

300 CHASE PARK SOUTH • SUITE 200 • HOOVER, ALABAMA 35244  
205-988-9112

**ADDENDUM NO. 6**  
**CLASSROOM ADDITION TO ELVIN HILL ELEMENTARY SCHOOL**  
**Architect Job No. 25-34**  
**January 9, 2026**  
**DCM #2025854**

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**BIDS DUE:**

**Tuesday, January 13, 2025, until  
3:00 p.m., local time, held at  
Shelby County Board of Education,  
Facilities and Maintenance Building  
125 Industrial Parkway  
Columbiana, AL 35051**

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The Plans and Specifications are hereby amended. The following supersedes all contrary and/or conflicting information and is made part of the contract documents.

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**DRAWINGS**

1. **SHEET M0.2 – MECHANICAL SCHEDULES:** Added schedule and notes for exhaust fan EF-2.
2. **SHEET M0.4 – MECHANICAL DETAILS:** Added roof mounted exhaust fan detail.
3. **SHEET M1.1 – MECHANICAL – FLOOR PLAN – BASE BID:** Added ductwork for exhaust fan EF-2 and respective intake duct. Also added control sequence for EF-2.
4. **SHEET M1.2 – MECHANICAL – FLOOR PLAN - ALTERNATE:** Added ductwork for exhaust fan EF-2 and respective intake duct. Also added control sequence for EF-2.
5. **SHEET M1.3 – MECHANICAL – ROOF PLAN:** Added exhaust fan EF-2 and respective intake hood.
6. **SHEET M2.2 – MECHANICAL PIPING – ROOF PLAN – BASE BID:** Added exhaust fan EF-2 and respective intake hood.
7. **SHEET M2.3 – MECHANICAL PIPING – ROOF PLAN - ALTERNATE:** Added exhaust fan EF-2 and respective intake hood.

**APPROVED MANUFACTURERS**

The following manufacturers have submitted data for prior approval and have been approved by our office, **contingent upon the stipulation that their products must meet or exceed the contract specifications.**


**Product**

08513 Casement Windows

EFCO 325 x Casement Windows

**Manufacturer**

EFCO Corp.



2 Riverchase Office Plaza  
Suite 205  
Hoover, AL 35244  
(205) 988-2069  
www.dewberry.com  
Project Number :  
50189343

SHEET TITLE:  
MECHANICAL SCHEDULES

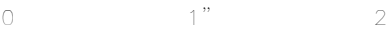


PROJ. MGR.: JWS  
DRAWN: JWS

DATE: 11-07-2025  
REVISIONS  
1 12/2/25 ADDENDUM #1  
2 1/8/26 ADDENDUM #6

JOB NO. 25-34  
SHEET NO:

M0.2



## FAN SCHEDULE

### FAN TYPE:

- CEILING MOUNTED EXHAUST FAN.
- CENTRIFUGAL SQUARE INLINE - DIRECT DRIVE
- CENTRIFUGAL ROOF MOUNTED DOWN FLOW.

### FAN ACCESSORIES:

- BACKDRAFT DAMPER.
- DISCONNECT SWITCH.
- ALUMINUM CEILING GRILLE.
- FAN SPEED CONTROLLER.
- SPRING VIBRATION ISOLATORS.
- FLEXIBLE CONNECTIONS.
- BIRDSCREEN.
- ROOF CURB.
- DIRECT DRIVE WITH FAN MOUNTED SOLID STATE SPEED CONTROL EC MOTOR W/ VFD FOR SOFT START.
- WALL SWITCH FOR SF-1, SF-2, & EF-1 AND ALL ASSOCIATED CONTROLS TO BE ON EMERGENCY POWER.
- PROVIDE TRANSFORMER REQUIRED TO TIE TO ROOM

### LIGHTS

- ALL ALUMINUM AIRSTREAM STAINLESS STEEL SHAFT AND HARDWARE, SMART SEAL.

MARK	FAN TYPE	AIRFLOW (CFM)	E.S.P. (IN.-W.G.)	WHEEL SIZE (INCHES)	SOUND CRITERIA (SONES/dBA)	MOTOR RPM	MOTOR (HP / W)	ELECTRICAL			INTERLOCK WITH	WEIGHT (LBS)	ACCESSORIES	BASIS OF DESIGN	
								V	PH	HZ				MANUFACTURER	MODEL NUMBER
EF-1	1	70	0.75	8	4 (SONES)	1060	40 W	120 V	1	60	LIGHTS/SHELTER SWITCH	25	1,2,3,4,5,10,11	COOK	GC-148
EF-2	3	250	0.5	8	5.7 (SONES)	1170	1/4 HP	120 V	1	60	REFRIGERANT LEAK SENSOR IHP-8	35	1,2,4,7,8,9,12	COOK	C2B
SF-1	2	485	0.75	8	13 (SONES)	1725	1/4 HP	120 V	1	60	SHELTER SWITCH	75	1,2,3,4,5,6,9,10	COOK	100SQN-B
SF-2	2	485	0.75	8	13 (SONES)	1725	1/4 HP	120 V	1	60	SHELTER SWITCH	75	1,2,3,4,5,6,9,10	COOK	100SQN-B

## PACKAGED THRU-WALL AC UNIT

### TYPE:

- PACKAGED THRU-WALL HEAT PUMP WITH ELECTRIC HEAT.

### NOTES:

IF ANOTHER APPROVED MANUFACTURER IS USED, THE MECHANICAL CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING ANY DEVIATIONS FROM THE SCHEDULED ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR. ALL DEVIATIONS SHALL BE IDENTIFIED ON THE PRODUCT SUBMITTAL DATA.

### ACCESSORIES:

- WALL SLEEVE - COORDINATE SLEEVE DEPTH WITH WALL CONDITIONS.
- EXTRUDED ALUMINUM ARCH. GRILLE WITH ANODIZED ALUMINUM FINISH. (COORDINATE GRILLE STYLE AND FINISH WITH ARCHITECT PRIOR TO ORDERING.)
- CONDENSATE DRAIN KIT.
- SUB-BASE KIT.
- POWER DISCONNECT SWITCH

MARK	TYPE	SUPPLY FAN AIRFLOW (CFM)	OUTSIDE AIR (CFM)	DX COOLING COIL CAPACITY TOTAL (MBH)	DX HEATING CAPACITY TOTAL (MBH)	ELEC HEAT (KW)	ELECTRICAL					EER	COP	DIMENSIONS (H x W x D)	WEIGHT (LBS.)	ACCESSORIES	QUANTITY BASE / ALTERNATE	BASIS OF DESIGN
							V	PH	HZ	MCA (A)	MOCP (A)							
TWHP-A	1	341	75 CFM	14.2	13.3	5	208 V	1	60	27.5	30	10.4	3.1	16"x42"x21"	150	1, 2, 3, 4, 5	6/10	FRIEDRICH

## OUTDOOR HEAT PUMP (MINI-SPLIT SYSTEM) SCHEDULE

### TYPE:

- OUTDOOR HEAT PUMP

### NOTES:

- REFRIGERANT PIPING SHALL BE SIZED AND ROUTED PER MANUFACTURER'S RECOMMENDATIONS.
- POWER TO INDOOR UNITS IS PROVIDED THRU OUTDOOR UNITS
- REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS.
- UNIT SHALL BE CAPABLE OF MINIMUM LINE LENGTH OF 65FT.

MARK	TYPE	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	ELECTRICAL					RECOMENDED FUSE SIZE (A)	EFFICIENCY		WEIGHT (LBS)	BASIS OF DESIGN
				V	PH	HZ	MCA (A)	MOCP (A)		SEER	HSPF		
OHP-1	1	30	32.6	208	1	60	22	37	25	21.9	10.3	170	MITSUBISHI
OHP-2	1	30	32.6	208	1	60	22	37	25	21.9	10.3	170	MITSUBISHI
OHP-3	1	30	32.6	208	1	60	22	37	25	21.9	10.3	170	MITSUBISHI
OHP-4	1	30	32.6	208	1	60	22	37	25	21.9	10.3	170	MITSUBISHI
OHP-5	1	9	12	208	1	60	13	22	15	21	11.8	170	MITSUBISHI
OHP-6	1	9	12	208	1	60	13	22	15	21	11.8	170	MITSUBISHI
OHP-7	1	30	32.6	208	1	60	22	37	25	21.9	10.3	170	MITSUBISHI
OHP-8	1	42	48	208	1	60	34	56	35	21	10.1	250	MITSUBISHI

## INDOOR HEAT PUMP (MINI-SPLIT SYSTEM) SCHEDULE

### TYPE:

- INDOOR, WALL MOUNT
- INDOOR, 2x2 CEILING CASSETTE
- INDOOR, 33x33 CEILING CASSETTE

### NOTES:

- AIRFLOW RATED AT HIGH FAN SPEED.
- POWER FOR INDOOR UNIT IS FED FROM OUTDOOR UNIT.
- COOLING CAPACITY RATED AT 95°F.
- HEATING CAPACITY RATED AT 47°F.

### ACCESSORIES:

- 3-POLE DISCONNECT SWITCH.
- HARD WIRED UNIT CONTROLLER.
- FULL PORT BALL VALVES & SCHRADER VALVES WITH FLARED CONNECTIONS.
- FIELD-INSTALLED CONDENSATE PUMP (120/1/60) - 1 GPH @ 33 FT. HD.
- INTEGRAL CONDENSATE PUMP.
- SUPPLY AIR DUCT OUTLET.

