<u> SECTION 1 - PIPING SYSTEMS</u> GENERAL

- PROVIDE ISOLATION VALVES AT MAIN BRANCH CONNECTIONS, EQUIPMENT, AND AT BOTTOM OF RISERS WHERE THEY ORIGINATE FROM A CONTINUOUS MAIN AND RISE TO A FLOOR OR FLOORS ABOVE.
- SIZE REDUCTIONS SHALL BE MADE BY ECCENTRIC REDUCERS WITH FLAT SIDE ON TOP WHERE SPECIFIED. NO BUSHINGS FOR PIPE REDUCTIONS
- PROVIDE DIELECTRIC UNION AT ALL CONNECTIONS OF DISSIMILAR METALS.
- PROPERLY SEAL ALL PIPE PENETRATIONS THROUGH WALLS, ROOFS, FLOORS, OR CEILINGS
- ELBOWS ARE TO BE LONG RADIUS; FIELD FABRICATED FITTINGS ARE NOT ACCEPTABLE.
- BRANCH CONNECTIONS TO MAIN MAY BE SADDLE-TYPE, FORGED STEEL WELDED FITTING.
- ALL PIPING TAKE-OFFS FOR NATURAL GAS SHALL BE MADE FROM THE SIDE OR TOP OF PIPING. "BULLHEAD" TEE ARE PROHIBITED.

PIPE HANGERS AND SUPPORTS

PIPE SHALL BE SUPPORTED BY SPLIT RING ADJUSTABLE TYPE, CLEVIS HANGER, TRAPEZE (MULTIPIPE RACK) OR OTHER APPROVED HANGERS, OR ROOF SUPPORTS.

VISUALLY INSPECT ALL PIPING, VALVES AND JOINTS PRIOR TO INSULATING, ENCLOSING, BURYING, OR OTHERWISE CONCEALING.

- BRACKETS OR CLAMPS MAY BE USED WHERE PIPE RUNS ALONG WALLS, COLUMNS OR CEILINGS, BUT MUST ALLOW FOR EXPANSION AND
- RADIAL SUPPORTS SHALL BE RIGID TYPE. IF WALL BRACKETS OR LONGITUDINAL SUPPORTS ARE USED ON STRAIGHT LENGTHS OVER 20 FEET LONG, THEY SHALL BE OF THE FLEXIBLE TYPE TO PROVIDE FOR THERMAL EXPANSION AND CONTRACTION.
- HANGERS AND SUPPORTS SHALL BE PLACED WITHIN 1 FOOT FROM EACH CHANGE IN DIRECTION AND WITHIN 3 FEET OF THE END OF EACH
- RUNOUT OR AS DEFINED BY PIPE STRESS ANALYSIS OR PIPE EXPANSION ANALYSIS AS PART OF A DELEGATED DESIGN.
- PIPING AT ALL EQUIPMENT AND CONTROL VALVES SHALL BE SUPPORTED TO PREVENT STRAINS OR DISTORTIONS IN THE CONNECTED EQUIPMENT AND CONTROL VALVES.
- MAXIMUM ALLOWABLE HANGER ROD LOADING AND SPACING FOR PIPING SYSTEMS ARE SHOWN BELOW. CHECK LOCAL CODES TO DETERMINE IF A DIFFERENT SPACING IS REQUIRED. CLOSER HANGER SPACING MAY BE REQUIRED DUE TO ADDITIONAL VALVES AND FITTINGS
- 1.2 NATURAL GAS SYSTEM
- A. NATURAL GAS PIPING SHALL COMPLY WITH THE INTERNATIONAL FUEL GAS CODE AND NFPA-54 AND LOCAL CODE/AMENDMENTS.

			DUC	TWORK AN	ID DUCT IN	SULATIO	ON SC	HEDULE				
				DUCT				LINER	EXTERN	AL DUCT I	NSULATION	
SYSTEM	FUNCTION	LOCATION	SHAPE	PRESS. CLASS [IN WG]	OPERATING PRESS. [IN WG]	MATERIAL	TYPE	R-VALUE	TYPE	FINISH	MINIMUM R-VALUE	NOTES
MAU SUPPLY AIR	SA	WAREHOUSE	RECT	2	1	G-90	N/A	N/A	N/A	N/A	N/A	1

1. EXPOSED DUCTWORK TO BE GASKETED SPIRAL OR TDC, SUITABLE FOR PAINTING. PAINTING BY OTHERS

GENERAL REMARKS APPLICABLE TO ALL DUCT SYSTEMS:

- 1. ALL DUCTWORK SHALL BE HUNG WITH GALVANIZED STRAP, GRIPPLE OR TRAPEZED. 2. DUCT SIZES INDICATED ON DRAWINGS ARE SHEET METAL SIZE AND INCLUDE LINER SPECIFIED.

