AFF	ABOVE FINISHED FLOOR
BCU	BUILDING CONTROL UNIT
BTU	BRITISH THERMAL UNIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
COMM.	COMMUNICATION
CV (D)	CONTROL VALVE
(D)	DEMOLISH DRY BULB
DCV	DEMAND CONTROLLED VENTILATION
DEG. F	DEGREES FAHRENHEIT
DIA	DIAMETER
DX	DIRECT EXPANSION
'E'	ELECTRICAL CONTRACTOR
(E)	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATING
ESP	EXTERNAL STATIC PRESSURE
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FT. H20 'G'	FEET OF WATER GENERAL CONSTRUCTION CONTRACTO
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
Н	HEIGHT
'H'	HVAC CONTRACTOR
НР	HORSEPOWER
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUG
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LDB	LEAVING DRY BULB TEMPERATURE LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	METER
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MNF	MANUFACTURER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIA
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OAI	OUTDOOR AIR INTAKE OUTER DIAMETER
OED OED	OPEN ENDED DUCT
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSIG	LBS / SQUARE INCH (GAUGE PRESSURE
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAT	SUPPLY AIR TEMPERATURE
SEER	SEASONAL ENERGY EFFICIENCY RATIN
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
WB	WET BULB

SYMBOL	ABBREV	DESCRIPTION
		DUCTWORK BRANCH CONNECTION
	VD	VOLUME DAMPER
(¤)	CD	ROUND FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	SIDEWALL SUPPLY, RETURN OR EXHAUST GRILLE/REGISTE
	SEE AIR DEVICE SCHEDULE	SQUARE FACE SUPPLY DIFFUSER
KJ LY	SEE AIR DEVICE SCHEDULE	BOTTOM RETURN OR EXHAUST GRILLE/REGISTER
	FC	FLEXIBLE CONNECTION
		TURNING VANES
M		RECTANGULAR TO ROUND TRANSITION
	AL	ACOUSTICAL LINING
		END CAP
	SEE AIR DEVICE SCHEDULE	SUPPLY DIFFUSER WITH DIRECTIONAL FLOW (SOLID HATCH INDICATES BLANK OFF PANEL)
		SUPPLY DUCT DROP (TURN DOWN)
		RETURN/EXHAUST DUCT DROP (TURN DOWN)
		SUPPLY DUCT RISE
		RETURN/EXHAUST DUCT RISE
DSD	DSD	DUCT SMOKE DETECTOR
M	MD	MOTORIZED DAMPER WITH ACTUATOR
OR OR	AD	ACCESS DOOR
	FD/AD	FIRE DAMPER WITH ACCESS DOOR
	FSD/AD	FIRE SMOKE DAMPER WITH ACCESS DOOR
	-	FAN

CONTROLS LEGEND		
SYMBOL	ABBREV	DESCRIPTION
©		CARBON MONOXIDE SENSOR
T		THERMOSTAT
S		DIGITAL TEMPERATURE SENSOR
N		NITROGEN DIOXIDE
<u>©</u> 2		CARBON DIOXIDE SENSOR

PIPING LEGEND		
SYMBOL	ABBREV	DESCRIPTION
		NEW WORK
C— O—		PIPING DOWN/ PIPING UP

GENERAL NOTES

- 1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- 2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
- 3. PERFORM ALL WORK IN ACCORDANCE WITH THE PLUMBING CODE, FIRE CODE, MECHANICAL CODE, ENERGY CONSERVATION CONSTRUCTION CODE, AND FUEL GAS CODE OF NEW YORK STATE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- 4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
- 5. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, DUCTWORK, CONDUIT, ETC. PROVIDE FIRE DAMPERS AND ACCESS DOORS IN ALL OPENINGS IN FIRE RATED FLOORS, PARTITIONS, AND WALLS FOR DUCTWORK AS PER THE MECHANICAL CODE OF NEW YORK STATE. (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED CONSTRUCTION.)
- 6. DO NOT SCALE DRAWINGS. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS, PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS. INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S REQUIREMENTS TO PROVIDE PROPER CLEARANCE FOR INSTALLATION, OPERATION, AND MAINTENANCE. CONTRACTOR'S INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTOR'S FABRICATED ITEMS SHALL ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY
- 7. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
- 8. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
- 9. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
- 10. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
- 11. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO
- ENSURE MANUFACTURER CERTIFIED ACCURACY. 12. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND

PROVIDE ALL PIPING AND DUCT TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.

- 13. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION
- 14. COORDINATE INSTALLATION OF SUPPLY, RETURN AND EXHAUST GRILLES WITH INSTALLATION OF FINISHED
- 15. COMPLETE ALL PRESSURE TESTS BEFORE ANY MECHANICAL EQUIPMENT, DUCTWORK, OR PIPING INSULATION IS
- 16. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). PERFORM ALL TESTING, ADJUSTING, AND
- 17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS
- 18. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS, FANS, AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIR STREAM. PROVIDE TRAP AT CONNECTION, WATER SEAL DEPTH 1 INCH GREATER THAN UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT/ENGINEER.
- 19. PROVIDE ALL LOUVERS FOR INSTALLATION. SUBMIT LOUVER COLOR AND CONFIGURATION TO THE ARCHITECT/ENGINEER FOR APPROVAL.
- 20. FURNISH AND INSTALL ALL NECESSARY CONTROL WIRING, CONDUIT, AND ACCESSORIES AS REQUIRED TO
- PROVIDE FULLY FUNCTIONING SYSTEMS AND SEQUENCES OF OPERATION.
- 21. FURNISH ALL LINTELS FOR DUCT AND PIPE PENETRATIONS IN INTERIOR MASONRY WALLS. 22. FURNISH ALL SLEEVES FOR PIPE AND CONDUIT FLOOR, WALL, PARTITION, AND ROOF PENETRATIONS.
- 23. FURNISH ALL DUCT PENETRATIONS.

BALANCING IN ACCORDANCE WITH THE SPECIFICATIONS.

MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.

24. PERFORM ALL CUTTING AND ROUGH PATCHING AS REQUIRED IN THE EXECUTION OF THE WORK. PERFORM ALL FINISH PATCHING AND FLASHING.