REFRIGERANT: R454B

MARK	TYPE	AIRFLOW (CFM)	NOMINAL TONS	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	DIMENSIONS (IN.) (WxLxH)	ELECTRICAL				WEIGHT (LBS.)	ACCESSORIES	BASIS OF DESIGN
							V	PH	HZ	MCA (A)			
IHP-1	3	880	2.5	27	32.6	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI
IHP-2	3	880	2.5	27	32.6	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI
IHP-3	3	880	2.5	27	32.6	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI
IHP-4	3	880	2.5	27	32.6	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI
IHP-5	2	300	0.75	9	12	22"x22"x8"	208 V	1	60	1	50	1,2,3,5	MITSUBISHI
IHP-6	2	300	0.75	9	12	22"x22"x8"	208 V	1	60	1	50	1,2,3,5	MITSUBISHI
IHP-7	3	880	2.5	27	32.6	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI
IHP-8	3	1200	3.5	42	48	33"x33"x12"	208 V	1	60	1	75	1,2,3,5	MITSUBISHI

## ENERGY RECOVERY UNIT

### TYPE:

DOWNFLOW PACKAGED, CONSTANT VOLUME, WITH DX COOLING COIL, ELECTRIC HEAT, HOT GAS RE-HEAT COIL, ENERGY RECOVERY WHEEL, AND MATCHED CONDENSER.

### NOTES:

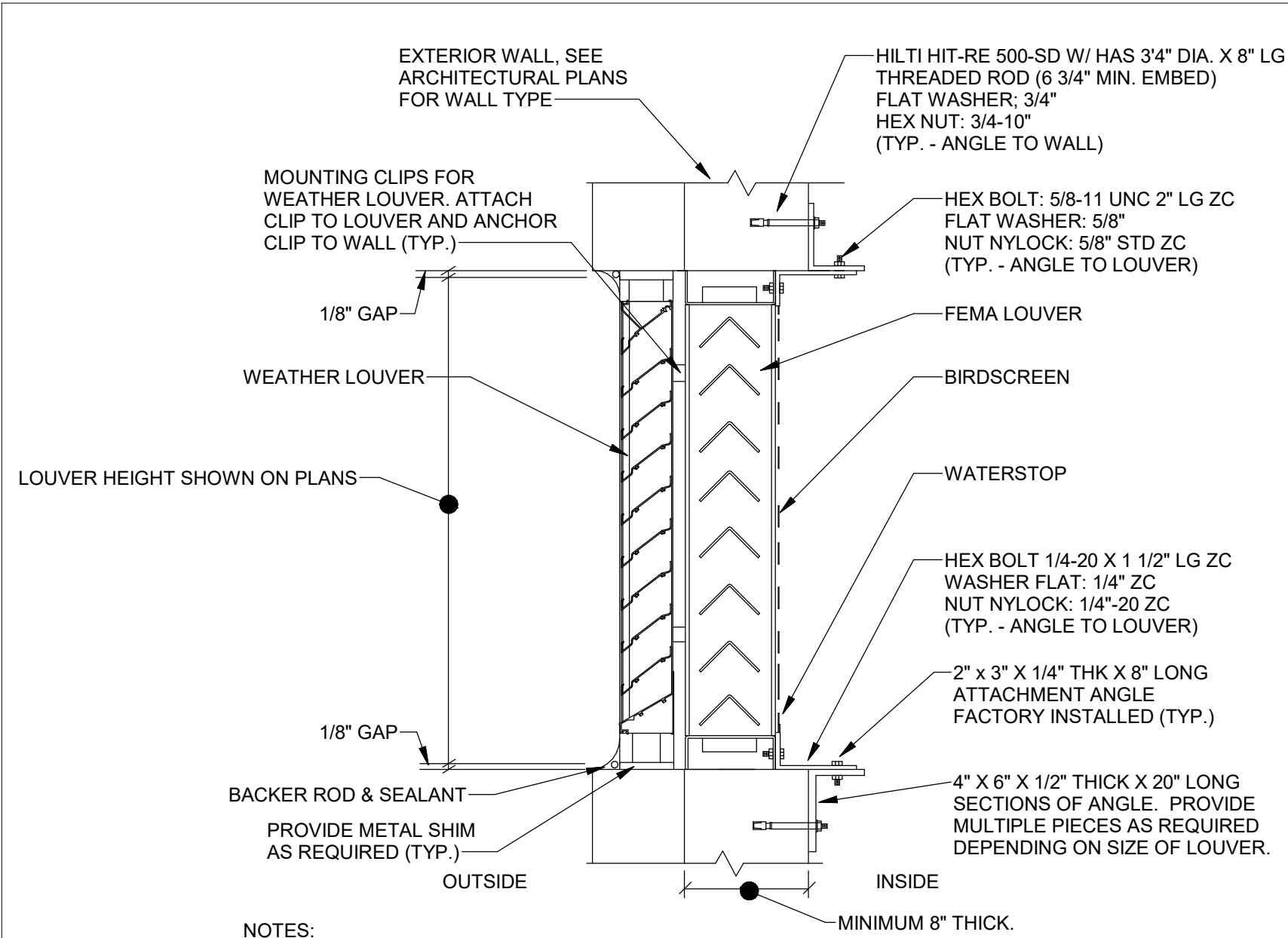
- COOLING CAPACITY IS NET CAPACITY @ 95°F AMBIENT.
- UNIT SHALL BE ASHRAE 90.1 - 2013 COMPLIANT.
- CKT 1: SPP
- CKT 2: ELECTRIC HEAT
- UL LISTED

### ACCESSORIES:

- 2" THICK THROWAWAY FILTER, 30% EFFICIENT.
- CONDENSER COIL GUARD.
- DIRECT DRIVE SUPPLY W/ VFD AND EXHAUST FAN W/ VFD.
- HEAD PRESSURE CONTROL TO 10°F AMBIENT.
- HINGED ACCESS DOORS....

- OSA INTAKE HOOD AND EXHAUST HOOD WITH AUTO DAMPERS.
- MODULATING HOT GAS REHEAT COIL.
- FACTORY ROOF CURB
- MICROPROCESSOR CONTROLLER WITH BACNET INTERFACE. CONTROLLER SHALL BE CAPABLE OF PROVIDING SEQUENCES ON CONTROLS DRAWINGS.

MARK	SUPPLY FAN			EXHAUST FAN			WHEEL IN SUMMER			WHEEL IN WINTER			ELECTRICAL				ELECTRIC HEAT		DX COOLING COIL				ISMRE2	WEIGHT (LBS)	ACCESSORIES	BASIS OF DESIGN		
	CFM	"W.G. E.S.P.	HP	CFM	"W.G. E.S.P.	HP	OUTSIDE AIR		EXHAUST ENTERING (DB/WB) °F	OUTSIDE AIR		EXHAUST ENTERING (DB/WB) °F	V	PH	Hz	MCA CKT 1/ CKT 2	MOCP CKT 1/ CKT 2	KW	STAGES	LAT (DB/WB)	TOTAL (MBH)	SENS (MBH)				NOM. TONS	MANUFACTURER	MODEL
							EAT (DB/WB) °F	LAT (DB/WB) °F		EAT (DB/WB) °F	LAT (DB/WB) °F																	
ERU-1	1525	1.1	1	1375	1.1	3/4	95/78	75/62.5	62.5/50.2	17/13.6	70/58	70/58	208	3	60	84.9	90	15.5	SCR	54.1/54.0	67.6	43.7	5.5	8.0	1800	1,2,3,4,5,6,7,8,9,10	VALENT	VXE-12-30 D-5J-1-A2

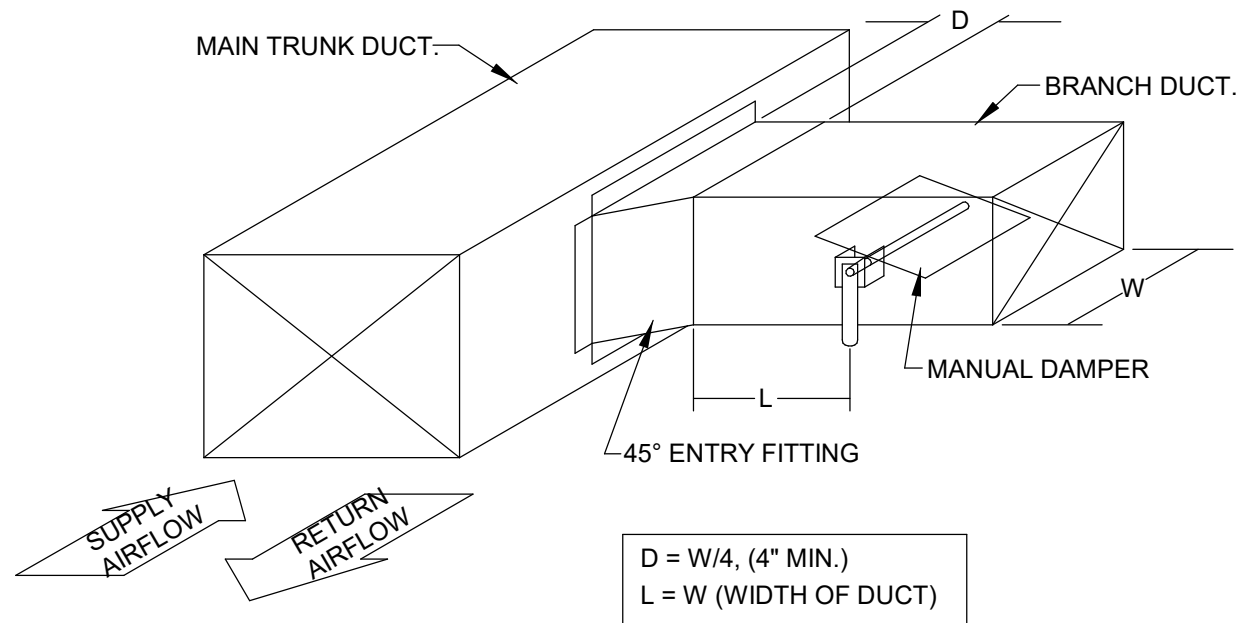


NOTES:

1. INSTALL WEATHER LOUVER AND FEMA LOUVER PER MANUFACTURER'S RECOMMENDATIONS.
2. WEATHER LOUVER SHALL HAVE DRAINABLE BLADES.
3. FEMA LOUVER SHALL BE TESTED AND MANUFACTURED TO FEMA 361 AND ICC500 SPECIFICATIONS FOR LARGE MISSILE IMPACT.
4. FEMA LOUVER SHALL HAVE A PERMANENT IDENTIFICATION TAG AFFIXED TO THE LOUVER THAT IS VISIBLE TO THE OWNER, ARCHITECT, ENGINEER, AND/OR AHJ.
5. INSTALLATION METHOD ABOVE IS ONE EXAMPLE FOR INSTALLING THE FEMA LOUVER. INSTALLING CONTRACTOR SHALL FOLLOW THIS DETAIL & ALL MANUFACTURER'S INSTALLATION GUIDELINES FOR DIFFERING WALL CONSTRUCTION.
6. ARCHITECT TO SELECT COLOR FOR WEATHER LOUVER.

