

SYMBOL & ABBREVIATIONS

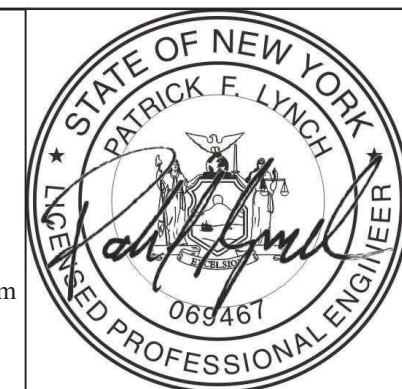
GENERAL NOTES

SYMBOL	ABBREVIATION	DESCRIPTION
-	AFF	ABOVE FINISHED FLOOR
-	AP	ACCESS PANEL
-	BDD	BACKDRAFT DAMPER
-	BHP	BRAKE HORSEPOWER
-	BTU	BRITISH THERMAL UNIT
-	CFM	CUBIC FEET PER MINUTE
-	CL	CENTERLINE
-	DB	DRY BULB TEMPERATURE
-	DIA. OR Ø	DIAMETER
-	DX	DIRECT EXPANSION
-	EA	EXHAUST AIR
-	EAT	ENTERING AIR TEMPERATURE
-	EF-	EXHAUST FAN
-	EL	ELEVATION
-	ER	EXHAUST REGISTER
-	ESP	EXTERNAL STATIC PRESSURE
-	EWT	ENTERING WATER TEMPERATURE
-	FPM	FEET PER MINUTE
-	FPS	FEET PER SECOND
-	GPM	GALLONS PER MINUTE
-	HP	HORSE POWER
-	HV-	HEATING AND VENTILATING UNIT
-	LAT	LEAVING AIR TEMPERATURE
-	LF	LINEAR FEET
-	LWT	LEAVING WATER TEMPERATURE
-	MBH	1000 BRITISH THERMAL UNITS PER HOUR
-	OAI	OUTSIDE AIR INTAKE
-	PSI	POUNDS PER SQUARE INCH
-	RA	RETURN AIR
-	RPM	REVOLUTIONS PER MINUTE
-	SA	SUPPLY AIR
-	SP	STATIC PRESSURE
-	TSP	TOTAL STATIC PRESSURE
-	TYP.	TYPICAL
-	U.O.N.	UNLESS OTHERWISE NOTED
-	UH-	UNIT HEATER
-	WG	INCHES OF WATER GAUGE
-	WMS	WIRE MESH SCREEN
-	WG	INCHES OF WATER GAUGE
-	NEW	NEW WORK
Ⓧ	-	THERMOSTAT
Ⓜ	-	MOTORIZED DAMPER
ⓈⓃⓄ ₂	-	COMBINATION CO & NO2 SENSOR
→	-	AIR INTO REGISTER
⊗	-	POINT OF CONNECTION DISCONNECTION
⊠	-	SUPPLY DUCT UP
⊡	-	SUPPLY DUCT DOWN
⊠	-	RETURN DUCT UP
⊡	-	RETURN DUCT DOWN
VD	-	VOLUME DAMPER
6x8	-	DUCT SIZE - 1ST FIGURE IS SIDE SHOWN
FC	-	FLEXIBLE CONNECTION
SECTION CALLOUT	-	SECTION CALLOUT

- CONTRACT DRAWINGS, AS FAR AS THEY RELATE TO THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, SHEET METAL, AND PIPING, SHALL BE UNDERSTOOD AS DIAGRAMMATIC. ANY CHANGES TO EQUIPMENT, SHEET METAL, AND PIPING LOCATIONS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST, AND MUST BE APPROVED BY THE ENGINEER.
- THE MECHANICAL CONTRACTOR SHALL INSTALL FIRE DAMPERS WITH ACCESS DOORS IN ALL DUCTS PENETRATING FIRE RATED WALLS, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
- ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT SHALL BE HEAVY DUTY TYPE.
- DUCT DIMENSIONS SHOWN ON MECHANICAL DRAWINGS REFER TO INSIDE CLEAR DUCT DIMENSIONS. WHERE DUCTWORK IS LINED, THE MECHANICAL CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.
- LOCATE THERMOSTATS, TEMPERATURE SENSORS, AND CO DETECTORS 5'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE, CABINETS, ETC. FURNISH LOCKING TAMPERPROOF COVER FOR ALL NEW THERMOSTATS IN PUBLIC AREAS.
- THE MECHANICAL CONTRACTOR SHALL NOTE THAT, IN ADDITION TO THE SPECIFICATIONS AND DETAILS GIVEN IN THESE PLANS FOR PIPE HANGERS AND SUPPORTS, ALL HANGERS AND SUPPORTS SHALL BE DESIGNED AND INSTALLED IN COMPLIANCE WITH APPLICABLE SEISMIC CODES.
- THE CONTRACTORS SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPOSITE SHOP DRAWING, FULLY COORDINATED WITH ALL OTHER TRADES INDICATING ALL DUCTWORK, MECHANICAL EQUIPMENT, PIPING, ELECTRICAL EQUIPMENT, PLUMBING PIPING AND EQUIPMENT, LIGHTS, CONDUITS, DIFFUSERS, GRILLES AND FIRE ALARM DEVICES.
- ALL WORK SHALL COMPLY WITH STATE BUILDING CODE, LOCAL BUILDING CODE, AND ENERGY CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
- DURING CONSTRUCTION, ALL OPEN OR INCOMPLETE DUCTWORK SHALL BE CAPPED AIRTIGHT WITH WITH HEAVY POLYETHYLENE PLASTIC. AFTER THE INSTALLATION OF DUCTWORK, REGISTERS, GRILLES, AND DIFFUSERS, THE CONTRACTOR SHALL BLANK OFF ALL REGISTERS, GRILLES, AND DIFFUSERS WITH HEAVY POLYETHYLENE PLASTIC AND TAPE AIR TIGHT, IN AREAS THAT ARE UNDER CONSTRUCTION, UNTIL WORK IS COMPLETE IN THOSE AREAS. FLOOR REGISTERS AND GRILLES SHALL ALSO BE COVERED WITH 1/8" MASONITE.
- WHEN GENERAL CONSTRUCTION IS COMPLETE, VACUUM CLEAN ALL DIFFUSERS, REGISTERS, GRILLES, AND HVAC EQUIPMENT IN THE PROJECT AREA OR SERVING THE PROJECT AREA. REMOVE ANY CONSTRUCTION DEBRIS. REPLACE ALL AIR FILTERS WITH NEW.
- THE OWNER'S PERMANENT HVAC EQUIPMENT SHALL NOT BE USED BY ANY CONTRACTOR DURING CONSTRUCTION FOR TEMPORARY HEATING, COOLING, OR VENTILATION. IF TEMPORARY HEATING, COOLING, OR VENTILATION IS REQUIRED AT ANY POINT DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TEMPORARY HEATING, COOLING, OR VENTILATION EQUIPMENT, DUCTWORK, CONTROLS, AND POWER AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY VENTILATION AND EXHAUST AIR WHEN WELDING OR SOLDERING OPERATIONS ARE PERFORMED, AS REQUIRED BY OSHA.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS AND FOR PAYING RELATED FEES.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, CORE DRILLING, ACCESS PANELS, PAINTING, AND FINAL RESTORATION REQUIRED TO FACILITATE THE INSTALLATION OF HVAC DUCTWORK, CONTROL CONDUITS, AND PIPING, INCLUDING ABOVE CEILINGS AND IN SHAFTS THAT WILL NOT BE REPLACED OR OPENED UNDER ANY OTHER SCOPE OF WORK RELATED TO THIS PROJECT. CONTRACTOR TO REMOVE AND REPLACE CEILINGS, AND OPEN AND PATCH SHAFTS AND WALLS, AS REQUIRED TO EXECUTE THE MECHANICAL WORK.

