



KF
drawn by
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OCTOBER 2024
date
revisions



CHILD CARE FACILITY
201 N. EASTERN AVE.

sheet no:

M000

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Salas O'Brien
2900 S. Telephone Road, Suite 120
Moore, OK 73160
Salas O'Brien Registration: CA# 7058
Expiration Date: 6/30/2025
Salas O'Brien Project Number: 2450-70304-00

GENERAL MECHANICAL NOTES	
1. ALL WORK SHALL BE IN COMPLIANCE WITH STATE AND LOCAL CODES.	14. DUCT MATERIAL SHALL BE GALVANIZED OR ALUMINUM CONSTRUCTION IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARD 2005 FOR THE PRESSURE AND SEAL CLASS LISTED IN DUCTWORK/INSULATION SCHEDULE.
2. THE CONTRACTOR SHALL PAY FOR ALL FEES, PERMITS, LICENSES, ETC., NECESSARY FOR PROPER COMPLETION OF THE WORK.	15. DUCT SIZES LISTED ON PLANS ARE THE REQUIRED CLEAR INTERIOR DIMENSIONS.
3. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.	16. SUPPLY AND RETURN BRANCH DUCTS MAY BE INSULATED FLEX DUCT IF THE RUN IS LESS THAN 5 FEET IN LENGTH, ANY LENGTHS OVER 5 FEET SHALL BE RIGID DUCTWORK. DUCT SHALL BE THE SAME SIZE AS THE LISTED DIFFUSER THROAT UNLESS NOTED OTHERWISE.
4. VERIFY ALL EXISTING CONDITIONS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN CONTRACT DRAWINGS AND ACTUAL CONDITIONS.	17. PROVIDE VOLUME CONTROL DAMPERS WHERE INDICATED AND AT ALL TAKEOFFS, BOTH SUPPLY AND RETURN SYSTEMS, AND MAJOR DUCT RUNS. DAMPERS SHALL BE FACTORY-FABRICATED WITH ZINC-PLATED, DIE-CAST CONTROL HARDWARE. CONTROL HARDWARE SHALL INCLUDE HEAVY GAUGE DIAL AND HANDLE WITH ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.
5. EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED AND CAPPED AS REQUIRED BY CODE OR LOCAL ORDINANCE.	18. PROVIDE TURNING VANES IN ALL RECTANGULAR ELBOWS CONFORMING TO SMACNA DUCT CONSTRUCTION STANDARD 2005 FIG. 4-2 TYPE RE-3 WITH STANDARD RADIUS. WHERE SPACE PERMITS, PROVIDE RADIUS ELBOWS IN ACCORDANCE WITH FIGURES 4-2, TYPE RE-1.
6. THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. ADDITIONAL DATA SHALL BE FROM THE ENGINEER THROUGH WRITTEN CLARIFICATION ONLY. VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, AND DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF ANY WORK. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS AND TRANSITIONS REQUIRED TO MEET EXISTING CONDITIONS.	19. ALL RECTANGULAR MAIN TO RECTANGULAR BRANCH CONNECTIONS, BOTH CONVERGING AND DIVERGING CONFIGURATIONS, SHALL HAVE A 45 DEG. ENTRY TAP CONSTRUCTED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARD 2005 FIG. 4-6.
7. THE CONTRACTOR SHALL PERFORM WORK IN A SKILLED AND PROFESSIONAL MANNER.	20. DIFFUSER PATTERN 4-WAY UNLESS OTHERWISE INDICATED. PROVIDE FIBERGLASS DUCT INSULATION WITH VAPOR BARRIER AS SCHEDULED UNLESS NOTED OTHERWISE.
8. ALL CONTRACTORS ARE RESPONSIBLE TO FIELD COORDINATE WORK SCHEDULE WITH OWNER REPRESENTATIVE.	21. MECHANICAL CONTRACTOR TO REPAIR ANY DAMAGE DONE TO THE FIRE PROOFING WHILE INSTALLING THE MECHANICAL TRUNKS. SEAL ALL PENETRATIONS THROUGH RATED STRUCTURES WITH UL LISTED FIRE SEAL DESIGNED FOR THE SPECIFIED APPLICATION.
9. THE CONTRACTOR SHALL WORK AND COORDINATE WITH THE OTHER TRADES.	22. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.
10. ALL EQUIPMENT SHALL BE NEW AND IN UNDAMAGED CONDITION. ANY EQUIPMENT FOUND DEFECTIVE SHALL BE IMMEDIATELY REMOVED FROM THE PROJECT.	23. THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR AS OTHERWISE REQUIRED IN THE SPECIFICATIONS.
11. PROVIDE 3 COPIES OF AN OPERATION AND MAINTENANCE MANUAL FOR ALL MAJOR EQUIPMENT REQUIRING SERVICE. MAJOR EQUIPMENT INCLUDES BUT IS NOT LIMITED TO COILS, FANS, AND CONTROL WIRING DIAGRAMS. EACH PIECE OF EQUIPMENT SHALL STATE THE CONTRACT DATE AND THE NAME, ADDRESS AND PHONE NUMBER FOR THE FRAME CONTRACTOR, SUBCONTRACTOR PERFORMING THE INSTALLATION, AND THE LOCAL VENDOR FOR SPARE PARTS. THE MANUALS SHALL CONTAIN MAINTENANCE INSTRUCTIONS REQUIRED FOR THE INSTALLED EQUIPMENT. MANUALS SHALL BE BOUND IN A THREE RING HARD COVER BINDER. O & M MANUALS SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL WALK THROUGH OF THE PROJECT.	24. MECHANICAL CONTRACTOR TO INCLUDE THE TEST AND BALANCE, AND ANY PERMIT FEES IN THEIR BID.
12. PROVIDE 8 HOURS OF OWNER TRAINING FOR THE INSTALLED EQUIPMENT. TRAINING SHALL BE HELD ONLY AFTER ALL OF THE EQUIPMENT IS INSTALLED AND PROPER OPERATION IS VERIFIED.	25. MECHANICAL CONTRACTOR SHALL VERIFY ALL ROOFTOP EQUIPMENT WEIGHTS, SIZES, LOCATIONS AND OPENINGS REQUIRED AND SHALL COORDINATE ANY CHANGES WITH THE ARCHITECT.
13. CONTRACTOR SHALL SUBMIT A CERTIFIED REPORT INDICATING SYSTEM PERFORMANCE INCLUDING, BUT NOT LIMITED TO, VOLTAGE AND AMPERAGE MEASUREMENTS OF ALL EQUIPMENT GREATER THAN 1/3 H.P. AIR BALANCE MEASUREMENTS OF OUTSIDE AIR DELIVERY, AIR HANDLING UNIT SUPPLY, SUPPLY DIFFUSERS, EXHAUST AND RETURN GRILLES. AIR BALANCE SHALL BE WITHIN 10% OF DESIGN CONDITIONS. THE REPORT CERTIFICATION SHALL BE AS FOLLOWS: I (name) of (company) CERTIFY THAT ALL MEASUREMENTS, FIGURES AND STATEMENTS INDICATED IN THIS REPORT WERE TAKEN BY ME OR UNDER MY SUPERVISION AND ARE ACCURATE AS OF (date). DESIGN FLOWS WERE BASED UPON PLANS DATED (xx/xx/xx).	26. UPON PROJECT COMPLETION, RECORD (AS-BUILT) DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO THE BUILDING OWNER. ALL CHANGES MADE TO EQUIPMENT, DUCTWORK, AND GENERAL DESIGN SHALL BE NOTED ON THE DRAWINGS. PROVIDE IN PDF FORMAT OR PRINTED SET AT THE OWNER'S REQUEST.