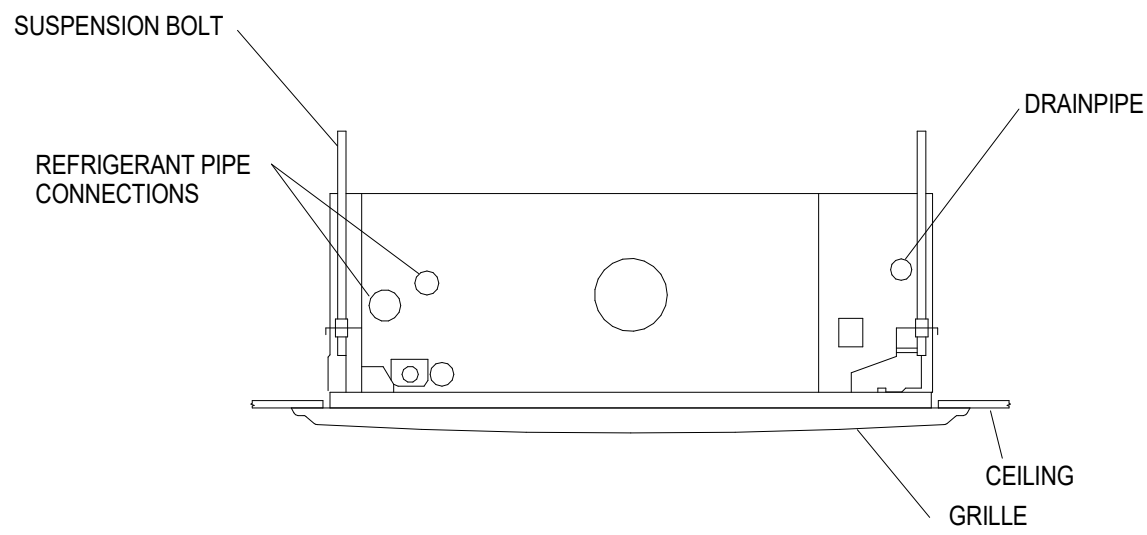
**WEATHER LOUVER & FEMA LOUVER INSTALLATION DETAIL**