B. VALVES, UNIONS AND CLOSE NIPPLES SHALL NOT BE INSTALLED IN ANY CONCEALED SPACE

- 3. ALL DUCTWORK, INSULATION, AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50. 4. ALL DUCTWORK SHALL BE SEALED TO CLASS A REQUIREMENTS.
- 5. DUCT GAUGE SHALL BE PER SMACNA STANDARD FOR PRESSURE CLASS INDICATED, UNLESS NOTED OTHERWISE, AND SHALL BE NO LESS THAN 26 GAUGE

				P	IPE AND P	IPE INSU	JLATION	SCHEDULE					
SYSTEM	0.402211		OPERATIN	OPERATIN			PIPE			INSULA	ATION	PRESSURE TEST PROCEDURE	
ABBREV	SYSTEM	LOCATION	G TEMP [°F]	G PRESS. [PSIG]	SIZE	TYPE/SCHE D	MATERIAL	JOINING METHOD	TYPE	JACKET	THICKNESS [IN]	PROCEDURE	NOTES
		ABOVE GRADE	N/A	1	1/2" THRU 2"	SCH 40	CARBON STEEL	150# MALLEABLE IRON NPT	N/A	N/A	N/A	P.1	
G	NATURAL GAS	ABOVE GRADE	N/A	1	1/2" THRU 4"	SCH 40	CARBON STEEL	COLD PRESS MECHANICAL	N/A	N/A	N/A	P.1	1
		ABOVE GRADE	N/A	1	2 1/2" AND UP	STD WEIGHT	CARBON	BUTT WELDED	N/A	N/A	N/A	P.1	

PIPE PRESSURE TEST:

P.1 PNEUMATICALLY TEST PER ASME B31.1 & B31.3. MINIMUM HOLD OF 60 PSI.

 FITTINGS EQUAL TO VIEGA MEGAPRESS/PROPRESS GENERAL REMARKS APPLICABLE TO ALL PIPE SYSTEMS:

- PROVIDE IDENTIFICATION LABELS ON ALL ABOVE FLOOR AND ABOVE GRADE PIPING.
- 2. WHERE REQUIRED, PAINTING OF PIPE SYSTEMS SHALL BE BY GC/OTHERS. 3. ALL PIPES, INSULATION, AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.

MAKE-UP AIR UNIT - 100% OUTDOOR AIR SPACE HEAT AND VENTILATION

DESCRIPTION:
EACH 100% OUTDOOR AIR MAKE-UP AIR UNIT (MAU) WILL BE PROVIDED FROM THE FACTORY WITH AN INTEGRAL CONTROL CENTER THAT INCLUDES A NON-FUSED DISCONNECT, 24VAC TRANSFORMER, INLET DAMPER WITH END SWITCHES, TERMINAL STRIP, FREEZE PROTECTION, AND FAN STARTER. THE TWO-POSITION OUTDOOR AIR DAMPER WILL OPERATE BETWEEN OPEN AND CLOSED.

- CONTROL:
 THE SPACE TEMPERATURE AND UNIT MODE WILL BE DETERMINED FROM THE REMOTE PANEL THAT IS SUPPLIED WITH THE MAKE-UP AIR
 THE SPACE TEMPERATURE AND UNIT MODE WILL BE DETERMINED BY AN OCCUPANCY SCHEDULE SET IN CONTROLLER. UNIT AND MOUNTED IN THE SPACE. THE OCCUPIED MODE SHALL BE DETERMINED BY AN OCCUPANCY SCHEDULE SET IN CONTROLLER.
 - CONTINUOUS (OCCUPIED) MODE
 - THE BURNER WILL BE ENERGIZED AND DE-ENERGIZED PER THE FOLLOWING:
 - (1) SPACE TEMPERATURE SATISFIED AND <u>OAT < 65°F</u> BURNER ENERGIZED = MINIMUM FIRE
 - (2) SPACE TEMPERATURE < SPACE SETPOINT (ADJ) AND $OAT < 65^{\circ}F = MAX$ FIRE
 - (3) $OAT > 65^{\circ}F BURNER DE-ENERGIZED.$
 - THE SUPPLY FAN WILL BE RUNNING CONTINUOUSLY.
- AUTO (UNOCCUPIED) MODE:
- BURNER CONTROL:
 THE BURNER WILL BE ENERGIZED AND DE-ENERGIZED PER THE FOLLOWING:
 - (1) SPACE TEMPERATURE < SPACE SETPOINT (ADJ) AND <u>OAT < 65°F</u> BURNER ENERGIZED = MAX FIRE
 - (2) SPACE TEMPERATURE SATISFIED BURNER DE-ENERGIZED
- FAN CONTROL:
 THE FAN WILL BE ENERGIZED BASED ON A CALL FOR HEAT AND DE-ENERGIZED ONCE SPACE TEMPERATURE IS SATISFIED.