ABBREVIATIONS	
A	AMP
ADD	ADDENDUM
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLER UNIT
AI	ANALOG INPUT
ALT	ALTERNATE
AO	ANALOG OUTPUT
APPRX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
BDD	BACK DRAFT DAMPER
BLDG	BUILDING
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CENTER
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CO	CLEAN OUT
COND	CONDENSATE
CONT	CONTINUOUS
COP	Coefficient of Performance
DB	DRY BULB
DET	DETAIL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DIA OR Ø	DIAMETER
DM	DIMENSION
DN	DOWN
DO	DIGITAL OUTPUT
DWG	DRAWING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ELEC	ELECTRICAL
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
EXT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
FA	FRESH AIR
FBM	FEET PER MINUTE
FT	FOOT (FEET)
GA	GAUGE/GAGE
GLW	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GYP	GYP-SUM
HORIZ	HORIZONTAL
HP	HORSEPOWER
HT	HEIGHT
I/O	INPUT/OUTPUT
IN	INCH
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MWH	1000 BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MECH	MECHANICAL
MN	MINIMUM
MFR	MANUFACTURER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
P	PUMP
PC	PLUMBING CONTRACTOR
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
RA	RETURN AIR
REQD	REQUIRED
REV	REVERSE OR REVISION
RG	RETURN AIR GRILLE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SOFT	SQUARE FEET
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SPEC	SPECIFICATIONS
SS	STAINLESS STEEL
T&B	TEST AND BALANCE
TEMP	TEMPERATURE OR TEMPORARY
TC	TRANSFER GRILLE
TYP	TYPICAL
V	VOLT
VAR	VARIABLE OR VARIES
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
W/	WITH
W/N	WITHIN
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN (INCHES OF)
WT	WEIGHT

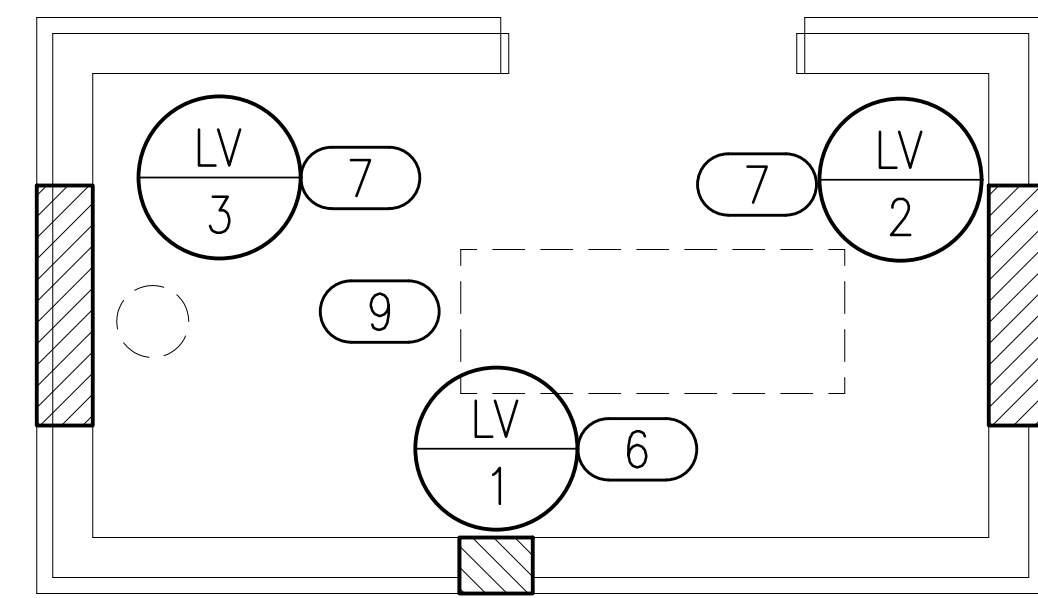
MECHANICAL HVAC LEGEND		
EXHAUST AIR DUCT (DOWN)		EXHAUST AIR DUCT (UP)
RETURN AIR DUCT (DOWN)		RETURN AIR DUCT (UP)
OUTSIDE OR SUPPLY AIR DUCT (DOWN)		OUTSIDE OR SUPPLY AIR DUCT (UP)
DUCT SIZE		NEW DUCTWORK
FLEX DUCT		EXISTING DUCTWORK
DEMOLITION LINETYPE		SUPPLY AIR CEILING DIFFUSER
RETURN AIR GRILLE		EXHAUST AIR GRILLE
DIFFUSER, GRILLE, AND REGISTER CALL-OUTS		SCHEDULED EQUIPMENT TAG
MANUAL BALANCING DAMPER		PIPE PENETRATION THROUGH FIRE RATED WALL
FIRE DAMPER		SMOKE DAMPER
MOTORIZED DAMPER		FIRE/SMOKE DAMPER
THERMOSTAT		HUMIDISTAT
REMOTE SENSOR		CARBON DIOXIDE SENSOR
DUCT SMOKE DETECTOR		CARBON MONOXIDE SENSOR

MECHANICAL SHEET INDEX	
M000	MECHANICAL LEGEND AND NOTES
M101	MECHANICAL FLOORPLAN
M201	MECHANICAL ROOF PLAN
M501	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES

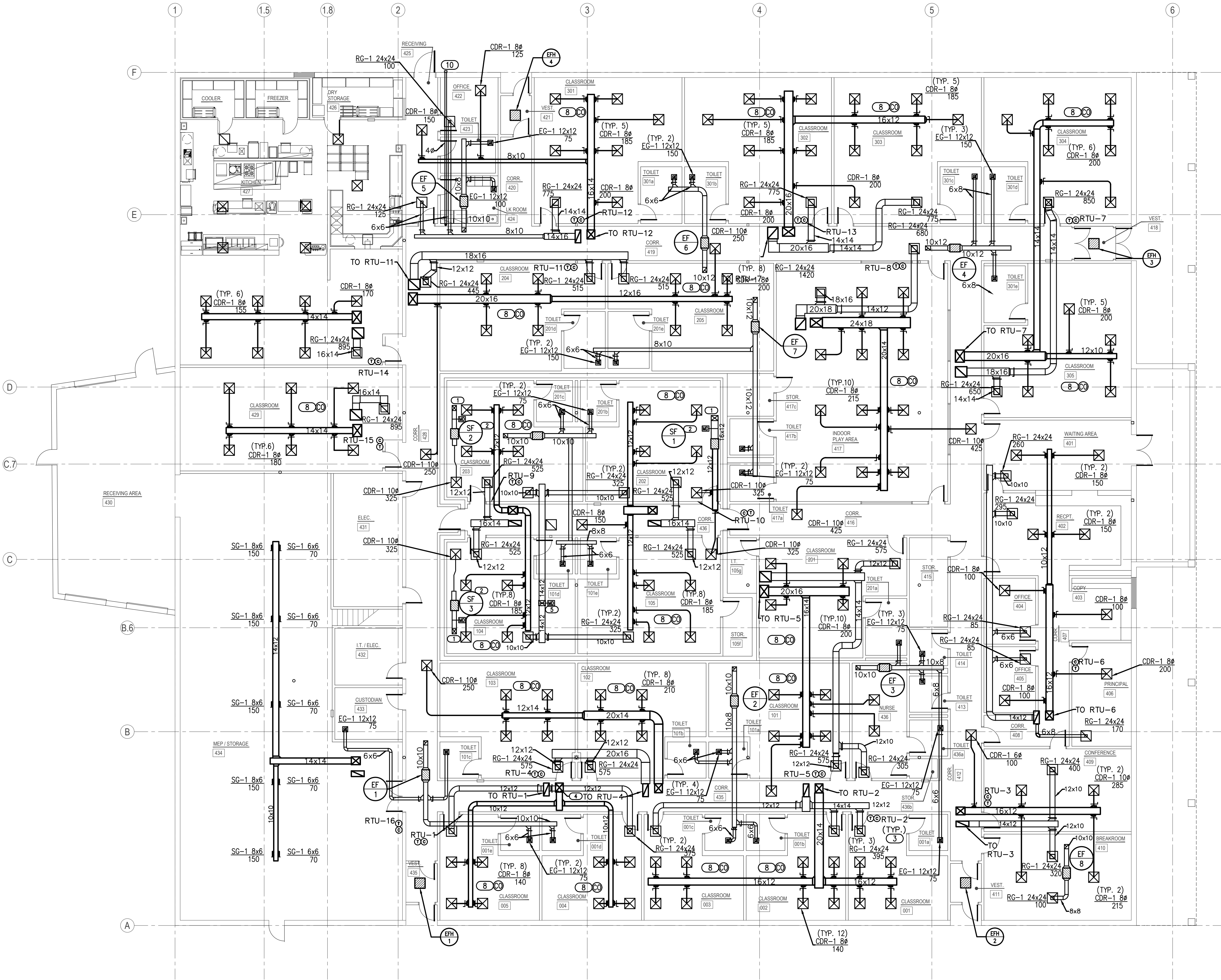


- GENERAL NOTES**
- COORDINATE INSTALLATION OF EQUIPMENT AND DUCTWORK WITH ALL TRADES.
 - COORDINATE LOCATION OF THERMOSTATS WITH E.C. ROUGH-IN BY E.C.
 - ALL PENETRATIONS OVER 3 1/2" SQUARE INCHES OR 2 1/16" INCHES IN DIAMETER IN/OUT OF SHELTER REQUIRE SHROUD. REFER TO STRUCTURAL FOR ALL SHROUD DETAILS.
 - M.C. IS RESPONSIBLE TO ALL STRUCTURAL REQUIRED PENETRATION PROTECTION ITEMS FOR ALL MECHANICAL SYSTEMS PENETRATING THE SHELTER.
 - E.C. TO PROVIDE, LOCATE, AND INSTALL SWITCH FOR EMERGENCY VENTILATION FAN. M.C. SHALL PROVIDE CALL OUT LETTERING "EMERGENCY VENTILATION" ON PLACARD ABOVE SWITCH WITH 3/4" LETTERING FOR INSTALLATION BY GC. COORDINATE WITH GC AND EC.

