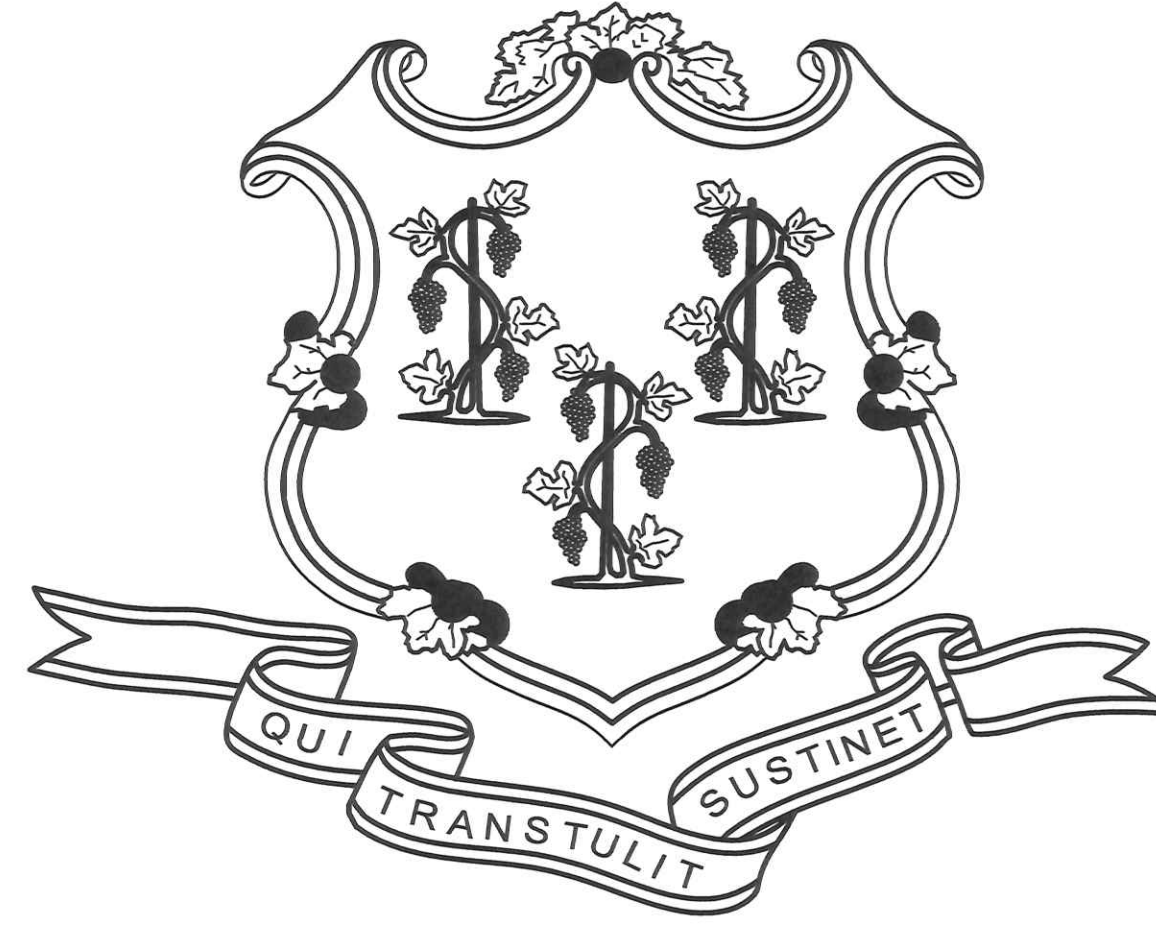


STATE OF CONNECTICUT



GOVERNOR NED LAMONT

DEPARTMENT OF ADMINISTRATIVE SERVICES
 JOSH GEBALLE
 COMMISSIONER

OFFICE OF THE CHIEF STATE'S ATTORNEY
 KEVIN T. KANE
 CHIEF STATE'S ATTORNEY

ROOF TOP A/C AND ROOF REPLACEMENT
 300 CORPORATE PLACE
 ROCKY HILL, CONNECTICUT

PROJECT NO. BI-2B-387

2/4/2019

ARCHITECT:



ENGINEERS:

Toce Structural
 Engineering LLC
 1755 Meriden Waterbury Turnpike
 Unit 6, P.O. Box 365
 Milldale, CT 06467-0365
 T: 860-863-9978 F: 860-426-3174



93 Lake Avenue, Danbury, CT 06810
 203.778.1017 F 203.778.1018
 171 Madison Avenue,
 New York, NY 10016
 212.695.2422 F 212.695.2423
 www.Kohlerronan.com
 E-mail krce@kohlerronan.com



CONTRACT DRAWINGS

COVER SHEET

ARCHITECTURAL

- G-100 GENERAL INFORMATION
- AD-104 DEMOLITION ROOF PLAN
- A-101 FIRST FLOOR PLAN
- A-101A CONNECTOR - SUPPLEMENTAL BID #1
- A-104 ROOF PLAN
- A-201 EXTERIOR ELEVATIONS
- A-202 EXTERIOR ELEVATIONS
- A-301 ROOF DETAILS
- A-302 ROOF DETAILS
- A-303 DETAILS
- A-401 ENTRY CANOPY PLANS & DETAILS

STRUCTURAL

- S-101 ROOF TOP DUNNAGE PLAN & CANOPY FND. & FRAMING PLANS
- S-201 GENERAL NOTES & DETAILS
- S-202 SECTIONS AND DETAILS 1

PLUMBING

- P-001 COVER SHEET - PLUMBING
- PD-103 THIRD FLOOR DEMOLITION PLAN - PLUMBING
- PD-104 ROOF DEMOLITION PLAN - PLUMBING
- P-103 THIRD FLOOR PLAN - PLUMBING
- P-104 ROOF PLAN - PLUMBING
- P-204 MECHANICAL PENTHOUSE PARTIAL PLANS - PLUMBING
- P-301 SCHEDULES & DETAILS - PLUMBING

MECHANICAL

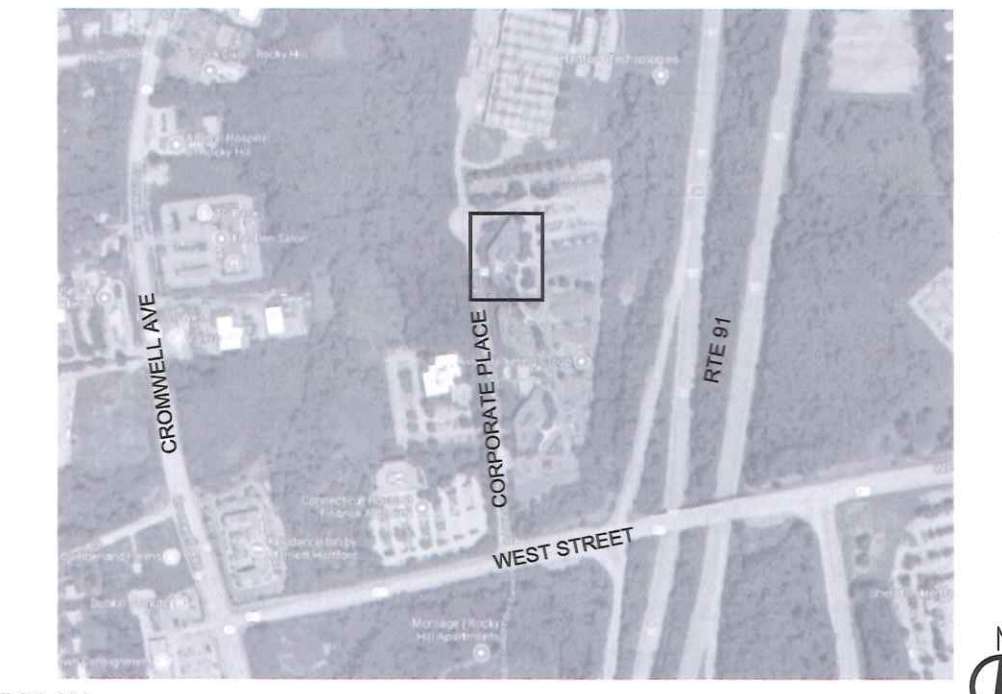
- M-001 COVER SHEET - MECHANICAL
- M-002 COVER SHEET - MECHANICAL
- M-003 FLOW & CONTROL DIAGRAMS - MECHANICAL
- M-004 FLOW & CONTROL DIAGRAMS - MECHANICAL
- M-005 FLOW & CONTROL DIAGRAMS - MECHANICAL
- MD-104 ROOF DEMOLITION PLAN - MECHANICAL
- MD-105 ROOF DEMOLITION PART PLAN - MECHANICAL
- MD-106 TEMPORARY ROOF PLAN - MECHANICAL
- MD-107 TEMPORARY ROOF PART PLAN - MECHANICAL
- MD-108 TEMPORARY ROOF PART PLAN - MECHANICAL
- M-101 FIRST FLOOR PLAN - MECHANICAL
- M-101A CONNECTOR FLOOR PLAN - MECHANICAL
- M-102 SECOND FLOOR PLAN - MECHANICAL
- M-103 THIRD FLOOR PLAN - MECHANICAL
- M-104 ROOF PLAN - MECHANICAL
- M-201 ROOF PART PLAN - MECHANICAL
- M-301 SCHEDULES - MECHANICAL
- M-302 SCHEDULES - MECHANICAL
- M-303 SCHEDULES - MECHANICAL
- M-401 DETAILS - MECHANICAL
- M-402 DETAILS - MECHANICAL
- M-403 DETAILS - MECHANICAL
- M-404 DETAILS - MECHANICAL

ELECTRICAL

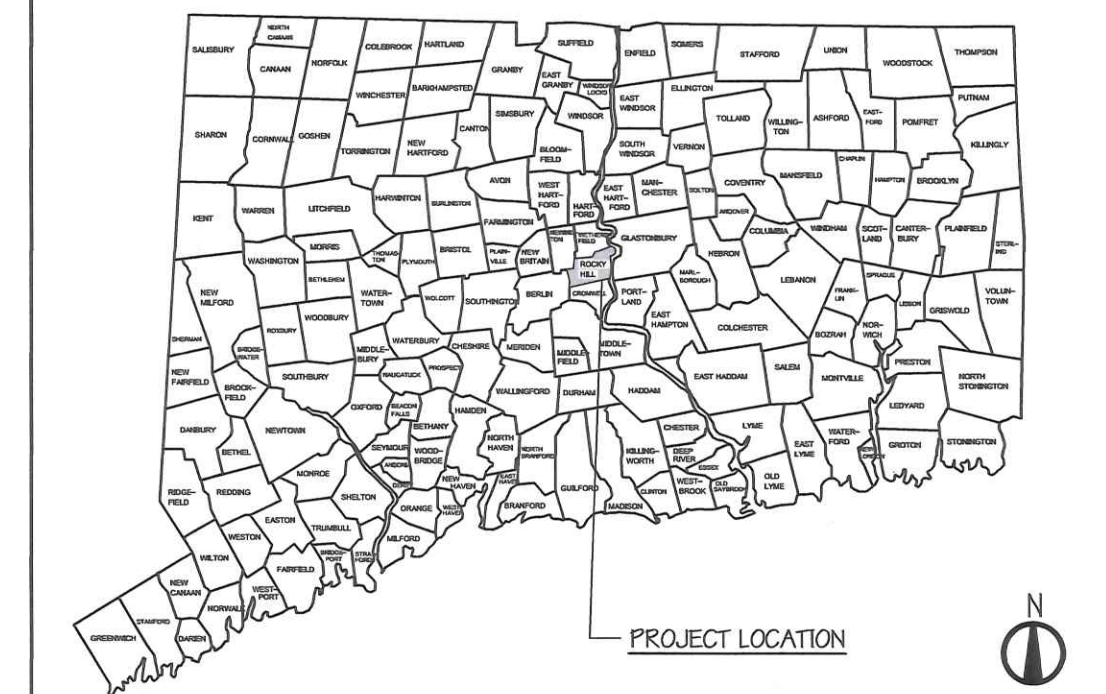
- E-001 COVER SHEET - ELECTRICAL
- E-002 LIGHTING FIXTURE SCHEDULE - ELECTRICAL
- ED-104 ROOF DEMOLITION PLAN - ELECTRICAL
- ED-105 TEMPORARY ROOF PART PLAN - ELECTRICAL
- E-101 FIRST FLOOR PLAN - ELECTRICAL
- E-101A CONNECTOR DEMO, FLOOR & LIGHTING PLANS - ELECTRICAL
- E-102 SECOND FLOOR PLAN - ELECTRICAL
- E-103 THIRD FLOOR PLAN - ELECTRICAL
- E-104 ROOF PLAN - ELECTRICAL
- E-301 ROOF PART PLAN - ELECTRICAL
- E-401 EXISTING SINGLE LINE DIAGRAM - ELECTRICAL