LEGENDS/ABBREVIATIONS NOTES

1. ABBREVIATIONS AND SYMBOLS ON THIS SHEET DO NOT DEFINE THE SCOPE OF WORK.

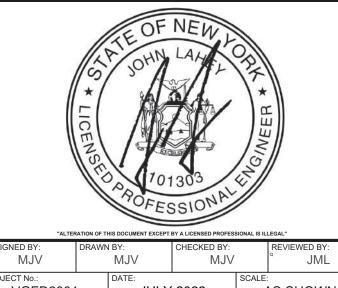


engineers

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00.1002.7.11.01		

WARK	DATE	DESCRIPTION



VGFD2001 JULY 2022 AS SHOWN

VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



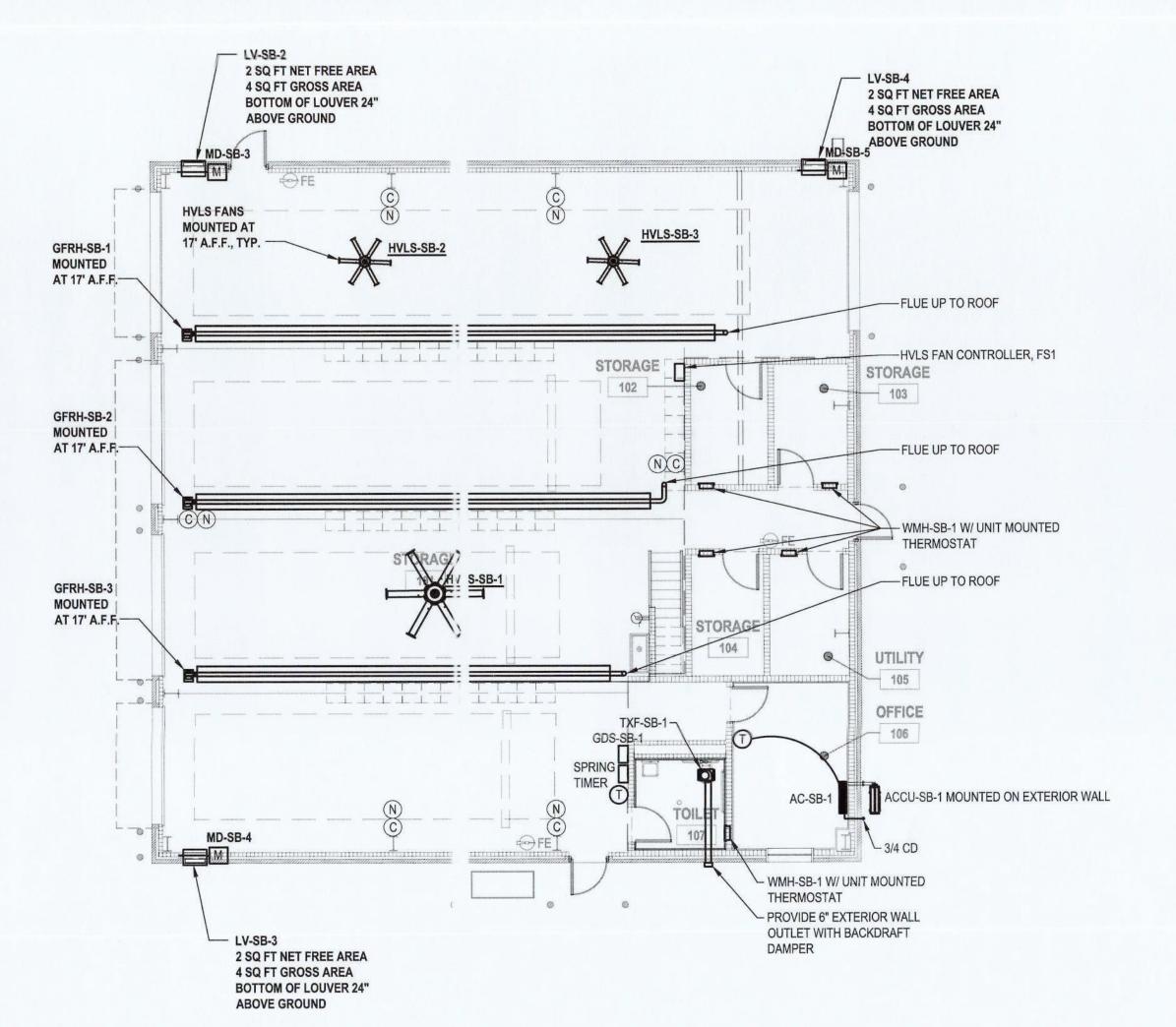
872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT G GENERAL CONSTRUCTION

FINAL BID DOCUMENT

MECHANICAL COVER SHEET AND NOTES

M1 001.00



OMBUSTION AIR INDEX BASED ON 2020 NEW YORK STATE MECHANICAL CODE									
ROOM NAME	SERVED BY	OCCUPANCY CLASSIFICATION	FLOOR AREA (FT^2)	SPACE VOLUME (FT^3)	CODE VOLUME PER 1,000 MBH INPUT (FT^3)	GAS INPUT (MBH)	VOLUME REQUIRED (FT^3)	NOTES	
APPARATUS BAY	GFRH-SB-1,2,3	GARAGE	2650	79500	50	300	15000	SUFFICIENT VOLUME	

NATURAL VENTILATION CALCULATION - OFFICE

IN ACCORDANCE WITH SECTION 402.2 OF THE 2020 NYS MECHANICAL CODE: THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.