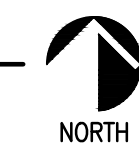
- KEYED NOTES**
- ROOF HOOD IS PART OF EMERGENCY VENTILATION SYSTEM. DUCT UP 16X12 TO TRANSITION INTO ROOF HOOD OPENING 18X16.
 - MOTORIZED DAMPER TO BE 120V CONNECTED TO EMERGENCY POWER. DAMPER SHALL OPEN WHEN SUPPLY FAN TURNS ON.
 - PROVIDE LOCKABLE COVER FOR THERMOSTAT.
 - DUCT 18X20 SUPPLY AND 12X28 RETURN UP TO RTU.
 - ROOF HOOD PART OF THE EMERGENCY VENTILATION SYSTEM TO PROVIDE RELIEF AIR. MOTORIZED DAMPER SHALL OPERATE ON INVERTER. INTERLOCK WITH SF-1. DUCT DOWN TO 16X12.
 - MOUNT BOTTOM OF LOUVER 8'-0" AFF.
 - MOUNT BOTTOM OF LOUVER MINIMUM 18" AFF.
 - CARBON MONOXIDE DETECTOR TO BE INSTALLED ACCORDING TO ALL APPLICABLE CODES. DETECTOR SHALL BE INSTALLED CENTRALLY ON CEILING. ALSO INCLUDE BATTERY BACKUP IN EVENT PRIMARY POWER IS INTERRUPTED. ALARM SIGNAL SHALL BE ROUTED TO ADMINISTRATION OFFICE. COORDINATE WITH E.C. WITH PRIMARY POWER CONNECTION AND SYSTEM CONNECTION.
 - PROVIDE EXHAUST DUCT TO GENERATOR RADIATOR CONNECTION. COORDINATE DUCT SIZE WITH GENERATOR MANUFACTURER DRAWINGS.
 - PROVIDE DRYER VENT EXHAUST HOOD TERMINATION AT EXTERIOR WALL IN ACCORDANCE WITH DRYER MANUFACTURER'S REQUIREMENTS. PROVIDE WALL CAP WITH BIRD FILTER.



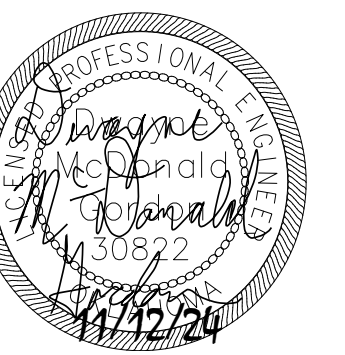
2 MECHANICAL GENERATOR PLAN
SCALE: 1/4" = 1'-0"



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



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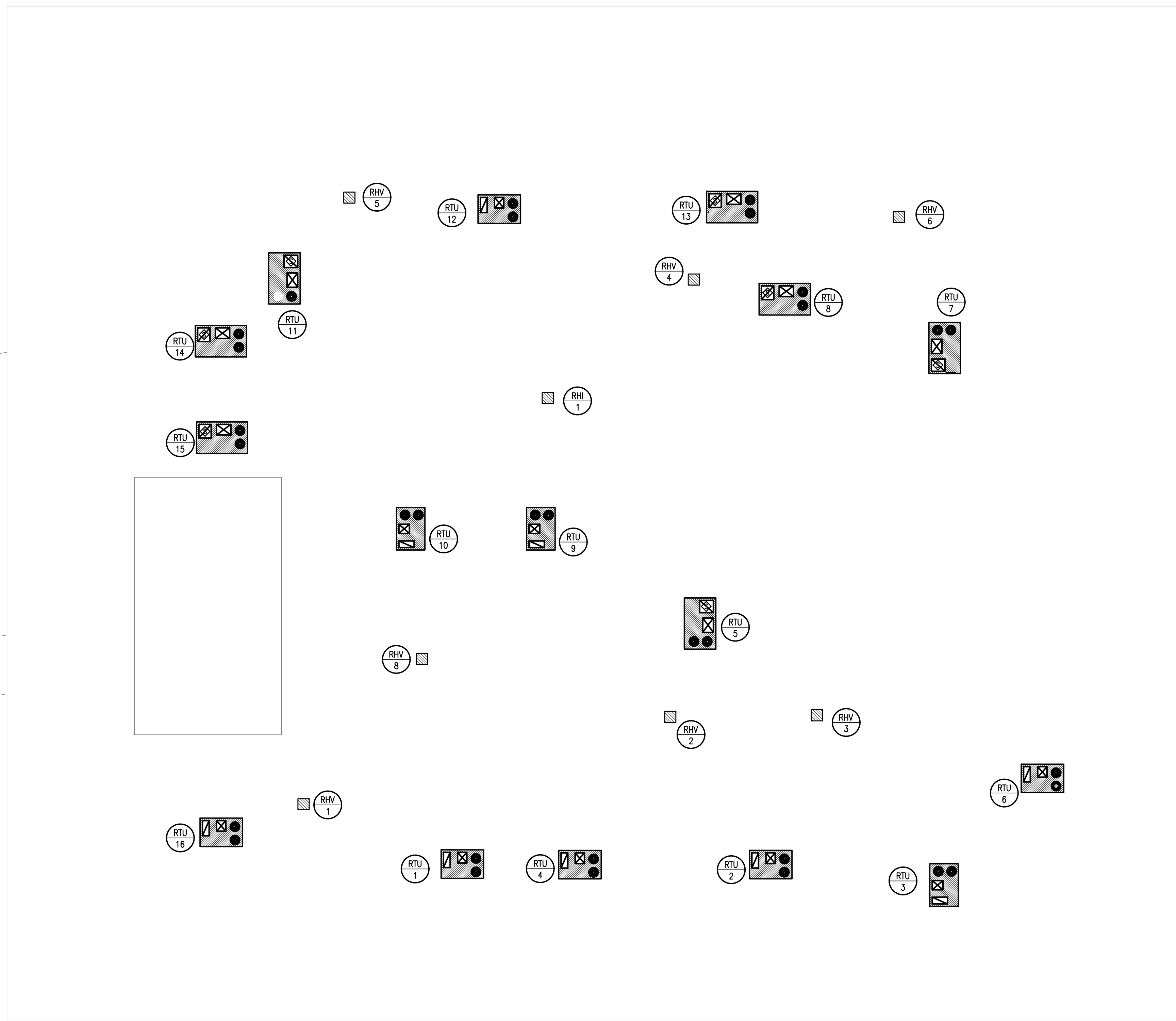
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GENERAL NOTES

1. ALL ROOF TOP EQUIPMENT TO BE LOCATED A MINIMUM OF 10'-0" AWAY FROM ROOF EDGE.
2. MAINTAIN A MINIMUM OF 10'-0" HORIZONTAL CLEARANCE BETWEEN ALL EXHAUST OUTLETS AND ANY FRESH AIR INTAKES.
3. MOUNT ROOF CURBS LEVEL ON PITCHED ROOF.
4. ALL ROOF SUPPORT SYSTEMS ARE TO BE MANUFACTURED FOR THE ROOF MATERIAL/SYSTEM TO BE INSTALLED. REFER TO ARCH PLANS FOR THE ROOF SYSTEM. CURB INSTALLATION TO BE WARRANTIED BY ROOFING CONTRACTOR.
5. ALL PENETRATIONS OVER 3 1/2 SQUARE INCHES OR 2 1/16 INCHES IN DIAMETER IN/OUT OF THE SHELTER REQUIRE SHROUD. REFER TO STRUCTURAL FOR ALL SHROUD DETAILS.
6. MC IS RESPONSIBLE FOR ALL STRUCTURAL REQUIRED PENETRATION PROTECTION ITEMS FOR ALL MECHANICAL SYSTEMS PENETRATING THE SHELTER.
7. MC SHALL PROVIDE COPPER PIPING FOR CONDENSATE LINE PAINTED BLACK. ROUTE ALL CONDENSATE TO NEAREST ROOF DRAIN.