CODE DATA: SEE DRAWING G-100

D.C.S BUILDING NUMBER 53616



SITE PLAN



LOCATION PLAN

APPROVALS

DEPT. OF ADMINISTRATIVE SERVICES DATE
 Josh Geballe 2-27-19

AGENCY DATE
 Kevin T. Kane
 Chief State's Attorney 2/21/2019

SYMBOLS

	DETAIL NUMBER SHEET NUMBER		WALL SECTION OR ROOF DETAIL SHEET NUMBER
	ELEVATION NUMBER SHEET NUMBER		REFERENCE POINT
	SECTION NUMBER SHEET NUMBER		REVISION MARK

MATERIAL SYMBOLS

	EXISTING CONSTRUCTION TO REMAIN		FINISH WOOD
	CONCRETE		FIBERGLASS INSULATION
	BRICK		RIGID INSULATION
	CONCRETE MASONRY UNIT		PLYWOOD
	ROUGH CUT WOOD		STRUCTURAL STEEL, METALS
			GLASS

ABBREVIATIONS

ACOUS	ACOUSTICAL	JAN	JANITOR
ACT	ACOUSTICAL CEILING TILE	JT	JOINT
ADJ	ADJACENT	L	LONG
ADJUST	ADJUSTABLE	LAM	LAMINATED
AFF	ABOVE FINISHED FLOOR	LB, #	POUNDS
AHU	AIR HANDLING UNIT	LF	LINEAR FEET
ALLOW	ALLOWANCE	LOC	LOCATION
ALT	ALTERNATE	LP	LOW POINT
ALUM.AL	ALUMINUM	LT	LIGHT
ANCH	ANCHORAGE	MAS	MASONRY
APPROX	APPROXIMATE	MATL	MATERIAL
ARCHL	ARCHITECTURAL	MAX	MAXIMUM
@		MECH	MECHANICAL
BD	BOARD	MED	MEDIUM
BLDG	BUILDING	MANUF	MANUFACTURER
BLKG	BLOCKING	MIN	MINIMUM
BM	BEAM	MISC	MISCELLANEOUS
BRG	BEARING	MO	MASONRY OPENING
BRK	BRICK	MID	MOUNTED
BOD	BOTTOM OF DECK	MTL	METAL
BOT	BOTTOM	MUL	MULLION
BV	BOTTOM OF	N/A	NOT APPLICABLE
BO	BOTTOM OF	NC	NOT IN CONTRACT
CG	CORNER GUARD	NO, #	NUMBER
CH	CEILING HEIGHT	NOM	NOMINAL
CIRC	CIRCUMFERENCE	NTS	NOT TO SCALE
CJ	CONTROL JOINT	OA	OVERALL
CLG, CEILG	CEILING	OC	ON CENTER
CLR	CLEAR	OCCUP	OCCUPANCY
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER
CO	CLEAN-OUT	OH	OVERHEAD
COL	COLUMN	OHG	OVERHANG
CONC	CONCRETE	OPNG	OPENING
CONT	CONTINUOUS	OPP	OPPOSITE
CPT	CARPET	PL	PLATE
CRS	COURSE(S)	PLG	PLASTER
CT	CERAMIC TILE	PLYWOOD	PLYWOOD
CTD	COATED	PRCST	PRECAST
CTR	CENTER(ED)	P	POINT
DBL	DOUBLE	PTD	PAINTED
DET	DETAIL	PTN	PARTITION
DIAG	DIAGONAL	PT	PRESSURE TREATED
DTL	DETAIL	QT	QUARRY TILE
DIAM/DIAM	DIAMETER	R	RADIUS
DM	DIMENSION	RAD	RADIATION, RADIATOR
DWG	DRAWING	RB	RUBBER BASE
DS	DOWNSPOUT	RD	ROOF DRAIN
EA	EACH	REC	RECESSED
EJ	EXPANSION JOINT	RECT	RECTANGULAR
ELEV	ELEVATION	REF	ROOF EXHAUST FAN
ELEC	ELECTRICAL	REG	REGISTER
ENCL	ENCLOSURE	RF	ROOF FAN
EP	ELECTRICAL PANELBOARD	REINF	REINFORCED(ING)
EQU	EQUAL	REQD	REQUIRED
EQUIP	EQUIPMENT	REFL	REFLECTED
ETS	EXISTING TO REMAIN	REM	REMOVABLE
EXT	EXISTING	RO	ROUGH OPENING
EXP	EXPANSION	SEC	SECTION
EXT	EXTERIOR	SGT	STRUCTURAL GLAZED TILE
FD	FLOOR DRAIN	SIM	SIMILAR
FDN	FOUNDATION	SPEC	SPECIFICATION
FF	FINISH FLOOR	SPEAK	SPEAKER
FIN	FINISHED	SS	STAINLESS STEEL
FLASH	FLASHING	STD	STANDARD
FLR	FLOOR	STL	STEEL
F/	FACE OF	STRUC	STRUCTURAL
FR	FIRE RATED	SUSP	SUSPENDED
FRIC	FIRE RESISTANT COATING	SYS	SYSTEM
FRT	FIRE RETARDANT	T	TREAD
FT	FEET, FOOT	T/, TO	TOP OF
FTG	FOOTING	TOP	TOP OF PANEL (PLATE)
FURR	FURRED(ING)	TOS	TOP OF STEEL
GA	GAGE, GAUGE	TBD	TO BE DETERMINED
GALV	GALVANIZED	TD	TOP OF DECK
GC	GENERAL CONTRACTOR	THK	THICK(NESS)
GL	GLASS	THRES	THRESHOLD
GLZ	GLAZED	TBD	TO BE DETERMINED
GRD	GRADE	TLT	TILET
GYP, BD.	GYP(SUM) BOARD	TME	TO MATCH EXISTING
GYP	GYP(SUM)	TYP	TYPICAL
HR	HEADER	UON	UNLESS OTHERWISE NOTED
HM	HOLLOW METAL	VB	VINYL BASE
HORIZ	HORIZONTAL	VERT	VERTICAL
HP	HIGH POINT	VIF	VERIFY IN FIELD
HT	HEIGHT	W/	WITH
HGT	HEIGHT	WD	WOOD
HF	HIGH POINT	WI	WROUGHT IRON
HR	HOUR(S)	WM	WIRE MESH
HTG	HEATING	WO	WITHOUT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	WPT	WORKING POINT
HWH	HOT WATER HEATER	WSTRP	WEATHERSTRIP (PING)
ID	INSIDE DIAMETER	WWM	WELDED WIRE MESH
INCL	INCLUDE		
INFO	INFORMATION		
INSUL	INSULATION		
INT	INTERIOR		

GENERAL CODE INFORMATION

PART 1 - CT STATE BUILDING CODE

Incorporating these National Model Codes:

- 2015 INTERNATIONAL BUILDING CODE (IBC)
- 2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
- 2015 INTERNATIONAL EXISTING BUILDING CODE
- 2015 INTERNATIONAL PLUMBING CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE
- 2017 NFPA 70, NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, INC.

As modified by:

2018 Connecticut Amendments

DATE OF ORIGINAL CONSTRUCTION:	1982
1.0 EXISTING BUILDING:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.1 Continuation of Existing Use	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.2 Change of Use	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
1.3 Complying with International Existing Building Code	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
2.0 NEW BUILDING OR ADDITIONS:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
2.1 Exceeds Threshold Building Limits	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
3.0 OCCUPANCY CLASSIFICATION	<u>B (Business-Primary)</u> <u>A (Assembly-Incidental)</u>
4.0 HEIGHT AND AREA COMPUTATIONS + CONSTRUCTION TYPE:	<u>II B (Actual)</u>
BUILDING HEIGHT (CHAPTER 5)	
ACTUAL HEIGHT (STORY/FEET):	3 ST/ 38 FT
BUILDING AREA (CHAPTER 5):	
TOTAL FLOOR AREA:	51,967 SF
AREA TO BE RE-ROOFED :	17,390 SF
MAIN ROOF:	16,630 SF
CONNECTOR:	760 SF
AREA OF SLOPED GLAZING:	890 SF
5.0 AREA MODIFICATIONS TO TABLE 504:	N/A
CASE 1-SINGLE OCCUPANCY OR NONSEPARATED USES	N/A
CASE 2-MIXED OCCUPANCY SEPARATED USES	N/A

DESIGN REQUIREMENTS

DESIGN REQUIREMENTS

WIND EXPOSURE CATEGORY AND DESIGN SPEED
(IBC 1604, 1607.12, 1609.1, 1609.1.4)
WIND EXPOSURE CATEGORY: B
RISK CATEGORY (1604.5): II
WIND SPEED CONVERSION (1609.3); FIGURE 1609B
125 MPH ULTIMATE
97 MPH NORMAL

FM GLOBAL DATA SHEETS 1-2B AND 1-29
DESIGN REQUIREMENTS FOR ROOFING SYSTEMS

BUILDING HEIGHT (1609.6)
BUILDING HEIGHT: 36 FT (52' MAX. AT MECHANICAL PENTHOUSE)

UPLIFT DESIGN FOR INSULATION FASTENING SYSTEM (1609.5.1)
TO BE PROVIDED BY ROOFING CONTRACTOR WITH SYSTEM
SUBMITTAL
NO PARAPET

ROOF TYPE: EPDM 17,390± S.F.

STRUCTURAL DESIGN CRITERIA AND ROOF LOADING TO MEET IBC
SEE SHEET S-201

REFER TO SPECIFICATIONS SECTION 011100 FOR SUMMARY OF WORK

7.0 FIRE RESISTANT RATING OF STRUCTURAL ELEMENTS (TABLE 602)
REFER TO CONSTRUCTION FOR THE FOLLOWING: NO CHANGE OF USE

7.1 Exterior Walls	N/A	HR(S)
7.1.1 Load Bearing	N/A	HR(S)
7.1.2 Non-Load Bearing	N/A	HR(S)
7.2 Fire Walls & Party Walls	N/A	HR(S)
7.3 Fire Separation Assemblies	N/A	HR(S)
7.3.1 Fire enclosure of exits	N/A	HR(S)
7.3.2 Shafts	N/A	HR(S)
7.3.3 Mixed Use Separation	N/A	HR(S)
7.3.4 Other Separation Assemblies	N/A	HR(S)
7.4 Fire Partitions	N/A	HR(S)
7.5 Dwelling Unit Separations	N/A	HR(S)
7.6 Smoke Barriers	N/A	HR(S)
7.7 Other Non bearing Partitions	N/A	HR(S)
7.8 Interior Bearing Walls, Bearing Partitions, Columns, Girders, Trusses and Framing:		
7.8.1 Supporting more than one floor	N/A	HR(S)
7.8.2 Supporting one floor only or a roof	N/A	HR(S)
7.8.3 Structural Members Supporting Wall	N/A	HR(S)
7.9 Floor Construction Including Beams	N/A	HR(S)
7.10 Fire Separation Assemblies	N/A	HR(S)
7.10.1 * 15 ft. or less:	N/A	HR(S)
7.10.2 * 15 ft. or more:	N/A	HR(S)
7.10.3 * 20 ft. or more:	N/A	HR(S)
* Height to lowest member.		

