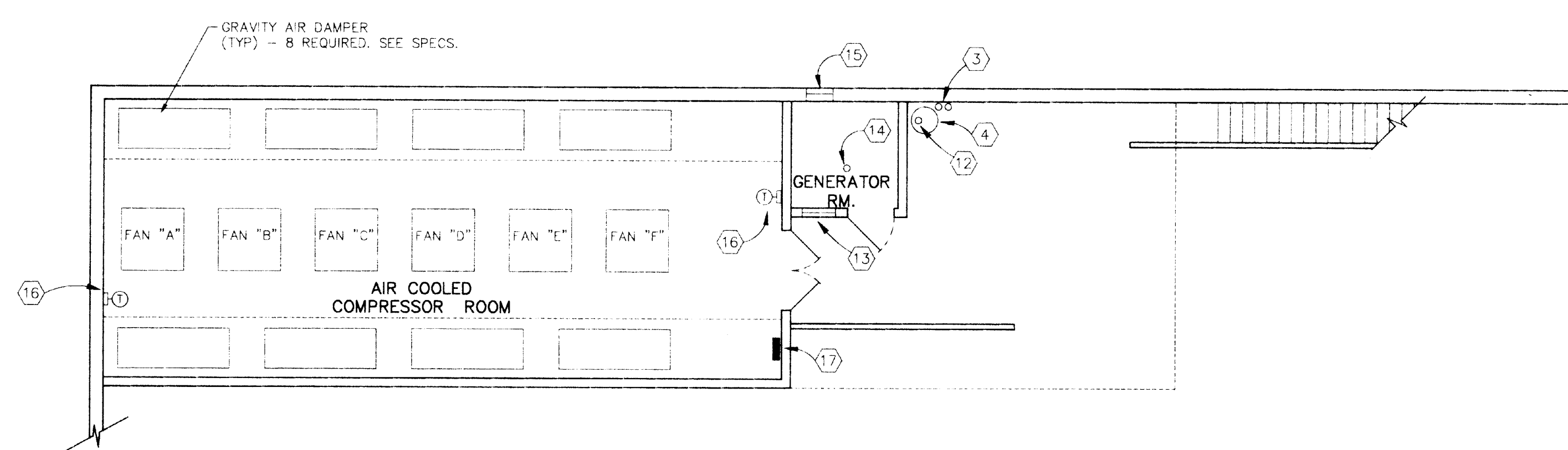
REFERENCE DETAILS:

ESD-5, 6, 11 & 18

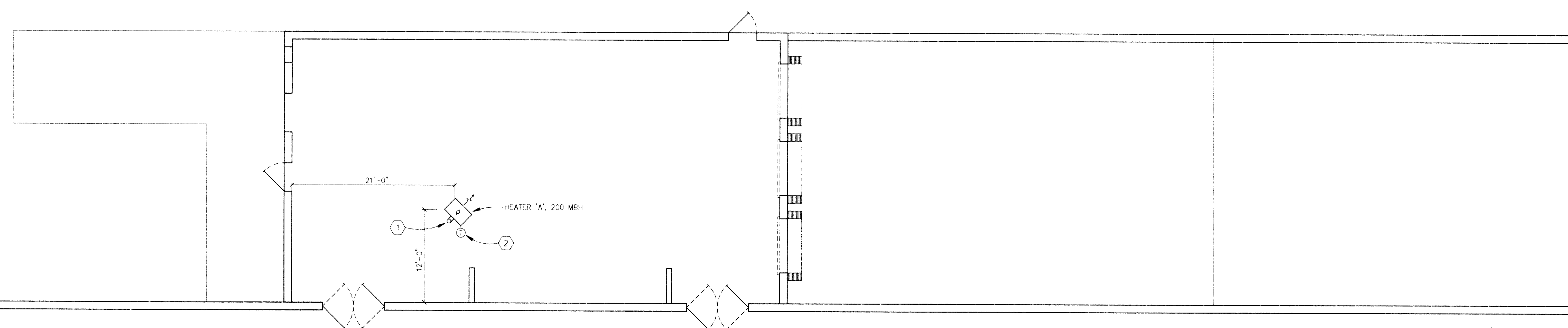


R/A PLENUM TYPICAL SECTION

SCALE: NONE



ELEVATED OFFICES HVAC PLAN
1/8" = 1'0"



ENCLOSED DELIVERY DOCK HVAC PLAN
1/8" = 1'0"