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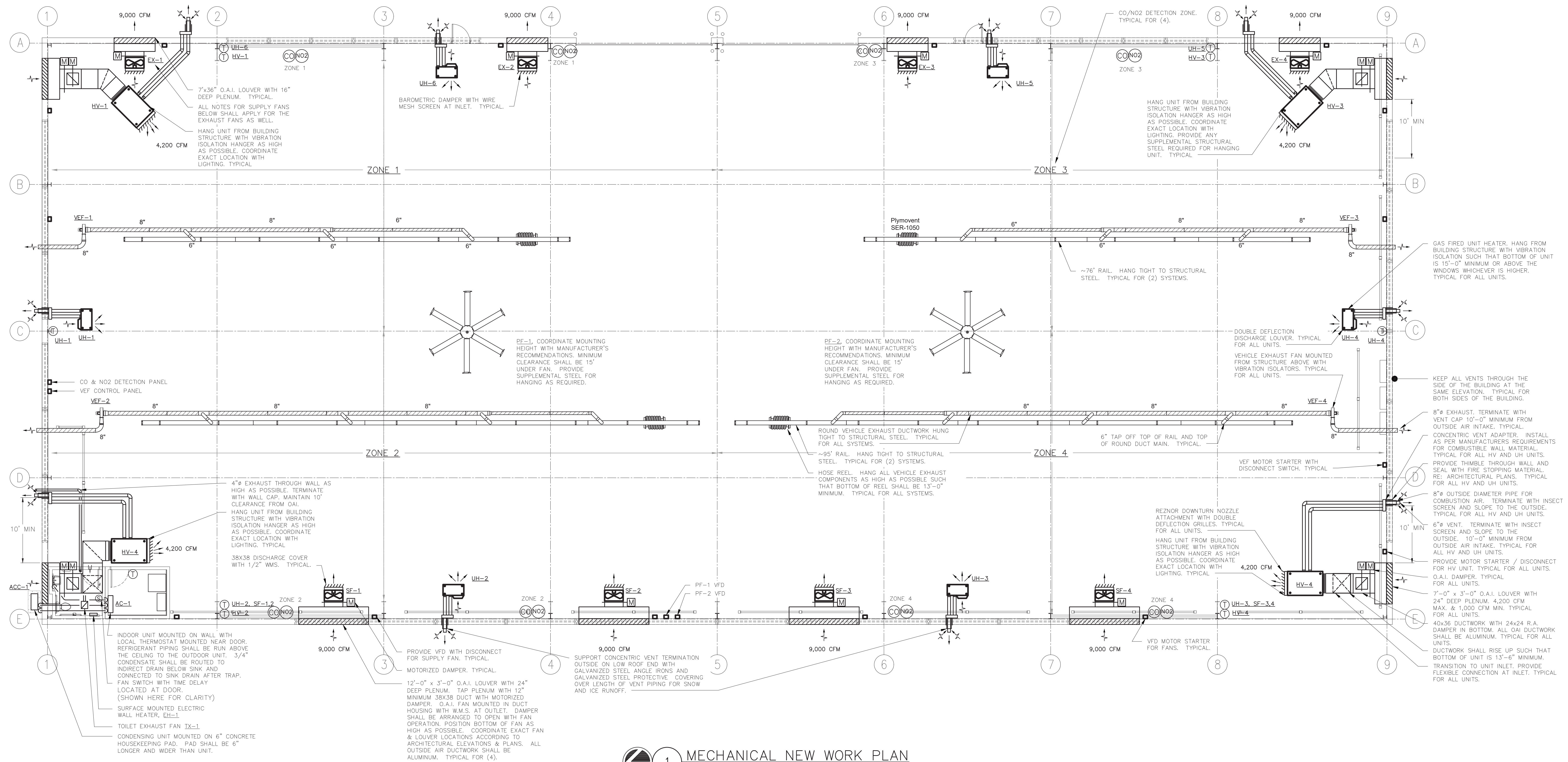
RECORD DRAWING CERTIFICATION

AS BUILT -- CHANGES AS NOTED
 AS BUILT -- NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING
NEW EQUIPMENT STORAGE BUILDING
RICHARD A. FLYNN, SR. FIRE TRAINING CENTER
VALHALLA CAMPUS, VALHALLA, NEW YORK
MECHANICAL SYMBOLS, ABBREVIATIONS, & GENERAL NOTES

CONTRACT NUMBER 17-521	SHEET NUMBER M-001
SHEET NO. 37 OF 53	
SCALE: AS SHOWN DATE: 11/16/2021	REV. NO. 0
DPW FILE NO. 38-47-M-719-0	

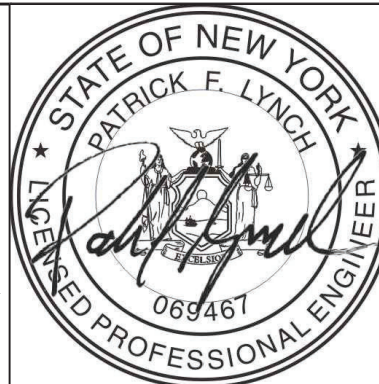


MECHANICAL NEW WORK PLAN
 SCALE: 1/8" = 1'-0"

NOTES: ALL DUCTWORK PASSING THROUGH EXTERIOR WALLS SHALL BE FLASHED AND SEALED AIR AND WATER TIGHT.

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CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
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WESTCHESTER COUNTY, NEW YORK
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
 DIVISION OF ENGINEERING
 NEW EQUIPMENT STORAGE BUILDING
 RICHARD A. FLYNN, SR. FIRE TRAINING CENTER
 VALHALLA CAMPUS, VALHALLA, NEW YORK
 MECHANICAL NEW WORK PLAN

CONTRACT NUMBER 17-521	SHEET NUMBER M-201
SHEET NO. 38 OF 53	
SCALE: AS SHOWN	
DATE: 11/16/2021	
DPW FILE NO.	REV. NO.
38-47-M-720-0	0

FAN SCHEDULE			
DESIGNATION	EX-1,2,3,4 SF-1,2,3,4	TX-1	PF-1,2
MANUFACTURER	GREENHECK	GREENHECK	BIG ASS SOLUTIONS
MODEL	SBE-3H30	SP-A90	BASIC 6
WEIGHT (LBS)	112	12	231
FAN TYPE	PROPELLER	CILING MOUNTED	CEILING FAN
DRIVE TYPE	BELT	DIRECT	DIRECT
CFM	9,000	75	66
BHP	1.14	-	-
HP	1.5	16 WATTS	1.5
RPM	965	900	61
SP (IN H ₂ O)	0.25	.25	0.5
VOLTS/φ/Hz	480/3/60	120/1/60	480/3/60
STARTER TYPE	VFD	TIME DELAY SWITCH	VFD