EXPECTED FAILURE OPERATIONS:

- A. SHOULD ANY OF THE FOLLOWING OCCUR, A FAILURE SHALL BE SENSED BY THE UNIT CONTROLLER AND A VISUAL ALARM WILL BE
 - INDICATED ON THE REMOTE PANEL.
- (1) IF DISCHARGE AIR TEMPERATURE (DAT) FALL BELOW THE LOW TEMPERATURE LIMIT, THE FAN WILL BE DISABLED AND THE "LOW TEMP ALARM" WILL BE ISSUED
- UPON A LOSS OF GAS PRESSURE, THE BURNER SHALL BE LOCKED OUT AND A "FLAME FAILURE ALARM" SHALL BE ISSUED

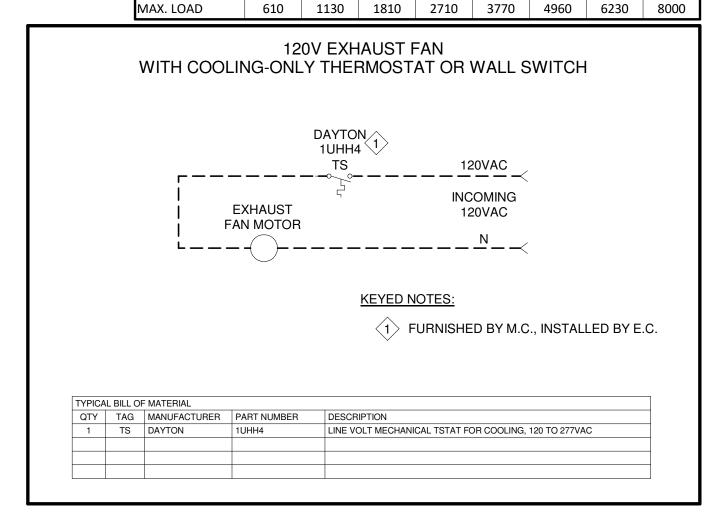
(3) UPON A LOSS OF AIRFLOW, THE BURNER SHALL BE LOCKED OUT AND THE AIRFLOW PROVING LIGHT WILL BE DE-ENERGIZED ELECTRICAL, MECHANICAL, AND ELECTRIC FIRE PUMP ROOM HEAT AND VENTILATION

- EACH SYSTEM SHALL CONSIST OF AN EXHAUST FAN WITH COOLING-ONLY LINE VOLTAGE THERMOSTAT, LOUVER DAMPER WITH 120V FACTORY-PROVIDED ACTUATOR, AND ELECTRIC UNIT HEATER WITH UNIT-MOUNTED THERMOSTAT. THE LOUVER SHALL BE SPRING-CLOSED/POWER-OPEN TO FAIL CLOSED UPON A LOSS OF POWER.
- THE 120V LOUVER DAMPER SHALL BE INTERLOCKED TO OPEN THE LOUVER DAMPER WHEN THE EXHAUST FAN IS ENERGIZED AND CLOSE THE LOUVER DAMPER WHEN THE EXHAUST FAN IS DE-ENERGIZED. INTERLOCK BY THE E.C.
- EXHAUST FAN: THE EXHAUST FAN SHALL BE CONTROLLED BY A SPACE MOUNTED COOL-ONLY LINE VOLTAGE THERMOSTAT. THE THERMOSTAT WILL ENERGIZE AND DE-ENERGIZE THE EXHAUST FAN TO MAINTAIN A MAXIMUM TEMPERATURE OF 90°F (ADJ) IN THE ROOM. THE EXHAUST FAN SHALL BE INTERLOCKED TO OPEN THE LOUVER DAMPER WHEN THE EXHAUST FAN IS ENERGIZED AND ĆLOSE THE LOUVER DAMPER WHEN THE EXHAUST FAN IS DE-ENERGIZED.
- HEATING:
 THE ELECTRIC UNIT HEATER SHALL BE CONTROLLED BY A HEAT-ONLY UNIT-MOUNTED THERMOSTAT. THE THERMOSTAT WILL ENERGIZE AND DE-ENERGIZE THE ELECTRIC UNIT HEATER TO MAINTAIN A MINIMUM TEMPERATURE OF 50°F (ADJ) IN THE ROOM.