8.0 FIRE PROTECTION SYSTEM:

8.1 Fire Suppression System	FULLY SPRINKLERED
8.2 Alarms	
8.3 Alarms	
8.4 Alarms	
8.5 Supervision	

PART 2 - CT STATE FIRE SAFETY CODE

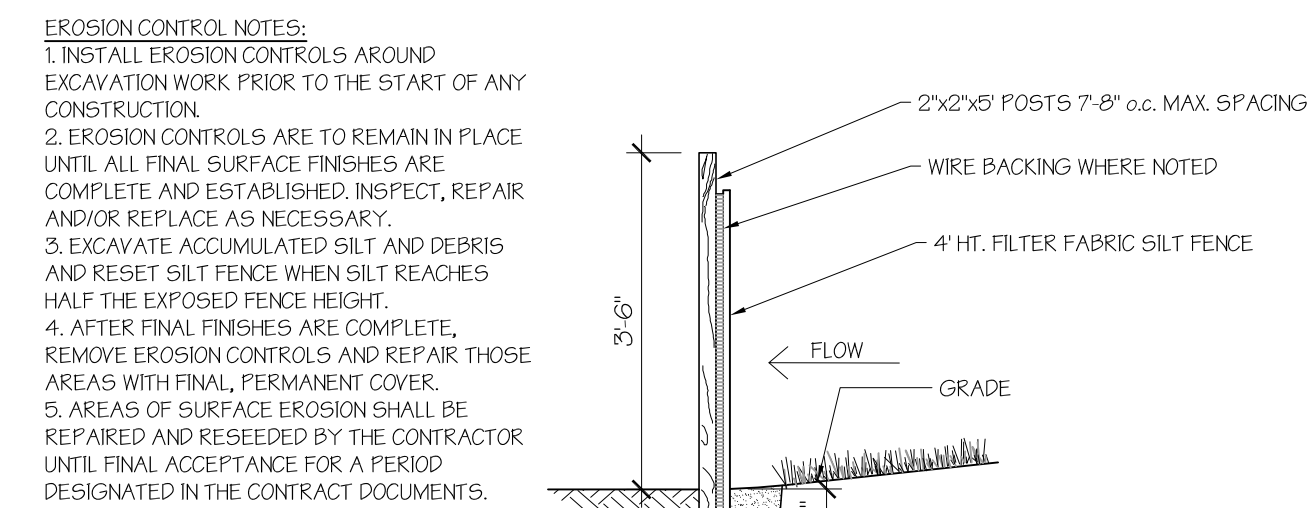
1.0 CLASSIFICATION OF OCCUPANCY:	BUSINESS USE
2.0 CONSTRUCTION CLASSIFICATION:	TYPE II
3.0 MINIMUM CONSTRUCTION REQUIRED:	II B
4.0 ACTUAL CONSTRUCTION PROVIDED:	II B
5.0 NOTIFICATION ALARMS:	
6.0 DETENTION:	
7.0 EXTINGUISHING REQUIREMENTS:	FULLY SPRINKLERED

SUPPLEMENTAL BID

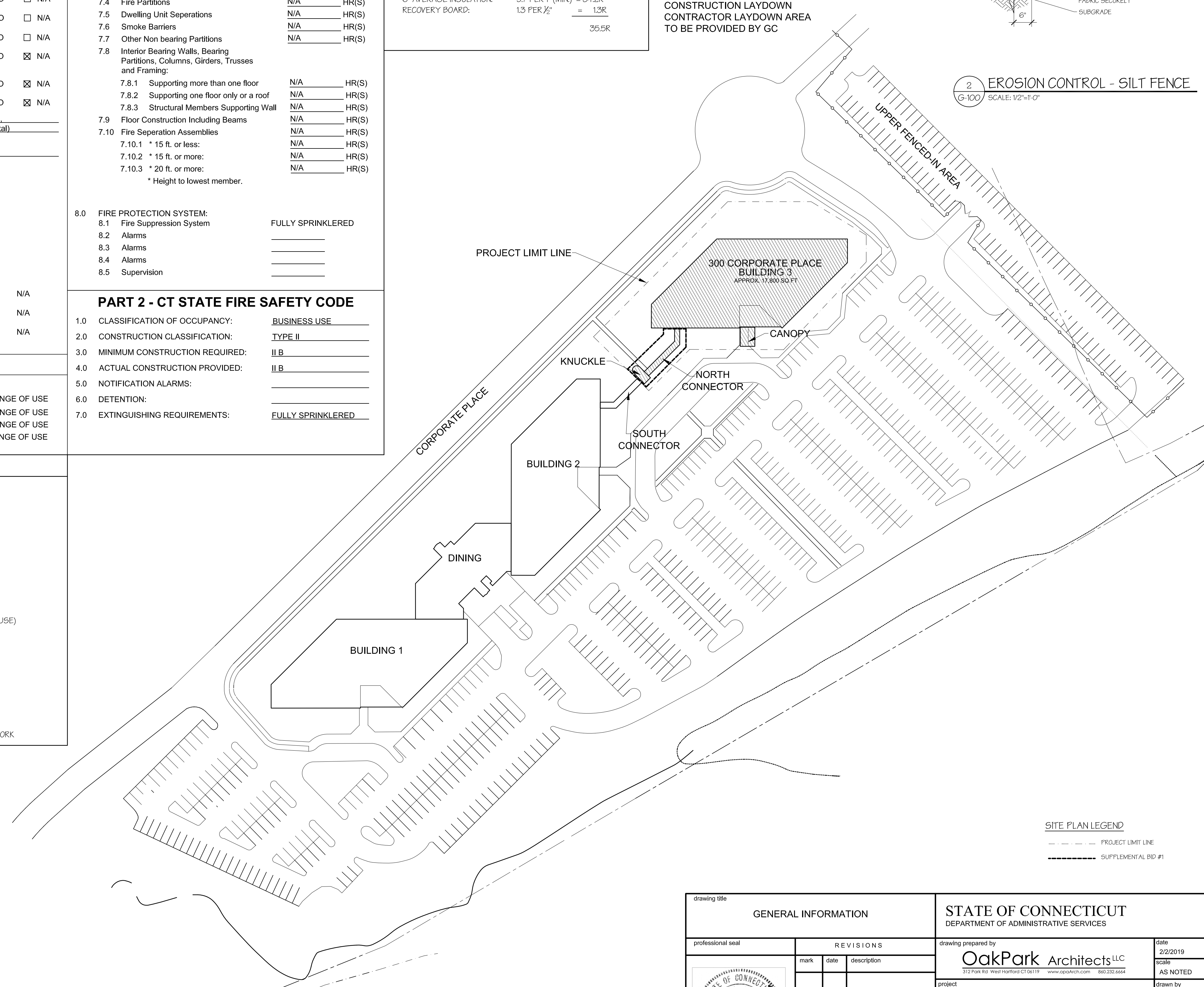
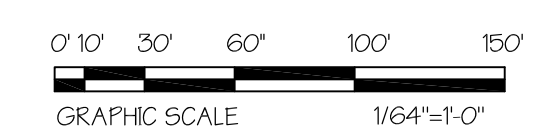
SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

R-VALUES

ROOF SYSTEM R VALUES:	
6" AVERAGE INSULATION:	5.7 PER 1" (MIN) = 34.2R
RECOVERY BOARD:	1.3 PER 1/2" = 1.3R
	35.5R



1 SITE PLAN
SCALE: 1/32"=1'-0"



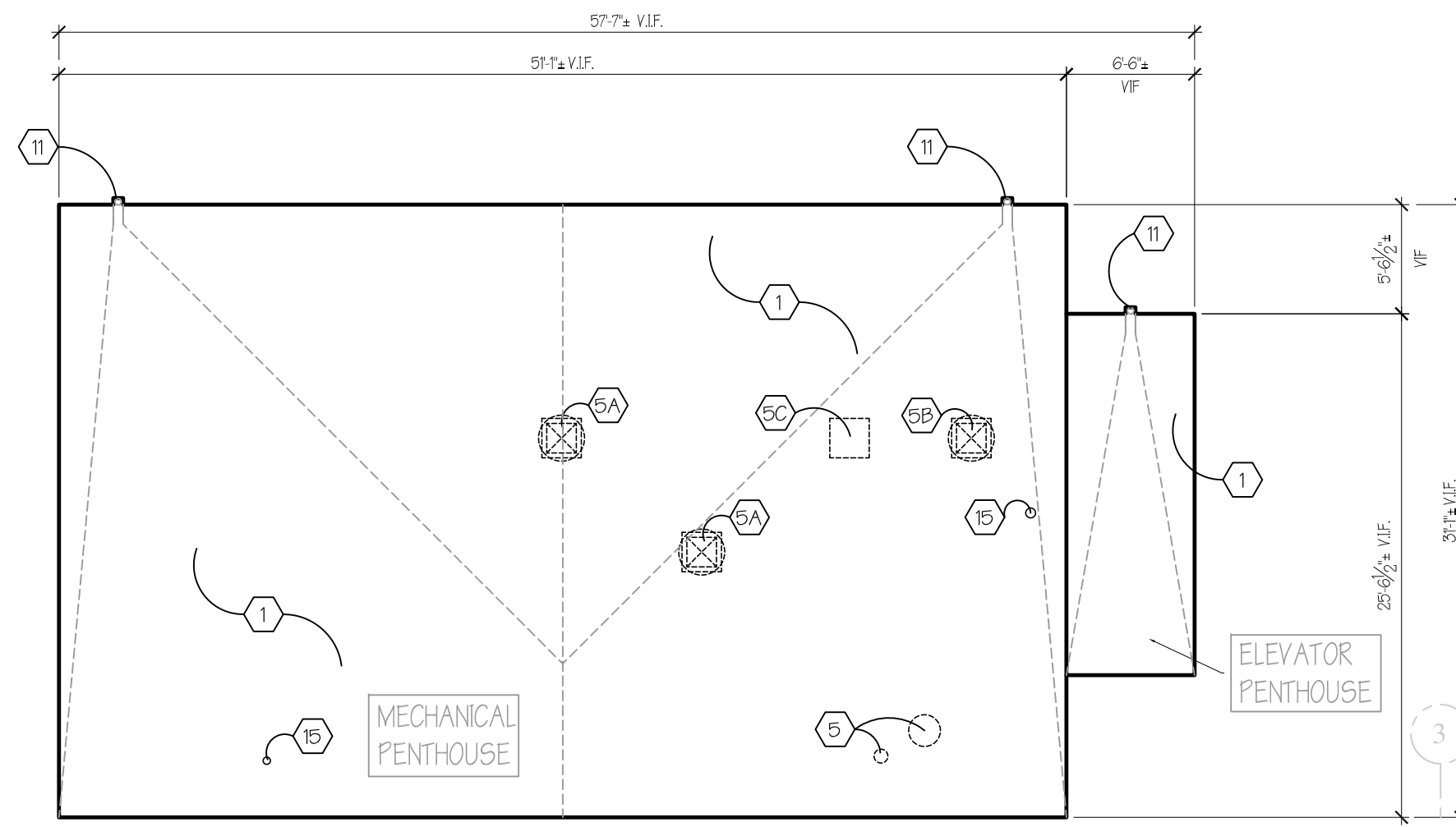
2 EROSION CONTROL - SILT FENCE
SCALE: 1/2"=1'-0"

SITE PLAN LEGEND

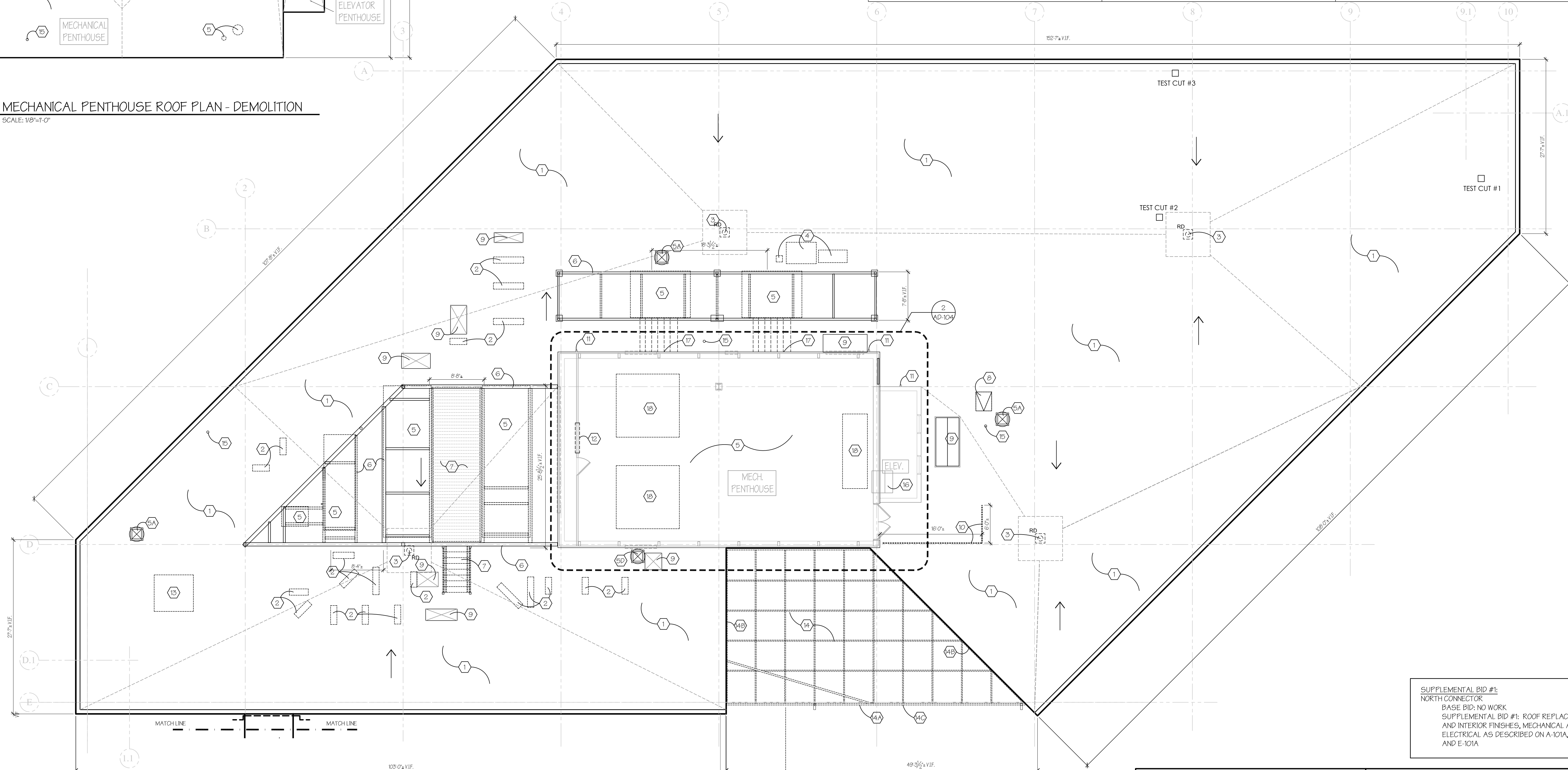
- PROJECT LIMIT LINE
- SUPPLEMENTAL BID #1