- NOTES:**
- ALL MOTORS 1 HP OR GREATER SHALL BE PREMIUM EFFICIENCY.
 - ALL MOTORS FURNISHED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED & APPROVED FOR VARIABLE SPEED AND TORQUE APPLICATIONS.
 - FURNISH RUBBER IN SHEAR OR SPRING VIBRATION ISOLATORS AS PER THE SPECIFICATION.
 - FURNISH WALL MOUNTED SPEED CONTROLLER OR THERMOSTAT AS INDICATED ON PLAN.
 - FURNISH MOTOR AND BELT GUARDS FOR ALL EXTERNAL MOTOR DRIVES.
 - MOTOR STARTER AND DISCONNECT SWITCH FOR EACH FAN SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
 - MANUAL MOTOR STARTERS FOR FANS SHALL BE SQUARE D, TYPE T OR M, WITH PUSH-BUTTON START/STOP, PILOT LIGHT, & AUXILIARY CONTACTS, SUITABLE FOR SURFACE MOUNTING.
 - TX-1: PROVIDE MODEL WC-4 HOODED WALL CAP WITH BUILT IN BIRDSCREEN & BAROMETRIC BACKDRAFT DAMPER WHERE INDICATED ON PLAN.
 - PROVIDE BAROMETRIC DAMPER WITH WIRE MESH SCREEN AT INLET FOR EXHAUST FANS AND OUTLET FOR SUPPLY FANS.
 - CONTROLS SHALL BE COMPATIBLE WITH THE BUILDING ANDOVER SYSTEM & NETWORKED INTO THE COUNTY WIDE ANDOVER SYSTEM. COORDINATE WITH CONTROLS CONTRACTOR.

HEATING & VENTILATION UNIT SCHEDULE		
DESIGNATION	HV-1	HV-2,3,4
MANUFACTURER	REZNR	REZNR
MODEL	SDH-300	SDH-300
WEIGHT OF UNIT (LBS)	629	629
DESIGN DATA:		
SUPPLY AIR (CFM)	4,200	4,200
OUTDOOR AIR MINIMUM (CFM)	1,100	0
OUTDOOR AIR MAXIMUM (CFM)	4,200	4,200
RETURN AIR MINIMUM (CFM)	0	0
RETURN AIR MAXIMUM (CFM)	3,100	4,200
SUMMER OA TEMP (°F) DB/WB	86/72	86/72
SUMMER RA TEMP (°F) DB/WB	80	80
WINTER OA TEMP (°F)	10	10
WINTER RA TEMP (°F)	60	60
GAS-FIRED FURNACE:		
E.A.T./L.A.T. (°F)	10/63	10/63
GAS INPUT/OUTPUT (MBH)	300/243	300/243
CONTROL STAGES	8	8
FILTERS:		
MAIN FILTER	MERV 8	MERV 8
QUANTITY/SIZE	3 / 16x16 3 / 16x20	3 / 16x16 3 / 16x20
SUPPLY FAN:		
DESIGN AIRFLOW (CFM)	4,200	4,200
BHP/HP	2.0/3.0	2.0/3.0
RPM	991	991
ESP/TSP (IN H ₂ O)	-.0.75	-.0.75
VOLTS/φ/Hz	460/3/60	460/3/60
STARTER TYPE	HOA	HOA
ELECTRICAL DATA - SINGLE POINT POWER CONNECTION:		
VOLTS/φ/Hz	460/3/60	460/3/60
FLA/MCA (AMPS)	7.6/9.5	7.6/9.5

- NOTES:**
- STANDARD COMPONENTS:
- 81% EFFICIENCY SEPARATED COMBUSTION SYSTEM.
 - CIRCUIT BREAKER PROTECTED TRANSFORMER FOR 24V CONTROLS.
 - INTEGRATED CIRCUIT BOARD WITH DIAGNOSTIC INDICATOR LIGHTS
 - MULTI-TRY DIRECT SPARK IGNITION WITH 100% LOCKOUT
 - HIGH TEMP LIMIT CONTROL
 - RUBBER-IN-SHEER VIBRATION ISOLATION
 - REVERSE AIRFLOW LIMIT SWITCH
 - AIRFLOW PRESSURE SWITCH TO VERIFY CIRCULATING BLOWER OPERATION
 - SOCKETED, HIGH QUALITY SWITCHING RELAYS TO FACILITATE SERVICE
 - ALL SERVICE AND VENT CONNECTIONS FROM A SINGLE SIDE
 - ENGINEERED HEAT EXCHANGER CONDENSATE MANAGEMENT
- REQUIRED OPTIONS:
- HORIZONTAL CONCENTRIC ADAPTER BOX (CC6)
 - 409 STAINLESS STEEL HEAT EXCHANGERS WITH EXTENDED 10 YEAR WARRANTY
 - BURNER CONTROLS WITH 4:1 GAS MODULATION
 - UNIT MOUNTED LOCAL DISCONNECT SWITCH - FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
 - FIRESTAT
 - DISCHARGE AIR TEMPERATURE LOW LIMIT
 - OVER / UNDER VOLTAGE OR PHASE LOSS PROTECTION
 - HIGH AMBIENT LIMIT (BURNER CUTOFF)
 - GAS PRESSURE SWITCHES.
 - DOWNTURN NOZZLES STYLE CD 25-65° WITH DOUBLE DIRECTIONAL LOUVERS.
 - CONTROL OPTION AG58 - EXTERNAL CONTROLS WITH 8:1 GAS MODULATION. CONTROLS SHALL BE COMPATIBLE WITH THE BUILDING ANDOVER SYSTEM & NETWORKED INTO THE COUNTY WIDE ANDOVER SYSTEM. COORDINATE WITH CONTROLS CONTRACTOR.
 - BACNET DDC COMMUNICATION CARD.