1 MECHANICAL ROOF PLAN
SCALE: 3/32" = 1'-0"



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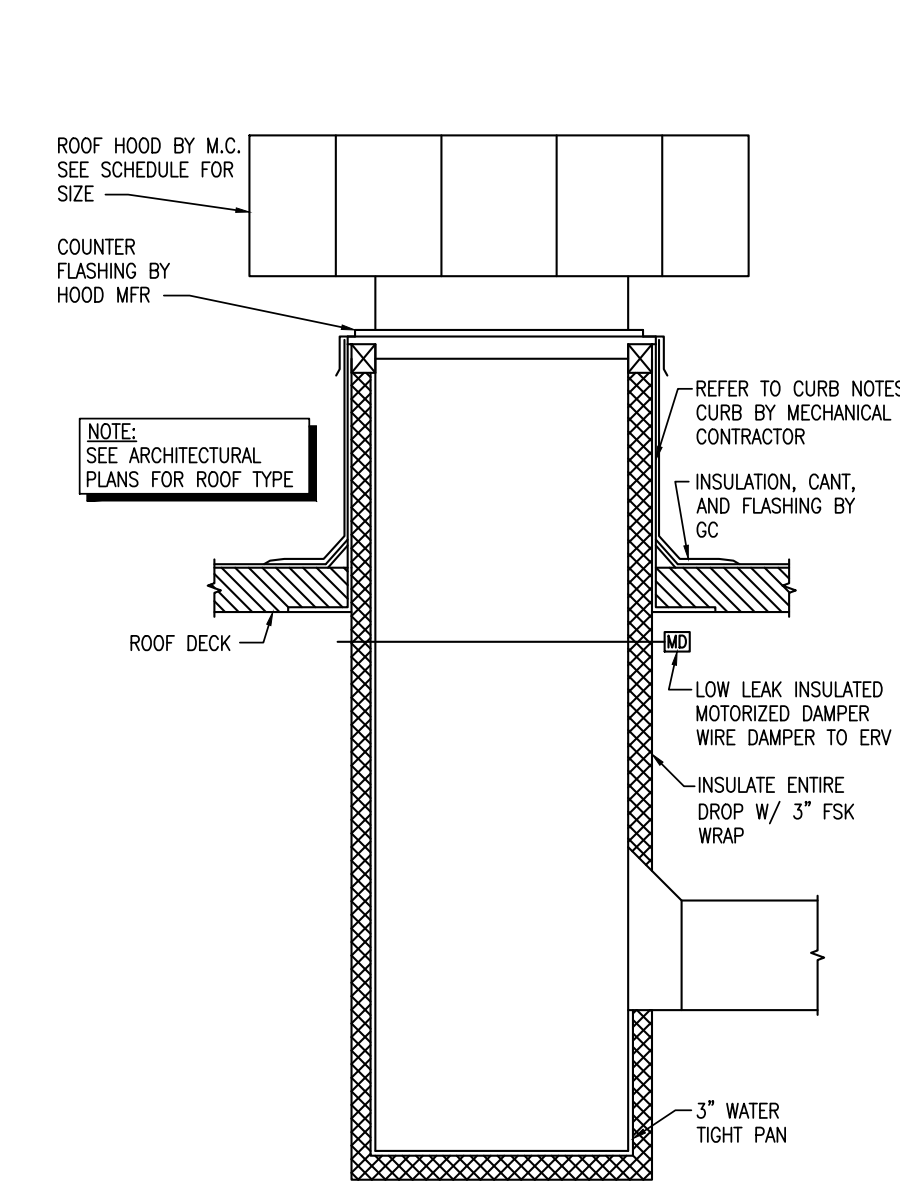


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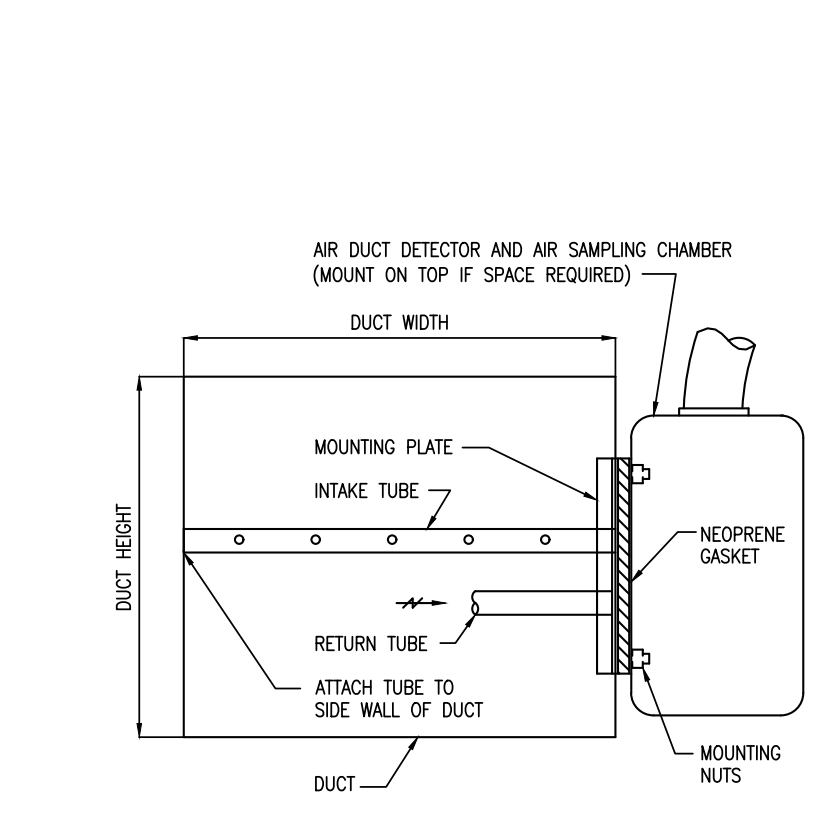
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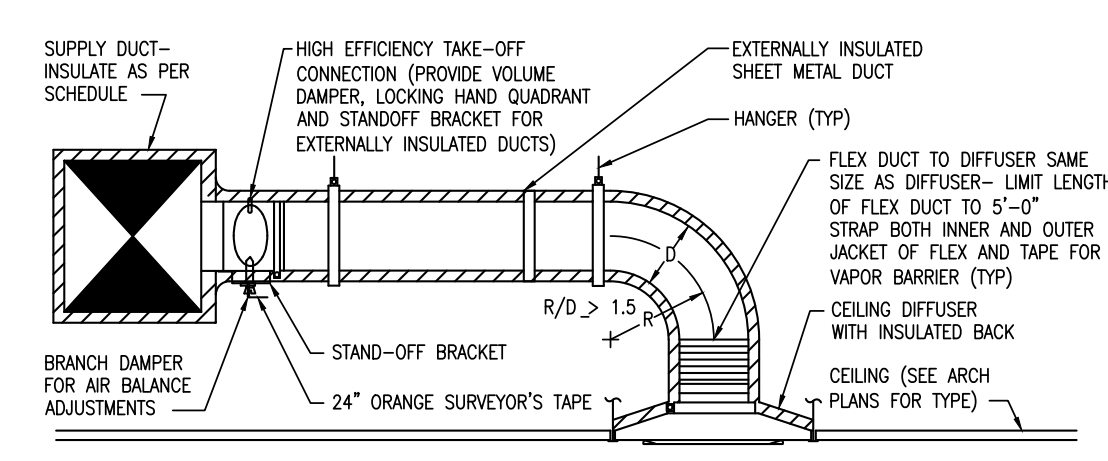


