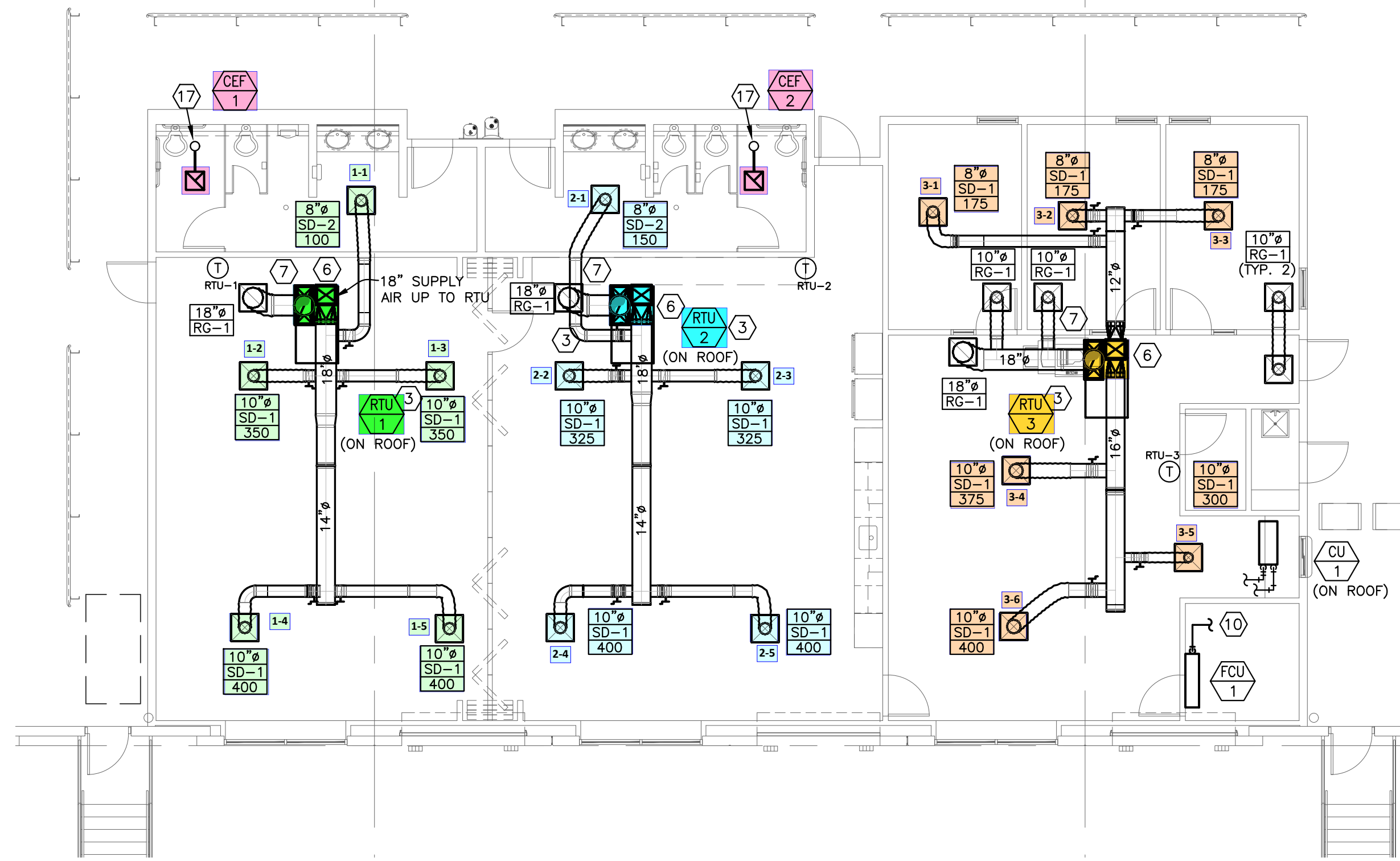


1
M2.01
SCALE: 1/8" = 1'-0"
NORTH



2
M2.01
SCALE: 1/8" = 1'-0"
NORTH

MECHANICAL GENERAL NOTES:

- ALL MECHANICAL DUCTWORK SHALL BE GALVANIZED STEEL, CONSTRUCTED ACCORDING TO SMACNA STANDARDS.
- ALL CONCEALED SUPPLY AIR AND RETURN AIR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH 2" THICK, 3/4 LB DENSITY FIBERGLASS DUCT WRAP. ALL EXPOSED (WAREHOUSE) SUPPLY AIR DUCTWORK AND RETURN AIR DUCTWORK SHALL BE INTERNALLY INSULATED WITH 1" THICK, 2 LB DENSITY FIBERGLASS DUCT LINER.
- HVAC CONTRACTOR WILL CHECK EACH SYSTEM FOR PROPER OPERATION.
- HVAC CONTRACTOR SHALL HAVE AN INDEPENDENT CONTRACTOR TO TEST & BALANCE HVAC SYSTEM TO THE PROPER AIRFLOWS AND STATIC PRESSURES. A COPY OF THE BALANCING REPORT WILL BE SUBMITTED TO THE OWNER UPON COMPLETION. AIR TO (+/-) 10%, WATER TO (+/-) 5%.
- FLEXIBLE RUN-OUTS TO BE U.L. LISTED AND HAVE A MAXIMUM LENGTH OF 8'-0". DUCT RUNS TO BE SAME SIZE AS DIFFUSER NECK SIZE SHOWN.
- AIR HANDLING UNITS SUPPLYING 2,000 CFM OR MORE SHALL HAVE A SMOKE DETECTOR INSTALLED IN THE RETURN AIR DUCTWORK. THE SMOKE DETECTOR SHALL BE INTERLOCKED TO SHUT DOWN ALL SUPPLY FANS UPON ALARM.
- MAINTAIN MINIMUM 10'-0" FROM ALL PLUMBING VENTS AND EXHAUST VENTS TO ALL OUTSIDE AIR INTAKES.
- DO NOT INSTALL PIPING OR DUCTWORK OVER ELECTRICAL PANELS.

MECHANICAL PLAN NOTES:

- PROVIDE 6" EXHAUST OR OUTSIDE AIR VENT THROUGH WALL WITH WEATHERCAP.
- EXISTING SHELL BUILDING EQUIPMENT TO REMAIN AS CURRENTLY INSTALLED.
- COORDINATE LOCATION OF RTU WITH FIRE SUPPRESSION PIPING AND STRUCTURE. PROVIDE INTERNALLY LINED SUPPLY AIR RETURN AIR DUCT DROP THRU ROOF. TRANSITION SUPPLY AIR AND RETURN AIR DUCTWORK BELOW ROOF DECK TO SPIRAL DUCTWORK AS SHOWN AND PROVIDE WITH EXTERNAL DUCT INSULATION PER GENERAL NOTES.
- COORDINATE LOCATION OF EXHAUST WITH FIRE SUPPRESSION PIPING AND STRUCTURE. TRANSITION EXHAUST AIR DUCTWORK BELOW ROOF DECK TO SPIRAL DUCTWORK AS SHOWN.
- ROUTE CONDENSATE PIPING TO DRAIN TAIL PIECE FURNISHED BY PLUMBER.
- TRANSITION SUPPLY AIR FROM CURB OPENING TO 18" BELOW ROOF.
- TRANSITION RETURN AIR FROM CURB OPENING TO 18" BELOW ROOF.
- PROVIDE EXHAUST AIR DUCTWORK DROP FROM EXHAUST FAN AND TRANSITION TO SPIRAL DUCTWORK AS SHOWN.
- HVLS FAN WITH STAND ALONE CONTROLLER AND ASSOCIATED CONTROL WIRING ON ADJACENT COLUMN. ALL CONDUIT BY OTHER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND COORDINATE WITH LIGHTING AND FIRE SUPPRESSION SYSTEM. (TYP.)
- DISCHARGE CONDENSATE TO MOP SINK.
- GAS-FIRED RADIANT TUBE HEATER. (TYP. 5 @ 50'-0" TUBE LENGTH)
- PROVIDE 4" COMBUSTION AIR VENT UP THRU ROOF WITH WEATHER CAP FOR SINGLE TUBE HEATER.
- PROVIDE 4" FLUE UP THRU ROOF WITH WEATHER CAP FOR SINGLE TUBE HEATER.
- PROVIDE 8" COMBUSTION AIR VENT UP THRU ROOF WITH WEATHER CAP FOR TWO TUBE HEATERS.
- PROVIDE 6" FLUE UP THRU ROOF WITH WEATHER CAP FOR TWO TUBE HEATERS.
- BURNER SIDE OF TUBE HEATER. PROVIDE GAS AND ELECTRICAL CONNECTIONS AS REQUIRED.
- PROVIDE 8" VENT UP THRU ROOF. TERMINATE WITH WEATHER CAP.