drawing title GENERAL INFORMATION		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Park Rd West Hartford CT 06119 www.opaArch.com 860.232.4444
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	date 2/2/2019	scale AS NOTED	drawn by L.L.D.
CAD no.	project no. BI-2B-387		approved by M.A.W.
			drawing no. G-100

DEMOLITION LEGEND		
<p>GENERAL:</p> <p>1. COORDINATE WITH MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL FOR ADDITIONAL DEMOLITION WORK.</p> <p>2. DIMENSIONS ARE FOR REFERENCE ONLY, V.I.F.</p> <p>3. SEE A-201 FOR ADDITIONAL DEMO. NOTES.</p>		
<p>1 REMOVE EXISTING ROOF & INSULATION DOWN TO EXISTING METAL ROOF DECK. VACUUM PEA STONE FROM FLUTES.</p> <p>2 REMOVE EXISTING MECHANICAL SUPPORT - COORDINATE WITH MECHANICAL DRAWINGS.</p> <p>3 REMOVE EXISTING ROOF DRAINS, SEE PLUMBING DWGS FOR FURTHER SCOPE.</p> <p>4 REMOVE EXISTING HVAC PAD AND POURABLE SEALER POCKET.</p> <p>5 REMOVE EXISTING MECHANICAL EQUIPMENT. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.</p> <p>5A REMOVE EXISTING FAN AND CURB, SEE MECH DWGS FOR REPLACEMENT AND RE-INSTALLATION.</p> <p>5B REMOVE EXISTING FAN AND CURB, PATCH ROOF PENETRATION. SEE MECHANICAL FOR NEW FAN LOCATION.</p>	<p>6 NEW ROOF OPENING FOR NEW FAN, SEE MECH DRAWINGS FOR LOCATION. SEE S-201 FOR STRUCTURAL FRAMING.</p> <p>6D EXISTING FAN TO REMAIN, RAISE CURB FOR NEW INSULATION DEPTH.</p> <p>6 EXISTING STEEL, SEE STRUCTURAL DWGS. FOR MODIFICATIONS AND ADDITIONS TO STEEL SUPPORT.</p> <p>7 REMOVE EXISTING WOOD STAIR AND DECKING.</p> <p>8 EXISTING ROOF HATCH AND CURB TO BE REMOVED.</p> <p>9 EXISTING SMOKE HATCH AND DUCT PENETRATIONS TO REMAIN, RAISE CURB HEIGHT FOR NEW INSULATION DEPTH.</p> <p>10 REMOVE EXISTING GUARDRAIL.</p> <p>11 REMOVE EXISTING SCUPPER, DOWNSPOUT AND SPLASH BLOCK.</p> <p>12 TEMPORARY OPENING IN EXISTING MECHANICAL PLENUM WALL, FRAME OPENING WITH STANDARD METAL STUD CONSTRUCTION, COORDINATE WITH MECHANICAL DWGS. FOR SIZE AND LOCATION.</p>	<p>13 REMOVE EXISTING CONCRETE BLOCKS AND PAD BELOW EXISTING SATELLITE DISH. DISCONNECT DISH AND RETURN TO OWNER.</p> <p>14 REMOVE EXISTING SLOPED GLAZING SYSTEM AND GLASS. STEEL SUPPORT STRUCTURE TO REMAIN. VERTICAL GLASS AND CURTAIN WALL TO REMAIN.</p> <p>4A REMOVE & REPLACE GUTTER AND DOWNSPOUTS.</p> <p>4B REMOVE & REPLACE EXISTING REGLET FLASHING AT SLOPED GLAZING SYSTEM.</p> <p>4C REMOVE & REPLACE EXISTING PRESSURE PLATE COVER ON VERTICAL GLAZING SYSTEM.</p> <p>15 EXISTING VENT PIPE TO REMAIN.</p> <p>16 SCRAPER AND PREP (2) LOUVER HOODS FOR NEW PAINT. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.</p> <p>17 REMOVE EXISTING PIPE PENETRATIONS THROUGH MECH. PENTHOUSE WALL, SEE MECHANICAL DWGS. FOR ADDITIONAL INFO.</p> <p>18 REMOVE EXISTING MECHANICAL HOUSEKEEPING PAD. REFER TO MECHANICAL DWGS. FOR ADDITIONAL INFORMATION.</p>
<p>--- WALL, CEILING, ROOF AND EQUIPMENT TO BE DEMOLISHED</p> <p>- - - - - EXTENT OF SUPPLEMENTAL BID #1</p> <p>⊗ ROOF FAN</p> <p>○ ROOF VENT</p> <p>RD ROOF DRAIN</p> <p>□ TEST CUTS #1, 2, 3 OF EXISTING ROOF CONSIST OF: 0.62 MIL REINFORCED EPDM 2" 150 2" 150 1/2" METAL DECK SLOPED AT APPROX 1/8" PER FOOT</p>		



2 MECHANICAL PENTHOUSE ROOF PLAN - DEMOLITION
 AD-104 SCALE: 1/8"=1'-0"



1 ROOF PLAN - DEMOLITION
 AD-104 SCALE: 1/8"=1'-0"

SUPPLEMENTAL BID #1:
 NORTH CONNECTOR
 BASE BID: NO WORK
 SUPPLEMENTAL BID #1: ROOF REPLACEMENT
 AND INTERIOR FINISHES, MECHANICAL AND
 ELECTRICAL AS DESCRIBED ON A-101A, M-101A
 AND E-101A

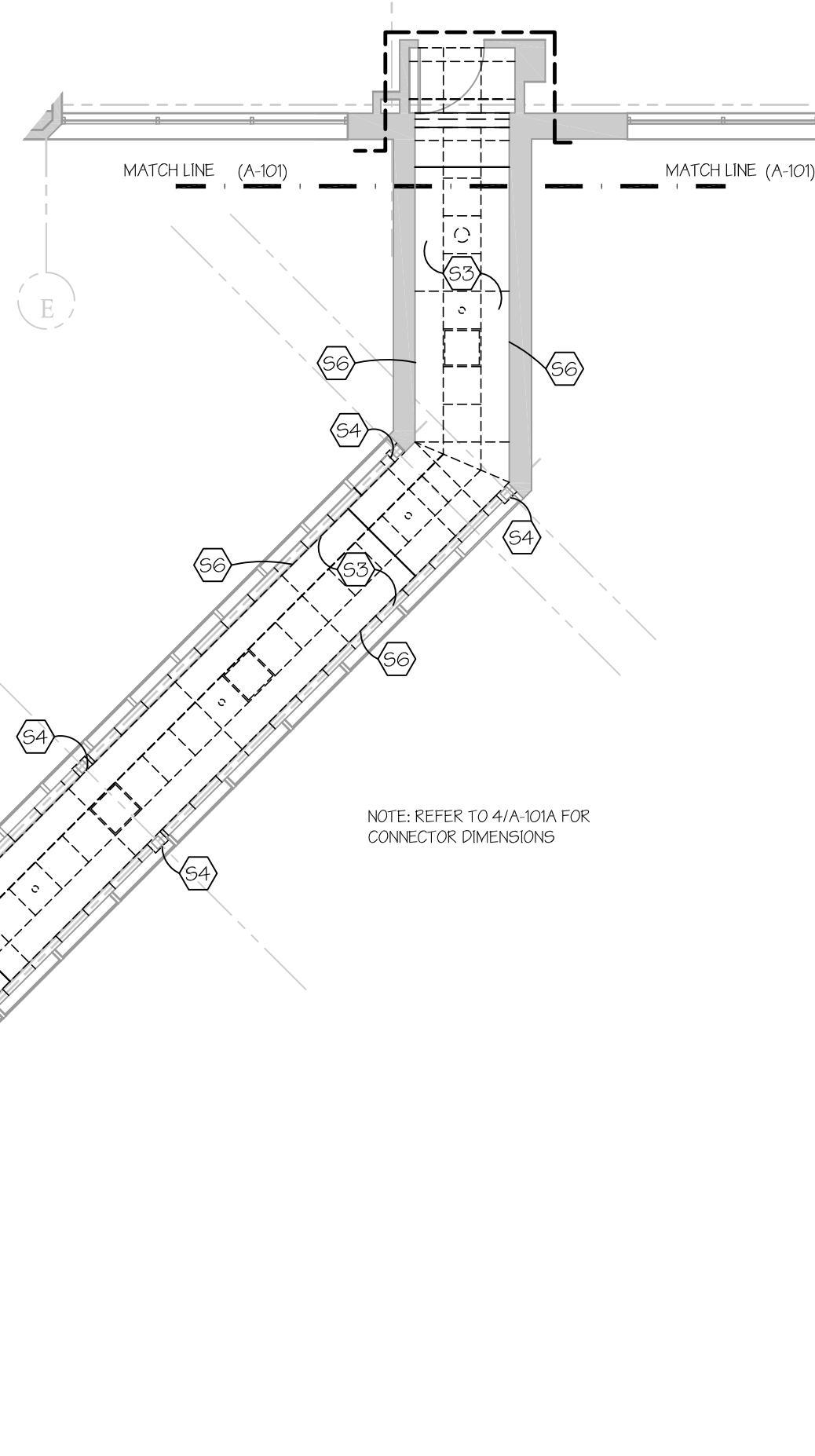
SEE SHEET A-401
 FOR EXTENT OF DEMO.
 OF EXISTING
 SIDEWALK



drawing title DEMOLITION ROOF PLAN		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Fox Rd West Hartford CT 06119 www.opaArch.com 860.232.4444
	mark	date	date 2/2/2019
			scale AS NOTED
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by L.L.D.	approved by M.A.W.
CAD no.	project no. BL-2B-387	drawing no. AD-104	