FLOOR AREA * 0.04 = REQUIRED OPENABLE WINDOW AREA

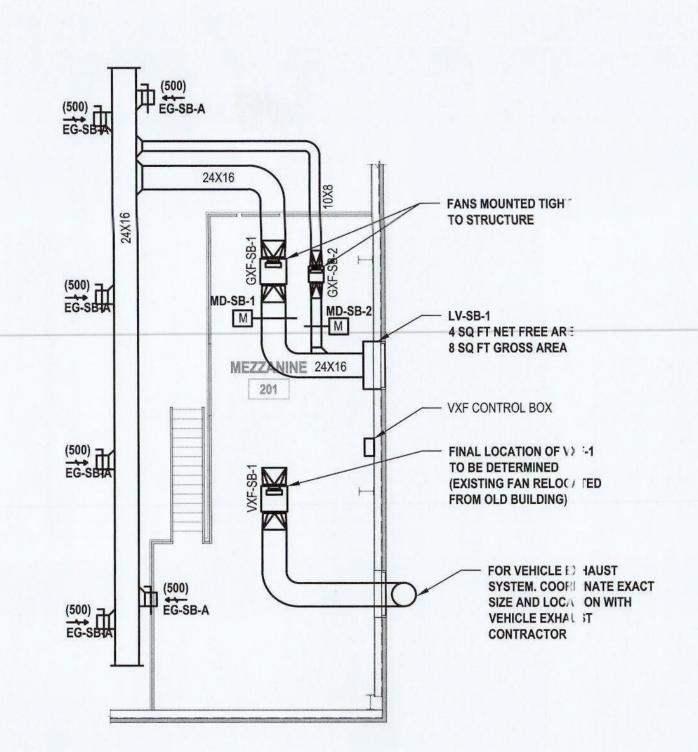
135 SF * 0.04 = 5.94 SF AREA REQUIRED

TOTAL OPENABLE WINDOW AREA IN SPACE: 6 SF - COMPLIES

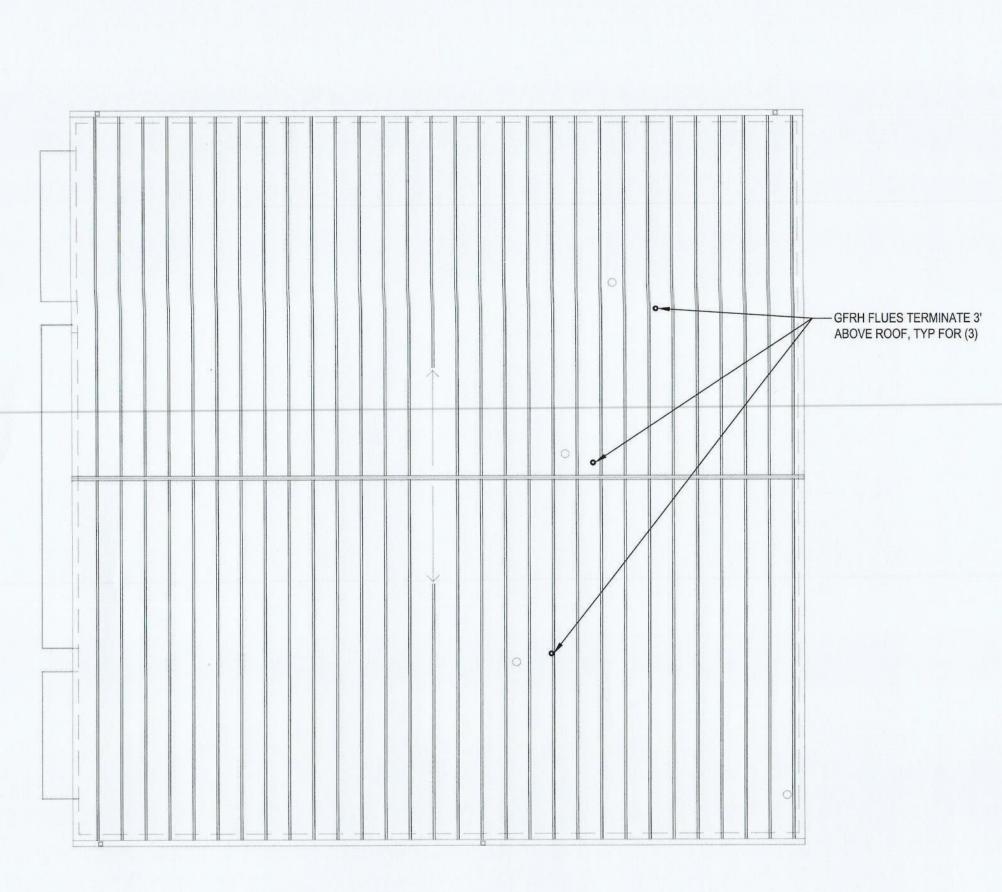
GENERAL NOTES:

1. REFER TO SEISMIC RESTRAINT SCHEDULE FOR DUCTWORK AND EQUIPMENT REQUIRING SEISMIC SUPPORTS

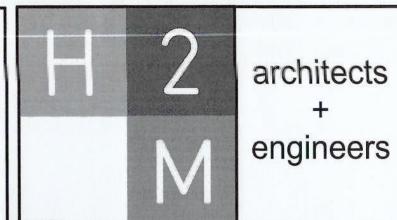
Storage Building Mechanical Plan SCALE: 1/8" = 1'-0"







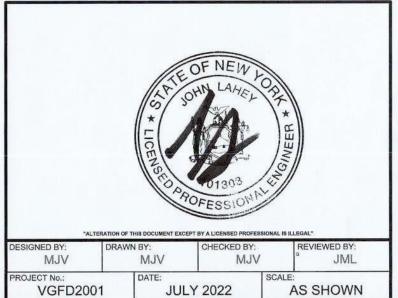




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CONSULTANTS:			

MARK	DATE	DESCRIPTION
2	12/22/2022	REVS. PER TOWN COMMENTS



VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



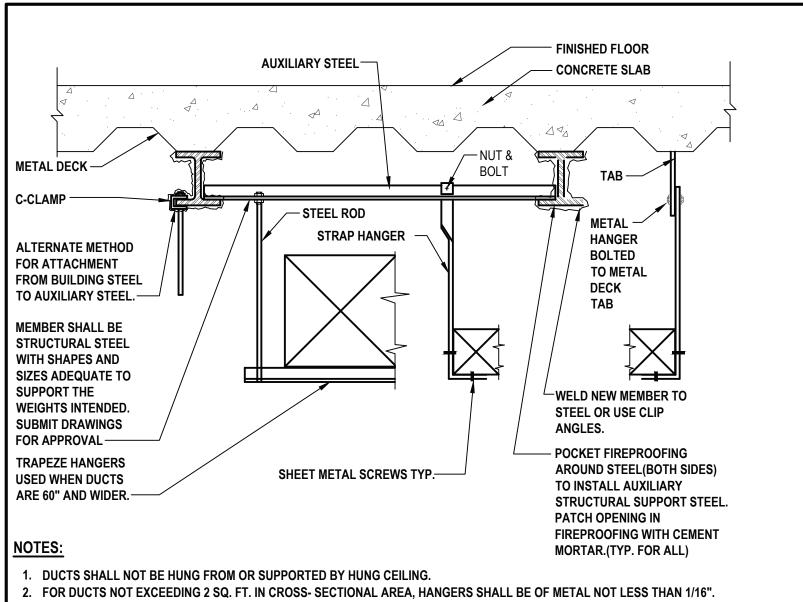
872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT G GENERAL CONSTRUCTION

FINAL BID DOCUMENT

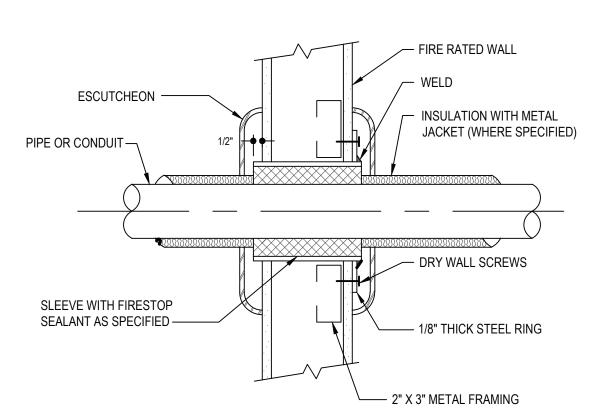
FIRST FLOOR, MEZZANINE, & ROOF MECHANICAL **PLANS**