LEGEND

- SD-1 SUPPLY AIR DIFFUSER - AS SCHEDULED
- RG-1 RETURN AIR GRILLE - AS SCHEDULED
- RG-2 RETURN AIR GRILLE - AS SCHEDULED
- EX-1 EXHAUST AIR GRILLE - AS SCHEDULED
- EX-2 EXHAUST AIR GRILLE - AS SCHEDULED
- SD-1 SUPPLY AIR GRILLE - AS SCHEDULED
SD-2 SUPPLY AIR GRILLE - AS SCHEDULED
- RETURN AIR GRILLE - AS SCHEDULED
- THERMOSTAT WITH ZONE/UNIT DESIGNATION. MOUNT AT 48" A.F.F.

- GREENHECK (OR EQUAL) 24'-0" DS-3-24-170 HVLS FAN. 2 HP @ 460/3 PHASE. MINIMUM OF 3-BLADES. PROVIDE WITH HANGING KIT AND CONTROLLERS. CONDUIT BY OTHERS (TYP. 5)
- ELECTRIC WALL HEATER - RAYWALL OR EQUAL. 3KW @ 277/1 PHASE. PROVIDE WITH RECESS MOUNTING FRAME, DISCONNECT, INTEGRAL THERMOSTAT, 29 LBS. MODEL # AFC7130T (TYP. 2)
- GAS-FIRED RADIANT TUBE HEATER. DETROIT RADIANT MODEL HL3-50-150/100N 2-STAGE HEATERS. PROVIDE WITH GRIPPLE HANGERS, TH-P721 TWO-STAGE 24V DIGITAL THERMOSTAT, WY-4 INLET AIR CAP & #RTVP-4 ROOF VENT KITS OR AS NOTED. 120/1 PHASE, 150 MBH. (TYP.)
COORDINATE EXACT MOUNTING HEIGHT WITH TENANT.

SPLIT SYSTEM EQUIPMENT SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SUPPLY FAN		COOLING COIL		GAS HEATING		STAGES	MCA	MOCP	V/PH	VENTILATION (CFM)	SEER	WEIGHT (LBS)	NOTES
				CFM	ESP (IN)	TH (MBH)	SH (MBH)	INPUT (MBH)	OUTPUT (MBH)								
AHU-2	CARRIER	CAFPM	FURNACE	800	0.5	22	17	49	39	1	7	15	120/1	80	---	200	D
CU-2	CARRIER	CA13	CONDENSING UNIT	---	---	---	---	---	---	---	15	25	208/1	---	14	150	A, B, C

- NOTES:
 A. PROVIDE WITH PROGRAMMABLE THERMOSTAT, LOW AMBIENT KIT TO 40 DEGREE F, AND 5 YR PARTS ONLY COMPRESSOR WARRANTY.
 B. INSTALL CONDENSING UNIT ON ROOF BLOCKING.
 C. PROVIDE PRE-INSULATED LINESET AS REQUIRED.
 D. ROUTE FULL SIZE CONDENSATE TO PER PLAN NOTES.

GRILLE, REGISTER & DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SIZE	MOUNTING	FINISH	MATERIAL	NOTES
SD-1	PRICE	SPD	SQUARE PLAQUE	24" x 24"	LAY-IN	WHITE	STEEL	G
SD-2	PRICE	SPD	SQUARE PLAQUE	24" x 24"	SURFACE	WHITE	STEEL	B, G
SD-3	PRICE	SPD	SQUARE PLAQUE	12" x 12"	LAY-IN	WHITE	STEEL	G
SD-4	PRICE	SPD	SQUARE PLAQUE	12" x 12"	SURFACE	WHITE	STEEL	B, G
VAV-1	PRICE	VARITHERM	VAV	24" x 24"	LAY-IN	WHITE	STEEL	G
LSD-1	PRICE	TBD	LINEAR SLOT	4'-0" X (3) 1" SLOT	LAY-IN	WHITE	STEEL	H
SG-1	PRICE	520D	WALL MOUNT	AS NOTED	WALL/DUCT	WHITE	STEEL	A
SG-2	PRICE	SDGE	SPIRAL MOUNT	AS NOTED	DUCT	MILL	STEEL	A, C
RG-1	PRICE	PDDR	PERFORATED	24" x 24"	LAY-IN	WHITE	STEEL	G
RG-2	PRICE	PDDR	PERFORATED	12" x 24"	LAY-IN	WHITE	STEEL	G
EX-1	PRICE	APDDR	PERFORATED	24" x 24"	SURFACE	WHITE	ALUMINUM	A, B, G
EX-2	PRICE	APDDR	PERFORATED	24" x 24"	LAY-IN	WHITE	ALUMINUM	G
EX-3	PRICE	APDDR	PERFORATED	12" x 12"	SURFACE	WHITE	ALUMINUM	A, B, G
EX-4	PRICE	APDDR	PERFORATED	12" x 12"	LAY-IN	WHITE	ALUMINUM	G