- EQUIPMENT NOTES**
- MOTORIZED DAMPERS:** SHALL BE RUSKIN MODEL CD40, 4" DEEP EXTRUDED ALUMINUM AIRFOIL DAMPER. DAMPER SHALL HAVE OPPOSED BLADES, MOTOR AND LINKAGE. DAMPERS SHALL BE 120V/1φ/60HZ, 3 AMPS MAX. FURNISH DISCONNECT SWITCH.
 - LISTED SPECIAL GAS VENTING:** FOR ALL GAS FIRED DIRECT VENTING CONDENSING & NON-CONDENSING APPLIANCES SHALL BE HEATFAB "SAF-T VENT CI PLUS". DOUBLE WALL CONSTRUCTION, 1" FIBERGLASS INSULATION, AL-29-4C STAINLESS STEEL. SPECIAL VENT UL 1738 FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEEVES, AND SCREENED TERMINATIONS.
 - OUTSIDE AIR INTAKE:** FOR ALL GAS FIRED DIRECT VENTING CONDENSING & NON-CONDENSING APPLIANCES SHALL BE SINGLE-WALL SPIRAL GALVANIZED STEEL BY SHEET METAL CONNECTORS, INC. ALL DUCTWORK IS 4-PLY SPIRAL LOCKSEAM MEETING ASTM A-653. ALL DUCT CONNECTIONS SHALL BE MADE WITH A DOUBLE LEGGED EPDM GASKET CREATING AN AIR-TIGHT CONNECTION MEETING ASTM A-653. SINGLE-WALL DUCT GAUGE SHALL BE SELECTED FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC WITH A MINIMUM GAUGE OF 24. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEEVES, AND SCREENED TERMINATIONS.
 - GAS-FIRED UNIT HEATERS (UH-1,2,3,4,5,6):** SHALL BE MODINE MODEL PTS250, 250 MBH INPUT, 205 MBH OUTPUT. UNITS SHALL BE DIRECT-VENT SEPARATED COMBUSTION TYPE WITH 6"φ FLUE OUTLET, 6"φ AIR INLET, AND 3/4"φ EXTERNAL GAS CONNECTION. FAN SHALL BE 1/3 HP, 1075 RPM. ELECTRICAL REQUIREMENTS: 120V/1φ/60HZ, 4.6 FAN AMPS (FAN ONLY), 8.1 TOTAL AMPS (UNIT TOTAL). PROVIDE STARTER/LOCAL DISCONNECT, AND 10 YEAR WARRANTY ON HEAT EXCHANGER. FURNISH WITH SINGLE-STAGE, DIRECT SPARK IGNITION CONTROLS, WITH 100% SHUT-OFF AND CONTINUOUS RETRY. PROVIDE HORIZONTAL CONCENTRIC VENT KIT WITH EACH UNIT.
 - ELECTRIC WALL HEATER (EH-1):** SHALL BE MARKEL MODEL F 3453 T SURFACE MOUNTED, 3,000 WATTS INPUT, 208/1/60, 14.4 AMPS, 10,239 BTUS. ROUGH IN DIMENSIONS 23"Hx15"Wx4.125"D UNITS CORROSION RESISTANT STEEL ELEMENT, BRAZED STEEL FINS. COORDINATE COLOR WITH ARCHITECT. FURNISH AND INSTALL THE FOLLOWING FIELD-INSTALLED OPTIONS: THERMOSTAT & DISCONNECT SWITCH.
 - CO & NO₂ DETECTION SYSTEM:** SHALL BE SIERRA MONITOR CORPORATION. PROVIDE SENTRY 5000-IT CONTROLLER (SEE PLANS FOR LOCATION). PROVIDE ALL COMPONENTS AND WIRING FOR A COMPLETE INSTALLATION AND OPERABLE SYSTEM. ALL SPACE TRANSMITTERS SHALL BE MOUNTED 5'-0" AFF IN A PROTECTED LOCATION. PROVIDE EXTERNAL BATTERY BACKUP. PROVIDE SIGNAGE "CO & NO₂ DETECTION" ON CONTROL PANEL.
 - CO TRANSMITTERS SHALL BE 5100-04-IT-S1-01-00-0-0-C
 - NO₂ TRANSMITTERS SHALL BE 5100-12-IT-S1-01-00-0-0-C
 - VEHICLE EXHAUST SYSTEM (VEF-1, VEF-2, VEF-3, VEF-4):** SHALL BE BASED ON PLYMOVENT. EACH SYSTEM SHALL CONSIST OF (1) STATIONARY SPRING ACTUATED HOSE REELS #SER-1050 MOUNTED SUCH THAT BOTTOM OF HOSE REEL IS AT 13' AFF. EACH HOSE REEL SHALL HAVE 33'L 6"φ HOSE #SNF-2 CAPABLE OF 600°F CONTINUOUS & 1250°F INTERMITTENT VEHICLE EXHAUST. 400°F TEMPERATURE RESISTANCE ON ALL COMPONENTS. PROVIDE TAILPIPE ADAPTERS AS LISTED IN THE SPECIFICATIONS. EACH FAN SHALL BE FUA-3000 2HP RATED FOR 720 CFM AT 8"WC SP, 460/3/60, 80LBS. PROVIDE PLYMOVENT ES-90 CONTROL BOX EACH FAN. PROVIDE AN NTX NEMA 4X WALL MOUNT TRANSMITTER FOR EACH SYSTEM WITH 433 MHz RCR24SS RECEIVER MOUNTED TO EACH HOSE REEL. REFER TO VEHICLE EXHAUST SPECIFICATIONS SECTION 238416 FOR FULL EQUIPMENT REQUIREMENTS.
 - VEHICLE EXHAUST DUCTWORK:** US DUCT CLAMPABLE DUCTING. GALVANIZED DUCT WITH WELDED ENDS, WELDED ANGLE RINGS, OR LOOSE ANGLE RINGS WITH LIPPED ENDS. REFER TO VEHICLE EXHAUST SPECIFICATIONS SECTION 238416 FOR FULL DUCTWORK REQUIREMENTS.

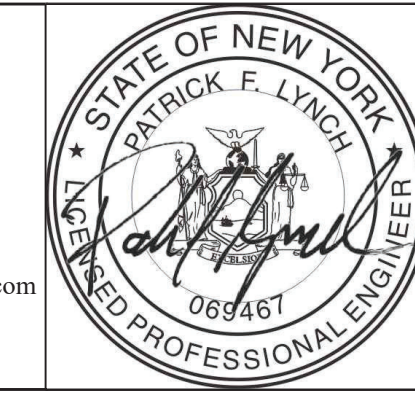
MINI SPLIT DX SYSTEMS																				
OUTDOOR AIR COOLED CONDENSING UNITS										INDOOR CEILING HIGH WALL										
ID	MODEL #	NOMINAL (Tons)	COOLING Capacity (BTUH)	HEATING Outside (F°)	HEATING Capacity (BTUH)	ELECTRICAL (V/Ph/Hz)	MCA (A)	MOCp (A)	WxHxD (in)	WEIGHT (lbs)	EFFICIENCY EER SEER	ID	MODEL #	NOMINAL (Tons)	AIRFLOW (CFM)	ELECTRICAL (V/Ph/Hz)	MCA (A)	WxHxD (in)	WEIGHT (lbs)	NOTES
ACC-1	38MPRAQ12AA3	1	5800-19000	5°	13,800	208/1/60	15	20	33X14X27	108	13.5 32	AC-1	40MPHAQ12XA3	1	168/252/306/357	208/1/60	0.3	35.2x11.7x9.8	38	1,2,3,4,5,6

NOTES:

- EQUIPMENT SELECTION BASED ON CARRIER.
- PROVIDE THE FOLLOWING OPTIONS FOR EACH UNIT:
WIRED 7-DAY PROGRAMMABLE THERMOSTAT
CONDENSATE PUMP
24V INTERFACE KIT
- FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
- FIELD SUPPLIED WEATHER PROOF LOCAL DISCONNECT SWITCH AT EACH OUTDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
- SINGLE POINT EXTERNAL POWER CONNECTION FOR EACH INDOOR / OUTDOOR SET OF UNITS SHALL BE AT THE OUTDOOR UNIT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING FROM THE OUTDOOR UNIT TO THE INDOOR UNIT.
- THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE CONTROL WIRING BETWEEN THE OUTDOOR UNIT AND THE INDOOR UNIT.