5 ROOF HOOD DETAIL
NOT TO SCALE

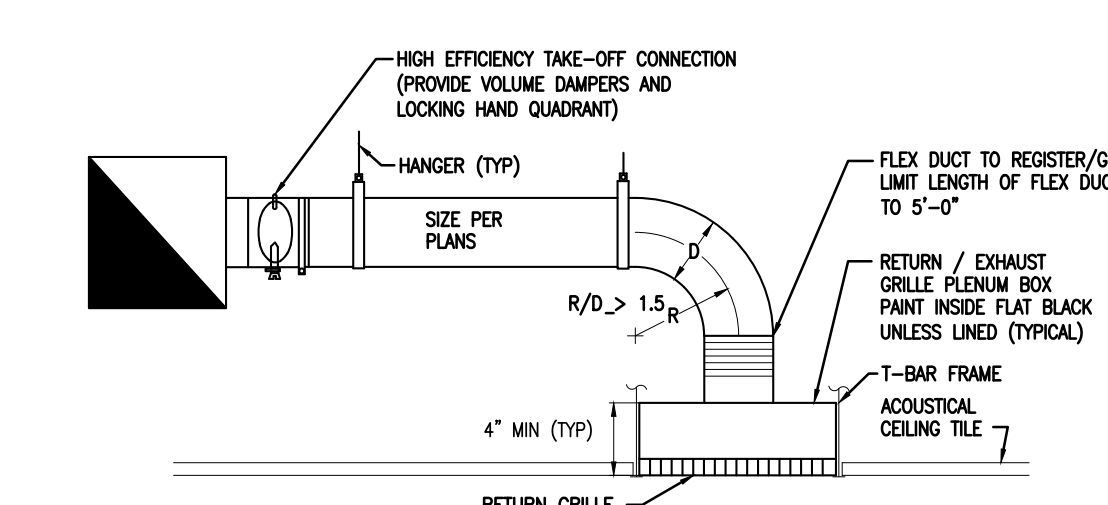


4 SMOKE DETECTOR MOUNTING DETAIL
NOT TO SCALE

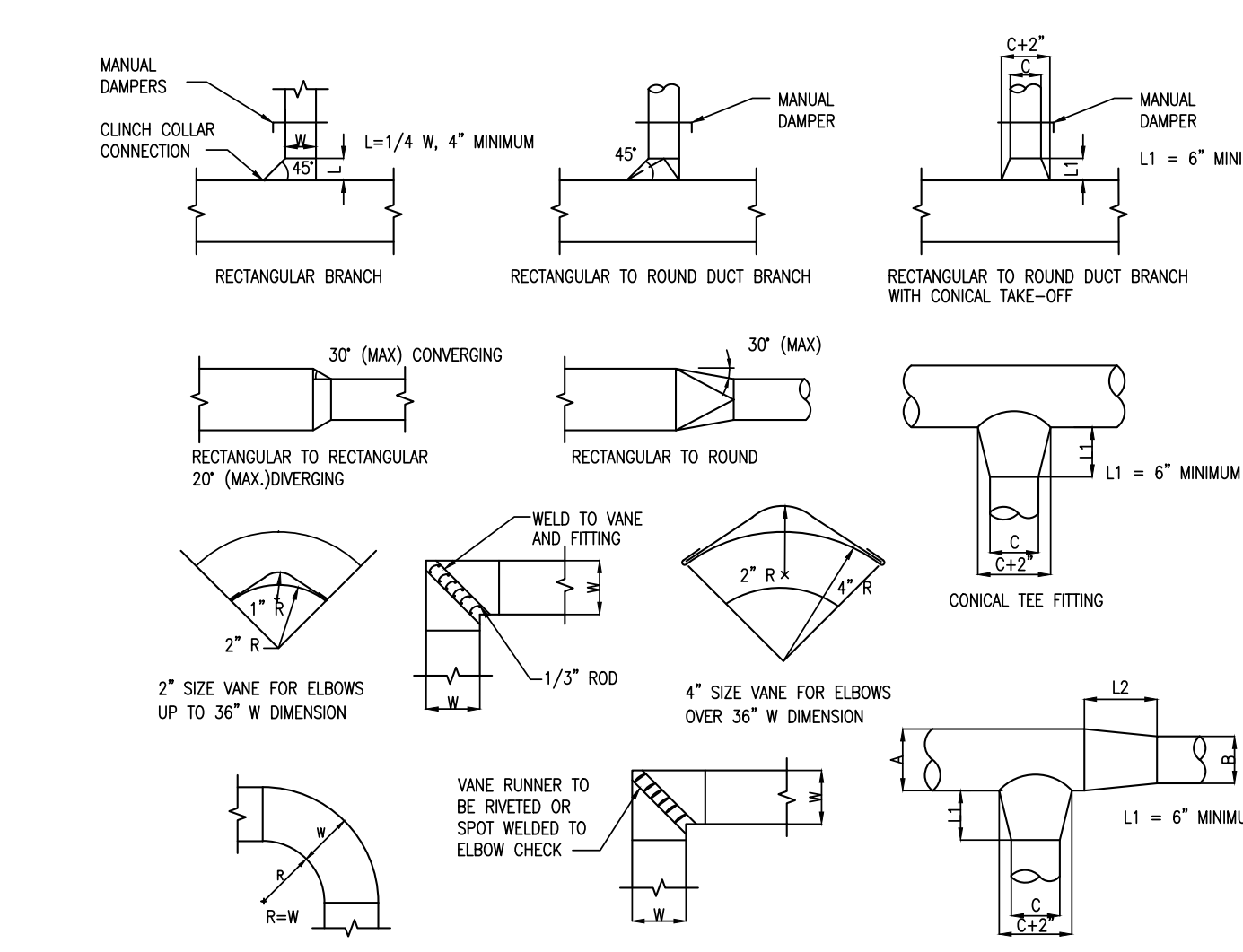
- NOTES:
1. SMOKE DETECTOR FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR, AND MOUNTED BY MECHANICAL CONTRACTOR.
 2. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 3. PROVIDE ACCESS DOOR AT SAMPLING TUBES.
 4. THE TUBE SHALL BE INSTALLED PARALLEL TO LONG DIMENSION OF DUCT.
 5. PRODUCT SHALL BE UL555 OR UL555S LISTED.
 6. EC SHALL TEST ACCORDING TO UL AND CODES IN THE PRESENCE OF CODE AUTHORITY.