- NOTES:
 A. PROVIDE WITH DAMPER OPERABLE FROM FACE OF DEVICE.
 B. PROVIDE WITH SURFACE MOUNT FRAME KIT FOR MOUNTING IN HARD CEILING/WALL.
 C. PROVIDE WITH OPPOSED BLADE DAMPER AND MILL FINISH.
 D. NOT USED
 E. NOT USED
 F. NOT USED
 G. PROVIDE WITH INSULATED BACKING
 H. PROVIDE WITH FACTORY INSULATED SUPPLY PLENUM.

PACKAGED ROOFTOP UNIT (DX COOLING/GAS HEAT)

MARK	MANUFACTURER	MODEL	NOMINAL TONNAGE	QUANTITY	SERVICE	UNIT TYPE	SUPPLY FAN		COOLING COIL		GAS HEATING		MINIMUM VENTILATION (CFM)	DESIGN/MAX VENTILATION (CFM)	MCA	MOCP	V/PH	DISC. TYPE	WEIGHT (LBS)	ARI	SEER	NOTES			
							CFM	ESP (IN)	TH (MBH)	SH (MBH)	INPUT (MBH)	OUTPUT (MBH)											STAGES		
RTU-1	CARRIER	48FCEA05A2MG	4	1	MAIN OFFICE	CV	1,600	0.50	1.1	N	60/58	48	34	110	88	2	220	12	15	460/3	NF	1,000	14.0	A - G	
RTU-2	CARRIER	48FCEA05A2MG	4	1	MAIN OFFICE	CV	1,600	0.50	1.1	N	60/58	48	34	110	88	2	260	12	15	460/3	NF	1,000	14.0	A - G	
RTU-3	CARRIER	48FCEA05A2MG	4	1	MAIN OFFICE	CV	1,600	0.50	1.1	N	60/58	48	34	110	88	2	120	120	12	15	460/3	NF	1,000	14.0	A - G

- NOTES:
 A. EQUIPMENT SIZED FOR 95 DEGREE F AMBIENT TEMPERATURE.
 B. PROVIDE WITH 2", 30% EFFICIENT PLEATED THROWAWAY AIR FILTERS.
 C. PROVIDE WITH MANUFACTURER'S STANDARD 14" INSULATED ADJUSTABLE ROOF CURB.
 D. PROVIDE WITH FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH, PLEATED FILTERS AND HAIL GUARDS.
 E. PROVIDE WITH FACTORY MOUNTED ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.
 F. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT.
 G. RETURN AIR SMOKE DETECTOR FURNISHED AND INSTALLED BY OTHERS.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	QUANTITY	MODEL	LOCATION/ MOUNTING	SERVICE	FAN				ELECTRICAL (V/PH)	WEIGHT (LBS)	NOTES
						CFM	ESP (IN)	RPM	HP/WATTS			
CEF-1	GREENHECK	1	SPA-A190	CEILING	RESTROOM EXHAUST	190	0.25	1400	60	120/1	20	E, F
CEF-2	GREENHECK	1	SPA-A190	CEILING	RESTROOM EXHAUST	190	0.25	1400	60	120/1	20	E, F
CEF-3	GREENHECK	1	SPA-A110	CEILING	RESTROOM EXHAUST	75	0.25	950	25	120/1	20	E, F
CEF-4	GREENHECK	1	SPA-A110	CEILING	RESTROOM EXHAUST	75	0.25	950	25	120/1	20	E, F