DEMOLITION LEGEND

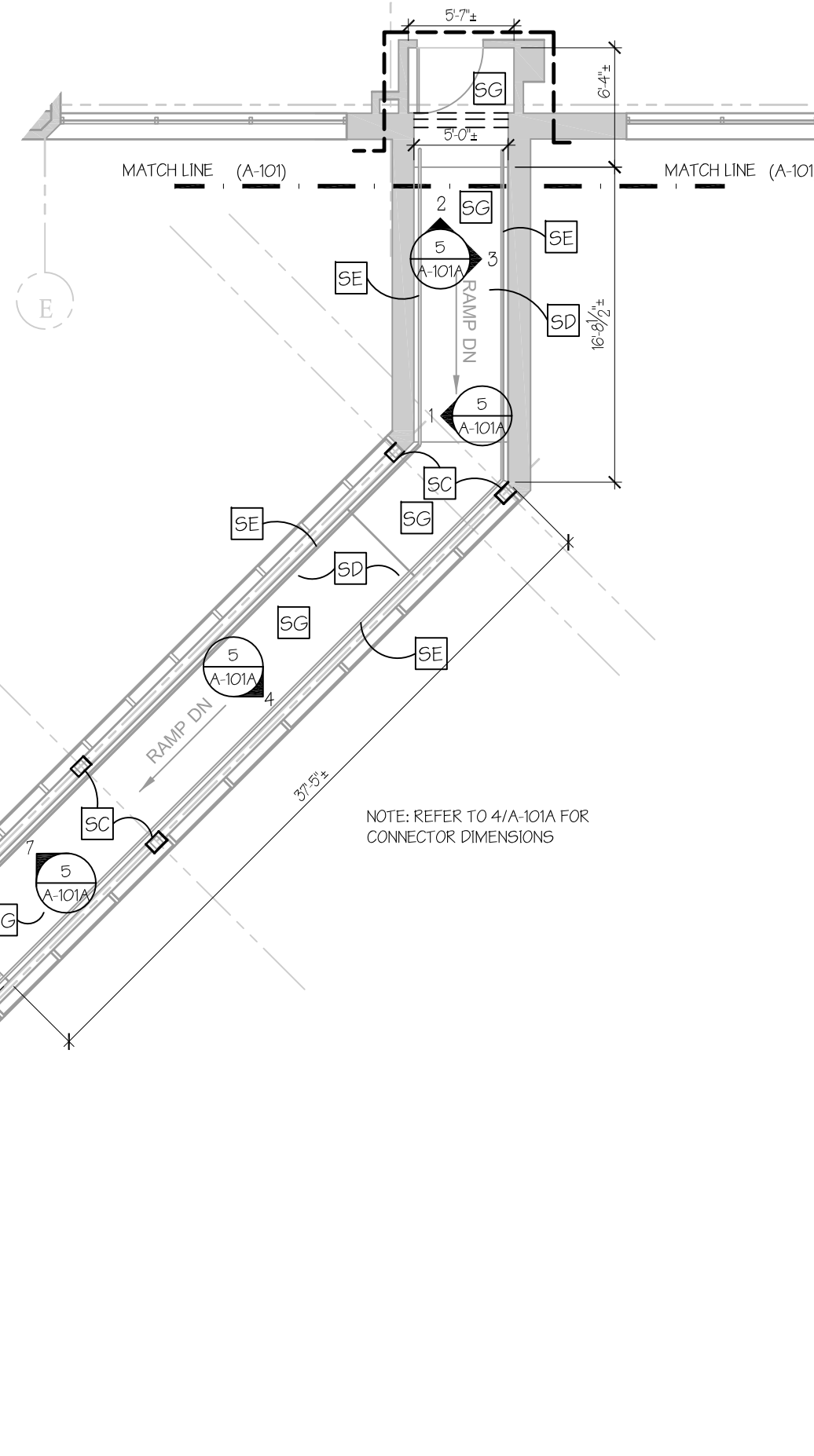
- WALL, CEILING, ROOF AND EQUIPMENT TO BE DEMOLISHED
- - - - - EXTENT OF SUPPLEMENTAL BID #1
- ☼ ROOF FAN



1 CONNECTOR DEMOLITION PLAN
A-101A SCALE: 1/8"=1'-0"

LEGEND

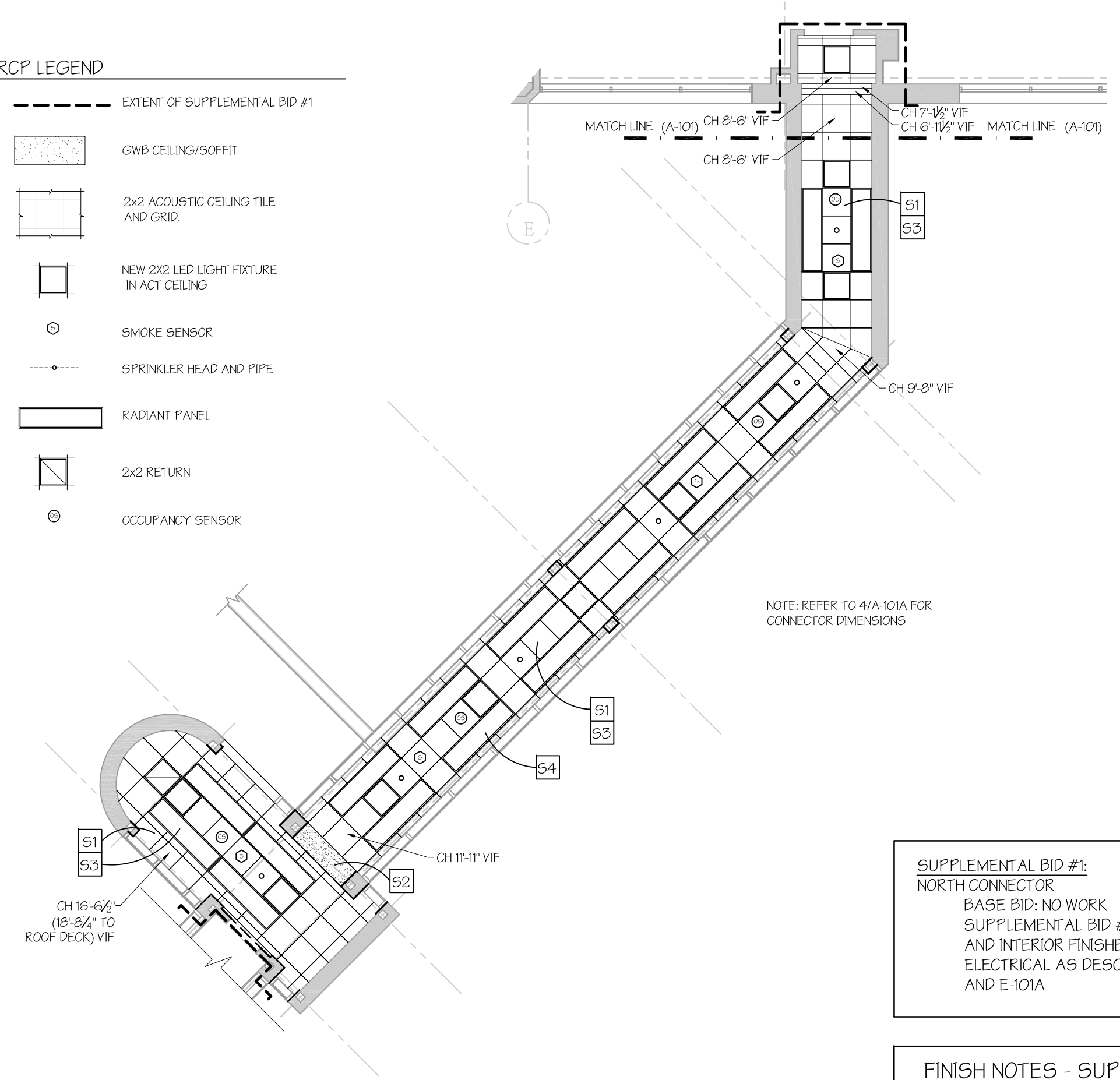
- EXTENT OF SUPPLEMENTAL BID #1
- EXISTING WALL
- NEW GYP. BD. ON EXISTING WALL FRAMING
- ☼ ROOF FAN



2 CONNECTOR FLOOR PLAN
A-101A SCALE: 1/8"=1'-0"

RCP LEGEND

- EXTENT OF SUPPLEMENTAL BID #1
- ☼ GWB CEILING/SOFFIT
- ▭ 2x2 ACOUSTIC CEILING TILE AND GRID
- ☉ NEW 2X2 LED LIGHT FIXTURE IN ACT CEILING
- SMOKE SENSOR
- SPRINKLER HEAD AND PIPE
- ▭ RADIANT PANEL
- ▭ 2x2 RETURN
- OCCUPANCY SENSOR



3 CONNECTOR REFLECTED CEILING PLAN
A-101A SCALE: 1/8"=1'-0"

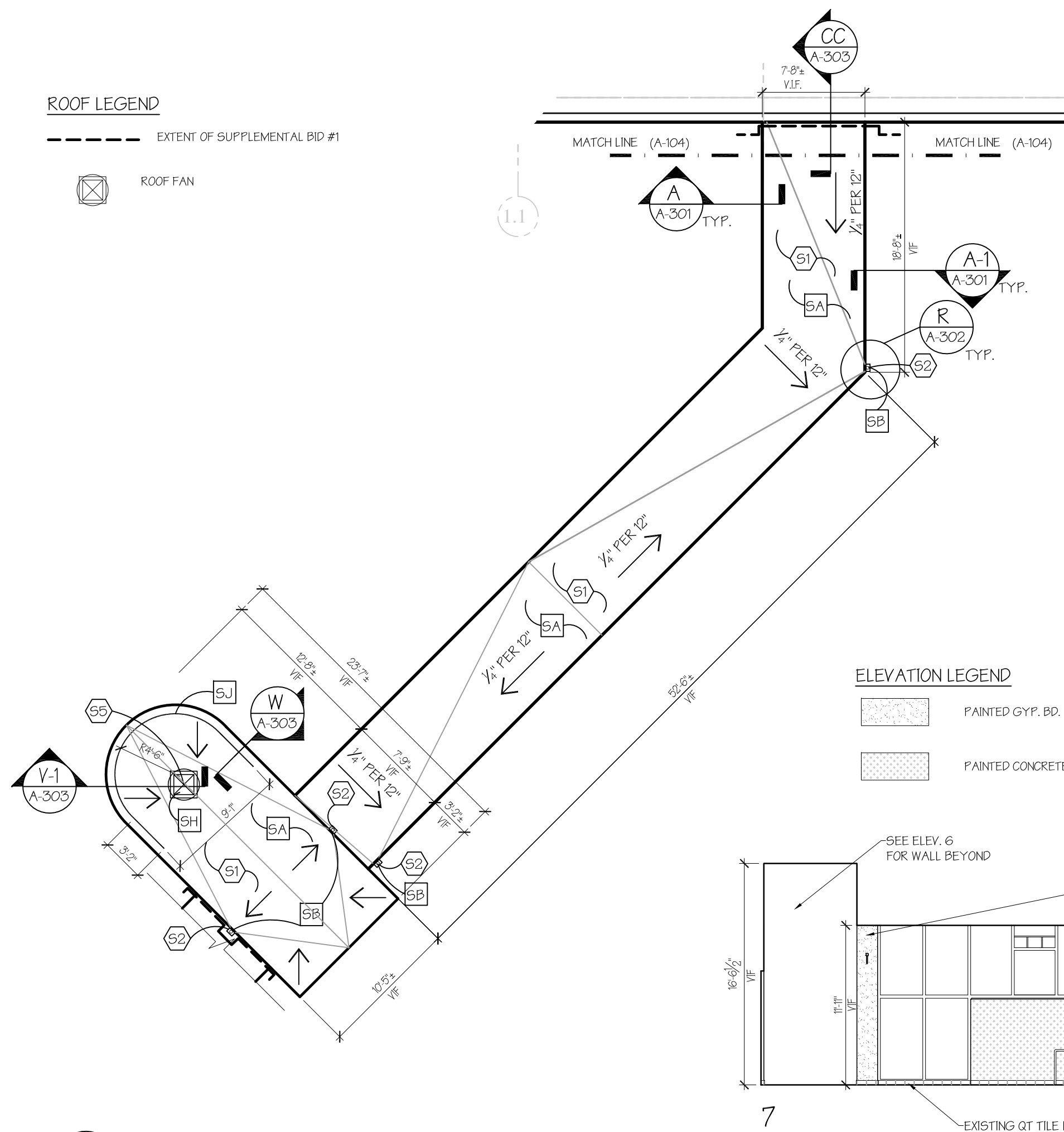
SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

FINISH NOTES - SUPPLEMENTAL BID #1

- GENERAL:**
- CLEAN ALL WALL, FLOOR AND WINDOW SURFACES.
 - PAINT COLORS TO BE SELECTED BY ARCHITECT.
 - ALL PAINTING OF WALLS TO EXTENT AT LEAST 6" ABOVE FINISHED CEILING.
- | | | |
|----------------|----------|------------------------------------|
| WALLS | PAINT | CONCRETE, CMU, GYP. BD. |
| DOOR & FRAME | PAINT | BOTH SIDES, SEE 5/A-101A |
| HANDRAIL | RUBBER | |
| FLOOR | RUBBER | SEE 2/A-101A |
| BASE | VINYL | AT NEW RUBBER FLOOR |
| CEILING & GRID | 2X2 ACT | SEE 3/A-101A |
| QT TILE & BASE | EXISTING | PATCH, REPLACE, CLEAN AND RE-GROUT |
- THRESHOLD** PEMKO MANUFACTURING - 3009 AKP
ALT. MANUF.: NATIONAL GUARD PRODUCTS
REESE ENTERPRISES, INC.
- WOOD DOOR:** 1 3/4" THICK, SOLID CORE, EXTRA HEAVY DUTY/PREMIUM GRADE CONSTRUCTION WITH PLAN-SLICED SELECT WHITE MAPLE A GRADE FACES, MEETING WDMA L5.1-A, STAINED AND FACTORY FINISHED WITH 3 COATES OF CLEAR POLYURETHANE FINISH
- DOOR FRAME:** NEW 18 GAGE HOLLOW METAL KNOCK DOWN KD FRAME
- HARDWARE:** BATTERY POWERED PANIC BAR AND CLOSER (S) HINGES
COORDINATE KEYING WITH OWNER

