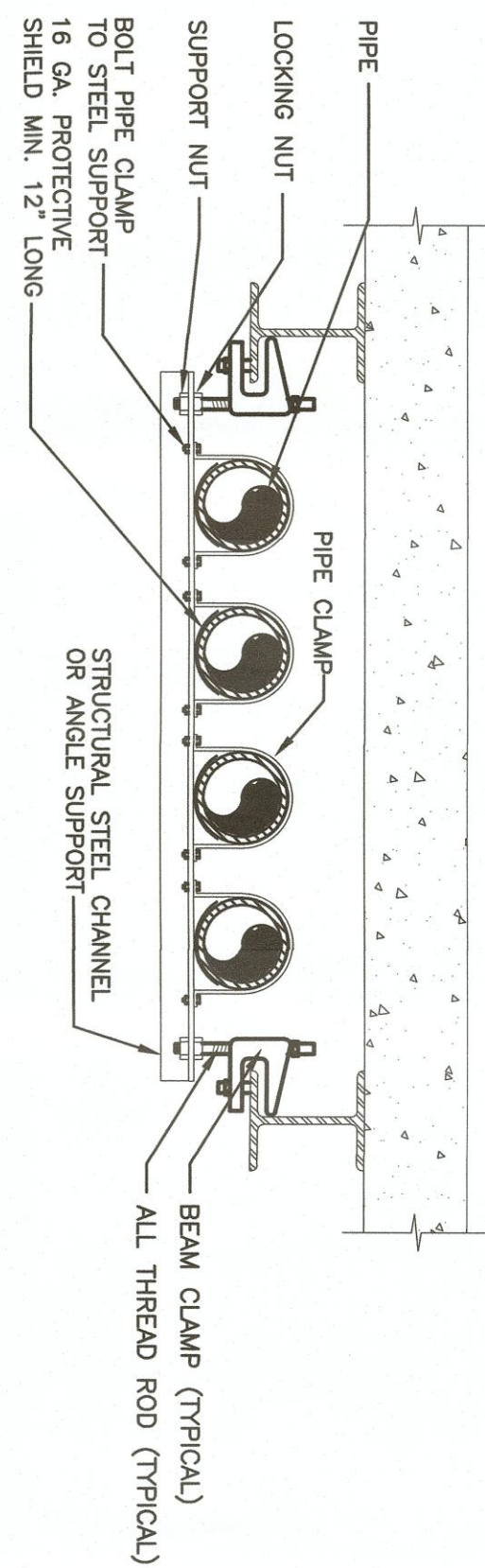
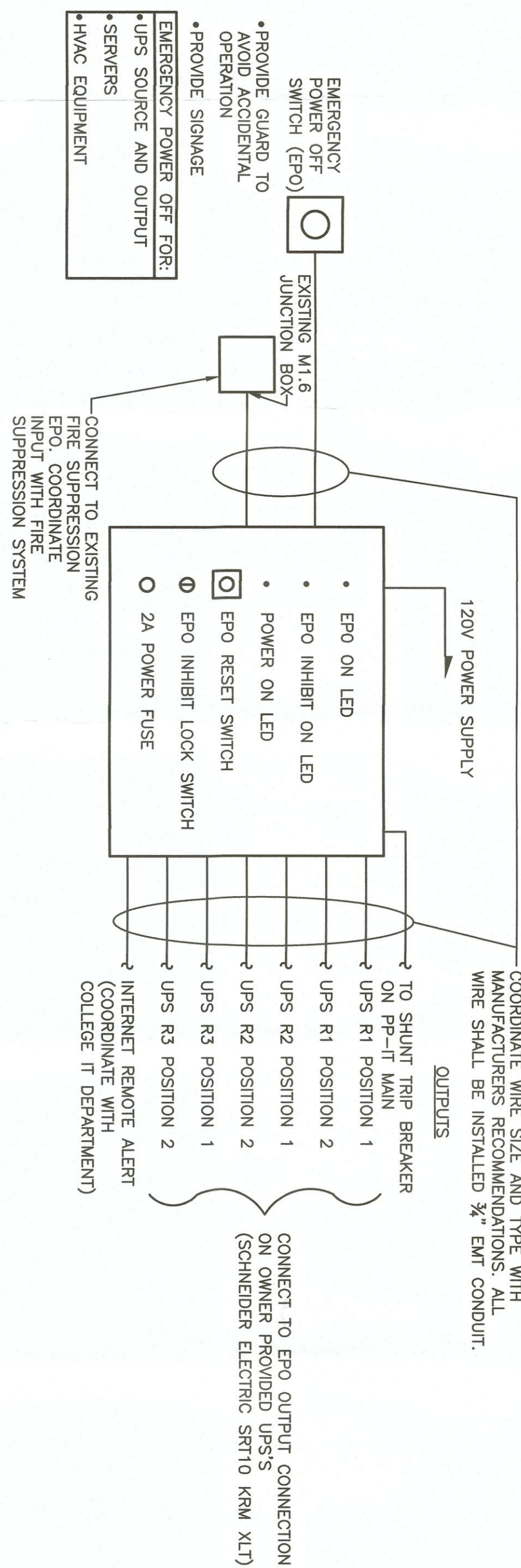
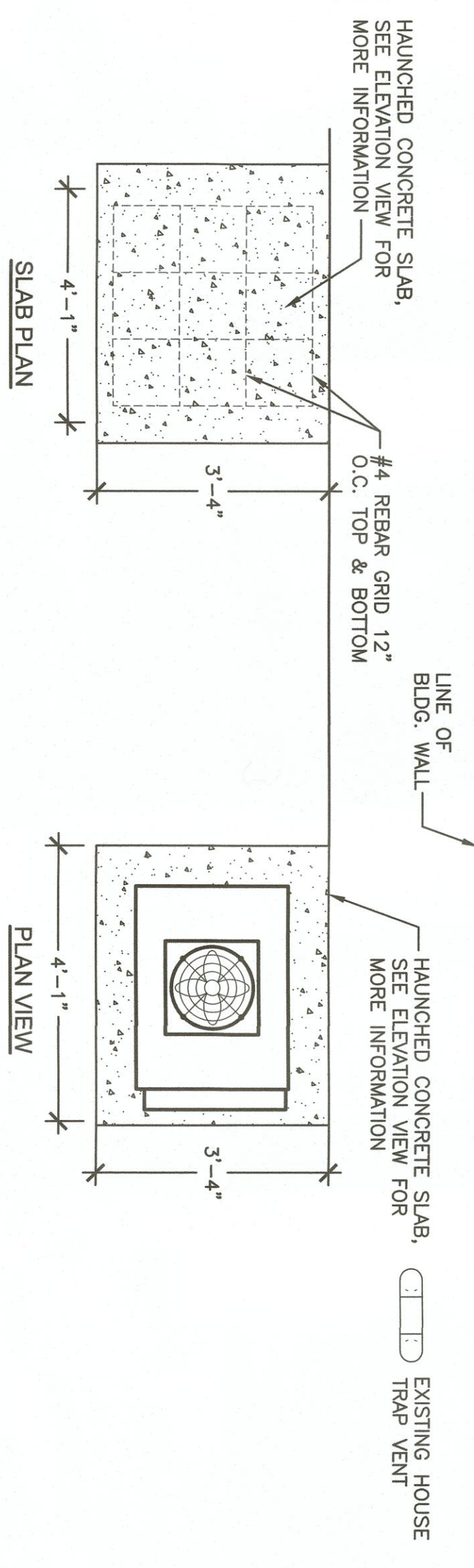
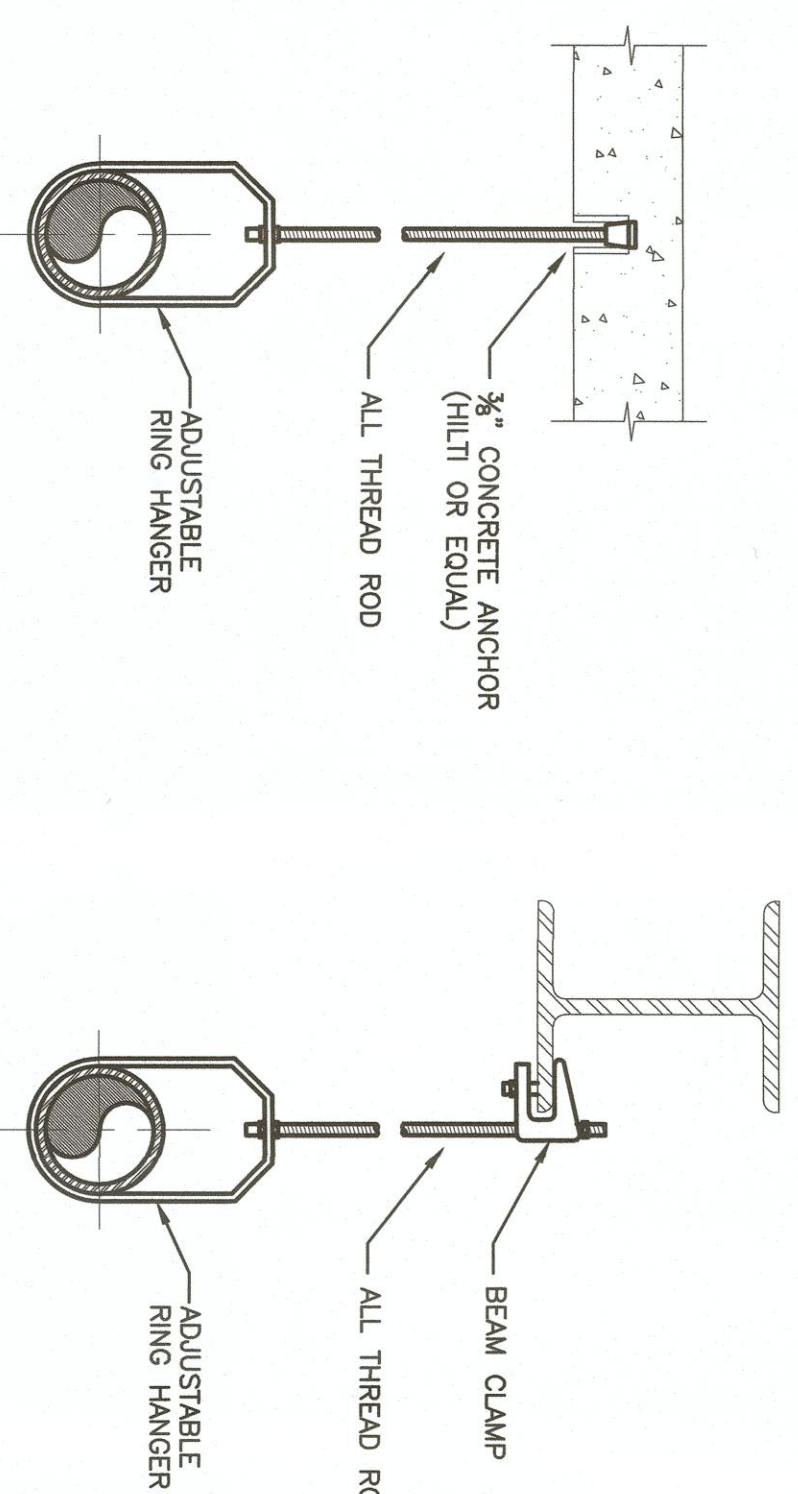