NO SCALE



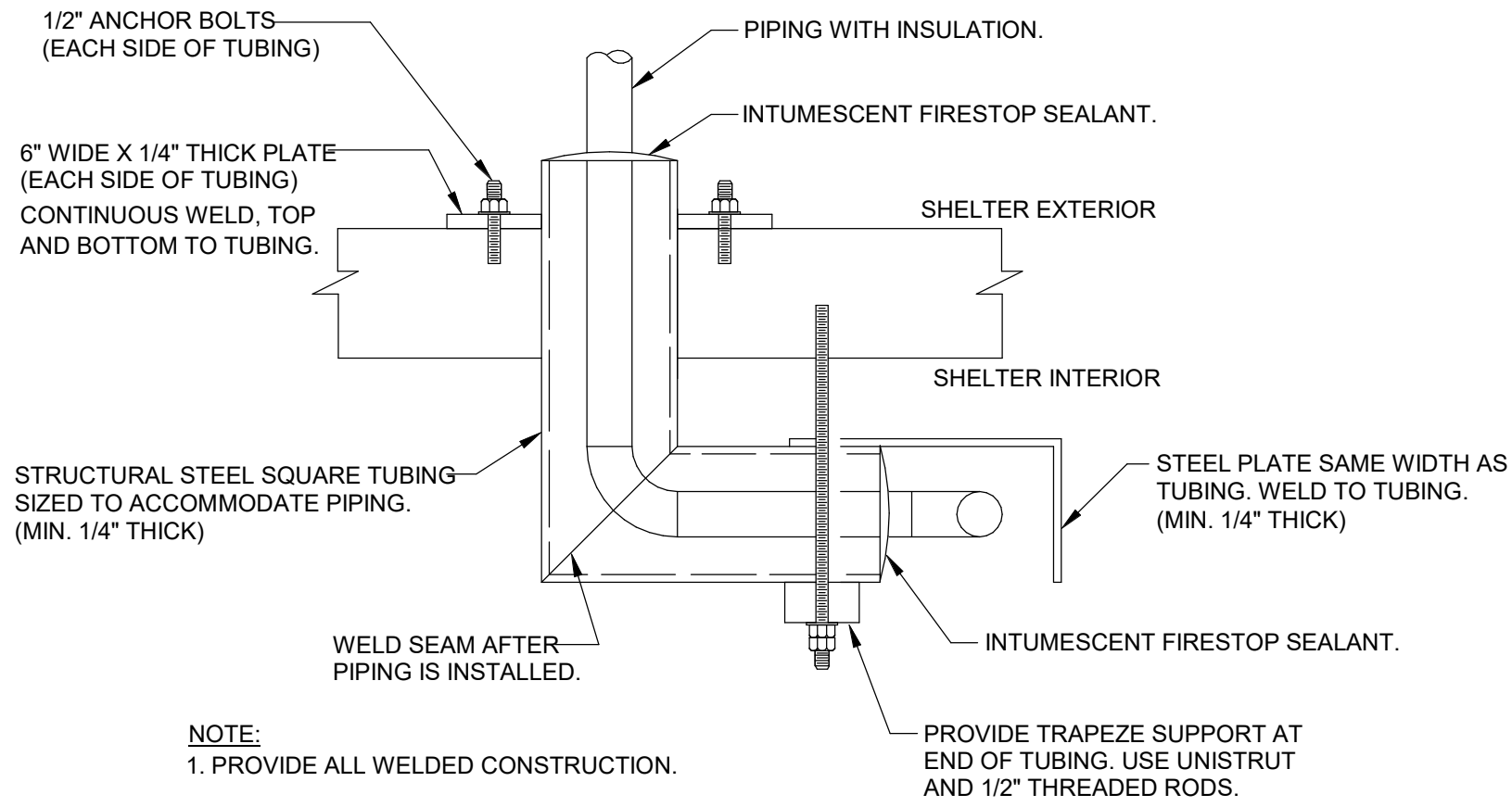
**DUCT BRANCH CONNECTION**

NO SCALE



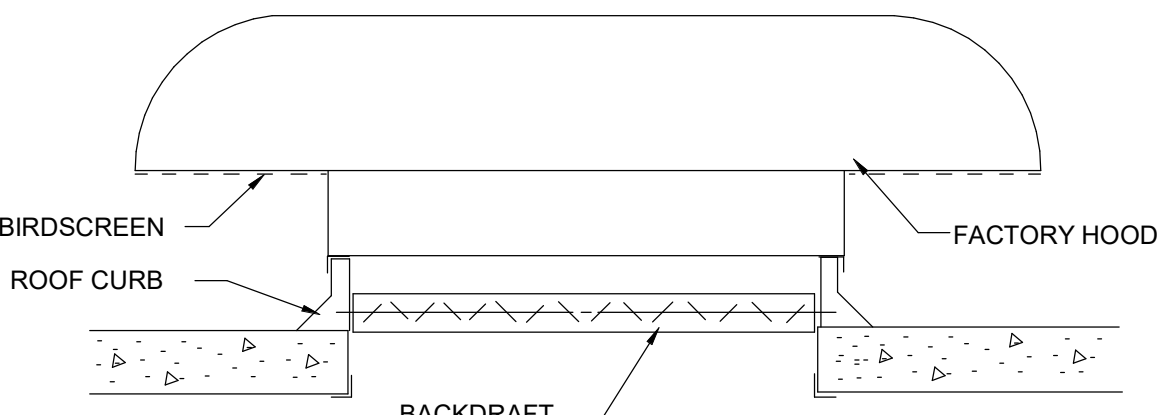
**INDOOR CEILING CASSETTE DETAIL**

NO SCALE



**DETAIL OF PIPE PASSING THRU SHELTER WALL OR ROOF**

NO SCALE

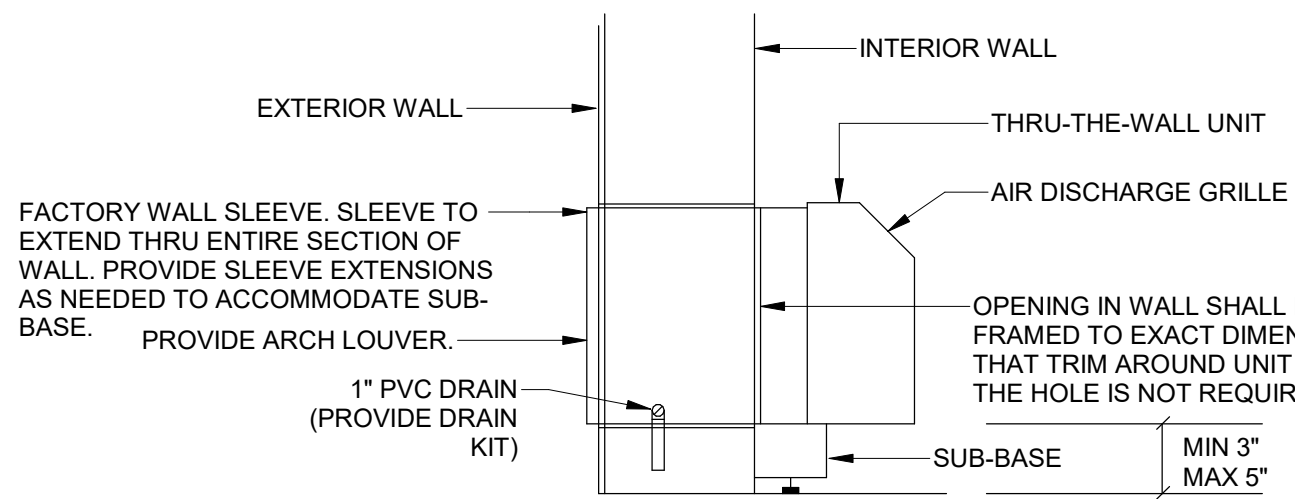


**ANCHOR METHODS:**

1. FOR STEEL STRUCTURES: ANCHOR CURB TO ROOF STRUCTURE WITH 1/4"-14 SELF DRILLING SCREWS. MINIMUM OF 1/2" OF THREADS SHALL BE SHOWING ON THE UNDERSIDE OF THE STRUCTURE. PROVIDE MINIMUM (4) FASTENERS PER SIDE, (TOTAL OF 16), EQUALLY SPACED ON EACH SIDE.
2. FOR CONCRETE STRUCTURES: ANCHOR CURB TO ROOF STRUCTURE WITH 3/8" HILTI EXPANSION ANCHORS. MINIMUM 2-1/2" ENGAGEMENT. PROVIDE MINIMUM (2) ANCHORS PER SIDE, (TOTAL OF 8), EQUALLY SPACED ON EACH SIDE.
3. ANCHOR HOOD TO CURB WITH A MINIMUM OF (4) 1/4"-14 SELF DRILLING SCREWS ON EACH SIDE OF THE HOOD (TOTAL OF 16 FASTENERS). ONE FASTENER SHALL BE INSTALLED 3" FROM EACH END ON THE SIDE OF THE HOOD AND THE OTHER TWO SHALL BE EQUALLY SPACED ALONG THE SIDE.

**EXHAUST HOOD DETAIL**

NO SCALE

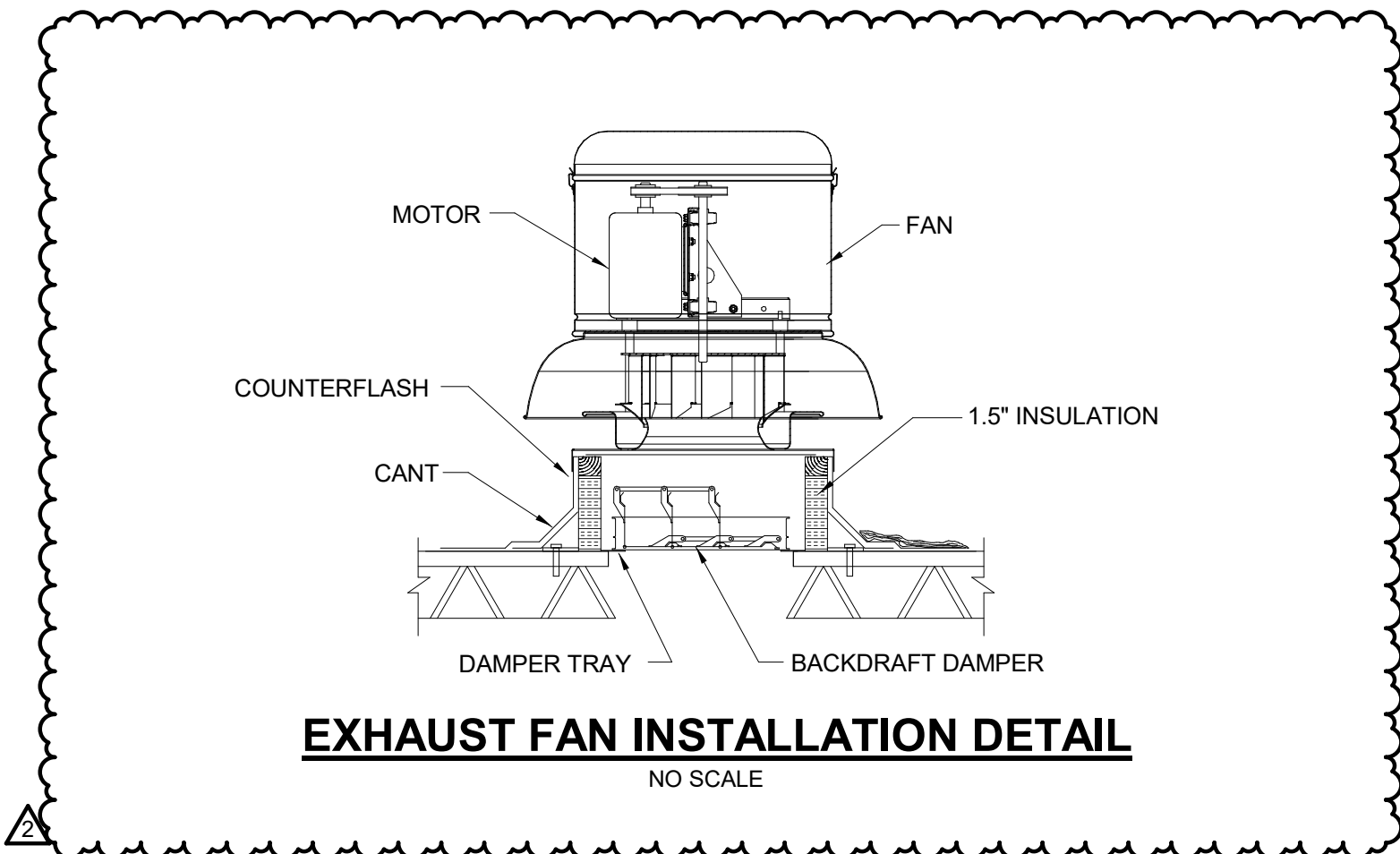


**NOTE:**

ELECTRICAL CONTRACTOR TO HARDWIRE SUB-BASE. CORD FROM UNIT SHALL PLUG INTO SUB-BASE. OUTLET. VERIFY ACTUAL WALL SECTION AND MOUNTING HEIGHT W/ ARCHITECTURAL PLANS.