ROOF LEGEND

- EXTENT OF SUPPLEMENTAL BID #1
- ☼ ROOF FAN



4 CONNECTOR ROOF PLAN
A-101A SCALE: 1/8"=1'-0"

DEMOLITION LEGEND - SUPPLEMENTAL BID #1 (XX)

- GENERAL:**
- REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.
 - REMOVE EXISTING VEGETATION ON ROOF AND ALONG EXTERIOR OF WALLS.
- (S1) REMOVE EXISTING GRAVEL, BUILT-UP ROOF AND INSULATION DOWN TO EXISTING METAL ROOF DECK. VACUUM PEA STONE FROM FLUTES.
 - (S2) REMOVE EXISTING SCUPPER, DOWNSPOUT AND EDGE METAL.
 - (S3) REMOVE EXISTING CEILING TILES, GRID AND LIGHT FIXTURES. SEE MECHANICAL AND ELECTRICAL DWGS. FOR ADDITIONAL CEILING DEMOLITION.
 - (S4) REMOVE EXISTING WALL COVERING AND GYP. BD. AT COLUMNS, WALLS AND SOFFITS. INSPECT EXISTING FRAMING AND REPLACE DAMAGED FRAMING TO ALLOW FOR NEW GYP. INSTALLATION.
 - (S5) REMOVE EXISTING FAN AND CURB, SEE MECH DWGS FOR REPLACEMENT AND RE-INSTALLATION.
 - (S6) REMOVE EXISTING FLAKING PARING ON CONCRETE WALLS.

CONSTRUCTION NOTES - SUPPLEMENTAL BID #1 (XX)

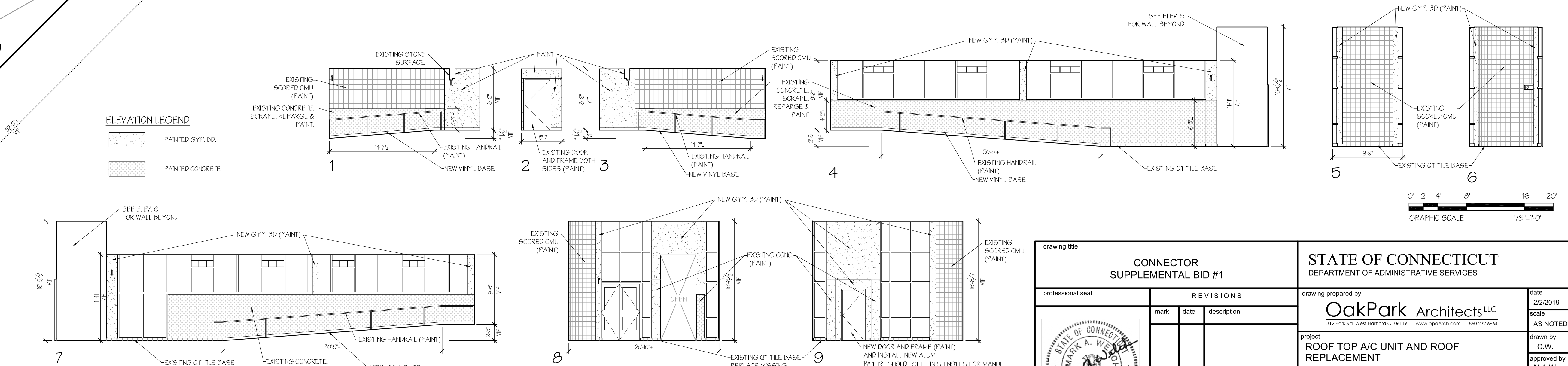
- GENERAL:**
- NEW EPDM ROOF ON NEW INSULATION ON ALL ROOF AREAS WITHIN SCOPE OF WORK. ALL RELATED WORK INCLUDING NEW CURBS, FLASHINGS, FASCIA, ETC AS INDICATED ON DETAIL SHEETS A-301, A-302 AND A-303.
 - NEW FINISH ROOF SLOPE TO BE 1/4" PER FOOT MIN.
 - SEE MECH, ELEC, PLUMBING AND STRUCTURAL DWGS. FOR FURTHER SCOPE.
 - INTERIOR WORK AT CONNECTOR TO INCLUDE NEW CEILING AND FINISHES. FOR RELATED ELECTRICAL AND MECHANICAL WORK REFER TO MEP DWGS. FOR SCOPE.
- (SA) NEW ROOF AT 1/4" PER FOOT SLOPE TO SCUPPERS.
 - (SB) NEW SCUPPER AND DOWNSPOUT.
 - (SC) NEW 3/4" GYP. BOARD ON EXISTING OR REPAIRED FRAMING, PREP AND PAINT (PAINT COLOR TO BE SELECTED BY ARCHITECT).
 - (SD) SCRAPE, REPAIR, PREP AND PAINT ALL EXISTING CONCRETE AND CMU WALLS FROM FLOOR TO CEILING (2 PAINT COLORS TO BE SELECTED BY ARCHITECT). PARGE EXISTING CONCRETE WALLS TO CREATE A SMOOTH AND EVEN FINISH SURFACE.
 - (SE) SCRAPE, PREP AND PAINT EXISTING METAL HANDRAILS. (COLOR TO BE SELECTED BY ARCHITECT)
 - (SF) REPLACE DAMAGED QUARRY TILE BASE (T.M.E), REGROUT WHERE EXISTING GROUT IS DAMAGED, MISSING OR REMOVED. CLEAN EXISTING QUARRY BASE AND FLOOR TILE.
 - (SG) NEW RUBBER FLOORING AND VINYL BASE. AT RAMP, MID LANDING AND TOP LANDING.
 - (SH) REPLACE FAN AND RELATED CURB, SEE MECHANICAL DWGS. FOR ADDITIONAL INFORMATION.
 - (SJ) NEW GUARDRAIL. SEE DETAIL W/A-303.

RCP NOTES - SUPPLEMENTAL BID #1 (XX)

- GENERAL:**
- PATCH AND REPAIR EXISTING WALLS, CEILINGS AND SOFFITS FROM DEMOLITION AND WORK WITH MATCHING MATERIALS & FINISHES.
 - TYPICAL (TYP.) REFERS TO ALL SIMILAR ITEMS IN AREA OF WORK.
- (S1) NEW ACOUSTIC CEILING TILE AND GRID.
 - (S2) NEW GWB ON EXISTING CEILING SOFFIT FRAMING AT EXISTING LOCATION, PREP. & PAINT.
 - (S3) REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR MORE INFORMATION AND COORDINATION.
 - (S4) NEW RADIANT PANEL

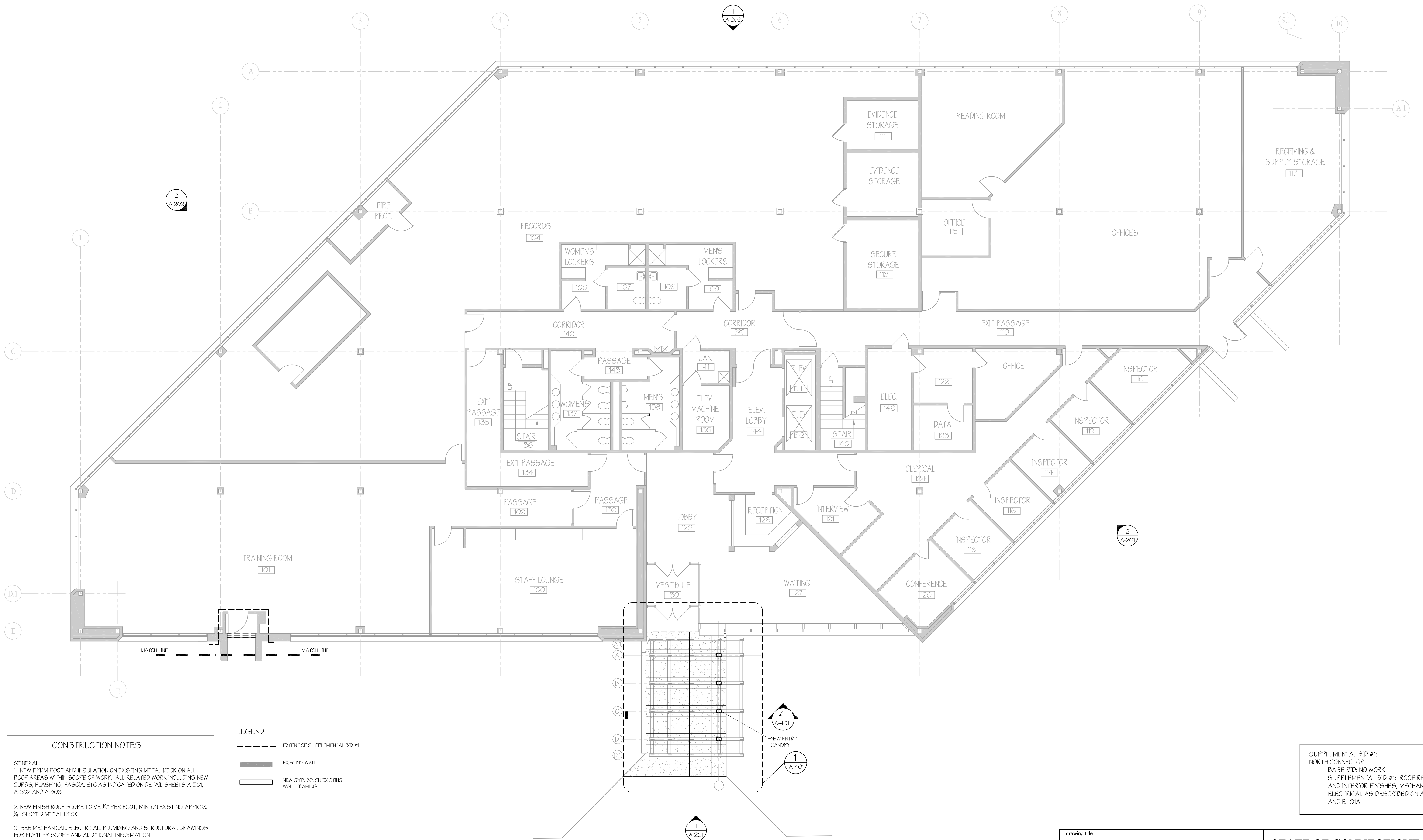
ELEVATION LEGEND

- ▭ PAINTED GYP. BD.
- ▭ PAINTED CONCRETE



5 CONNECTOR INTERIOR ELEVATIONS
A-101A SCALE: 1/8"=1'-0"

drawing title CONNECTOR SUPPLEMENTAL BID #1		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Park Rd West Hartford CT 06119 www.opaArch.com 860.232.4444
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/2/2019	scale AS NOTED
CAD no.		project no. BL-2B-387	drawn by C.W. approved by M.A.W. drawing no. A-101A



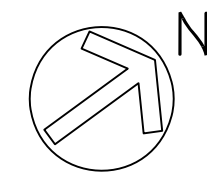
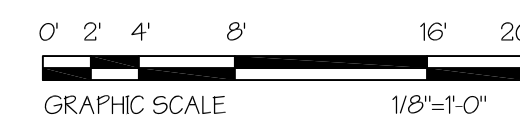
CONSTRUCTION NOTES

- GENERAL:
 1. NEW EPDM ROOF AND INSULATION ON EXISTING METAL DECK ON ALL ROOF AREAS WITHIN SCOPE OF WORK. ALL RELATED WORK INCLUDING NEW CURBS, FLASHING, FASCIA, ETC AS INDICATED ON DETAIL SHEETS A-301, A-302 AND A-303.
 2. NEW FINISH ROOF SLOPE TO BE 1/4" PER FOOT, MIN. ON EXISTING APPROX. 7/8" SLOPED METAL DECK.
 3. SEE MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL DRAWINGS FOR FURTHER SCOPE AND ADDITIONAL INFORMATION.
 4. INTERIOR WORK AT 1ST, 2ND AND 3RD FLOORS: SEE MECHANICAL, ELECTRICAL AND PLUMBING DWGS. FOR RELATED INTERIOR SCOPE OF WORK. WHERE ACCESS IS REQUIRED ABOVE CEILING, CONTRACTOR TO REMOVE AND SALVAGE FOR RE-INSTALLATION CEILING TILES AND GRID. CONTRACTOR TO REPLACE DAMAGED CEILING TILES, TO MATCH EXISTING. PATCH AND REPAIR WALLS WHERE ACCESS FOR PERIMETER RADIATION CONTROL WIRING IS REQUIRED.