- NOTES:**
1. EXISTING WALL ASSEMBLY.
 2. METALLIC SHEET – PREPARE NOM 4 IN. DIA. ELECTRICAL METALLIC TUBING, STEEL CONDUIT OR CAST IRON PIPE CAST OR GROUDED TO WALL ASSEMBLY, FLUSH WITH WALL SURFACES.
 3. THROUGH PENETRANTS ONE METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN OPENING, A NOM ANNUAL SPACE OF 1/2 IN. TO BE MAINTAINED BETWEEN PENETRANT AND WALL SURFACES. IF FLUSH OR WALL ASSEMBLY, THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
 - A. STEEL PIPE – NOM 4 IN. (102 mm) DIA. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
 - B. CONDUIT – NOM 4 IN. (102 mm) DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
 4. PACKING MATERIAL 0. MIN 3 IN. (76.2 mm) THICKNESS OF MIN 4 Pcf (64 kg/m³) MINERAL WOOL PATT INSULATION FIRMLY PACKED INTO OPENING, A PENETRANT RING, PACKING MATERIAL TO BE CENTERED IN WALLS AND DEPTD AND RECESSED ALLOW FOR INSTALLATION OF FILL MATERIAL.
 5. FILL VOID OR CAVITY MATERIAL – SEALANT – 1/2 IN. (13 mm) THICKNESS OF WATERPROOF SEALANT APPLIED WITHIN THE WALL ANNUUS, FLUSH WITH SURFACE ON EACH SIDE OF PACKING MATERIAL.
- BEARING THE UL CLASSIFICATION MARK.