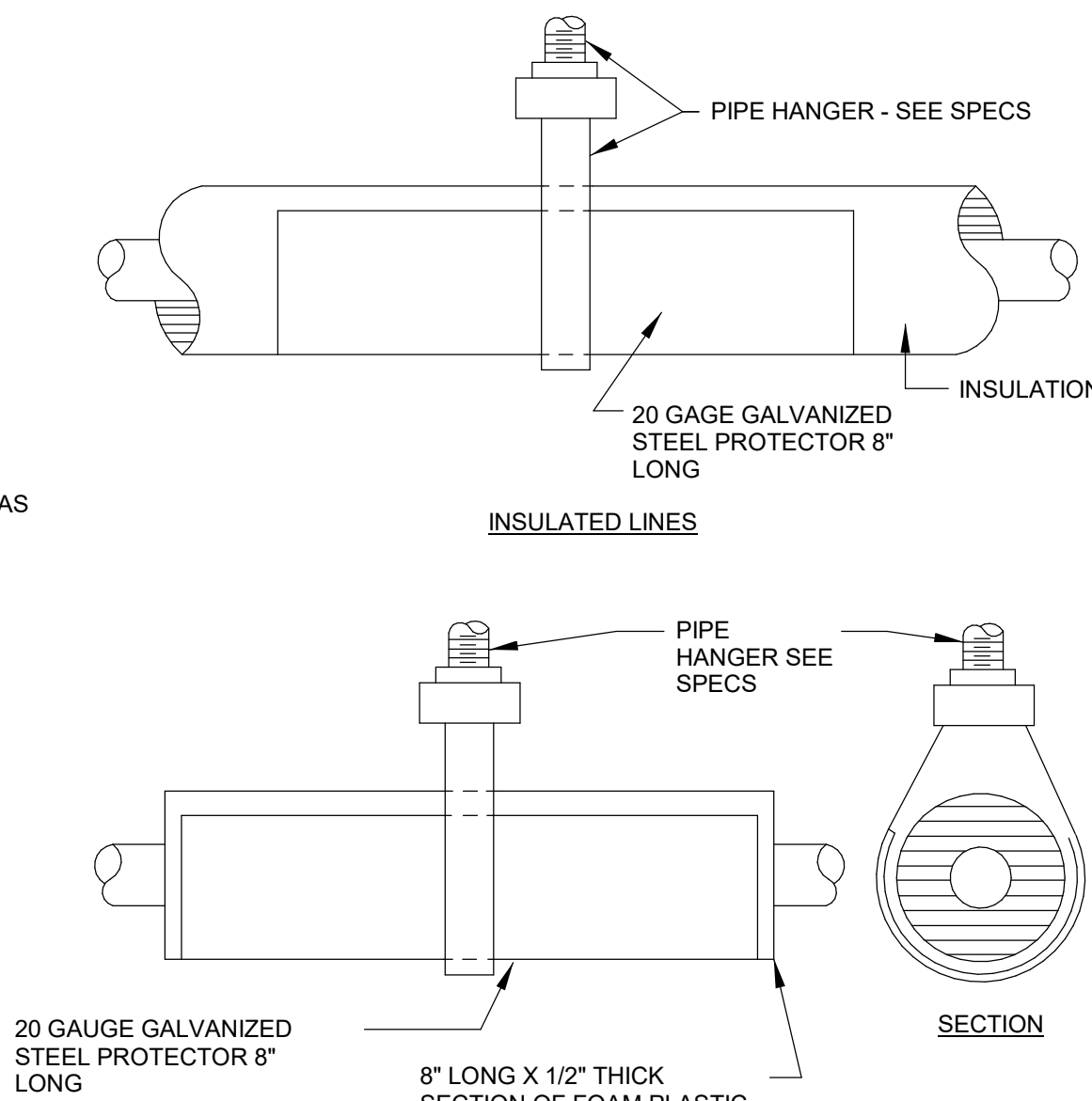
**THRU-WALL AC UNIT DETAIL**

NO SCALE



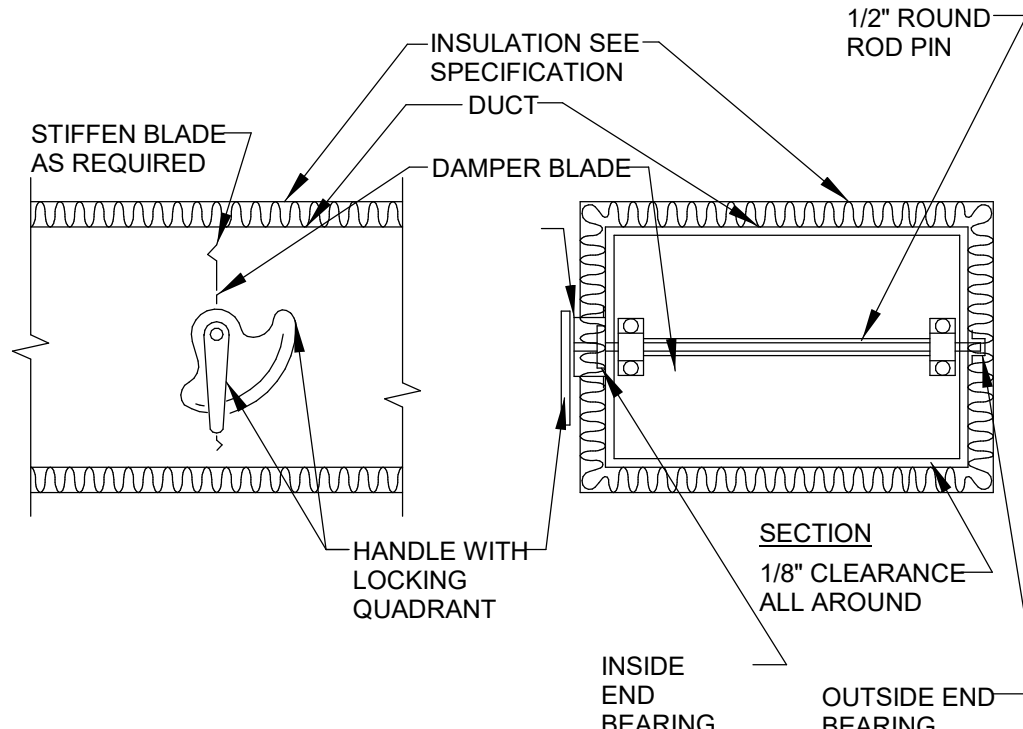
**EXHAUST FAN INSTALLATION DETAIL**

NO SCALE



**REFRIGERANT PIPING HANGER DETAIL**

NO SCALE

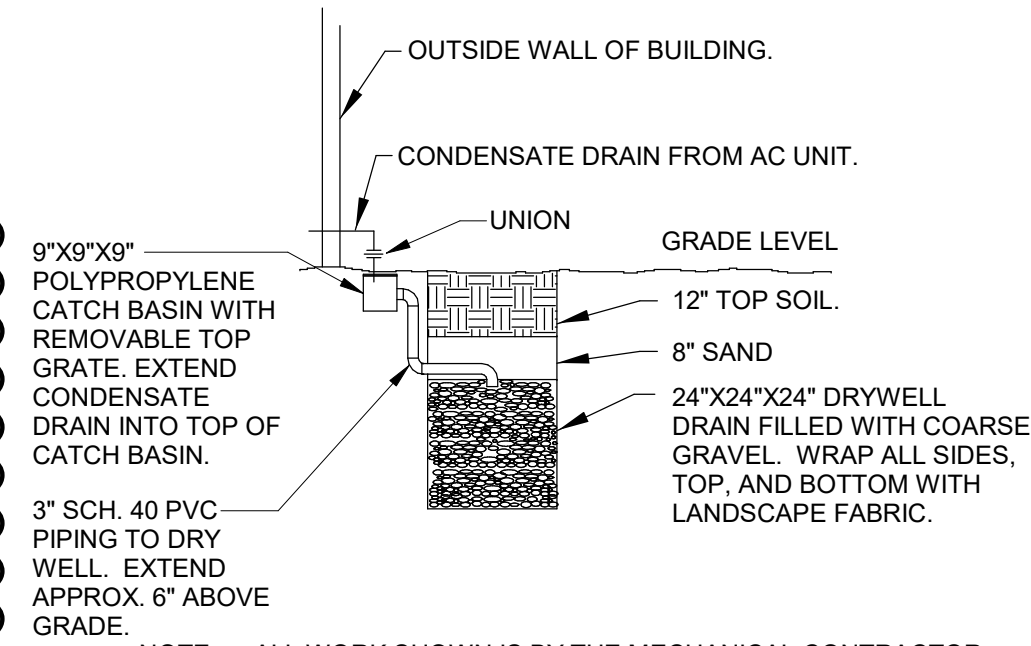


**NOTE:**

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.
3. MANUAL DAMPERS SHALL BE EQUAL TO RUSKIN MD35 (FOR RECTANGULAR DUCTS) AND SHALL BE EQUAL TO RUSKIN MDRS25 (FOR ROUND DUCTS).

**MANUAL DAMPER DETAIL**

NO SCALE

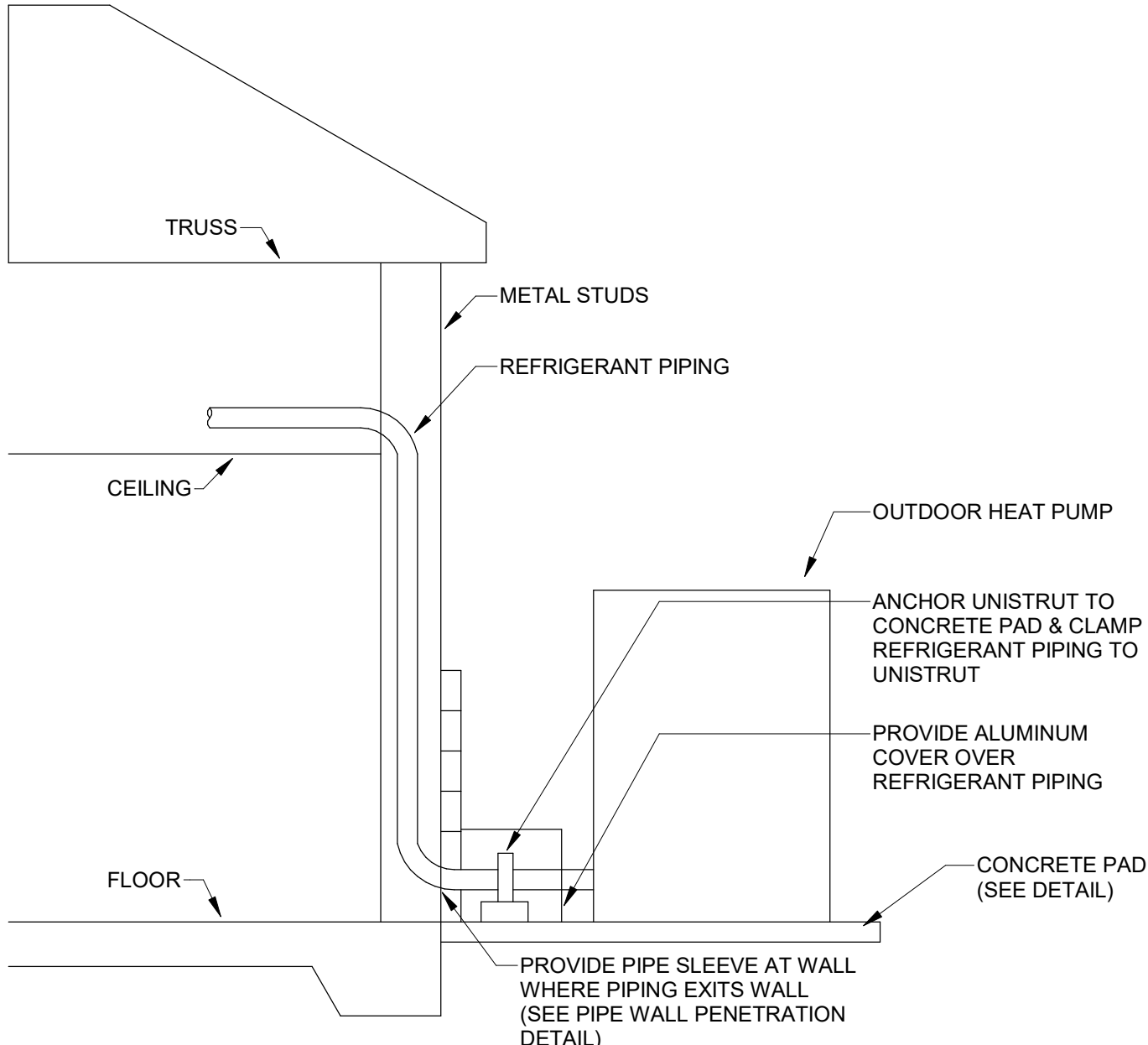


**NOTE:**

ALL WORK SHOWN IS BY THE MECHANICAL CONTRACTOR.