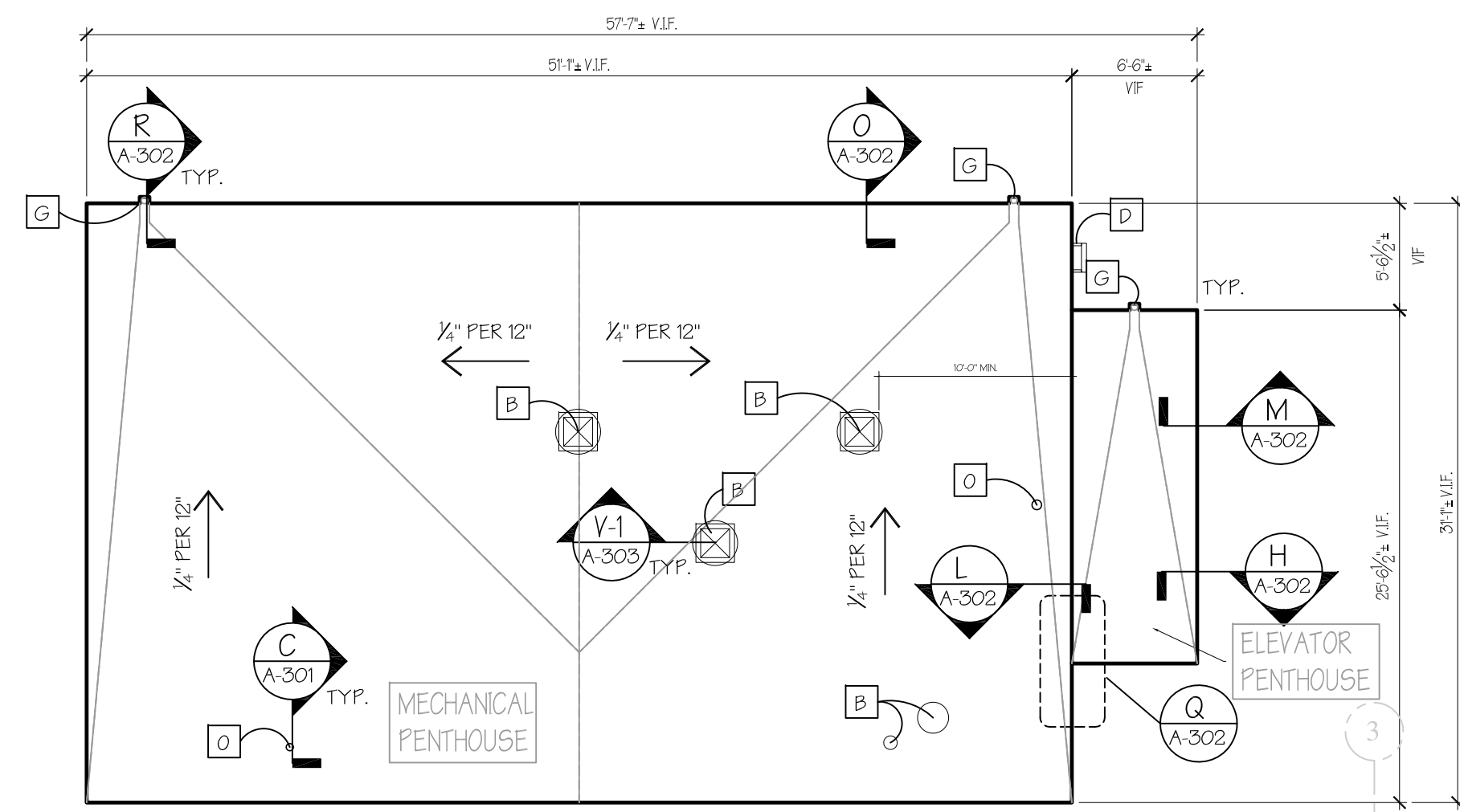
- LEGEND**
- EXTENT OF SUPPLEMENTAL BID #1
 - EXISTING WALL
 - NEW GYP. BD. ON EXISTING WALL FRAMING

1 FIRST FLOOR PLAN
 A-101 SCALE: 1/8"=1'-0"

SUPPLEMENTAL BID #1:
 NORTH CONNECTOR
 BASE BID: NO WORK
 SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A



drawing title FIRST FLOOR PLAN		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Park Rd West Hartford CT 06119 www.opaarch.com 860.232.4444
	mark	date	date 2/2/2019
			scale AS NOTED
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by L.L.D.	approved by M.A.W.
CAD no.	project no. Bl-2B-387	drawing no. A-101	



2
A-104 MECHANICAL PENTHOUSE ROOF PLAN
SCALE: 1/8"=1'-0"

LEGEND

- EXTENT OF SUPPLEMENTAL BID #1
- EXISTING WALL
- NEW GYP. BD. ON EXISTING WALL FRAMING
- ⊗ ROOF FAN
- ROOF VENT
- RD (ROOF DRAIN) ○ ORD (OVERFLOW ROOF DRAIN)
- ▨ WALKWAY PAD

CONSTRUCTION NOTES

GENERAL:

1. NEW EPDM ROOF AND INSULATION ON EXISTING METAL DECK ON ALL ROOF AREAS WITHIN SCOPE OF WORK. ALL RELATED WORK INCLUDING NEW CURBS, FLASHINGS, FASCIA, ETC AS INDICATED ON DETAIL SHEETS A-301, A-302 AND A-303
2. NEW FINISH ROOF SLOPE TO BE 1/2" PER FOOT, MIN ON EXISTING APPROX. 1/8" SLOPED METAL DECK.
3. SEE MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL DRAWINGS FOR FURTHER SCOPE AND ADDITIONAL INFORMATION.
4. INTERIOR WORK AT 1ST, 2ND AND 3RD FLOORS; SEE MECHANICAL, ELECTRICAL AND PLUMBING DWGS. FOR RELATED INTERIOR SCOPE OF WORK. WHERE ACCESS IS REQUIRED ABOVE CEILING, CONTRACTOR TO REMOVE AND SALVAGE FOR RE-INSTALLATION CEILING TILES AND GRID. CONTRACTOR TO REPLACE DAMAGED CEILING TILES, TO MATCH EXISTING. PATCH AND REPAIR WALLS WHERE ACCESS FOR PERIMETER RADIATION CONTROL WIRING IS REQUIRED.

A NEW ROOF DRAIN AND OVERFLOW DRAIN. SEE PLUMBING DWGS. FOR ADDITIONAL INFORMATION AND STRUCTURAL DRAWINGS FOR FRAMING.

B REPLACE FAN AND RELATED CURB, SEE MECHANICAL DWGS. FOR LOCATIONS.

B-1 EXISTING FAN TO REMAIN, RAISE CURB FOR NEW INSULATION DEPTH

C NEW DUCTWORK SUPPORT. SEE DETAIL BB/A-303 AND MECHANICAL DRAWINGS FOR LOCATIONS.

C-1 NEW POURABLE SEALER, SEE T/A-303 FOR SIMILAR DETAIL.

D NEW WALL MOUNTED LADDER WITH FALL PROTECTION. ANCHOR TO MECHANICAL PENTHOUSE WALL. SEE AA/A-303.

E EXISTING STEEL TO BE SCRAPPED, PRIMED AND PAINTED, SEE STRUCTURAL DWGS. FOR MODIFICATIONS AND ADDITIONS TO STEEL SUPPORT DUNNAGE.

F SEE MECHANICAL DWGS FOR ROOF TOP UNITS AND MECHANICAL EQUIPMENT.

G NEW SCUPPER, DOWNSPOUT AND CONCRETE SPLASHBLOCK ON WALK-OFF MAT.

H NEW ROOF HATCH IN EXISTING LOCATION, PROVIDE NEW HATCH RAILING FOR FALL PROTECTION.

J NEW METAL GRATING, STAIR AND GUARDRAIL/HANDRAILS TO ALLOW FOR MECHANICAL EQUIPMENT SERVICING. SEE STRUCTURAL DRAWINGS AND DETAIL A-303 FOR ADDITIONAL INFO.

J-1 GUARDRAIL AND HANDRAIL AT PLATFORM, Z/A-303, COORDINATE SIZE WITH MECHANICAL EQUIPMENT.

K NEW EQUIPMENT PAD, SEE MECH DWGS FOR ADDITIONAL INFO.

L PATCH TEMPORARY OPENING IN PLENUM WALL WITH METAL FRAMING AND GYP. BD. (LAYERS TO MATCH EXISTING WALL), TAPE JOINTS. COORDINATE WITH MECHANICAL DWGS. FOR MECHANICAL PHASING.

M NEW SAFETY GUARDRAIL, X/A-303.

N EXISTING SMOKE HATCH TO BE RESET ON NEW CURB FOR NEW INSULATION DEPTH.

O EXISTING ROOF VENT, EXTEND HEIGHT TO 12" ABOVE FINISH ROOF OR 36" ABOVE AIR INTAKE THAT IS WITHIN 10', BRACE VENT PIPE OVER 48" HIGH, SEE DETAIL C/A-301.

P NEW SLOPED GLAZING SYSTEM, EXISTING SUPPORT STRUCTURE TO REMAIN.

Q NEW PRESSURE PLATE CAP ON EXISTING VERTICAL GLAZING SYSTEM. GLASS AND WINDOW FRAMING TO REMAIN FINISH TO MATCH NEW SLOPED GLAZING.

R NEW DIVERTER, ANGLE T.M.E, FINISH TO MATCH SLOPED GLAZING FINISH.

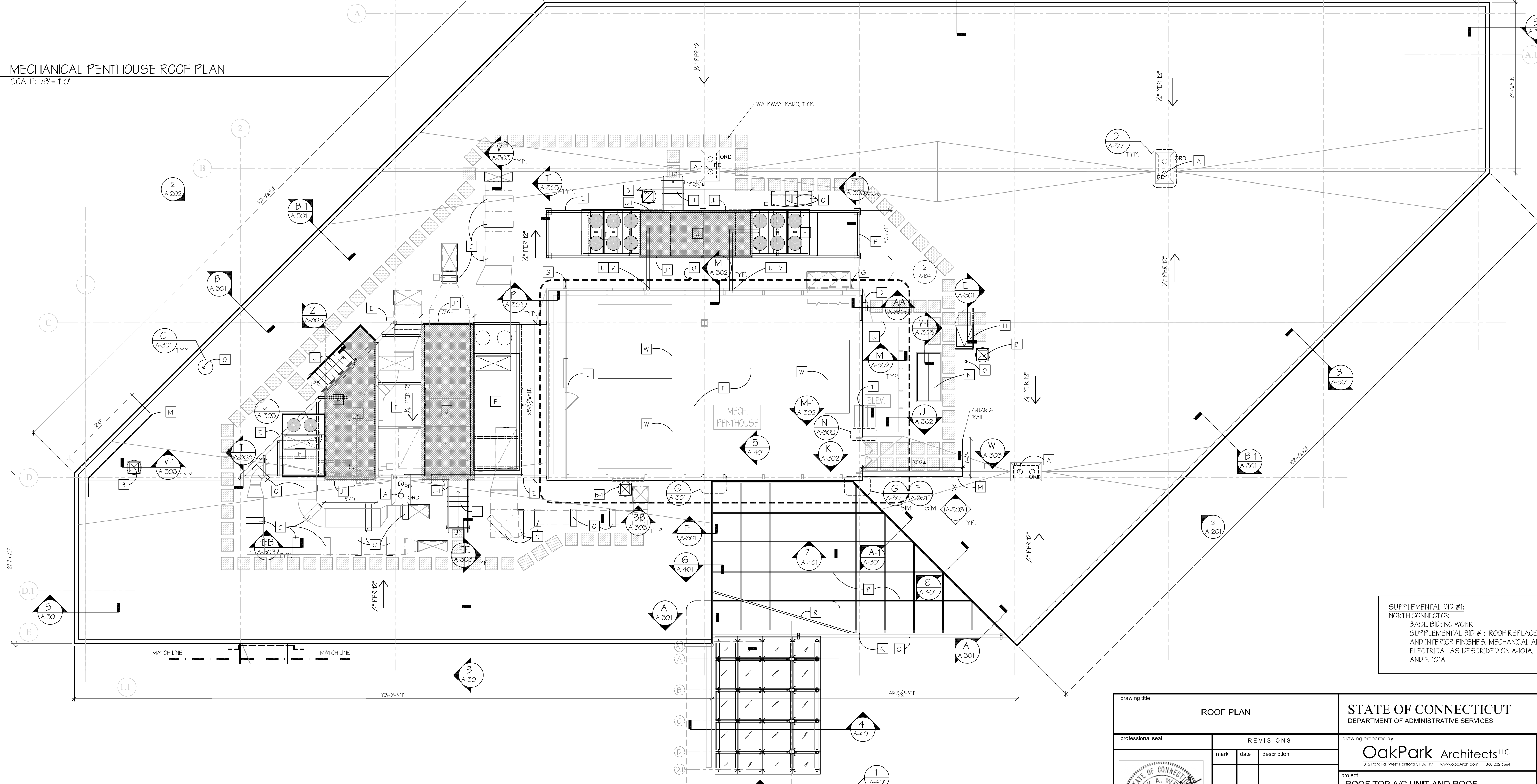
S NEW GUTTER AND DOWNSPOUTS, CONNECT TO EXISTING DRAIN PIPE, FINISH TO MATCH SLOPED GLAZING FINISH.