3 CEILING DIFFUSER DETAIL
NOT TO SCALE

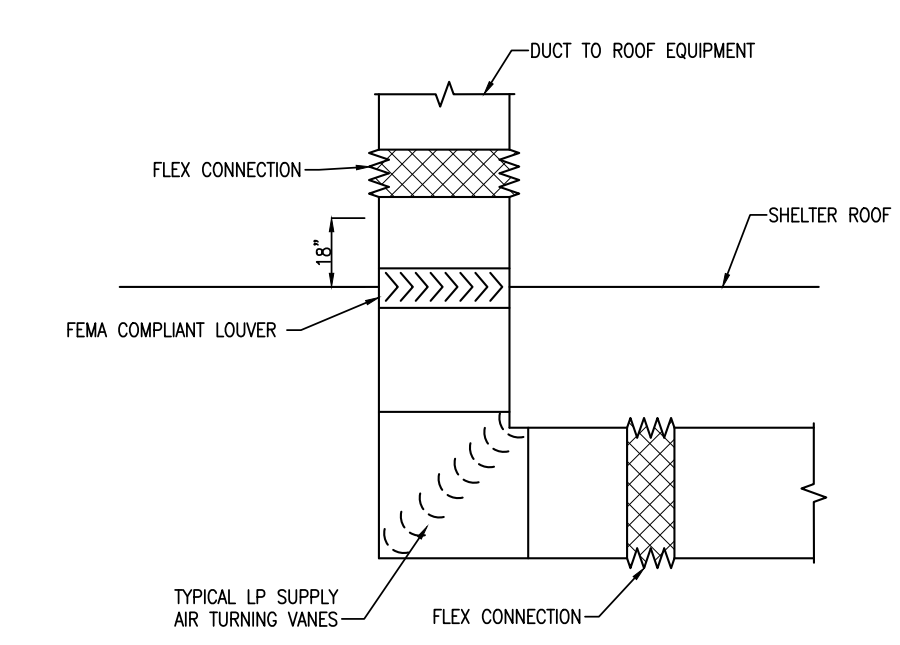


2 RETURN / EXHAUST AIR GRILLE PLENUM BOX
NOT TO SCALE

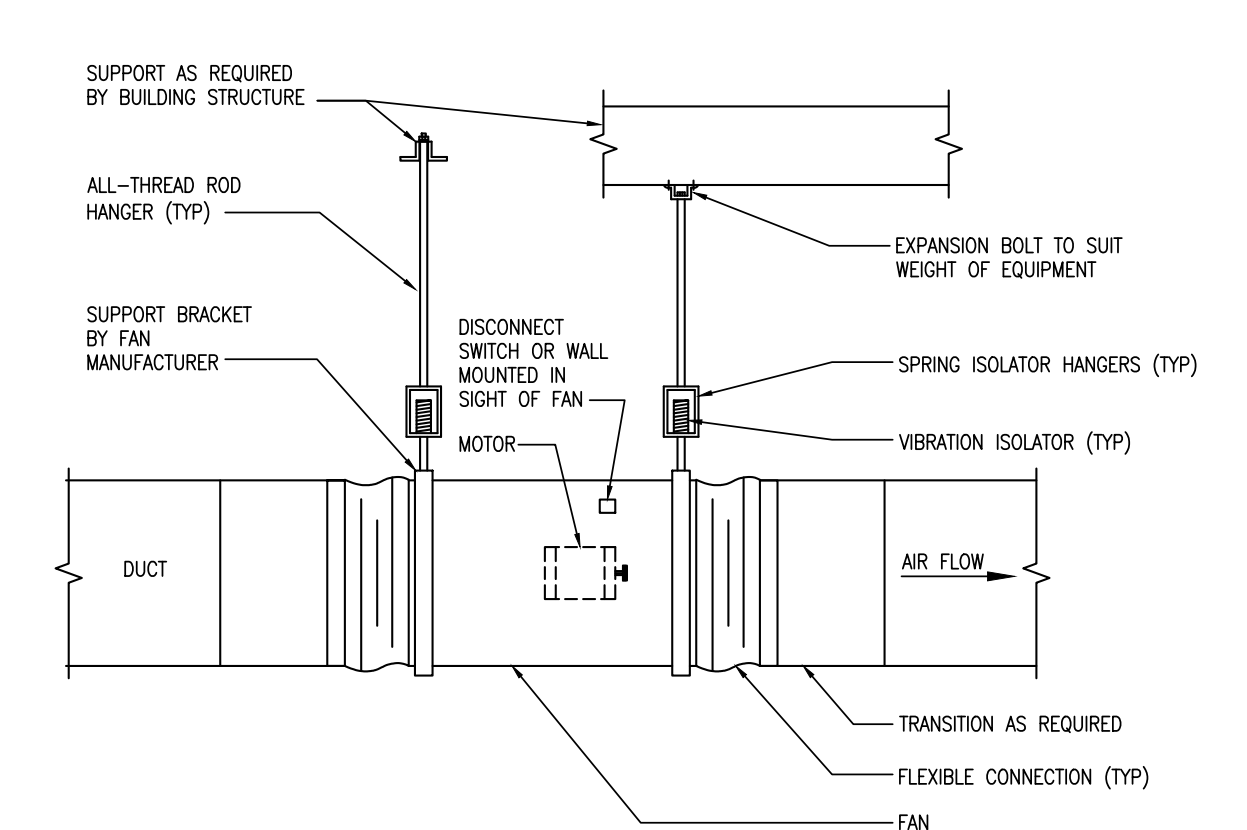


1 TYPICAL DUCTWORK DETAILS
NO SCALE

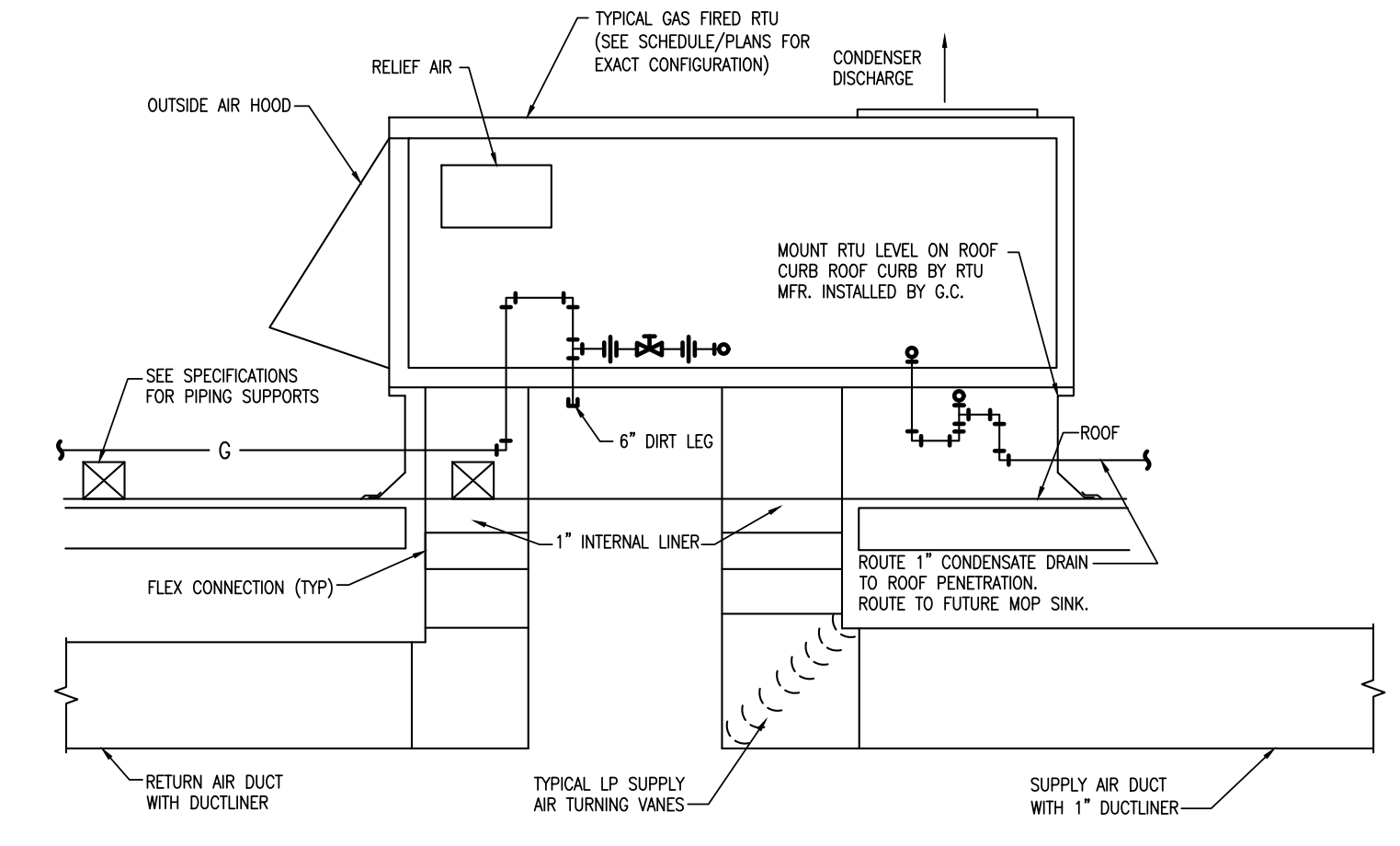
- NOTES:
1. ALL DUCTWORK TO BE CONSTRUCTED TO MEET S.M.A.C.N.A. STANDARDS
 2. REMOVE EVERY OTHER TURNING VANE IN RETURN/EXHAUST DUCTS.



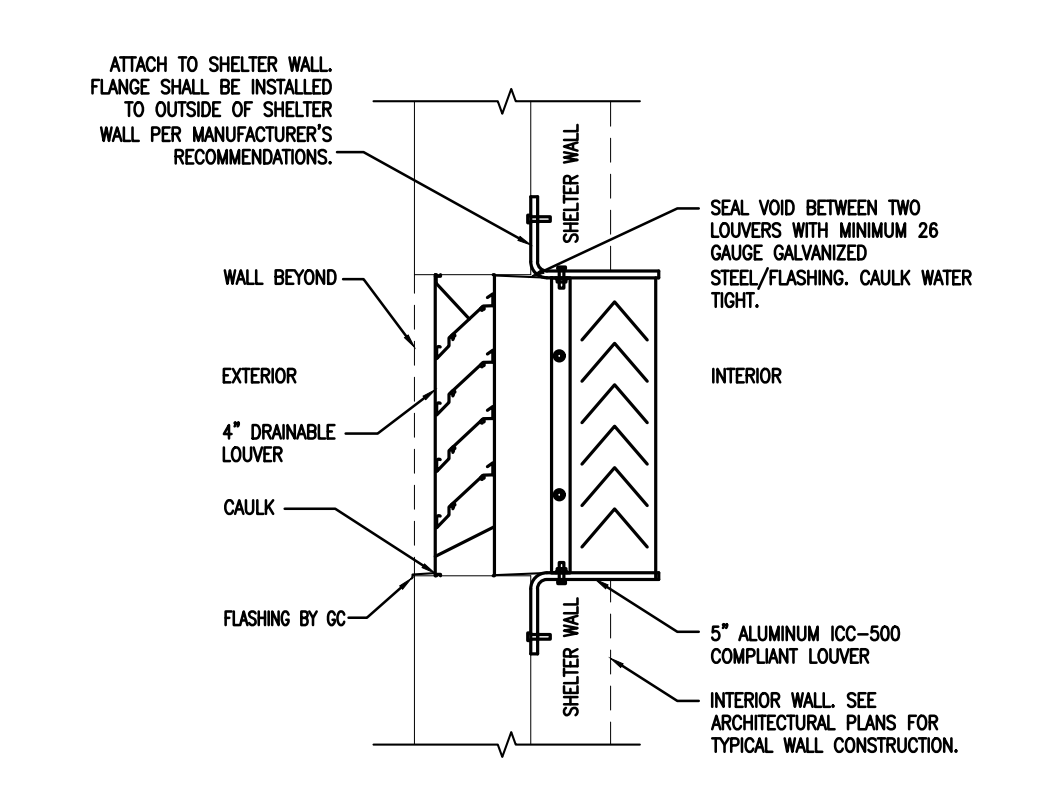
8 SAFEROOM DUCT PENETRATION DETAIL
NOT TO SCALE