**DRY WELL DETAIL**

NO SCALE



**CONDENSING UNIT INSTALLATION DETAIL**

NO SCALE

**Dewberry**  
2 Riverchase Office Plaza  
Suite 205  
Hoover, AL 35244  
(205) 988-2069  
www.dewberry.com  
Project Number :  
50189343

**LATHAN  
McKEE  
ARCHITECTS**

CLASSROOM ADDITION TO  
**ELVIN HILL ELEMENTARY SCHOOL**  
201 WASHINGTON STREET, COLUMBIANA, ALABAMA 35051  
SHELBY COUNTY BOARD OF EDUCATION

SHEET TITLE:  
MECHANICAL DETAILS

**Professional Engineer Seal**  
No. 24747  
PROFESSIONAL  
01-08-2026  
ENGINEER  
WADE STEWART

PROJ. MGR.: JWS  
DRAWN: JWS

DATE: 11-07-2025  
REVISIONS  
2 1/8/26 ADDENDUM #6

JOB NO. 25-34  
SHEET NO:

**M0.4**  
0 1" 2"

SHELTER OSA CALCULATIONS			
Room	Room Type	Rp cfm/P	Pz People
STORM SHELTER	CLASSROOM	5	189
Total Required by SF-1.2:			945
Total Provided by SF-1.2:			970

### STORM SHELTER CALCULATIONS

MECHANICAL VENTILATION SHALL BE PROVIDED FOR THE STORM SHELTER. PER ICC-500-2020, CHAPTER 7, PART 702.4.2.

THE MECHANICAL VENTILATION SYSTEM CONSISTS OF USING A SUPPLY FAN TO PROVIDE OUTSIDE AIR AT A RATE THAT IS 5 CFM PER OCCUPANT.

### GENERAL NOTES

- DURING A STORM SHELTER EVENT, ALL INTERIOR DOORS TO ROOMS WITHIN SHELTER SHALL BE OPENED. PROVIDE SIGNAGE OF THIS NEXT TO FAN SWITCHES.
- ALL PIPING AND DUCTWORK LOCATED WITHIN THE STORM SHELTER SHALL BE SUPPORTED WITH TRAPEZE HANGERS CONSISTING OF UNISTRUT WITH ALL-THREAD ROD. ALL THREAD SHALL BE ATTACHED TO THE JOISTS/BEAMS IN THE SHELTER.
- COORDINATE ALL PENETRATIONS OF SHELTER WALLS OR ROOF WITH GENERAL CONTRACTORS.
- DO NOT PENETRATE OR CUT BOND BEAMS. WEATHER LOUVERS SHALL BE INSTALLED IN BRICK, IN FRONT OF SHELTER LOUVERS. WEATHER LOUVERS SHALL BE RUSKIN ELF375 OR APPROVED EQUAL.
- SHELTER LOUVERS SHALL BE INSTALLED IN THE SHELTER WALL. SHELTER LOUVERS SHALL BE GREENHECK MODEL AFL-501, RUSKIN XP500, OR APPROVED EQUAL. HIGH IMPACT LOUVERS SHALL MEET THE IMPACT TESTING CRITERIA FOR TORNADO SHELTERS PER ICC 500 / FEMA 361 AND SHALL BE LABELED THAT THEY HAVE BEEN TESTED TO MEET THAT REQUIREMENT.

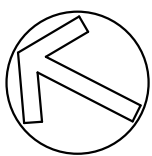
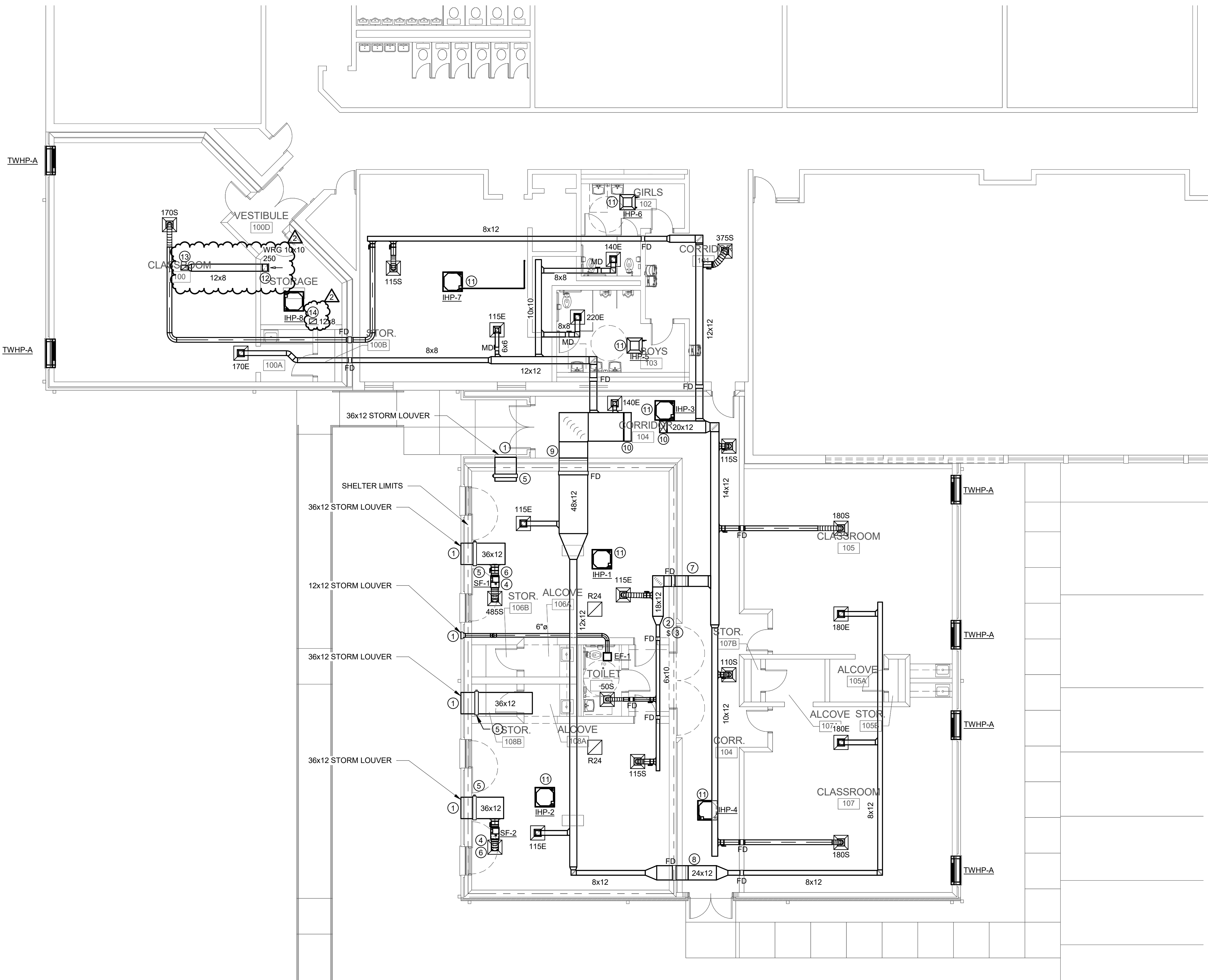
### KEYED NOTES

- HIGH IMPACT LOUVERS AND WEATHER LOUVERS. HIGH IMPACT LOUVERS SHALL MEET IMPACT TESTING CRITERIA FOR TORNADO SHELTERS IN ICC 500/FEMA 361. LOUVER TO BE GREENHECK MODEL AFL-501 OR EQUAL. SEE DETAIL. WEATHER LOUVER SHALL BE INSTALLED ON EXTERIOR WALL WITH HIGH IMPACT LOUVER INSTALLED BEHIND WEATHER LOUVER. (EXTERIOR WALL APPLICATION ONLY). TOP OF STORM LOUVER SHALL BE INSTALLED BELOW BOND BEAMS.
- WALL SWITCH FOR SHELTER SUPPLY FANS TO BE ACTIVATED UPON THE LOSS OF POWER DURING A STORM EVENT. SWITCH SHALL ALSO CUT POWER TO ALL AUTOMATIC INTAKE AND RELIEF DAMPERS TO CAUSE THEM TO OPEN.
- SIGNAGE FOR EMERGENCY VENTILATION FAN SWITCH (REFER TO ARCHITECTURAL SIGNAGE SPECIFICATIONS FOR SIGN AND TEXT COLOR AND SIZE)(COORDINATE EXACT LOCATION WITH ARCHITECT.)
- STORM SHELTER SUPPLY FAN TO RUN WHENEVER POWER IS LOST DURING A STORM EVENT BY TURNING THE WALL SWITCH TO THE "ON" POSITION. NORMALLY, THE STORM SHELTER SUPPLY FAN SHALL BE "OFF".
- AUTOMATIC DAMPER IS NORMALLY CLOSED AND SHALL OPEN WHEN POWER IS LOST. DAMPER SHALL SPRING RETURN TO OPEN POSITION.
- SUSPEND FAN FROM STRUCTURE WITH SPRING VIBRATION ISOLATORS. PROVIDE FLEXIBLE CONNECTION (WITH GROUNDING STRAP) ON INLET & OUTLET OF FAN.
- 18x12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- 24x12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- 48x12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- SA AND EXH DUCT UP AND TRANSITION TO FULL SIZE OF UNIT OPENING.
- SUSPEND UNIT FROM STRUCTURE ABOVE.
- 12x8 DOWN FROM ROOF WITH 10x10 WALL EXHAUST GRILL (250 CFM) 12" A.F.F.
- 12x8 UP THROUGH ROOF TO EF-2.
- 12x8 DOWN FROM ROOF WITH AUTO DAMPER. OPEN 12" BELOW CEILING.