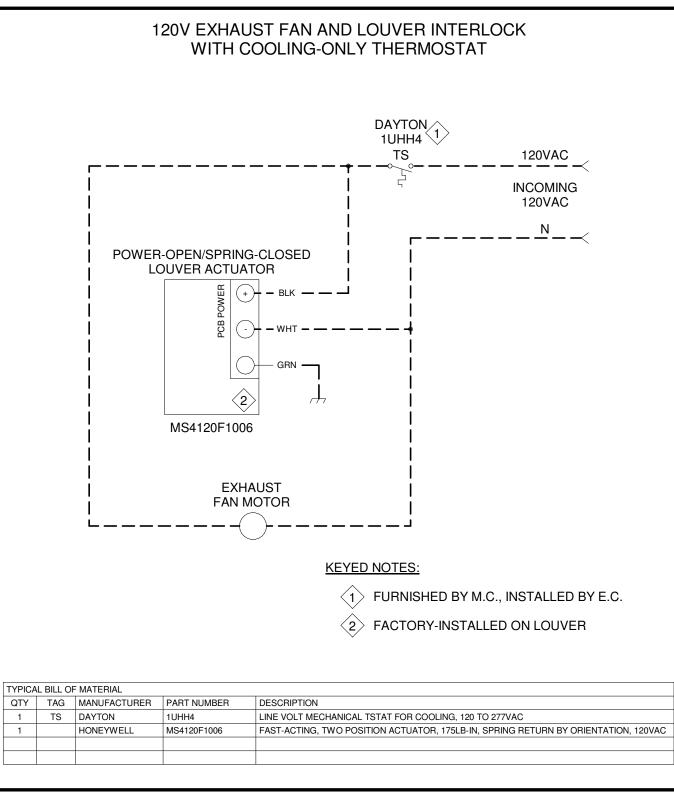
WAREHOUSE VENTILATION EXHAUST FAN AND LOUVER

- DESCRIPTION:
 EACH SYSTEM SHALL CONSIST OF A VENTILATION EXHAUST FAN WITH MOTOR STARTER AND LOUVER DAMPER(S) WITH 120V FACTORY-PROVIDED ACTUATOR. EACH LOUVER SHALL BE SPRING-CLOSED/POWER-OPEN TO FAIL CLOSED UPON A LOSS OF POWER.
- ENERGIZE AND DE-ENERGIZE THE VENTILATION FAN. THE VENTILATION FAN SHALL BE INTERLOCKED WITH ONE OR MORE INTAKE LOUVER DAMPERS, SUCH THAT THE INTAKE LOUVER DAMPERS SHALL OPEN WHEN THE VENTILATION FAN IS ENERGIZED AND THE INTAKE LOUVER DAMPERS SHALL CLOSE WHEN THE VENTILATION FAN IS DE-ENERGIZED. REFER TO THE EQUIPMENT SCHEDULES FOR FAN AND LOUVER INTERLOCK COMBINATIONS.

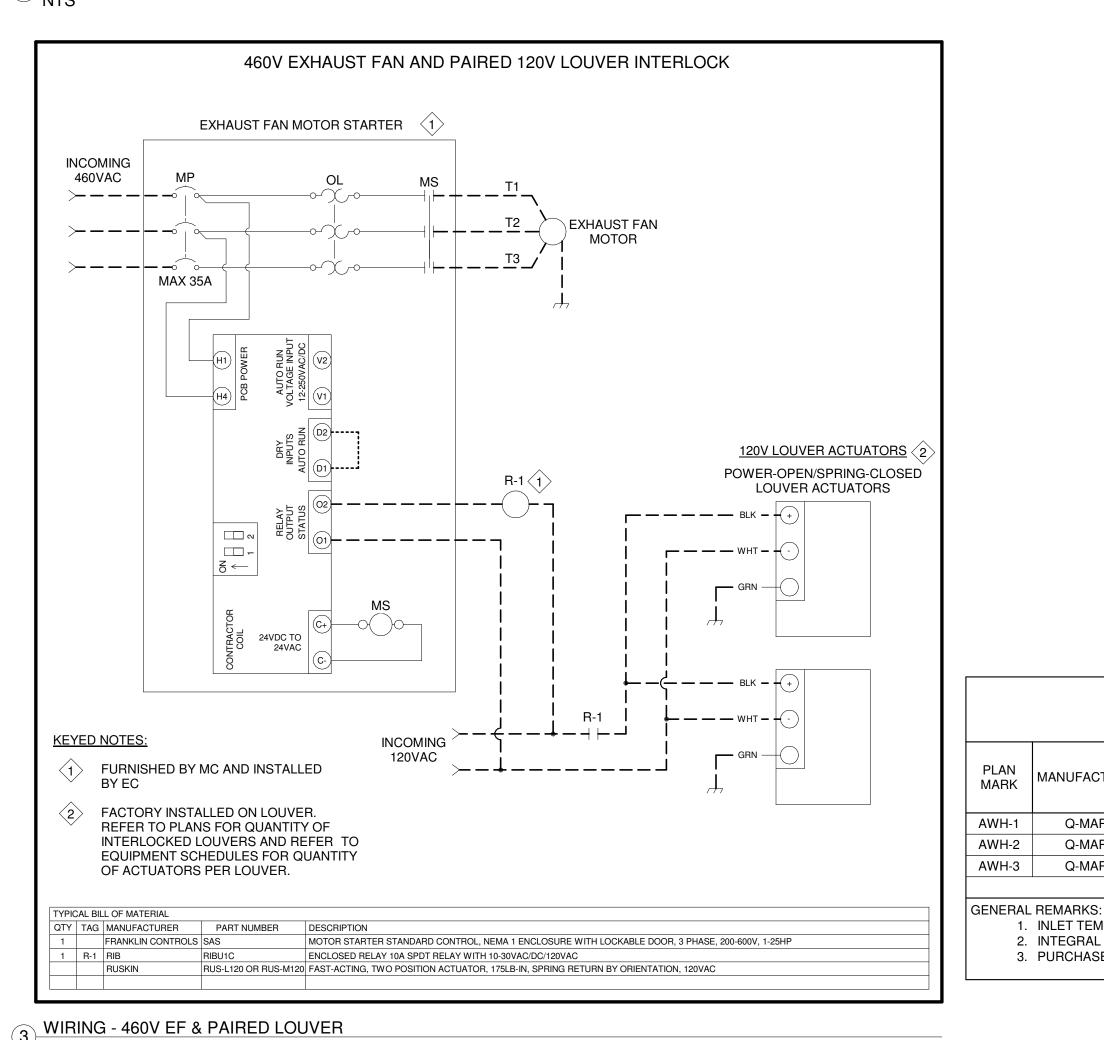
	MAXIMUM	ALLOWA	BLE HANGE	R SPACIN	G - NATU	RAL GAS PI	PE				
NOMINAL TU	BING SIZE		ROD DIAN	ΛETER (IN))	MAXIMUM SPACING (FT)					
1/2	"		3,	/8"		6'-0"					
3/4" -	1"		3,	/8"			8'-0"				
1-1/4"	- 2"		3,		10'-0"						
2-1/2"	- 3"		1,	/2"			10'-0"				
4"			5,	/8"			10'-0"				
6"			3,	/ 4"		10'-0"					
8"-12	2"		7,	/8"		10'-0"					
	MAXIMU	M ALLOW	ABLE HAN	GER ROD I	OADING						
DD DIA. (IN)	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4			