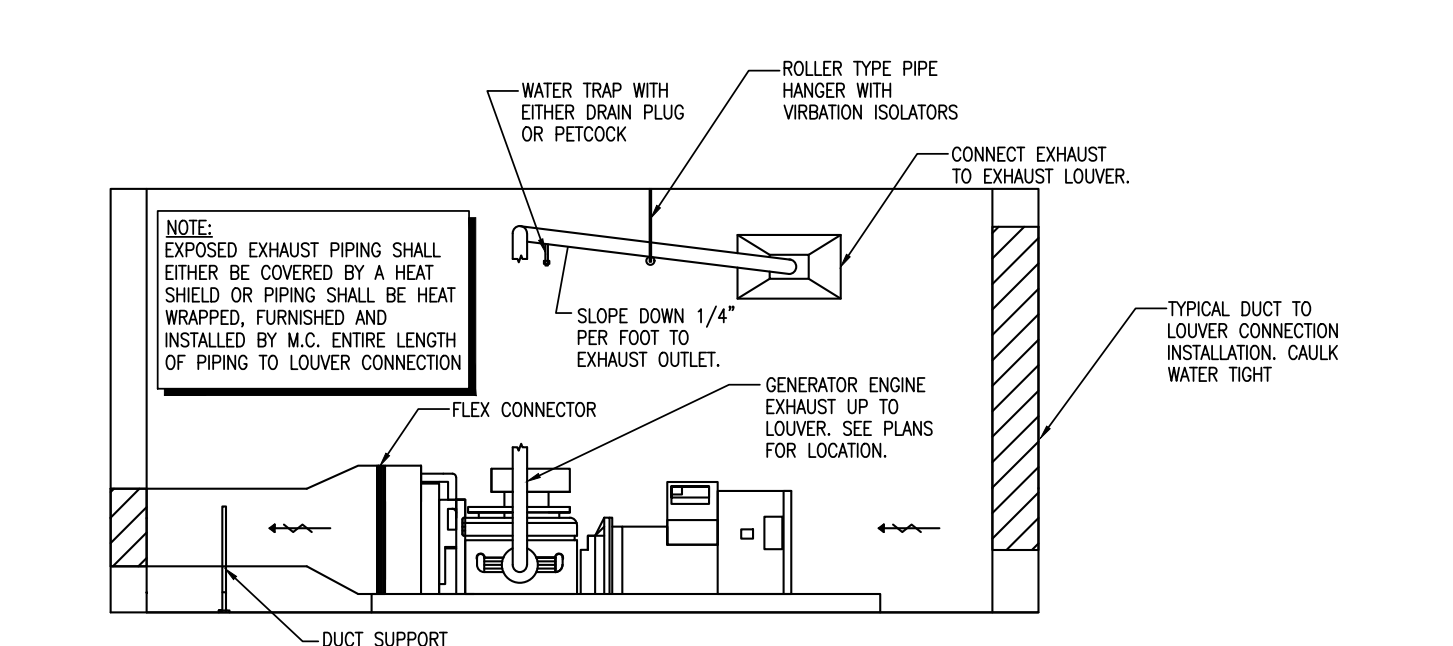
7 INLINE FAN DETAIL
NOT TO SCALE



6 TYPICAL ROOF TOP UNIT DETAIL
NOT TO SCALE



10 LOUVER GENERATOR BUILDING
NOT TO SCALE



9 GENERATOR DETAIL
NOT TO SCALE

- NOTE:
- EXPOSED EXHAUST PIPING SHALL EITHER BE COVERED BY A HEAT SHIELD OR PIPING SHALL BE HEAT WRAPPED, FURNISHED AND INSTALLED BY M.C. ENTIRE LENGTH OF PIPING TO LOUVER CONNECTION



ROOF HOOD SCHEDULE							
RTU	THROAT SIZE DIMENSION (IN)	THROAT AREA (SQ FT)	DAMPER BDD OR MOD	CONSTRUCTION	MANUFACTURER & MODEL NO.	COMMENTS	NOTES
RHV-1	14X14	1.36	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-1	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-2	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-3	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-4	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-5	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-6	10X10	0.69	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3
RHV-7	14X14	1.36	MOD	ALUMINUM	GREENHECK FGI	COLOR BY ARCHITECT	1-3

NOTES: M.C. IS RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY DIMENSIONAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL ALTERATIONS NECESSITATED BY PROVIDING ALTERNATE EQUIPMENT.
 1. M.C. TO PROVIDE ROOF HOOD WITH ALUMINUM BROSSCREEN.
 2. M.C. SHALL PROVIDE ROOF CURB, CURB INSTALLATION BY G.C.
 3. M.C. SHALL PROVIDE LOW VOLTAGE MOTORIZED DAMPER.

LOUVER SCHEDULE									
RTU	CONNECTED TO	SIZE (IN)	MINIMUM FREE AREA (SQ FT)	FLANGE	CONSTRUCTION	INCLUDE MOD	MANUFACTURER AND MODEL NUMBER	COMMENTS	NOTES
1	GEN ENCLOSURE	18X18	0.71	YES	ALUMINUM	-	GREENHECK AFL-501	5" FEMA RATED LOUVER- PROVIDE ADDITIONAL DRAINABLE LOUVER (GREENHECK ESD-403)	1-2
2	GEN ENCLOSURE	60X72	14.98	YES	ALUMINUM	-	GREENHECK AFL-501	3" FEMA RATED LOUVER- PROVIDE ADDITIONAL DRAINABLE LOUVER (GREENHECK ESD-403)	1-2
3	GEN ENCLOSURE	60X72	14.98	YES	ALUMINUM	-	GREENHECK AFL-501	3" FEMA RATED LOUVER- PROVIDE ADDITIONAL DRAINABLE LOUVER (GREENHECK ESD-403)	1-2

NOTES: M.C. IS RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY DIMENSIONAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL ALTERATIONS NECESSITATED BY PROVIDING ALTERNATE EQUIPMENT.
 1. PROVIDE PAINTED KYNAR FINISH COLOR BY ARCHITECT.
 2. PROVIDE BIRD SCREEN.

PACKAGED ROOFTOP GAS/ELECTRIC UNIT SCHEDULE															
RTU	LOCATION	INPUT MBH	OUTPUT MBH	COOLING NOMINAL TONS	MIN. EER	CAPACITY STAGES	TOTAL CFM	MIN. F.A. CFM	ELEC. CHGR	MCA	MOCOP	ESP (IN)	WEIGHT	MANUFACTURER & MODEL NUMBER	NOTES
1	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	350	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12
2	ROOF-SEE PLANS	108	87	5	12.5	2(H)/1(C)	1680	520	208 / 3	26	40	1.0	905	LENNOX LGM4805E	1,2,4-12
3	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	280	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12
4	ROOF-SEE PLANS	108	87	5	12.5	2(H)/1(C)	1700	535	208 / 3	26	40	1.0	905	LENNOX LGM4805E	1,2,4-12
5	ROOF-SEE PLANS	180	144	7.5	12.5	2(H)/1(C)	2100	645	208 / 3	46	50	1.0	1500	LENNOX LGM9205E	1-12
6	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	205	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12
7	ROOF-SEE PLANS	180	144	7.5	12.5	2(H)/1(C)	2200	700	208 / 3	46	50	1.0	1500	LENNOX LGM9205E	1-12
8	ROOF-SEE PLANS	180	144	7.5	12.5	2(H)/1(C)	3000	900	208 / 3	46	50	1.0	1500	LENNOX LGM10205E	1-12
9	ROOF-SEE PLANS	108	87	4	13.2	2(H)/1(C)	1500	450	208 / 3	25	35	1.0	905	LENNOX LGM4805E	1,2,4-12
10	ROOF-SEE PLANS	108	87	5	12.5	2(H)/1(C)	1700	535	208 / 3	26	40	1.0	905	LENNOX LGM4805E	1,2,4-12
11	ROOF-SEE PLANS	180	144	7.5	12.5	2(H)/1(C)	2100	625	208 / 3	46	50	1.0	1500	LENNOX LGM9205E	1-12
12	ROOF-SEE PLANS	108	87	4	13.2	2(H)/1(C)	1400	400	208 / 3	25	35	1.0	905	LENNOX LGM4805E	1,2,4-12
13	ROOF-SEE PLANS	180	144	7.5	12.5	2(H)/1(C)	2200	710	208 / 3	46	50	1.0	1500	LENNOX LGM9205E	1-12
14	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	205	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12
15	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	205	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12
16	ROOF-SEE PLANS	65	52	3	14.3	2(H)/1(C)	1100	205	208 / 3	19	25	1.0	900	LENNOX LGM3605E	1,2,4-12