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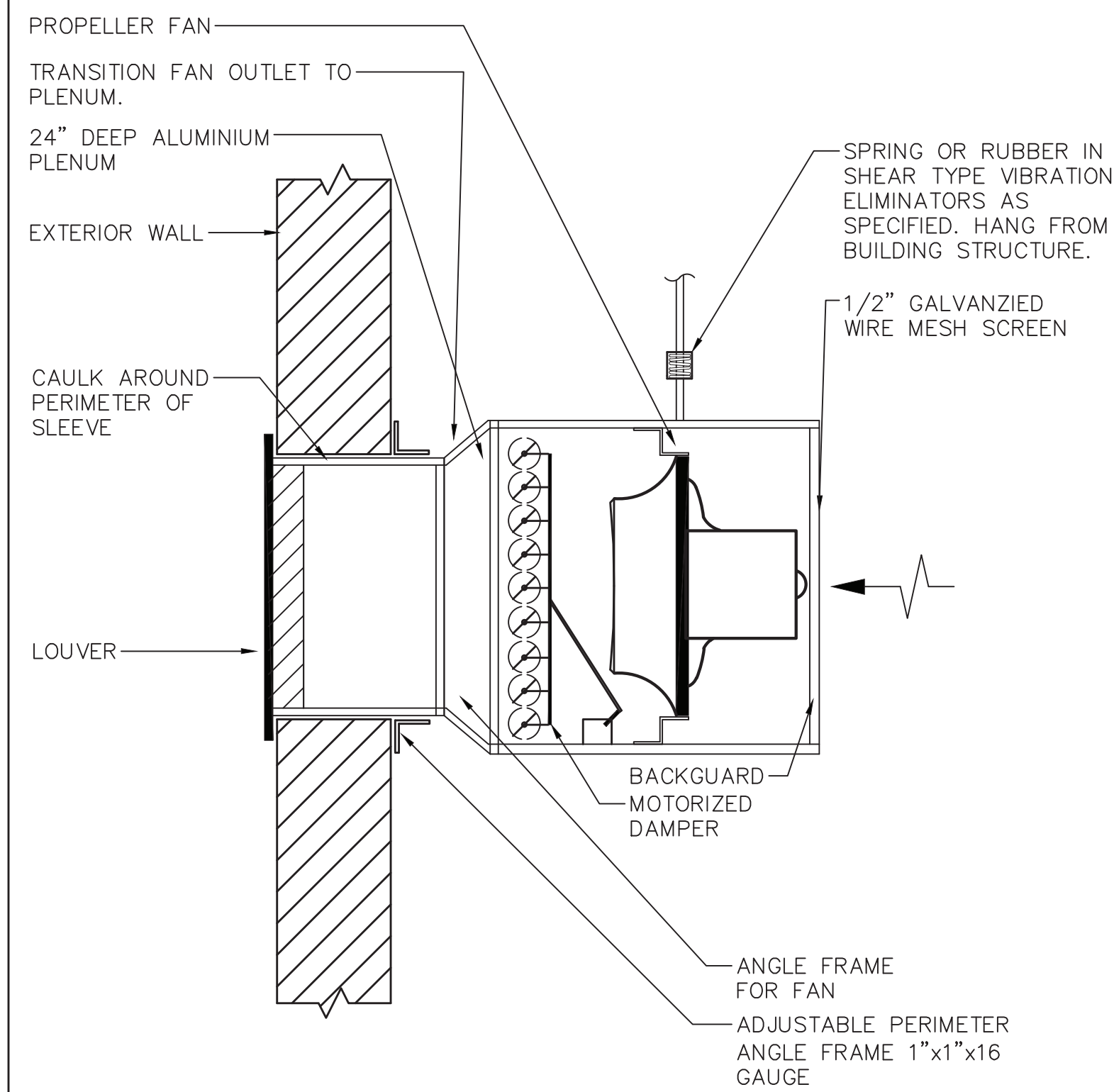
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DIVISION OF ENGINEERING

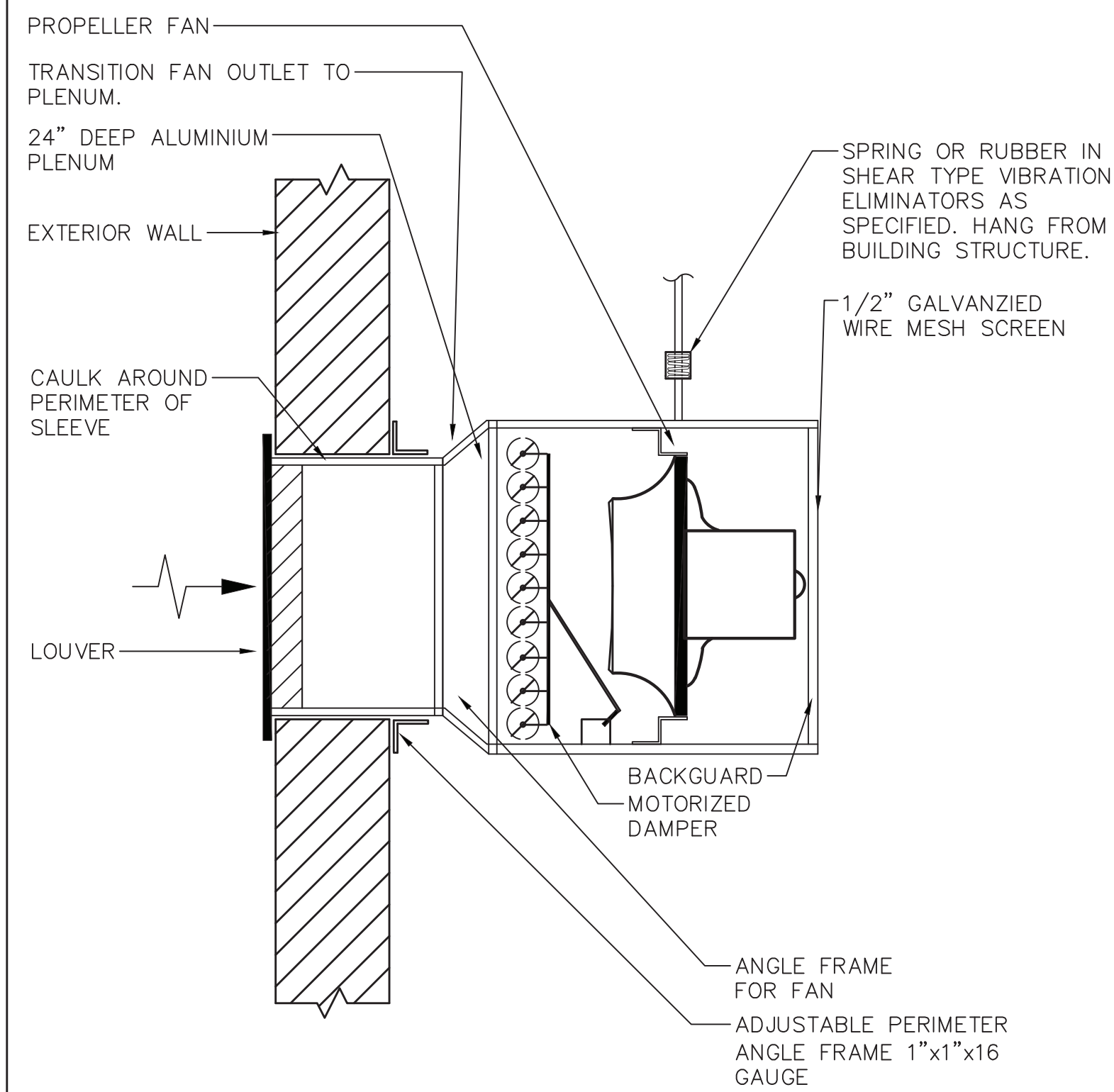
NEW EQUIPMENT STORAGE BUILDING
RICHARD A. FLYNN, SR. FIRE TRAINING CENTER
VALHALLA CAMPUS, VALHALLA, NEW YORK
MECHANICAL SCHEDULES