M1 100.02

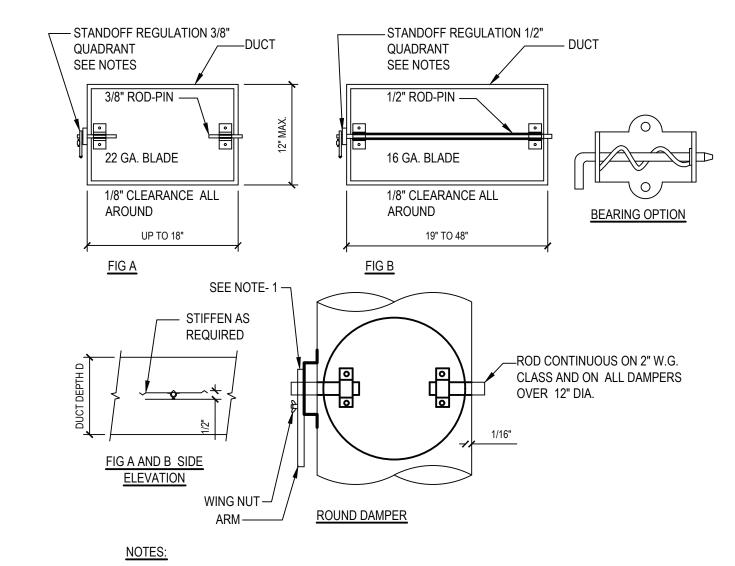


- 3. FOR DUCTS LARGER THAN 2 SQ. FT. IN CROSS- SECTIONAL AREA, HANGERS SHALL BE OF METAL NOT LESS THAN 1" imes 1/8"
- FOR ALL DUCTS, HANGERS SHALL BE TURNED UNDER AND FASTENED TO THE BOTTOM OF DUCTS AS SHOWN ABOVE. 5. WHERE CROSS-SECTIONAL AREA OF DUCT EXCEEDS 8 SQ. FT., HANGERS SHALL BE SPACED NOT MORE THAN 4 FT. ON



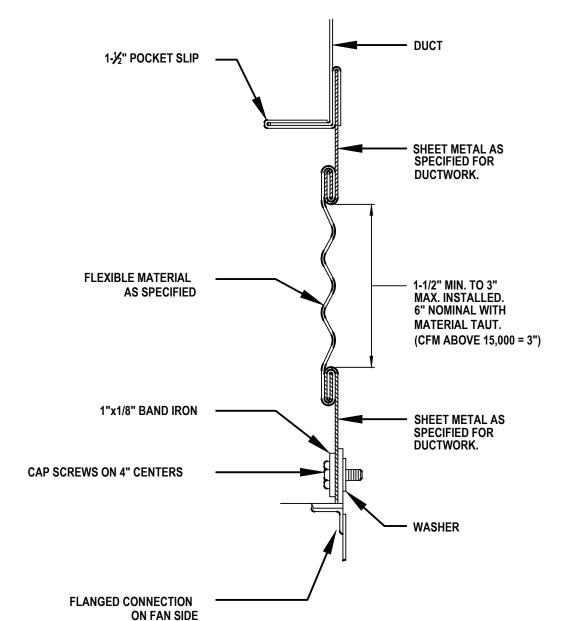


Pipe or Conduit Penetration Through Fire Rated Walls SCALE: NTS

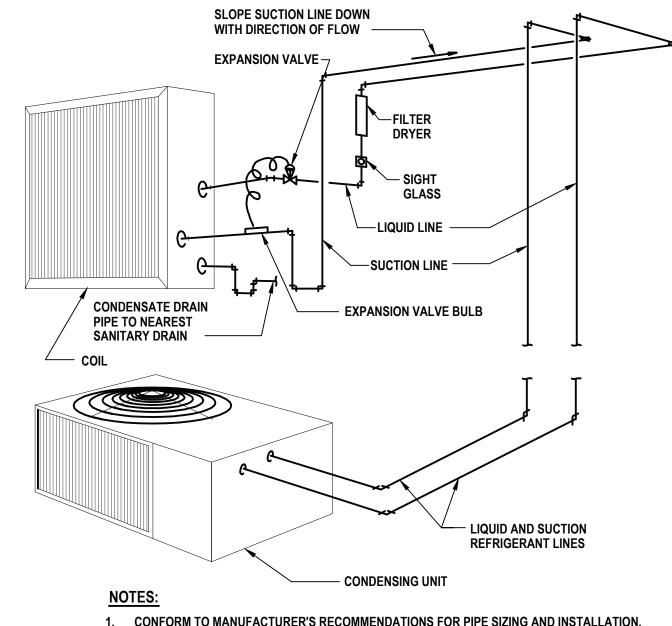


- 1. PROVIDE 2" HIGH STANDOFF REGULATORS FOR EXTERNALLY INSULATED DUCTWORK. PROVIDE
- REGULATORS WITH SEALS. DURO-DYNE MODEL E50. STANDOFF BASE HEIGHT TO MATCH INSULATION THICKNESS. BASE CONSTRUCTION 16 GAUGE. 3. RAPIT DAMPER REGULATORS AND JIFFY DAMPERS ARE NOT ACCEPTABLE ON RECTANGULAR OR
- ROUND DUCTWORK. Yolume Dampers - Single Blade Type