NOTES: M.C. IS RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY DIMENSIONAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL ALTERATIONS NECESSITATED BY PROVIDING ALTERNATE EQUIPMENT.
 1. PROVIDE CONDENSER COIL HAL GUARD.
 2. PROVIDE FACTORY-INSTALLED UNIT DISCONNECT SWITCH.
 3. PROVIDE FACTORY-INSTALLED RETURN DUCT SMOKE DETECTOR WITH REMOTE TEST STATION TO BE LOCATED IN OCCUPIED SPACE. INSTALLATION OF REMOTE TEST STATION AND CONNECTION TO FIRE ALARM SYSTEM BY E.C.
 4. PROVIDE FACTORY-INSTALLED 120V GFCI CONVENIENCE OUTLET. GFCI POWERED FROM UNIT. RECEPTACLE SHALL BE COMPLIANT WITH NEC 210.83.
 5. PROVIDE ANTI-SHORT CYCLE TIMER AND LOW AMBIENT CONTROLS.
 6. PROVIDE FACTORY ROOF CURB SO THAT THE BOTTOM OF THE ROOFTOP UNIT IS A MINIMUM OF 14" ABOVE FINISHED ROOF. MOUNT LEVEL ON SLOPED ROOF.
 7. PROVIDE HINGED AND TOOL-LESS ACCESS DOORS.
 8. PROVIDE PHASE MONITOR.
 9. PROVIDE FULL ENTHALPY ECONOMIZER WITH POWERED EXHAUST.
 10. PROVIDE DIGITAL, Wi-Fi ACCESSIBLE 7-DAY PROGRAMMABLE THERMOSTAT WITH OCCUPIED/OCCUPIED SETTINGS CAPABLE OF CONTROLLING THE 1/3 STAGES OF SPECIFIED UNIT.
 11. PROVIDE UNIT WITH HDRH.
 12. MODULATE OUTSIDE AIR BASED ON DEMAND REPORTED BY CO2 SENSOR.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE					
PLAN SYMBOL	DESCRIPTION	MANUFACTURER & MODEL NO.	MATERIAL	FINISH	NOISE CRITERIA
GR-1	SQUARE FACE, ROUND NECK, 4-WAY DEFLECTION CEILING DIFFUSER, SPRING LOCK INNER CORE, FOR LAY-IN CEILING INSTALLATION.	PRICE SCD (4C)	STEEL	WHITE	-
SG-1	DOUBLE DEFLECTION SIDEWALL GRILLE, ADJUSTABLE DEFLECTION BLADES, 3/4" O.C. FLAT FRAME WITH 1 1/4" MARGIN, HORIZONTAL FRONT.	PRICE 520	STEEL	COLOR BY ARCHITECT	-
RG-1	SQUARE PATTERN GRILLE, FIXED CORE OF 1/2"x1/2"x1/2" FABRICATED ALUMINUM SQUARES, FLAT FRAME WITH 1 1/4" MARGIN, FOR LAY-IN CEILING INSTALLATION.	PRICE 80	ALUMINUM	WHITE	-
RG-2	SQUARE PATTERN GRILLE, ZERO DEGREE DEFLECTION, FLAT STEEL FRAME WITH 1 1/4" BORDER, FOR SURFACE MOUNT INSTALLATION.	PRICE 80	STEEL	WHITE	-
EG-1	SQUARE PATTERN GRILLE, FIXED CORE OF 1/2"x1/2"x1/2" FABRICATED ALUMINUM SQUARES, FLAT FRAME WITH 1 1/4" MARGIN, FOR LAY-IN CEILING INSTALLATION.	PRICE 80	ALUMINUM	WHITE	-

NOTES:
 SEE PLANS FOR QUANTITY AND SIZES.
 M.C. TO FIELD VERIFY CEILING TYPE FOR ALL GRD BEFORE PURCHASING EQUIPMENT. PROVIDE REQUIRED MOUNTING.

DUCTWORK/INSULATION SCHEDULE											
SYSTEM	MAX. PRES.	LOW PRESSURE			MED. PRESS.	HIGH PRESS.	INSULATION			NOTES	
		SEAL	A	B			C	INTERNAL THICKNESS	EXTERNAL THICKNESS		
SUPPLY AIR WITHIN 10' OF UNIT	2"	X	-	-	-	-	-	YES	1"	NO	-
SUPPLY AIR BEYOND 10' OF UNIT	2"	X	-	-	-	-	-	NO	-	YES	2" FSK
RETURN AIR WITHIN 10' OF UNIT	2"	-	X	-	-	-	-	YES	1"	NO	-
RETURN AIR BEYOND 10' OF UNIT	2"	-	X	-	-	-	-	NO	-	YES	2" FSK
OUTSIDE AIR/MIXED AIR	2"	-	X	-	-	-	-	NO	-	YES	3" FSK
EXHAUST AIR	2"	-	X	-	-	-	-	NO	-	YES	2" FSK

NOTES:

FAN SCHEDULE															
	CFM	SP	FAN RPM	ELECTRICAL				DAMPER BDD OR MOD	DRIVE	FAN TYPE	INTERLOCK/CONTROL	WEIGHT	MANUFACTURER & MODEL NUMBER	NOTES	
				VOLTAGE & PHASE	H.P.	FLA/AMPS	MCA								MOCOP
EF-1	225	0.5	1253	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	1,2,3
EF-2	300	0.5	1321	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	1,2,3
EF-3	375	0.5	1435	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	1,2,3
EF-4	450	0.5	1532	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-99-VG	1,2,3
EF-5	300	0.5	1321	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	1,2,3
EF-6	175	0.5	1489	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-97-VG	1,2,3
EF-7	300	0.5	1321	115/1	0.25	3.5	4	15	BDD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	1,2,3
EF-8	100	0.3	1670	115/1	0.07	1.3	2	15	BDD	DIRECT	INLINE	SWITCH	30	GREENHECK SG-60-VG	1,2,3
SF-1	750	0.5	1089	115/1	0.5	6.4	8	15	MOD	DIRECT	INLINE	SWITCH	65	GREENHECK SG-120-VG	4-7
SF-2	325	0.5	1354	115/1	0.25	3.5	4	15	MOD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	4-7
SF-3	325	0.5	1354	115/1	0.25	3.5	4	15	MOD	DIRECT	INLINE	SWITCH	50	GREENHECK SG-98-VG	4-7

NOTES: M.C. IS RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY DIMENSIONAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL ALTERATIONS NECESSITATED BY PROVIDING ALTERNATE EQUIPMENT.
 1. PROVIDE ELECTRONIC SPEED CONTROL MOUNTED ABOVE ACCESSIBLE CEILING.
 2. M.C. SHALL PROVIDE AND INSTALL LOW VOLTAGE MOTORIZED DAMPER.
 3. OPERATION OF DEVICE ON OCCUPIED MODE OF RTU OR SWITCH WITH LIGHTS. SEE INTERLOCK/CONTROL COLUMN FOR TYPE.
 4. PROVIDE UNIT MOUNTED DISCONNECT.
 5. FAN AND MOTORIZED DAMPER ARE PART OF EMERGENCY POWER SYSTEM. COORDINATE ALL CIRCUITS WITH EC.
 6. ALL WIRING TO FAN AND DAMPER SHALL BE BY EC.
 7. PROVIDE 120 V DAMPER.

ELECTRIC FAN FORCED HEATER SCHEDULE												
EFH	ROOM NO.	CFM	WALL OR CEILING	KW	MOUNTING	ELECTRICAL CHGR	AMPS	SPEEDS	CONTROL	RPM	MANUFACTURER & MODEL NUMBER	NOTES
1	VEST	300	CEILING	2	RECESSED	208 / 1	9.6	1	INT STAT	1400	BERKO FFCH-548	1-3
2	VEST	300	CEILING	2	RECESSED	208 / 1	9.6	1	INT STAT	1400	BERKO FFCH-548	1-3
3	VEST	300	CEILING	2	RECESSED	208 / 1	9.6	1	INT STAT	1400	BERKO FFCH-548	1-3
4	VEST	300	CEILING	2	RECESSED	208 / 1	9.6	1	INT STAT	1400	BERKO FFCH-548	1-3

NOTES: M.C. IS RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY DIMENSIONAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL ALTERATIONS NECESSITATED BY PROVIDING ALTERNATE EQUIPMENT.
 1. PROVIDE INTERNAL THERMOSTAT.
 2. RECESSED MOUNTED UNIT. PROVIDE RECESSED MOUNTING KIT.
 3. PROVIDE BUILT-IN DISCONNECT.



2800 S. Telephone Road, Suite 120
Moore, OK 73160
Salas O'Brien Registration: CA# 7058
Expiration Date: 6/30/2025
Salas O'Brien Project Number: 2450-70304-00