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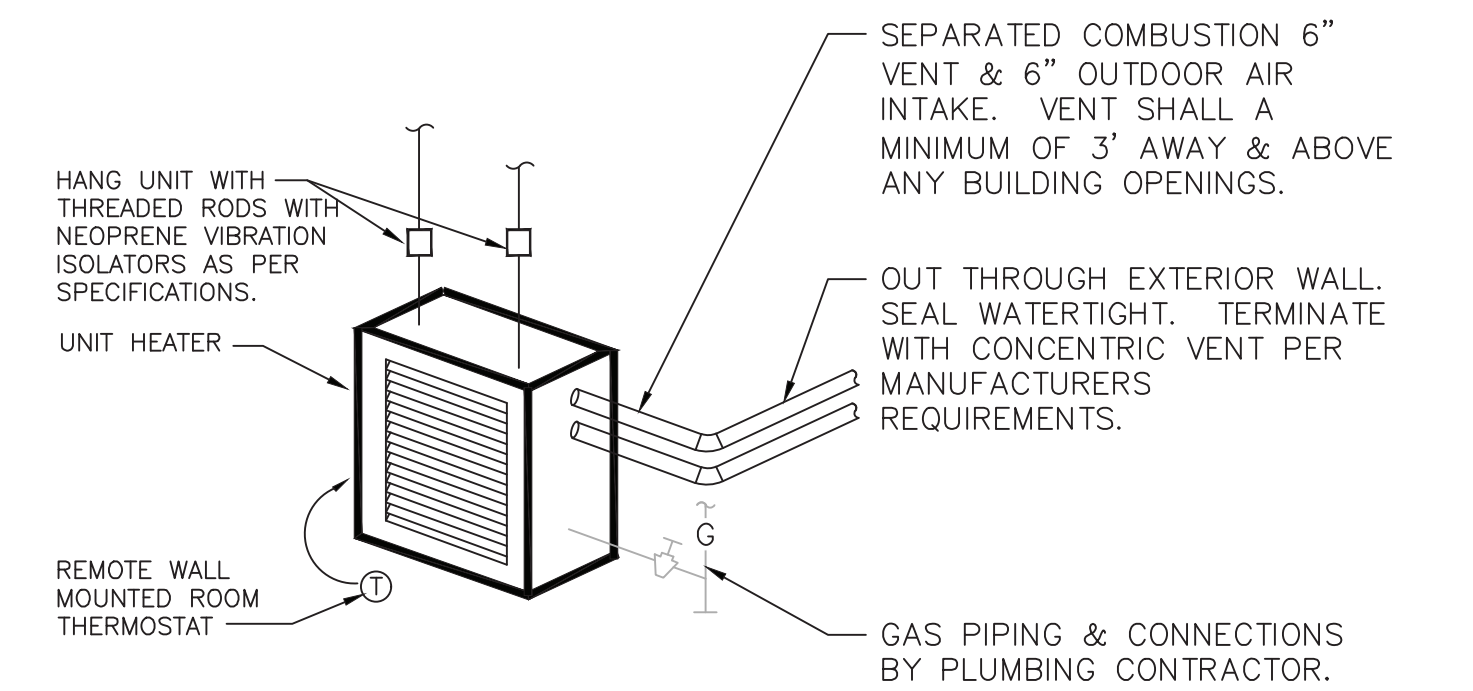
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5 BELT DRIVE EXHAUST FAN DETAIL
SCALE: NONE



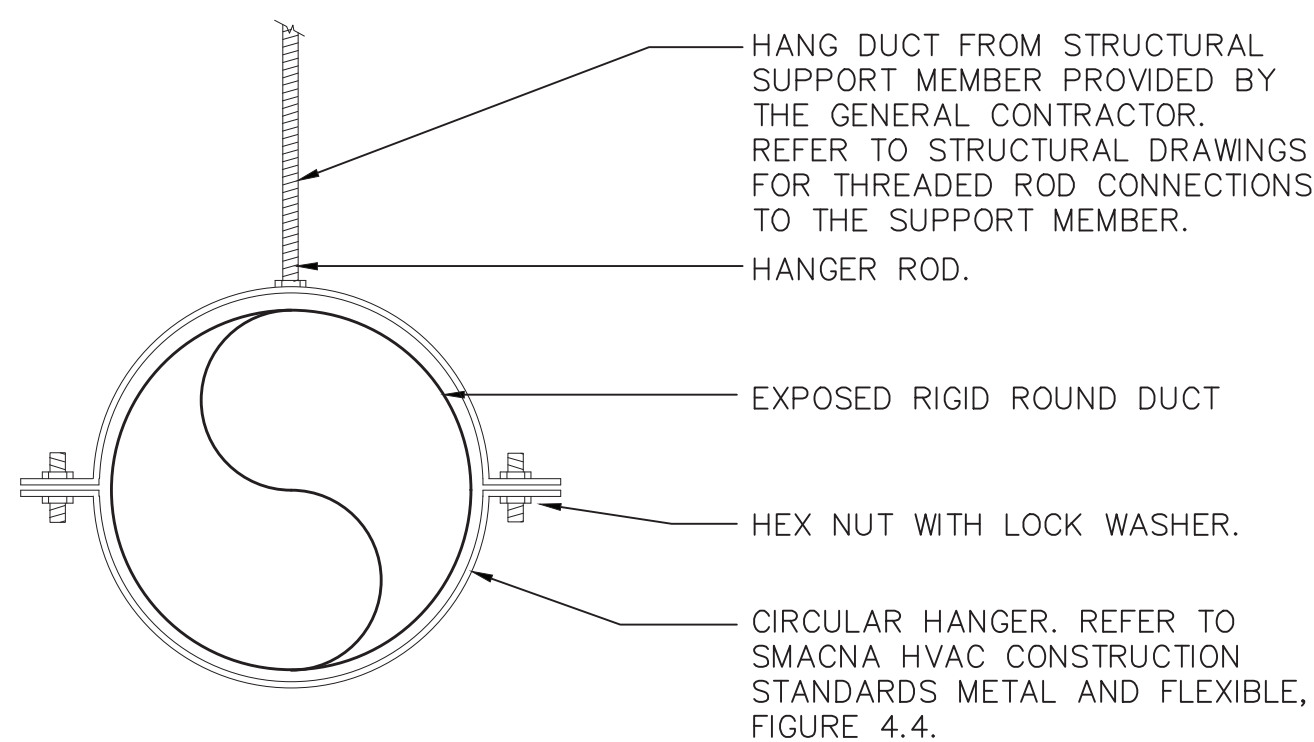
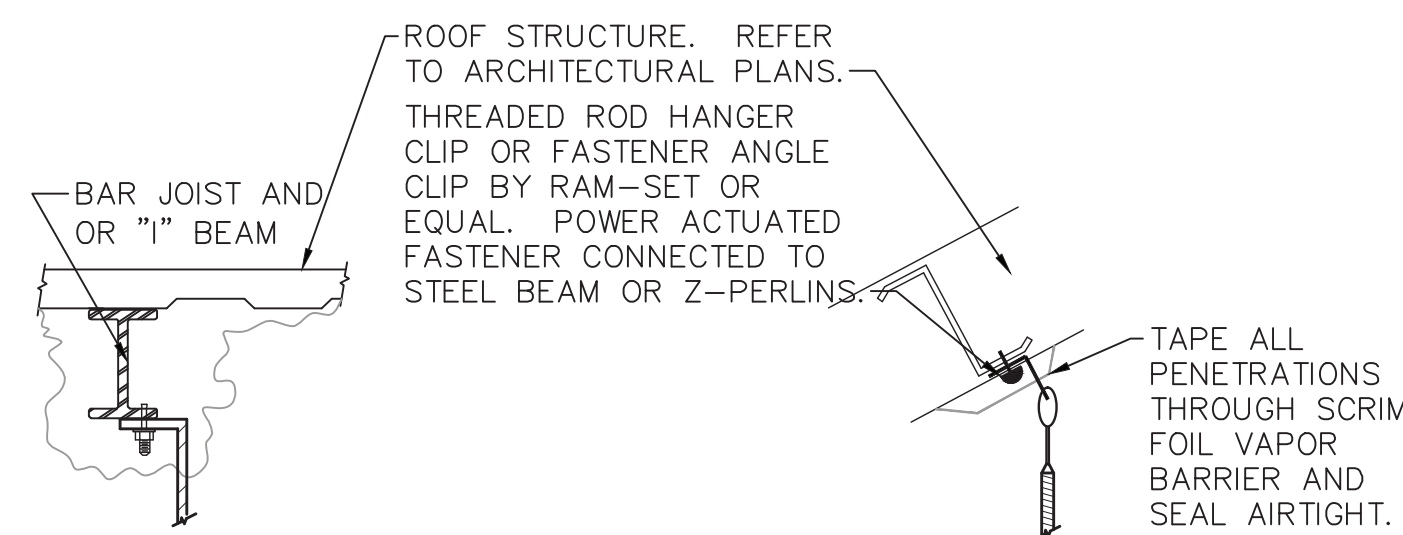
NOTE: DETAILS ARE DIAGRAMMATIC. COORDINATE WITH ARCHITECTURAL DETAILS.