 SCALE:NTS

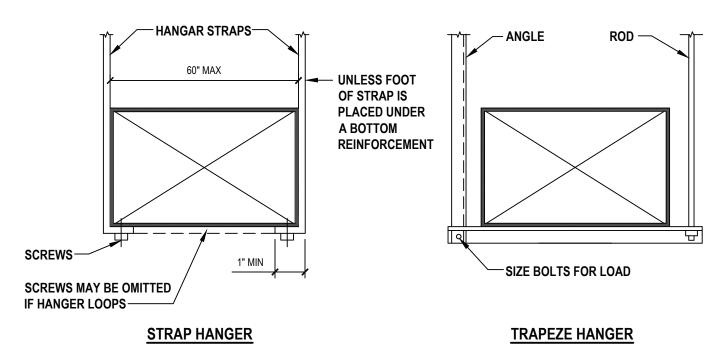


Plexible Duct Connection Detail SCALE: NTS



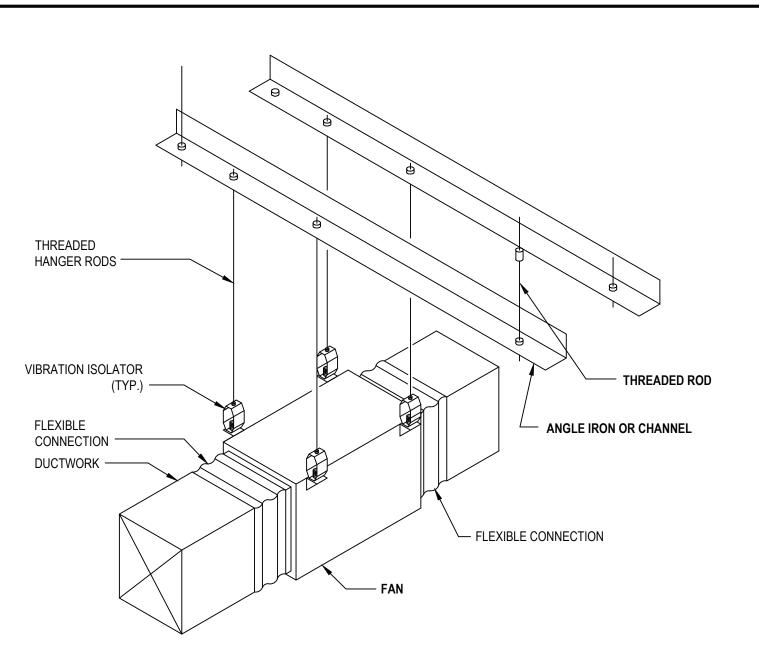
1. CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR PIPE SIZING AND INSTALLATION. SINGLE CIRCUIT SHOWN, MULTIPLE CIRCUIT INSTALLATIONS SIMILAR.

Refrigerant Piping Detail SCALE:NTS

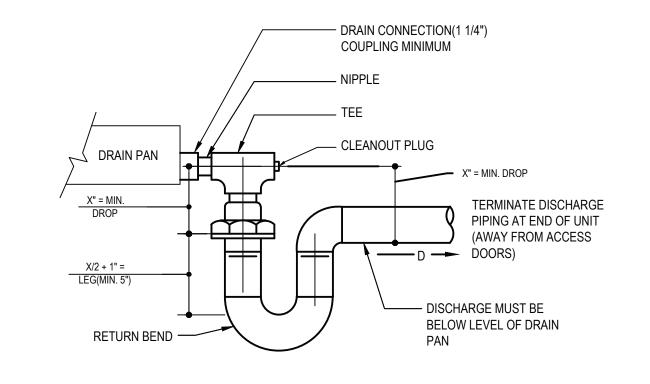


1. SIZE ALL SUPPORTS IN ACCORDANCE WITH THE SMACNA **DUCT CONSTRUCTION STANDARDS, LATEST EDITION.**

Hanger Detail
SCALE:NTS



Inline Fan Hanging Support Detail SCALE: NTS



X = NEGATIVE INTERNAL STATIC PRESSURE AT FAN INLET(IN.)

1. ALLOW SUFFICIENT SPACE BELOW DRAIN PAN FOR TRAP.

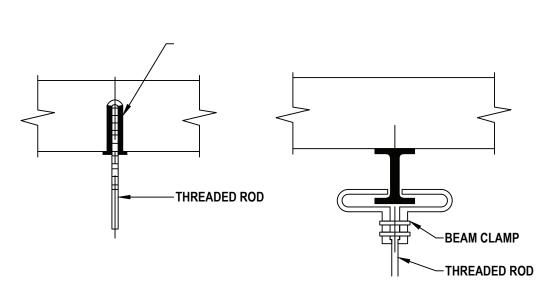
2. PITCH DRAIN FOR PROPER RUN-OFF

3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.

4. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE

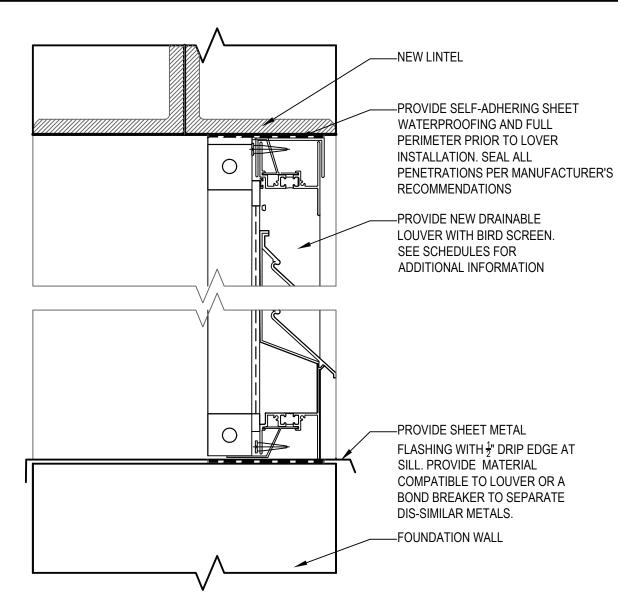
5. PROVIDE DRAIN SEAL AT EACH AC UNIT.