WIRING - 120V EF WITH THERMOSTAT



WIRING - 120V EF & LOUVER



DIRECT FIRED MAKE-UP AIR UNIT SCHEDULE NATURAL GAS HEATING ELECTRICAL SUPPLY FAN OUTDOOR WEIGHT MODEL LOCATION NOTES //ANUFACTURER AIRFLOW MARK [LBS] AIRFLOW ESP EDB | LDB | INPUT | OUTPUT | INLET PRESSURE RANGE HP BHP QTY [CFM] VOLTS/PH | MCA | MOCP | [CFM] | [IN WC] | A4-D.1000-30D | WAREHOUSE | 9,200 | 0.15 | 5.0 | 3.1 | 1,2,3,4,5,6,7,8,9,10,11 CAPTIVEAIRE 9,200 12.0 | 100.0 | 842.0 | 775.0 MAU-1 | 13.5 | 20 | 2.000.0 2,000.0 A4-D.1000-30D | WAREHOUSE | 9,200 7-14 1,2,3,4,5,6,7,8,9,10,11 MAU-2 CAPTIVEAIRE 0.15 100.0 MAU-3 A4-D.1000-30D | WAREHOUSE | 9,200 0.15 842.0 775.0 7-14 13.5 | 20 | 2,000.0 1,2,3,4,5,6,7,8,9,10,11 CAPTIVEAIRE 5.0 3.1 9,200 100.0 460/3 MAU-4 100.0 842.0 775.0 1,2,3,4,5,6,7,8,9,10,11 CAPTIVEAIRE A4-D.1000-30D | WAREHOUSE | 9,200 0.15 | 5.0 | 3.1 7-14 13.5 | 20 | 2,000.0 | 842.0 775.0 2,000.0 1,2,3,4,5,6,7,8,9,10,11 MAU-5 CAPTIVEAIRE A4-D.1000-30D | WAREHOUSE | 9,200 0.15 | 5.0 | 3.1 100.0 7-14 13.5 13.5 20 2.000.0 MAU-6 A4-D.1000-30D | WAREHOUSE | 9,200 0.15 | 5.0 | 3.1 | 842.0 775.0 7-14 1,2,3,4,5,6,7,8,9,10,11 CAPTIVEAIRE 9,200 12.0 100.0 460/3 A4-D.1000-30D | WAREHOUSE | 9,200 | 0.15 | 5.0 | 3.1 | 7-14 13.5 | 20 | 2.000.0 1,2,3,4,5,6,7,8,9,10,11 MAIJ-7 9,200 12.0 | 100.0 | 842.0 | 775.0 CAPTIVEAIRE 13.5 | 20 | 2.000.0 | 1.2.3.4.5.6.7.8.9.10.11 MAU-8 | A4-D.1000-30D | WAREHOUSE | 9,200 | 0.15 | 5.0 | 3.1 | 9,200 12.0 | 100.0 | 842.0 | 775.0 7-14