- NOTES:
1. EXISTING ASSEMBLY.
 2. STEEL SLEEVE - PROVIDE, NOM 6 IN. DIA. SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO WALL SURFACES.
 3. THROUGH PENETRANTS - ONE OR MORE METALLIC PENETRANTS, TUBES OR FLEXIBLE METAL PIPES, INSTALLED CONCENTRICALLY OR ECCENTRICALLY WITHIN OPENING. ANNUAL SPACE BETWEEN PENETRANTS AND PERIPHERY OF SLEEVE SHALL BE NOM OF 0 IN. (0 mm) (POINT CONTACT) TO MAX 2-1/2" IN. (64 mm). THE SPACE BETWEEN PENETRANTS SHALL BE MIN. OF 1/4 IN. (6 mm) TO MAX 2-1/2" IN. (64 mm). PENETRANTS MAY BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF PENETRANTS MAY BE USED:
 - A. STEEL PIPE - NOM 4 IN. (102 mm) DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - B. IRON PIPE - NOM 4 IN. (102 mm) DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - C. CONDUIT - NOM 4 IN. (102 mm) DIA. (OR SMALLER) STEEL CONDUIT OR STEEL ELECTRICAL METALLIC TUBING.
 - D. COPPER TUBING - NOM 3 IN. (76 mm) DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - E. COPPER PIPE - NOM 3 IN. (76 mm) DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
 4. SYSTEM - THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
 - A. PACKING MATERIAL - MIN 2 IN. (51 mm) THICKNESS OF MIN 4pcf (64 kg/m³) MINERAL WOOL BATT INSULATION OR WALL OR BOTH ENDS OF SLEEVE AS REQUIRED TO ACCOMMODATE THICKNESS OF FILL MATERIAL.
 - B. FILL VOID OR CAVITY MATERIAL - SEALANT - 1/2 IN. (13 mm) THICKNESS OF WATERPROOF SEALANT APPLIED TO BOTH ENDS OF SLEEVE AND TO CONTACT SURFACES OF WALL.
 - C. DAM BEAD OF CAULK APPLIED TO THE PENETRANT/CONCRETE OR PENETRANT/SLEEVE INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SURFACES.
- (NOTE: W RATINGS APPLIES ONLY WHEN TB-3000 WT SEALANT IS USED.)
- BEARING THE UL CLASSIFICATION MARK.