7 Drain Pan Water Seal Piping Draw-Thru Unit

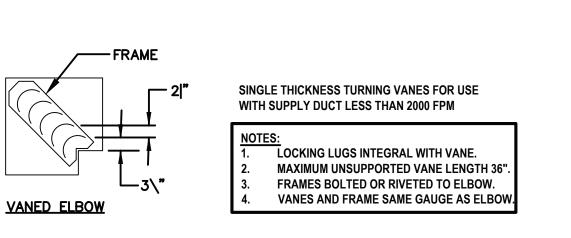


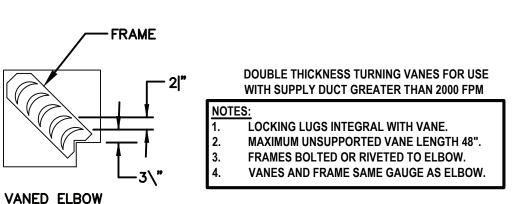
PIPE HANGER SUPPORT DETAIL

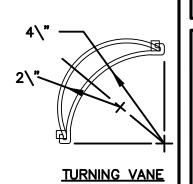
SCALE: NTS



4 Typical Louver Detail
SCALE: NTS

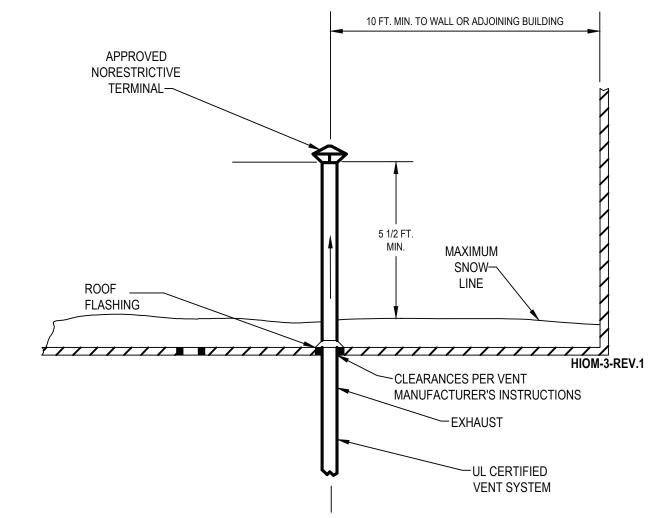






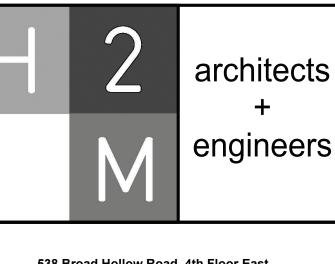
TURNING ELBOW

8 Turning Vanes For Square Elbows
SCALE: NTS



Vertical Venting for Direct Vent System

SCALE: NTS



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MARK	DATE	DESCRIPTION



VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT G GENERAL CONSTRUCTION

FINAL BID DOCUMENT

MECHANICAL DETAILS SHEET

M1 510.00

1. MANUFACTURER PROVIDED DISCONNECT SWITCH.

PROVIDE WITH 115VAC MOTORIZED DAMPER WITH END SWITCH AND END SEALS. PROVIDE WITH 208-230VAC MOTORIZED DAMPER WITH END SWITCH AND END SEALS.

4. FAN TO OPERATE BASED ON SIGNALS FROM INTERLOCKED TEMPERATURE SENSOR OR GAS DETECTIONS SYSTEM OR 30-MINUTE SPRING TIMER.

VENTILATION INDEX BASED ON 2020 NEW YORK STATE MECHANICAL CODE

FLOOR

AREA

(SF)

2650

750

143

FACE SIZE (IN)

16" x 10"

OCCUPANCY

CLASSIFICATION

GARAGE

GARAGE

OFFICE

EXHAUST

GRILLE

SERVED BY

GXF-SB-1

GXF-SB-1

5. ELECTRICAL CONTRACTOR TO PROVIDE WITH HOA SWITCH

6. PROVIDE WITH DIAL FOR BALANCING ONLY ELECTRICAL CONTRACTOR TO PROVIDE TIME CLOCK AND SPRING TIMER

MANUFACTURER TO PROVIDE THERMOSTAT

9. VXF FOR INFORMATION ONLY. FAN TO BE RELOCATED FROM EXISTING FIREHOUSE BY OTHERS. VENDOR TO PROVIDE CONTROLS.

10. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.

11. FAN TO RUN 24/7.

МОТО	ORIZE	D DAM	PERS														
	PERFORMANCE/CONSTRUCTION REQUIREMENTS			BASIS OF DESIGN INFORMATION													
EQMT. TAG	TAG CEM E	EXT S. P.	EXT S. P.	EXT S. P.	EXT S. P.	EXT S. P.	FACE VELOCITY	FRAME	FAILURE	MAIE	MODEL	ACTUATOR	ACTUATOR	ACTUATOR	ELECTRIC	CAL DATA	REMARKS
		(IN. W.C.)	(FPM)	THICKNIESS	MODE	MNF NO.	MNF	MODEL NO.	COUNT	VOLTAGE	POWER DRAW (W)						
MD-SB-1	3,000	0.116	1,000	16 GAUGE	CLOSED	GREENHECK	VCD-23	HONEYWELL	MS4104F1010	1	208/1	18	1,2,3				
MD-SB-2	200	0.068	675	16 GAUGE	CLOSED	GREENHECK	VCD-23	HONEYWELL	MS4104F1010	1	115/1	18	1,2,4				
MD-SB-3	1000	0.068	675	16 GAUGE	CLOSED	GREENHECK	VCD-23	HONEYWELL	MS4104F1010	1	115/1	18	1,2,3				
MD-SB-4	1000	0.068	675	16 GAUGE	CLOSED	GREENHECK	VCD-23	HONEYWELL	MS4104F1010	1	115/1	18	1,2,3				
MD-SB-5	1000	0.068	675	16 GAUGE	CLOSED	GREENHECK	VCD-23	HONEYWELL	MS4104F1010	1	115/1	18	1,2,3				

OCCUPANCY LOAD NUMBER OF

(PERSONS/1000 SF) OCCUPANTS

N/A

RANGE (CFM)

300-500

N/A

N/A

NECK SIZE

DIAMETER (IN.)

RADIANT HEATERS BASIS OF DESIGN INFORMATION **FAN DATA HEATING DATA NOMINAL EQUIPMENT NOMINAL** OPERATING REMARKS LOCATION CONFIGURATION NATURAL GAS **CAPACITY** MODEL NO. **DIMENSIONS** WEIGHT VOLTS/ (MBH) CURRENT LxWxH **PHASE** PRESSURE | PRESSURE CFH (WC) GFRH-SB-1,2,3 SEE PLAN **CEILING HUNG** 1.8A REZNOR VPSN80A VARIES x 16 x 16 APPRX 60 120/1

1. REMOTE WALL MOUNTED THERMOSTAT.

2. UNIT MOUNTED DISCONNECT SWITCH. ELECTRONIC PROGRAM START UP WITH SPARK IGNITION.

OPERATION INDICATOR LIGHTS

5. FLUE SHALL HAVE MAXIMUM 2 ELBOWS. 6. INTERLOCK WITH BAY DOORS. IF ONE DOOR IS OPEN, HEATERS

SHALL TURN OFF UNTIL ALL DOORS ARE PROVEN CLOSED.

LUCULVOLUME LOW OBEED EANO

HIGH VOLUME	LOW SPEED F	FANS								
FAN NO.	AREA SERVED	PERFORMANCE REQUIREMENTS	RASIS OF DESIGN INFORMATION							
		FAN/MOTOR RPM	MNF	MODEL NO.	NOMINAL DIMENSIONS (DIA" x H")	WEIGHT	ELECTRICAL DATA			REMARKS
						(LBS.)	VOLTS / PHASE	MOTOR POWER	FAN POWER	
HVLS-SB-1	APPARATUS BAY	107	GREENHECK	DC-5-8-13LV	96 x 27	86	115V / 1	175W	68W	1-3
HVLS-SB-2,3	APPARATUS BAY	85	GREENHECK	DC-5-4-3LV	52 x 39	30	115V / 1	50W	6W	1-3
	·	•			·		•	•		

NOTES

NATURAL VENTILATION

TOTAL AREA (SQFT.)

1. MANUFACTURER PROVIDED WALL MOUNTED CONTROLLER, FS1.

ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH

PROVIDE SUPPLEMENTAL STEEL AS REQUIRED TO MOUNT FAN.