### CONTROLS

#### EF-2 CONTROLS:

PROVIDE A RELAY(S) TO ENABLE EF-2 WHENEVER THERE IS A REFRIGERANT LEAK FROM IHP-8. RELAY(S) FOR REFRIGERANT LEAK MITIGATION ACTIONS SHALL BE INTERLOCKED WITH THE ON-BOARD REFRIGERANT LEAK DETECTOR FOR IHP-8. RESPECTIVE INTAKE AUTO DAMPER SHALL OPEN ONCE RESPECTIVE EXHAUST FAN IS ENERGIZED. AUTO DAMPER TO CLOSE ONCE RESPECTIVE FAN IS DE-ENERGIZED.



## 1 MECHANICAL - FLOOR PLAN - BASE BID

1/8" = 1'-0"

0' 4' 8' 16'  
SCALE: 1/8" = 1' - 0"

CLASSROOM ADDITION TO  
**ELVIN HILL ELEMENTARY SCHOOL**  
201 WASHINGTON STREET, COLUMBIANA, ALABAMA 35051  
SHELBY COUNTY BOARD OF EDUCATION

SHEET TITLE:  
MECHANICAL - FLOOR PLAN -  
BASE BID



PROJ. MGR.: JWS  
DRAWN: JWS

DATE: 11-07-2025

REVISIONS  
2 1/8/26 ADDENDUM #6

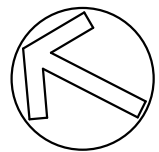
JOB NO. 25-34

SHEET NO:

**M1.1**

0' 1' 2'

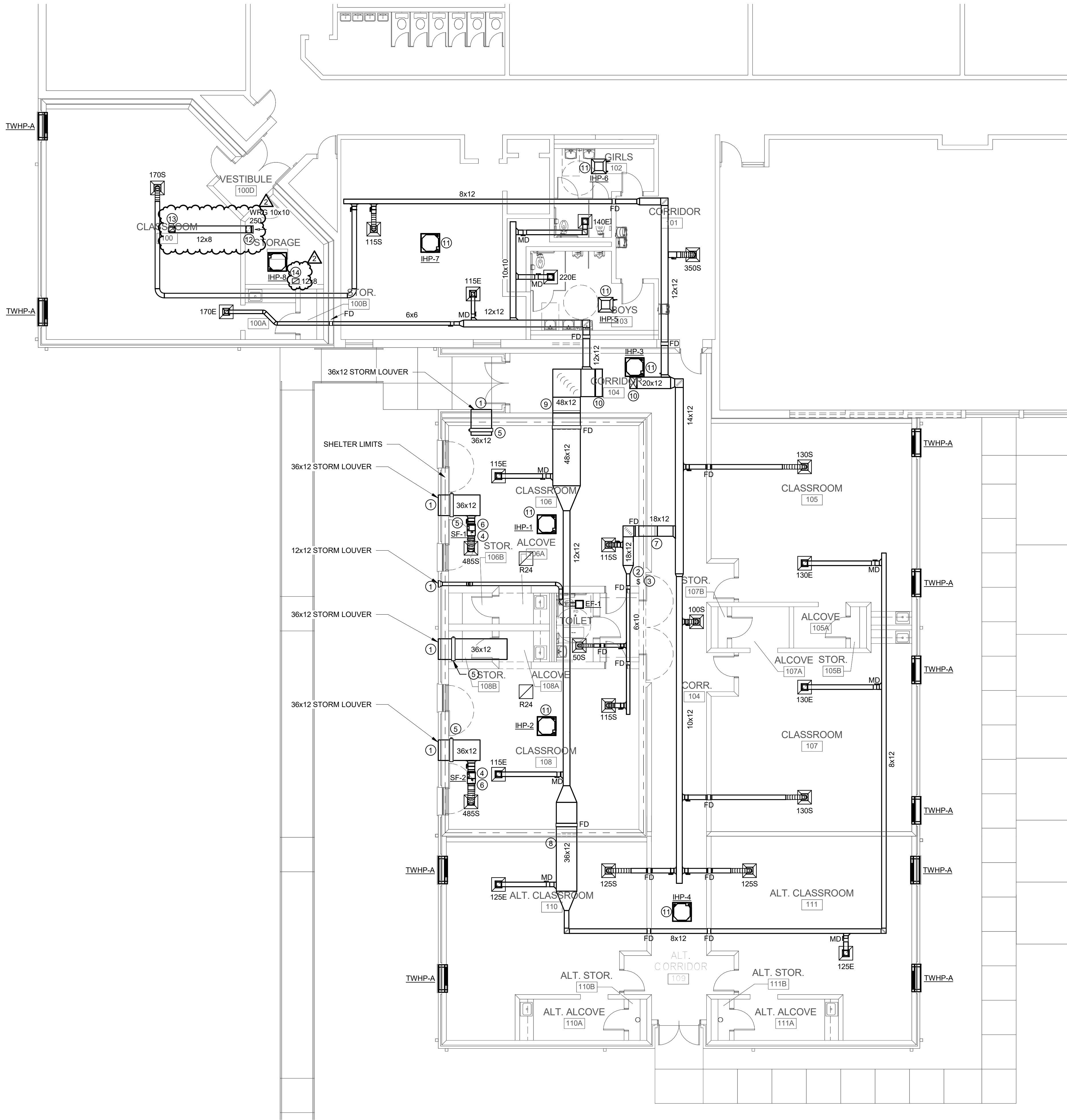




1 MECHANICAL - FLOOR PLAN - ALTERNATE

1/8" = 1'-0"

0' 4' 8' 16'  
SCALE: 1/8" = 1' - 0"



CONTROLS

EF-2 CONTROLS:

PROVIDE A RELAY(S) TO ENABLE EF-2 WHENEVER THERE IS A REFRIGERANT LEAK FROM IHP-8. RELAY(S) FOR REFRIGERANT LEAK MITIGATION ACTIONS SHALL BE INTERLOCKED WITH THE ON-BOARD REFRIGERANT LEAK DETECTOR FOR IHP-8. RESPECTIVE INTAKE AUTO DAMPER SHALL OPEN ONCE RESPECTIVE EXHAUST FAN IS ENERGIZED. AUTO DAMPER TO CLOSE ONCE RESPECTIVE FAN IS DE-ENERGIZED.

SHELTER OSA CALCULATIONS

Room	Room Type	Rp cfm/P	Pz People
STORM SHELTER	CLASSROOM	5	189
Total Required by SF-1,2:		945	
Total Provided by SF-1,2:		970	

STORM SHELTER CALCULATIONS

MECHANICAL VENTILATION SHALL BE PROVIDED FOR THE STORM SHELTER. PER ICC-500-2020, CHAPTER 7, PART 702.4.2.

THE MECHANICAL VENTILATION SYSTEM CONSISTS OF USING A SUPPLY FAN TO PROVIDE OUTSIDE AIR AT A RATE THAT IS 5 CFM PER OCCUPANT.

GENERAL NOTES

- DURING A STORM SHELTER EVENT, ALL INTERIOR DOORS TO ROOMS WITHIN SHELTER SHALL BE OPENED. PROVIDE SIGNAGE OF THIS NEXT TO FAN SWITCHES.
- ALL PIPING AND DUCTWORK LOCATED WITHIN THE STORM SHELTER SHALL BE SUPPORTED WITH TRAPEZE HANGERS CONSISTING OF UNISTRUT WITH ALL-THREAD ROD. ALL THREAD SHALL BE ATTACHED TO THE JOISTS/BEAMS IN THE SHELTER.
- COORDINATE ALL PENETRATIONS OF SHELTER WALLS OR ROOF WITH GENERAL CONTRACTORS.
- DO NOT PENETRATE OR CUT BOND BEAMS. WEATHER LOUVERS SHALL BE INSTALLED IN BRICK, IN FRONT OF SHELTER LOUVERS. WEATHER LOUVERS SHALL BE RUSKIN ELF375 OR APPROVED EQUAL.
- SHELTER LOUVERS SHALL BE INSTALLED IN THE SHELTER WALL. SHELTER LOUVERS SHALL BE GREENHECK MODEL AFL-501, RUSKIN XP500, OR APPROVED EQUAL. HIGH IMPACT LOUVERS SHALL MEET THE IMPACT TESTING CRITERIA FOR TORNADO SHELTERS PER ICC 500 / FEMA 361 AND SHALL BE LABELED THAT THEY HAVE BEEN TESTED TO MEET THAT REQUIREMENT.