3 BELT DRIVE SUPPLY FAN DETAIL
SCALE: NONE



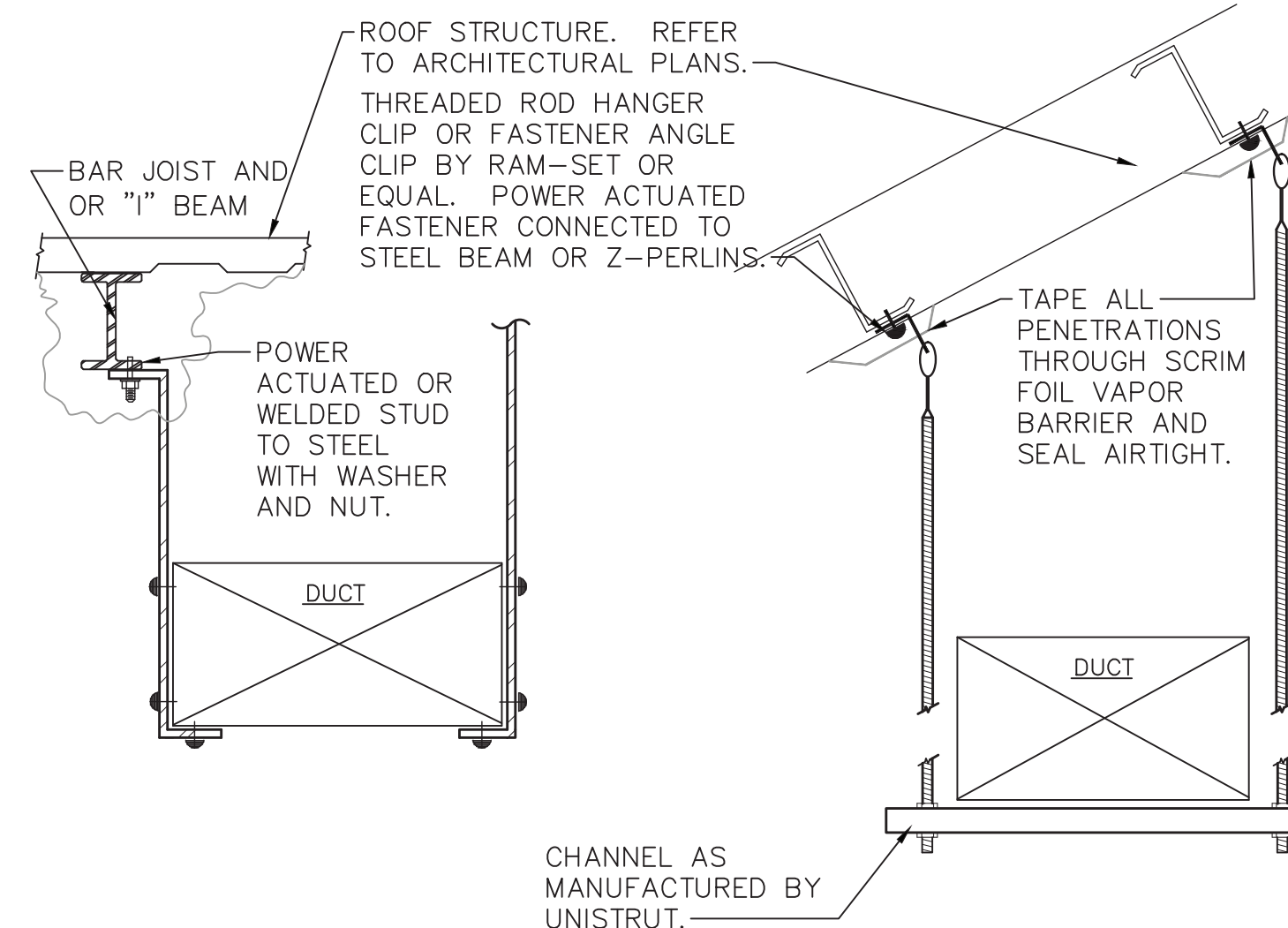
NOTES:
1.) HANG UNIT WITH THREADED RODS CONTAINING NEOPRENE TYPE VIBRATION ISOLATORS FROM BUILDING STRUCTURAL MEMBERS.
2.) SUSPEND UNIT HEATERS SECURELY WITH PROVISIONS FOR EASY REMOVAL AND REPAIR. COORDINATE EXACT LOCATIONS IN FIELD.
3.) INSTALL UNITS SO THAT THEY HANG LEVEL AND PLUM.
4.) PROVIDE A ROOM THERMOSTAT ARRANGED TO TURN ON UNIT AND CYCLE THE FAN ON A CALL FOR HEAT.
5.) ALL HANGER PENETRATIONS THROUGH VAPOR BARRIER SHALL BE TAPED AND SEALED.