- NOTES:
 A. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
 B. PROVIDE WITH 14" INSULATED ROOF CURB, BACKDRAFT DAMPER AND BIRD SCREEN.
 C. FAN TO OPERATE CONTINUOUSLY.
 D. FURNISH WITH WALL MOUNTED LINE VOLTAGE THERMOSTAT. THERMOSTAT TO BE INSTALLED BY ELECTRICAL CONTRACTOR AND INTERLOCKED WITH ASSOCIATED LOUVER.
 E. INTERLOCK EXHAUST FAN WITH LIGHTSWITCH (BY OTHERS).
 F. PROVIDE WITH UNIT MOUNTED SPEED CONTROLLER, HANGING BRACKET, BACKDRAFT DAMPER, HARD CEILING MOUNTING KIT AND WHITE GRILLE.
 G. FAN TO BE EXPLOSION PROOF.

DUCTLESS HEAT PUMP SPLIT SYSTEM EQUIPMENT SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SUPPLY FAN		COOLING		HEATING		MCA	MOCP	V/PH	WEIGHT (LBS)	NOTES
				CFM	ESP (IN)	TH (MBH)	SH (MBH)	TH (MBH)	F					
FCU-1	LENNOX	MWMA018S4	WALL MOUNT FAN-COIL	530	---	17	14	18	47/F	1	---	---	30	F, G
CU-1	LENNOX	MLA018D4	CONDENSING UNIT	---	---	---	---	---	---	18	25	208/1	120	A - E

- NOTES:
 A. PROVIDE WITH WIRELESS TEMPERATURE CONTROLLER AND LOW-AMBIENT WIND BAFFLE KIT.
 B. FAN-COIL TO BE POWERED FROM CONDENSING UNIT POWER CIRCUIT. REFER TO INSTALLATION INSTRUCTIONS.
 C. INSTALL CONDENSING UNIT ON TREATED 4x4 WOOD BLOCKING.
 D. PROVIDE WITH 50'-0" PRE-INSULATED LINESET AS REQUIRED (1/4" & 1/2").
 E. ELECTRICAL CONTRACTOR TO PROVIDE ASSOCIATED POWER WIRING BETWEEN CU AND FCU.
 F. PROVIDE WITH INTEGRAL CONDENSATE PUMP AND DISCHARGE CONDENSATE AS SHOWN.
 G. PROVIDE WITH WALL MOUNTED WIRELESS THERMOSTAT.

OUTSIDE AIR CALCULATIONS

UNIT SERVED	OCCUPANCY CLASSIFICATION	AREA (SQ. FT.)	PEOPLE PER 1,000	FIXED SEATING	QUANTITY OF	REQUIRED OUTSIDE AIR	REQUIRED OUTSIDE AIR	TOTAL REQUIRED	NOTES
RTU-1	TRAINING/CONFERENCE	820	50	31	41	5	0.06	204	A
	RESTROOMS	220	---	---	---	---	0.06	13	A
								217 CFM	C
RTU-2	BREAK	1,010	25	36	25	5	0.06	241	B
	RESTROOMS	220	---	---	---	---	0.06	13	A
								254 CFM	C
RTU-3	OFFICE	1,315	5	---	7	5	0.06	112	A
								112 CFM	C
AHU-1	OFFICE	400	5	---	2	5	0.06	34	A
	RESTROOMS	145	---	---	---	---	0.06	9	A
								43 CFM	C

- NOTES:
 A. VENTILATION RATES ARE TAKEN FROM ASHRAE 62.1-2010 - VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
 B. VENTILATION IS BASED ON TOTAL QUANTITY OF PEOPLE TAKEN FROM NUMBER OF ACTUAL SEATING SHOWN ON ARCHITECTURAL FLOOR PLAN.
 C. REFER TO RTU SCHEDULE FOR ACTUAL VENTILATION AIRFLOWS.

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MetroAir
BOOT BARN
KCI LOGISTICS CENTER VII - 9900 NW GLOBAL AVE, KCMO
SCALE: AS NOTED DATE: 6/2/22 DRAWN BY: M.D.K.
APPROVED BY: G.M.M. DWG # M2 OF 3

Construction Documents For:
BOOT BARN
LOGISTICS CENTRE VII
KCI INTERMODAL BUSINESS CENTRE

TRAMELL CROW COMPANY

gray
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