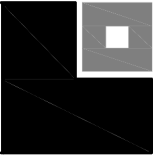
KEYED NOTES

- HIGH IMPACT LOUVERS AND WEATHER LOUVERS. HIGH IMPACT LOUVERS SHALL MEET IMPACT TESTING CRITERIA FOR TORNADO SHELTERS IN ICC 500/FEMA 361. LOUVER TO BE GREENHECK MODEL AFL-501 OR EQUAL. SEE DETAIL. WEATHER LOUVER SHALL BE INSTALLED ON EXTERIOR WALL WITH HIGH IMPACT LOUVER INSTALLED BEHIND WEATHER LOUVER. (EXTERIOR WALLAPPLICATION ONLY). TOP OF STORM LOUVER SHALL BE INSTALLED BELOW BOND BEAMS.
- WALL SWITCH FOR SHELTER SUPPLY FANS TO BE ACTIVATED UPON THE LOSS OF POWER DURING A STORM EVENT. SWITCH SHALL ALSO CUT POWER TO ALL AUTOMATIC INTAKE AND RELIEF DAMPERS TO CAUSE THEM TO OPEN.
- SIGNAGE FOR EMERGENCY VENTILATION FAN SWITCH (REFER TO ARCHITECTURAL SIGNAGE SPECIFICATIONS FOR SIGN AND TEXT COLOR AND SIZE)(COORDINATE EXACT LOCATION WITH ARCHITECT.)
- STORM SHELTER SUPPLY FAN TO RUN WHENEVER POWER IS LOST DURING A STORM EVENT BY TURNING THE WALL SWITCH TO THE "ON" POSITION. NORMALLY, THE STORM SHELTER SUPPLY FAN SHALL BE "OFF".
- AUTOMATIC DAMPER IS NORMALLY CLOSED AND SHALL OPEN WHEN POWER IS LOST. DAMPER SHALL SPRING RETURN TO OPEN POSITION.
- SUSPEND FAN FROM STRUCTURE WITH SPRING VIBRATION ISOLATORS. PROVIDE FLEXIBLE CONNECTION (WITH GROUNDING STRAP) ON INLET & OUTLET OF FAN.
- 18X12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- 36X12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- 48X12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL)
- SA AND EXH DUCT UP AND TRANSITION TO FULL SIZE OF UNIT OPENING.
- SUSPEND UNIT FROM STRUCTURE ABOVE.
- 12x8 DOWN FROM ROOF WITH 10x10 WALL EXHAUST GRILL (250 CFM) 12" A.F.F.
- 12x8 UP THROUGH ROOF TO EF-2.
- 12x8 DOWN FROM ROOF WITH AUTO DAMPER. OPEN 12" BELOW CEILING.



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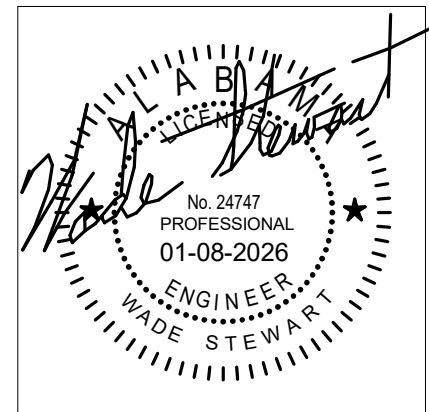
Project Number :  
50189343



LATHAN  
McKEE  
ARCHITECTS

CLASSROOM ADDITION TO  
ELVIN HILL ELEMENTARY SCHOOL  
201 WASHINGTON STREET, COLUMBIANA, ALABAMA 35051  
SHELBY COUNTY BOARD OF EDUCATION

SHEET TITLE:  
MECHANICAL - FLOOR PLAN -  
ALTERNATE



PROJ. MGR.: JWS  
DRAWN: JWS

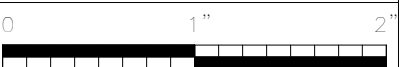
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JOB NO. 25-34

SHEET NO:

M1.2



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MECHANICAL - ROOF PLAN



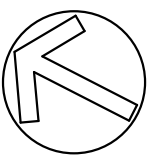
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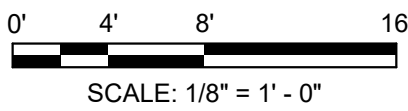
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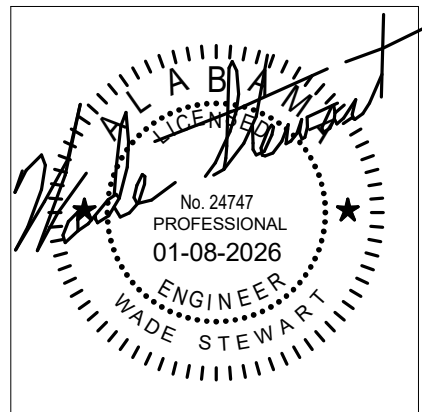


1 MECHANICAL - ROOF PLAN  
1/8" = 1'-0"



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MECHANICAL PIPING - ROOF  
PLAN - BASE BID



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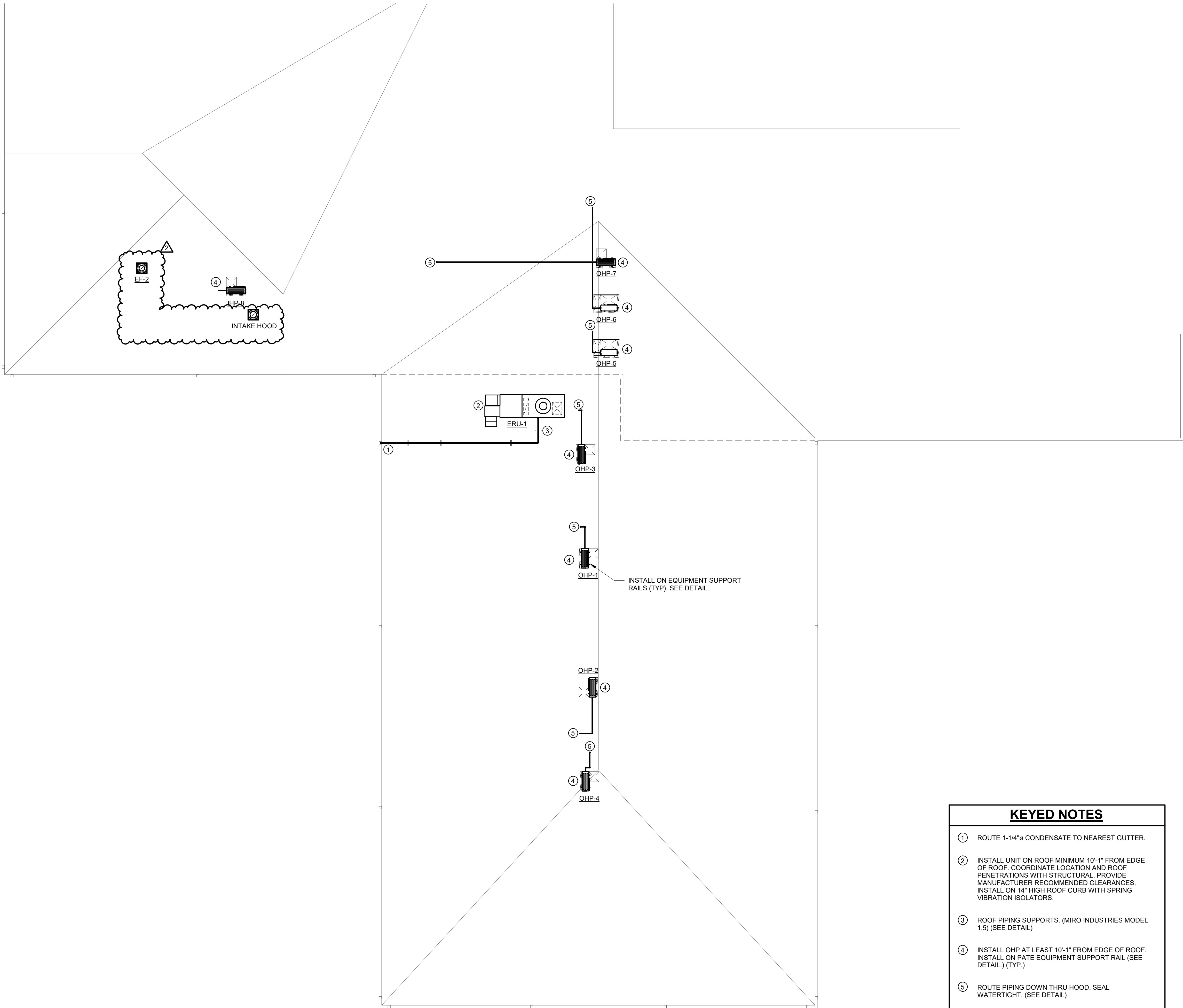
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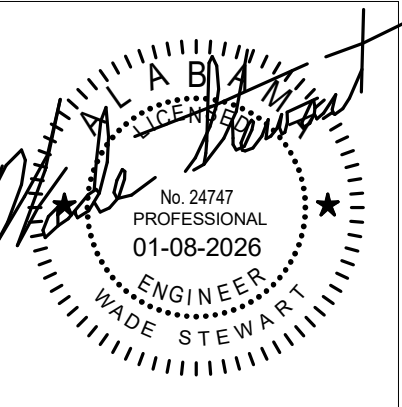
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KEYED NOTES	
①	ROUTE 1-1/4"ø CONDENSATE TO NEAREST GUTTER.
②	INSTALL UNIT ON ROOF MINIMUM 10'-1" FROM EDGE OF ROOF. COORDINATE LOCATION AND ROOF PENETRATIONS WITH STRUCTURAL. PROVIDE MANUFACTURER RECOMMENDED CLEARANCES. INSTALL ON 14" HIGH ROOF CURB WITH SPRING VIBRATION ISOLATORS.
③	ROOF PIPING SUPPORTS. (MIRO INDUSTRIES MODEL 1.5) (SEE DETAIL)
④	INSTALL OHP AT LEAST 10'-1" FROM EDGE OF ROOF. INSTALL ON PATE EQUIPMENT SUPPORT RAIL (SEE DETAIL.) (TYP.)
⑤	ROUTE PIPING DOWN THRU HOOD. SEAL WATERTIGHT. (SEE DETAIL)

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MECHANICAL PIPING - ROOF  
PLAN - ALTERNATE



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