LOUVERS

LUUVER	•									
				PERFORMANCE		BASIS OF DESIGN INFORMATION				
EQUIPMENT NO.	LOCATION	SYSTEM SERVED	MAX AIR FLOW RATE (CFM)	MAX. PD (IN. W.C.)	FREE AREA (SQ. FT.)	OVERALL NOMINAL SIZE W X H	SERVICE	MNF	MODEL NO.	REMARKS
LV-SB-1	SEE PLAN	GXF-1	3000	0.02	4	48" X 24"	EXHAUST	GREENHECK	ESD-435	1-3
LV-SB-2	SEE PLAN	GXF-1	1000	0.02	2	24" X 12"	INTAKE	GREENHECK	ESD-435	1-3
LV-SB-3	SEE PLAN	GXF-1	1000	0.02	2	24" X 12"	INTAKE	GREENHECK	ESD-435	1-3
LV-SB-4	SEE PLAN	GXF-1	1000	0.02	2	24" X 12"	INTAKE	GREENHECK	ESD-435	1-3
LV-SB-5	SEE PLAN	VXF-1	TBD	0.02	4	48" X 24"	EXHAUST	GREENHECK	ESD-435	1-4

1. PROVIDE 12" SLEEVE 2. COORDINATE COLOR WITH ARCHITECT AND OWNER. PROVIDE COLOR SAMPLES

(LB/1000FT³)

2.27

- 3. PROVIDE INTERNAL BIRD SCREEN
- 4. LOUVER FOR VEHICLE EXHAUST SHALL BE COORDINATED WITH VEHICLE EXHAUST CONTRACTOR. SIZE IS FOR REFERENCE ONLY.

GAS DETECTION SYSTEM

EQMT.		SYSTEM	BASIS OF DESIGN	INFORMATION			
NO.	LOCATION	SERVED	MNF	MODEL NO.	NOMINAL DIMENSIONS L" x W" x H"	VOLTAGE / PHASE	REMARKS
GDS-SB-1	APPARATUS BAY	GXF-1	SIERRA MONITORING COMPANY	5100-04-IT	7.9"X5.7"X 3.9"	24	1-7

INCLUDE DIGITAL CONTROLLER IN NEMA 4 ENCLOSURE FOR WALL MOUNT.

LED DISPLAY FOR NO2 AND CO. INCLUDE NITROGEN DIOXIDE SENSORS AND CARBON MONOXIDE SENSORS.

PROVIDE CONFIGURABLE ALARM OUTPUTS WITH ISOLATION RELAYS FOR INTERLOCK WITH FANS AND FACP.

PROVIDE PANEL MOUNTED AUDIBLE ALARM AND SILENCING SWITCH PROVIDE ALARM HORN WITH STROBE.

PROVIDE STARTUP, TEST AND CALIBRATION REPORT

CONDENSING UNITS

COORDINATE ALL COLORS WITH ARCH.

TWO POSITION W/ SPRING RETURN.

PROVIDE WITH STANDARD SLEEVE.

ROOM NAME

APPARATUS BAY

MEZZANINE STORAGE

OFFICE

-+

EG-SB-A (CFM)

AIR INLETS & OUTLETS

BASIS OF DESIGN:

MNF/ MODEL NO.

TITUS 350RL

PROVIDE VOLUME DAMPERS FOR ALL INLETS AND OUTLETS.

				PERFORM	ANCE/ CONSTRU	CTION REQUIF	REMENTS			BA	ASIS OF DESIGN	INFORMATION	I			
		INDOOR				REMOT	E CONDENSIN	IG UNIT				NOMINAL	ELECTRIC	CAL DA	TA	
EQMT NO.	LOCATION	UNITS				COOL	NG PERFORM	IANCE			NOMINAL	NOMINAL OPERATING				NOTES
NO.		SERVED	SEER	EER	REFRIGERANT	TOTAL CAPACITY (MBH)	APACITY MIN OPER. MAX OPER. TEMP (°E)	MODEL NO.	DIMENSIONS L x W x H (IN.)	WEIGHT (LBS.)	VOLTS/ PHASE	MCA	МОСР			
ACCU-SB-1	EXTERIOR MOUNTED TO BUILDING	AC-1	17	10.98	R410A	9	14	118	LG	LSU090HFV3	10 x 29 x 20	55	208/1	10	15	1-7

- CONTRACTOR TO PROVIDE MOUNTING TO BUILDING. PROVIDE ALL REFRIGERANT PIPING SPECIALTIES AS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CONTRACTOR TO PROVIDE DISCONNECT SWITCH FOR OUTDOOR UNIT. PROVIDE REFRIGERANT PIPING W/ INSULATION BETWEEN CONDENSER AS PER THE NEW YORK STATE ENERGY CODE.
- MANUFACTURER TO PROVIDE BUILT-IN BASE PAN HEATER
- MANUFACTURER TO PROVIDE BACNET CARD. CONDENSING UNIT SHALL POWER EVAPORATOR UNIT.

3. INTERLOCK WITH GXF-1. INTERLOCK WITH GXF-2.

INTERLOCK WITH VXF-1.

EXHAUST | Ez EFFICIENCY

RATE

(CFM/SF)

0.75

0.75

0.00

LENGTH (FT.)

50

REFRIGERANT DENSITY CALCS

FACTOR

(HEATING)

1.0

1.0

0.8

UNCORRECTED OA OA [HEATING] REQUIRED

(CFM)

N/A

N/A

ELBOWS

REQUIRED (CFM)

N/A

PIPE RUN (FT.)

1. REFRIGERANT LINE LENGTHS, SIZES & CHARGES TO BE VERIFIED BY EQUIPMENT MANUFACTURER.

CONTRACTOR TO NOTIFY ENGINEER IF ADDITIONAL SYSTEM CHARGE IS REQUIRED.

CORRECTED | EXHAUST

(CFM)

1988

563

N/A

(LBS)

2.6

EFFECTIVE PIPE | EFFECTIVE FURTHEST | TOTAL # OF | TOTAL REFR. | ZONE SMALLEST SPACE, | ZONE SMALLEST SPACE, | REFRIGERANT DENSITY

AREA BASED

OUTSIDE AIR

RATE (CFM/SF)

0.00

0.00

0.06

SYSTEM

ACCU-SB-1

OCCUPANT BASED

OA RATE

(CFM/OCCUPANT)

N/A

NOTES

1,2

ELECTRIC LINIT HEATERS

MANUFACTURER TO PROVIDE UNIT MOUNTED THERMOSTAT.

ELECTRICAL CONTRACTOR TO PROVIDE UNIT MOUNTED DISCONNECT SWITCH.