GENERAL REMARKS: 1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES,

- DAMPERS AND DUCT MOUNTED COILS
- 2. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC 3. MAU SHALL NOT BE STARTED OR OPERATED WITHOUT THE REQUIRED FILTERS INSTALLED
- 4. PURCHASED BY NDBS

ELM6DW WAREHOUSE INTAKE 31.650

ELM6DW FIRE PUMP ROOM INTAKE 2,000

PURCHASED BY NDBS

831

571

1.157.0

- 2. FACTORY MOUNTED INLET DAMPER
 - 1. FURNISHED WITH 24" TALL FULL PERIMETER, INSULATED SLOPED CURB, AND DUCT HANGERS
 - 3. FACTORY MOUNTED AND WIRED. NON-FUSED DISCONNECT SWITCH
 - 4. FURNISHED WITH WEATHERHOOD WITH EZ WASHABLE FILTERS
 - 5. FACTORY MOUNTED AND WIRED FREEZESTAT
 - 6. FURNISHED WITH 3-WAY DIFFUSER, FIELD INSTALLED BY MC 7. FURNISHED WITH CONTROL PANEL, INSTALLED AND WIRED BY EC
 - 8. FACTORY INSTALLED SINGLE POINT POWER CONNECTION 9. INSTALLED WITH NIGHT SETBACK FEATURE ON CONTROLLER
 - 10. FACTORY INSTALLED AND WIRED 120V GFCI SERVICE OUTLET 11. FACTORY MOUNTED AND WIRED VFD FOR SUPPLY FAN MOTOR

	LOUVER SCHEDULE																		
PLAN	MANUFACTURER	MODEL	LOCATION	USE (INTAKE/	AIRFLOW	FACE VELOCITY			PD			DEPTH	ACTUATOR		INTERLOCKED	SECTIONS			NOTES
MARK	W/ WOT / TOTAL T	WOBLE	200/11011	EXHAUST)	[CFM]	[FPM]	VELOCITY [FPM]	[%]	[IN WC]	[IN]	[IN]	[IN]	VOLT/PH	FAIL POS.	WITH	QTY	WIDTH [IN]	HEIGHT [IN]	110120
L-1	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-1	2	48.0	102.0	1,2,3,4,5,6
L-2	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-2	2	48.0	102.0	1,2,3,4,5,6
L-3	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-3	2	48.0	102.0	1,2,3,4,5,6
L-4	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-4	2	48.0	102.0	1,2,3,4,5,6
L-5	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-1	2	48.0	102.0	1,2,3,4,5,6
L-6	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-2	2	48.0	102.0	1,2,3,4,5,6
L-7	RUSKIN	ELM6DW	WAREHOUSE	INTAKE	31,650	831	1,157.0	56%	0.11	96.0	102.0	6.0	120/1	CLOSED	EF-3	2	48.0	102.0	1,2,3,4,5,6

GENERAL REMARKS:

1. LOUVERS WILL SHIP 1/4" UNDERSIZED 2. PURCHASED BY NDBS

RUSKIN

L-8

1. FACTORY PAINTED KYNAR FINISH, COORDINATE FINAL COLOR WITH GC/OWNER

2. CHANNEL FRAME CONSTRUCTION

56% 0.11 96.0 102.0 6.0 120/1 CLOSED

1,157.0 | 56% | 0.11 | 30.0 | 30.0 | 6.0 | 120/1 | CLOSED

3. LOUVER IS DRAINABLE AND INCLUDES GUTTERS AND WEEPS 4. FURNISHED WITH MESH ALUMINUM BIRDSCREEN FOR INTAKE

5. FURNISHED WITH BLADE AND JAMB SEALS 6. FURNISHED WITH EXTENDED SILLS

EXHAUST FAN SCHEDULE															
PLAN	MANUFACTURER	MODEL	LOCATION	TYPE	AIRFLOW	FAN RPM	ESP	HP	ВНР	DRIVE	CONTROL /	ELECTR	ICAL	WEIGHT	NOTES
MARK	WANDFACTURER	WODEL	LOGATION	11112	[CFM]	7,11,41,11,11	[IN WC]	ПГ	БПР	TYPE	SWITCH BY	VOLTS/PH	FLA	[LBS]	NOTES
EF-1	COOK	60 LXULMO	WAREHOUSE	UPBLAST	63,300	543	0.125	15.0	15.0	BELT	MOTOR STARTER	460/3	21	1750	1,2,6,7,8
EF-2	COOK	60 LXULMO	WAREHOUSE	UPBLAST	63,300	543	0.125	15.0	15.0	BELT	MOTOR STARTER	460/3	21	1750	1,2,6,7,8
EF-3	COOK	60 LXULMO	WAREHOUSE	UPBLAST	63,300	543	0.125	15.0	15.0	BELT	MOTOR STARTER	460/3	21	1750	1,2,6,7,8
EF-4	COOK	60 LXULMO	WAREHOUSE	UPBLAST	63,300	543	0.125	15.0	15.0	BELT	MOTOR STARTER	460/3	21	1750	1,2,6,7,8
EF-5	COOK	ACE-D 135	FIRE PUMP ROOM	DOWNBLAST	2,000	1,377	0.15	1/2	0.29	DIRECT	LINE VOLT T-STAT	120/1	9.8	100	1,2,3,4,5,8
EF-6	COOK	SQN-D 120	ELECTRICAL ROOM	INLINE	1,000	1,081	0.15	1/6	0.088	DIRECT	LINE VOLT T-STAT	120/1	4.4	85	1,2,4,5,9