2 VERTICAL GAS FIRED UNIT HEATER DETAIL
SCALE: NONE



HANGER ROD SCHEDULE		
DUCT SIZE	HANGER DIA	MAXIMUM SPACING
UP TO 2 SQ. FT.	16 GAUGE - 3/8"	8'-0"
2 SQ FT TO 4 SQ FT	11 GAUGE - 1/2"	8'-0"

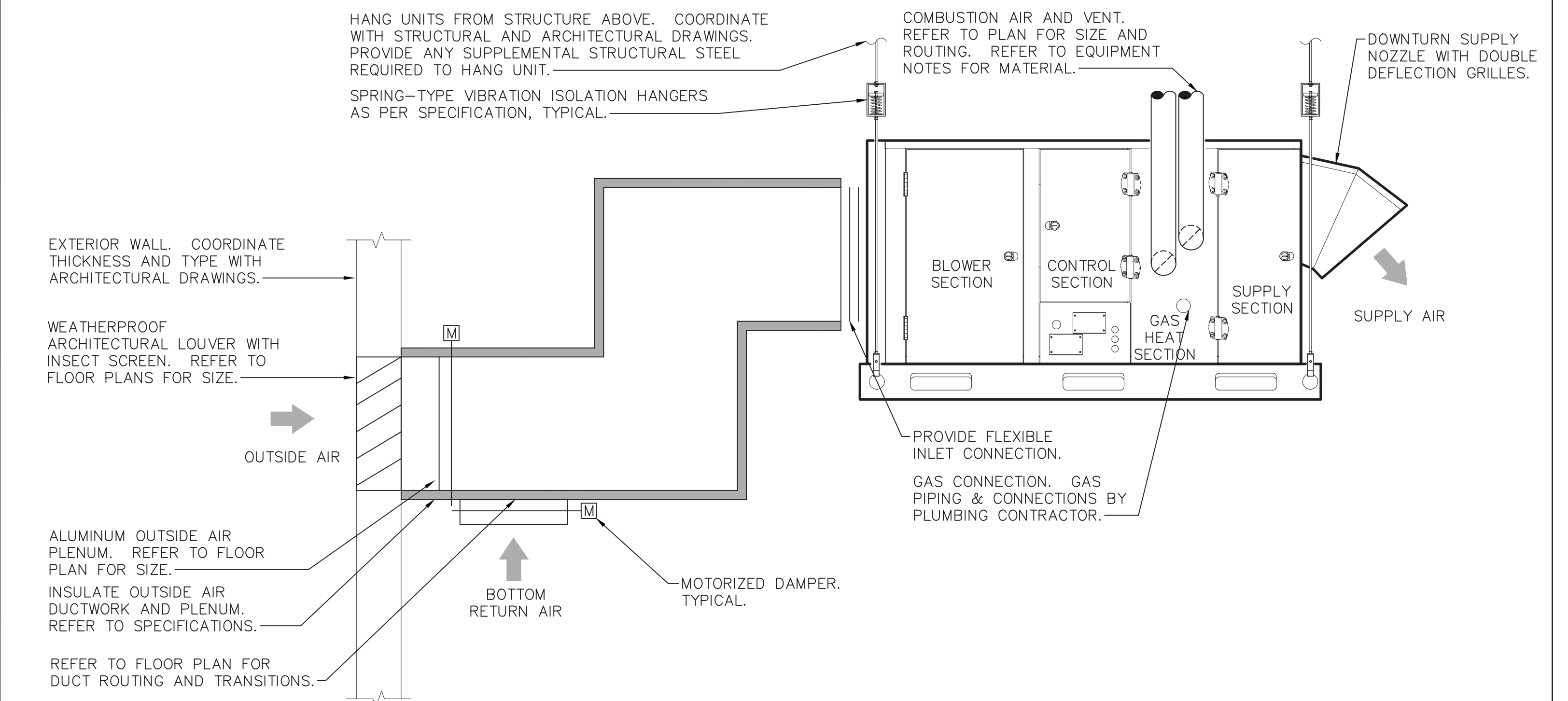
5 HANGER DETAIL FOR EXPOSED ROUND DUCTWORK
SCALE: NONE



HANGER STRAP SCHEDULE		
DUCT SIZE	HANGER SIZE	MAXIMUM SPACING
UP TO 2 SQ.FT.	1" X 1/16"	8'-0"
2 SQ.FT. TO 4 SQ.FT.	1" X 1/8"	8'-0"
4 SQ.FT. TO 10 SQ.FT.	1" X 1/8"	6'-0"
OVER 10 SQ.FT.	1" X 1/8"	4'-0"

NOTES:
1.) FOR DUCTS OVER 49" WIDE, THE STRAP HANGER SHALL BE TURNED UNDER THE BOTTOM OF THE DUCT.
2.) WHERE BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
3.) ALL HANGER PENETRATIONS THROUGH VAPOR BARRIER SHALL BE TAPED AND SEALED.

4 DUCT HANGER DETAIL
SCALE: NONE

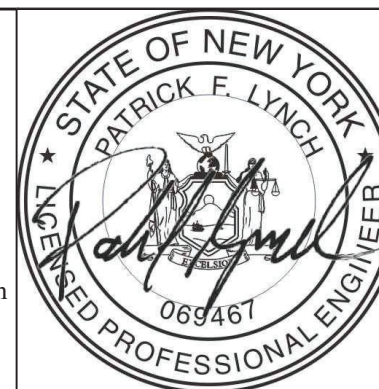


NOTES:
1.) MAINTAIN ALL MANUFACTURER CLEARANCE REQUIREMENTS - COORDINATE WITH ALL OTHER TRADES.
2.) HANG UNIT WITH THREADED RODS CONTAINING NEOPRENE OR SPRING TYPE VIBRATION ISOLATORS FROM BUILDING STRUCTURAL MEMBERS.
3.) INSTALL UNITS SO THAT THEY HANG LEVEL AND PLUM.
4.) ALL HANGER PENETRATIONS THROUGH VAPOR BARRIER SHALL BE TAPED AND SEALED.

1 INDOOR GAS FIRED HEATING AND VENTILATING UNIT SCHEMATIC
SCALE: NONE

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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION	
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED	<input type="checkbox"/> AS BUILT - NO CHANGES
CONTRACTOR	
NAME	PROJECT COORDINATOR
SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____
DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING
NEW EQUIPMENT STORAGE BUILDING
RICHARD A. FLYNN, SR. FIRE TRAINING CENTER
VALHALLA CAMPUS, VALHALLA, NEW YORK
MECHANICAL DETAILS

CONTRACT NUMBER 17-521	SHEET NUMBER M-701
SHEET NO. 40 OF 53	
SCALE: AS SHOWN	
DATE: 11/16/2021	
DPW FILE NO.	REV. NO.
38-47-M-722-0	0