PIPE HANGER ROD AND SPACING SCHEDULE									
NONMIL PIPE OR TUBE SIZE - INCHES	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"
HANGER ROD SIZES INCHES	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
MAX. SPACING BETWEEN PIPE SUPPORTS - FEET	6	7	9	10	11	12	13	14	15
MAX. SPACING BETWEEN PIPE SUPPORTS - FEET	6	6	8	9	10	11	12	13	14



LOAD	CONDUCTOR	C.B. KVA	KVA	C.B.	CONDUCTORS	LOAD
UPS R1 POS 1	(2)#4, (1)#6G, 1" EMT	70	1	40	(2)#6, (1) #12G, 3/4" EMT	IN-FLOW COOLING UNIT 1
UPS R1 POS 2	(2)#4, (1)#6G, 1" EMT	70	2	15	(2)#12 (1) #12G, 3/4" EMT	CONDENSER 1
UPS R2 POS 2	(2)#4, (1)#6G, 1" EMT	70	3	40	(2)#6, (1) #12G, 3/4" EMT	IN-FLOW COOLING UNIT 2
UPS R2 POS 2	(2)#4, (1)#6G, 1" EMT	70	4	15	(2)#12 (1) #12G, 3/4" EMT	CONDENSER 2
UPS R3 POS 1	(2)#4, (1)#6G, 1" EMT	70	5	20	(2)#12 (1) #12G, 3/4" EMT	DRAIN A/C UNIT
UPS R3 POS 2	(2)#4, (1)#6G, 1" EMT	70	6	20	(2)#12 (1) #12G, 3/4" EMT	OUTDOOR OFF REFRIGERABLE
SPACE	-----	20	7	20	(2)#12 (1) #12G, 3/4" EMT	EPG COMMAND CENTER
			8	20		SPACE

5 TYPICAL TRAPEZE HANGER SUPPORT DETAIL
N.T.S.

6 PIPE HANGER DETAILS

REV #	DATE	REMARKS	ISSUE #	DATE	ISSUED FOR:

$\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$ 0 1 2

REFERENCE SCALE

22 Malabar St., Suite 2A New York, NY 10014 T 845-343-1461 F 845-343-4986	181 Church St., Suite 100, New York, NY 10014 T 845-454-9704 F 845-520-8735
FELLENZER ENGINEERING LLP	www.fellp.com
SUNNY ORANGE: ROWLEY CSE IT ROOM ELECTRICAL & COOLING UPGRADE	
115 SOUTH STREET, MIDDLETOWN, NY 10840	
SCHOOL PROJECT TITLE:	

DRAWING TITLE:				EQUIPMENT & PIPING DETAILS			
DESIGNED BY:		DRAWN BY:		APPROVED BY P.M.:		DRAWING #:	
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DATE:		SCALE:		FE PROJECT #:		PAGE #:	
3/17/21		AS SHOWN		19-273		OF 4	