GENERAL REMARKS 1. CURB LEVELING AND BLOCKING, BY GENERAL CONTRACTOR

1. FURNISHED WITH 14" TALL FLAT ROOF CURB, WITH NAILER, INSULATION, LINER, AND DAMPER TRAY

2. FACTORY INSTALLED NON-FUSED TOGGLE DISCONNECT SWITCH 3. FURNISHED WITH GRAVITY BACKDRAFT DAMPER

4. FACTORY MOUNTED AND WIRED SOLID STATE SPEED CONTROLLER 5. FAN TO BE CONTROLLED BY LINE VOLTAGE THERMOSTAT, FURNISHED BY MC INSTALLED BY EC

6. FURNISHED WITH BUTTERFLY DAMPER WITH MAGNETIC LATCHES

7. MOTOR STARTER FURNISHED WITH FAN FROM FACTORY. INSTALLED BY EC 8. FAN INTERLOCKED TO MOTORIZED DAMPER ON LOUVER FOR INTAKE BY EC

9. FACTORY INSTALLED INLET GUARD

FIRE DAMPER SCHEDULE

PLAN	MANUFACTURER	MODEL	LOCATION	SERVICE	APPLICATION		DAMPER S	SIZE	RATING	STYLE	MOUNTING	NOTES
MARK	MANOI ACTORER	WODEL	LOCATION	(SA/RA/EA)	(STATIC/DYNAMIC)	WIDTH [IN]	HEIGHT [IN]	SLEEVE LENGTH [IN]	[HRS]	STILL	(HORIZ/VERT)	NOTES
FD-1	RUSKIN	DIBD2-1	ELECTRIC ROOM	EA	DYNAMIC	14.0	14.0	16.0	1.5	Α	HORZ	1,2
FD-2	RUSKIN	DIBD2-1	ELECTRIC ROOM	SA	DYNAMIC	14.0	14.0	16.0	1.5	Α	HORZ	1,2

GENERAL REMARKS: 1. FUSIBLE LINK = 165°F

A- BLADES IN AIRSTREAM 2. PROVIDE SLEEVE AND COORDINATE SIZE AND LENGTH WITH APPLICATION AND MOUNTING LOCATION C- BLADES OUT OF AIRSTREAM

B- BLADES OUT OF AIRSTREAM 3. PROVIDE RETAINING CLIPS AND SEAL OPENING PER G- BLADES OUT OF WALL UL 555 AND LOCAL REQUIREMENTS

2. MC TO PROVIDE TITUS 350 GRILLE EQUAL TO FIRE DAMPER OPENING SIZE

FACTORY PROVIDED GRILL MOUNTING

INTERNAL

INTERNAL

INTERNAL

INTERNAL

INTERNAL

4. COORDINATE FINAL OPENING SIZE WHEN MULTIPLE DAMPERS ARE REQUIRED 5. PURCHASED BY SUBCONTRACTOR

MANUFACTUREF

MAXITROL MAXITROL

MAXITROL

3. PURCHASED BY SUBCONTRACTOR

	(GAS PF	RESSUR	E REGUL	ATINO	3 VALVI	SCHE	DULE			
_	MODEL	SERVING	LOCATION	CONNECT	ION	CAPACITY		PRESSURE		PILOT	NOTES
1	WODEL	SERVING	LOCATION	SIZE	TYPE	[CFH]	MAX INLET [IN WC]	MIN INLET [IN WC]	OUTLET [IN WC]	FILOT	NOTES
	325-9L	MAU-1	ROOF	1 1/2 X 1 1/2	NPT	850	28	20	10	INTERNAL	1
	325-9L	MAU-2	ROOF	1 1/2 X 1 1/2	NPT	850	28	21	10	INTERNAL	1

VENT TO ATMOSPHERE AS REQUIRED BY LOCAL CODE.

2. INSTALLER MAY CHOOSE TO SUBMIT ON EQUAL REGULATOR FROM ANOTHER MANUFACTURER.

 MAXITROL
 325-9L
 MAU-6
 ROOF
 1 1/2 X 1 1/2
 NPT

 MAXITROL
 325-9L
 MAU-7
 ROOF
 1 1/2 X 1 1/2
 NPT

325-9L MAU-4 ROOF 1 1/2 X 1 1/2 NPT

325-9L MAU-5 ROOF 1 1/2 X 1 1/2 NPT

MAXITROL 325-9L MAU-8 ROOF 1 1/2 X 1 1/2 NPT 850

1. MC TO FURNISH WITH VENT PROTECTOR EQUIVALENT TO RICHARDS VENT 90, MAXITROL VENT PROTECTORS, OR APPROVED PRODUCT. FIELD FABRICATED WILL NOT BE ACCEPTABLE.