TOTAL VOLUME (FT³)

1,144

ELECTRI	C UNII HE	AIERS											
										BASIS	S OF DESIGN INFOR	MATION	
EQUIPMENT				FAN DATA		TOTAL	ELECTRIC	AIR DATA					
NO.	LOCATION	CONFIGURATION	FLOW (CFM)	AMPS	VOLTS/ PHASE	TOTAL CAPACITY (MBH)	COIL CAPACITY (W)	ENT. DB TEMP. (DEG. F)	LVG. DB TEMP. (DEG. F)	MNF	MODEL NO.	NOMINAL DIMENSIONS L x W x H	REMARKS
WMH-SB-1	STORAGE AND BATHROOM	RECESSED CABINET	160	-	120	5.1	1500	55	108	STELPRO	AWF1501T	5 1/2" x 16 3/8" x 23 1/8"	1,2

SPLIT EVAPORATING UNITS

OI LII L	AI CITATING O	1110																
						PERFORMANO	CE/ CONSTR	RUCTION REQUIRE	MENTS				BAS	IS OF DESIGN IN	FORMATION			
							S	UPPLY UNIT DATA							NOMINAL	LIQUID OAG	CONDENCATE	
UNIT TAG	UNIT LOCATION	TYPE	SERVED BY	REFRIGERANT	DRY AIRFLOW (CFM) [HI-MED-LO]	EXTERNAL STATIC (IN. W.C.) [HI TO LO]	FAN POWER (A)	SOUND LEVEL LOW TO HIGH dB(A)	NOMINA L SIZE (MBH)	TOTAL COOLING CAPACITY (MBH)	HEATING CAPACITY AT 19F (MBH)	MANUF.	MODEL	NOMINAL DIMENSIONS L" x W" x H"	OPERATING WEIGHT (LBS.)	LIQUID - GAS CONNECTIONS (IN. OD)	CONNECTION (IN. ID)	NOTES
AC-SB-1	OFFICE	WALL MOUNTED	ACCU-1	R410A	353/264/148	0.20	0.4	28/36/42	9	9.0	8.8	LG	LSN090HFV3	33 x 6 x 12	20.0	1/4 - 3/8	1	1-4

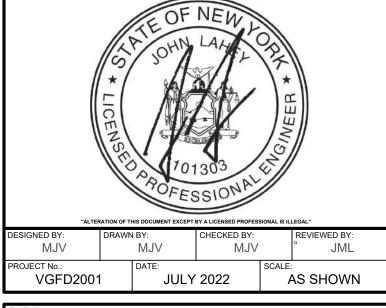
DRAIN PAN LEVEL SENSOR MODEL SS610E. THE UNIT SHALL TURN OFF IF WATER IS SENSED.

INSTALL ALL EQUIPMENT AND COMPONENTS ACCORDING TO MANUFACTURER'S INSTRUCTIONS. 4. POWERED BY PAIRED CONDENSER, PROVIDE DISCONNECT SWITCH MODEL TAZ-MS303 BETWEEN INDOOR AND OUTDOOR UNIT.

MANUFACTURER TO PROVIDE HARDWIRED, WALL MOUNTED, PROGRAMMABLE THERMOSTAT. THERMOSTAT SETPOINT TO BE SET TO 75°F (ADJUSTABLE BY END USER)

538 Broad Hollow Road, 4th Floor East Melville, NY 11747 631.756.8000 • www.h2m.com

MARK DATE DESCRIPTION



VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT G GENERAL CONSTRUCTION

FINAL BID DOCUMENT

MECHANICAL SCHEDULE SHEET

M1 610.00

	' VIBRATION IS				STRAINTS SCH ode, SDC = C, R			COUSTICS)		
UNIT TAG	EQUIPMENT TYPE		CATION LEVEL)"	MOUNTING METHOD	BASE TYPE	ISOLATOR TYPE	NOM. DEFL., IN.	RESTRAINT REQ'D	SEISMIC COMPONE NT IMPORTAN CE FACTOR, Ip	
DUCTWORK (≥6' CLEAR AREA)	DUCTWORK	,	ARIOUS	SUSPENDED				SEIS	1.5	
HVAC PIPING (>2" NOMINAL DIAMETER)	PIPING	1	ARIOUS	SUSPENDED				SEIS	1.5	
GXF-SB-1, 2	EXHAUST FAN	APF)	RATUS BAY	SUSPENDED		SHR	2.00	SEIS	1.5	6,7
VXF-SB-1	VEHICLE EXHAUST	1/	:CH MEZ	SUSPENDED		SHR	2.00	SEIS	1.5	6,7
ACCU-SB-1	CONDENSING UNIT	- commercial control of the control	R MOUNTED TO JILDING	WALL		NP	0.18	SEIS	1.5	3
GFRH-SB-1,2,3	RADIANT HEATERS	S	ORAGE	SUSPENDED	-			SEIS	1.5	6
HVLS	HVL FANS	,	ARIOUS	SUSPENDED	Name .			SEIS	1.5	6

NOTES:

1. BASIS OF DESIGN: VIBRO-ACOUSTICS.

2. SEISMICALLY RATED FOR PROJECT CONDITIONS.

3. STAND SUPPORT MUST BE ABLE TO MEET CALCULATED SEISMIC LOADS

4. PROVIDE FLEXIBLE PIPING CONNECTORS

5. PROVIDE TYPE SHR OR SFS ISOLATORS ON ADJACENT PIPING/DUCTWOR <

6. PROVIDE SEISMIC RESTRAINT CABLES. PROVIDE ROD STIFFENERS AS RECUIRED.

7. PROVIDE SEISMIC UPLIFT STOP WASHER.

8. SUPPORT INLINE PUMP AT FLANGE CONNECTION.

BASE TYPE:

CIB - CONCRETE INERTIA BASE

VCR - ADJUSTABLE SPRING CURB

RC: ROOF CURB

TULLING THE TOTAL THE TOTA

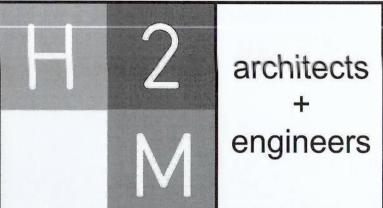
ISOLATOR TYPE:

NP - RUBBER PAD

SIPS - SEISMIC INLINE PUMP STANDS

SFS - SEISMIC FLOOR MOUNT

SHR - SPRING + RUBBER HANGER



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CONSULTANTS:			

MARK	DATE	DESCRIPTION
2	12/22/2022	REVS. PER TOWN COMMENTS
S		



VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT G
GENERAL CONSTRUCTION

FINAL BID DOCUMENT

MECHANICAL SCHEDULE SHEET

M1 611.02