ARCHITECTURAL WALL HEATER SCHEDULE											
PLAN	MANUIEACTURER	MODEL	LOCATION	FAN DATA ELECTRIC HEAT COIL ELECTRICA						NOTES	
MARK			LOCATION	AIRFLOW [CFM]	LAT [°F]	CAPACITY [MBH]	KW	VOLTS/PH	AMPS	NOTES	
AWH-1	Q-MARK	AWH4407	FIRE PUMP ROOM	100	135.02	13.65	4.0	277/1	14.4	1,2,3	
AWH-2	Q-MARK	AWH4407	ELECTRICAL ROOM	100	135.02	13.65	4.0	277/1	14.4	1,2,3	
AWH-3	Q-MARK	AWH4407	ROOF ACCESS ROOM	100	135.02	13.65	4.0	277/1	14.4	1,2,3	

1. INLET TEMPERATURE = 0°F, UNLESS NOTED

3. PURCHASED BY NDBS

2. INTEGRAL THERMOSTAT AND TOGGLE DISCONNECT SWITCH

NOT FOR CONSTRUCTION

1. MC TO INSTALL. EC TO WIRE

2. FURNISHED WITH SURFACE MOUNTING KIT

3. GC TO SPECIFY COLOR, BRONZE OR WHITE.



THE PERSONAL SEAL AFFIXED TO THIS SHEET INDICATES THAT THE PROFESSIONAL ENGINEER WHOSE NAME APPEARS THEREON HAS PREPARED OR HAS DIRECTED THE PREPARATION OF THE MATERIAL ON THIS SHEET. OTHER DRAWINGS, SPECIFICATIONS, REPORTS, DOCUMENTS OR INSTRUCTIONS, NOT EXHIBITING THIS SEAL, RELATING TO OR INTENDED TO BE USED FOR ANY PARTS OR PART OF THE PROJECT IN WHICH THIS SHEET REFERS, SHALL NOT BE CONSIDERED PREPARED BY OF THE RESPONSIBILITY OF THE UNDERSIGNED AND IS HEREBY DISCLAIMED IN ACCORDANCE WITH SECTION 327.411 2 R.S. MO.

DESIGN/BUILD 44 SOUTH BROADWAY, SUITE 1003 WHITE PLAINS, NY 10601

DESIGNER / BUILDER

P: 914.821.5535 F: 914.306.6010

PROJECT TITLE ROCKLAND LOGISTICS **CENTER BLDG 1**

25 OLD MILL RD. **SUFFERN, NY 10901**

BROOKFIELD PROPERTIES 1 MEADOWLANDS PLAZA, SUITE 802

EAST RUTHERFORD,NJ 07073

ARCHITECT ADB / DESIGN SERVICES LLC

WHITE PLAINS, NY 10601 CIVIL ENGINEER DYNAMIC ENGINEERING CONSULTANTS

44 SOUTH BROADWAY, SUITE 1003

LAKE COMO, NJ 07719 STRUCTURAL ENGINEER ADB STRUCTURAL ENGINEERING

325 S. ALABAMA ST , SUITE 200

INDIANAPOLIS, IN 46204

MECHANICAL ENGINEER NATIONAL DESIGN BUILD SERVICES 11840 BORMAN DRIVE

MARYLAND HEIGHTS, MO 63146

ELECTRICAL ENGINEER FXB ENGINEERING 5 CHRISTY DRIVE, SUITE 307 CHADDS FORD, PA 19317

1904 MAIN STREET

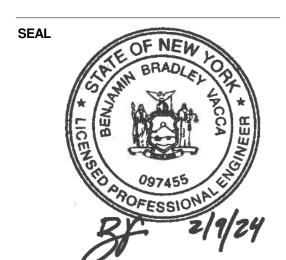
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1 30.0 30.0 1,2,3,4,5,6

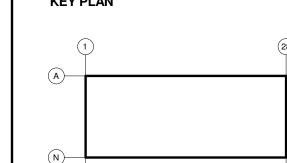
EF-5

PLUMBING ENGINEER MCCARTHY ENGINEERING 2500 E HIGH STREET, SUITE 630 POTTSTOWN, PA 19464

> FIRE PROTECTION ENGINEER S.A. COMUNALE 2900 NEWPARK DRIVE BARBERTON, OH 44203



KEY PLAN





SUBMITTALS

01/12/2024 70% PROGRESS SET 02/02/2024 85% PROGRESS SET

PROJECT NO. **DRAWN BY**

SHEET TITLE SCHEDULES

SHEET NO.