T PAINT (2) EXISTING HOODS, COORDINATE ADDITIONAL MODIFICATIONS WITH MECHANICAL DRAWINGS.

U WHERE PIPE PENETRATION WAS REMOVED AT MECH. PENTHOUSE, PATCH HOLE IN METAL SIDING WITH SHEET METAL RIVETED TO SIDING, SEAL EDGES.

V CONT. SEALANT AT ALL NEW PIPE PENETRATIONS THRU MECHANICAL PENTHOUSE WALLS.

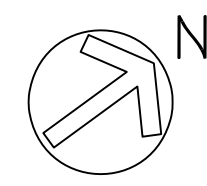
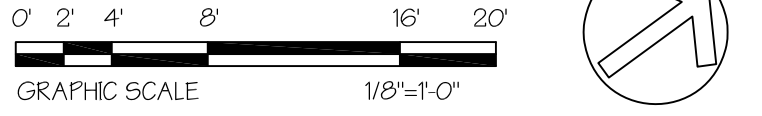
W NEW MECHANICAL HOUSEKEEPING PAD, SEE MECHANICAL DWGS. FOR ADDITIONAL INFORMATION.

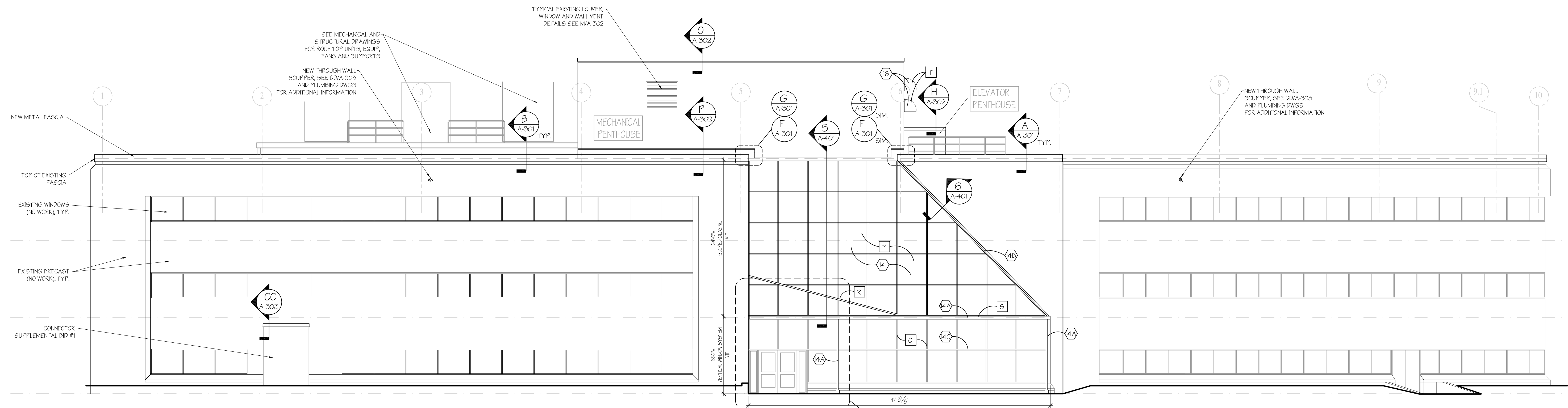


1
A-104 ROOF PLAN
SCALE: 1/8"=1'-0"

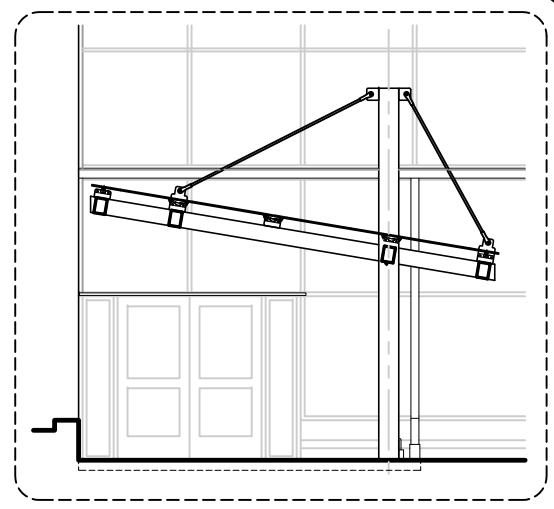
SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

drawing title ROOF PLAN		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Foxe Rd West Hartford CT 06119 www.opaArch.com 860.232.4444
	mark	date	date 2/2/2019
			scale AS NOTED
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		approved by M.A.W.	drawn by L.L.D.
CAD no.	project no. BL-2B-387	drawing no. A-104	





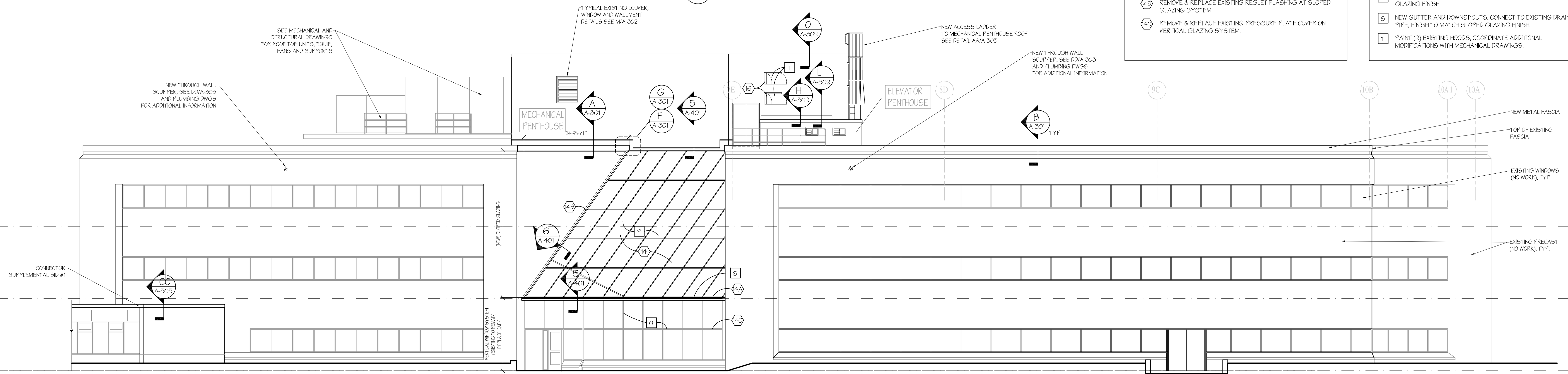
1 SOUTH ELEVATION
SCALE: 1/8"=1'-0"



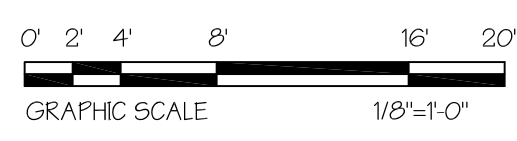
3 CANOPY ELEVATION
SCALE: 1/8"=1'-0"

DEMOLITION LEGEND	
GENERAL: 1. COORDINATE WITH MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL FOR ADDITIONAL DEMOLITION WORK. 2. DIMENSIONS ARE FOR REFERENCE ONLY, V.F.	
14	REMOVE EXISTING SLOPED GLAZING SYSTEM AND GLASS. STEEL SUPPORT STRUCTURE TO REMAIN. VERTICAL GLASS AND CURTAIN WALL TO REMAIN.
4A	REMOVE & REPLACE GUTTER AND DOWNSPOUTS.
4B	REMOVE & REPLACE EXISTING REGLET FLASHING AT SLOPED GLAZING SYSTEM.
4C	REMOVE & REPLACE EXISTING PRESSURE PLATE COVER ON VERTICAL GLAZING SYSTEM.

CONSTRUCTION NOTES X	
O	EXISTING ROOF VENT. EXTEND HEIGHT TO 12" ABOVE FINISH ROOF OR 36" ABOVE AIR INTAKE THAT IS WITHIN 10'. BRACE VENT PIPE OVER 48" HIGH, SEE DETAIL C/A-301.
P	NEW SLOPED GLAZING SYSTEM, EXISTING SUPPORT STRUCTURE TO REMAIN.
Q	NEW PRESSURE PLATE CAP ON EXISTING VERTICAL GLAZING SYSTEM. GLASS AND WINDOW FRAMING TO REMAIN. FINISH TO MATCH NEW SLOPED GLAZING.
R	NEW DIVERTER ANGLE T.M.E. FINISH TO MATCH SLOPED GLAZING FINISH.
S	NEW GUTTER AND DOWNSPOUTS. CONNECT TO EXISTING DRAIN PIPE, FINISH TO MATCH SLOPED GLAZING FINISH.
T	PAINT (2) EXISTING HOODS, COORDINATE ADDITIONAL MODIFICATIONS WITH MECHANICAL DRAWINGS.

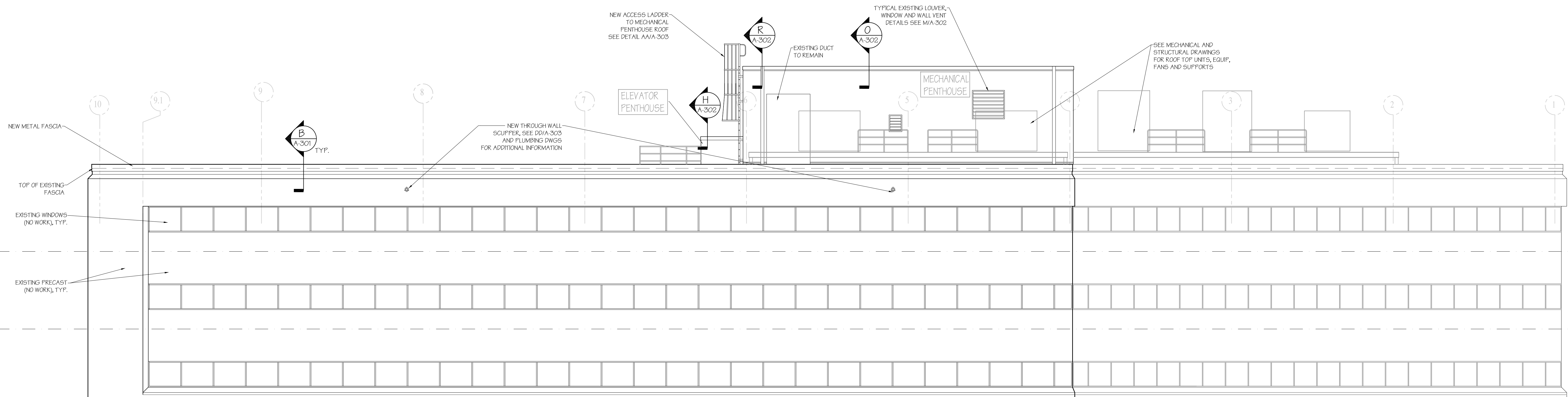


2 EAST ELEVATION
SCALE: 1/8"=1'-0"

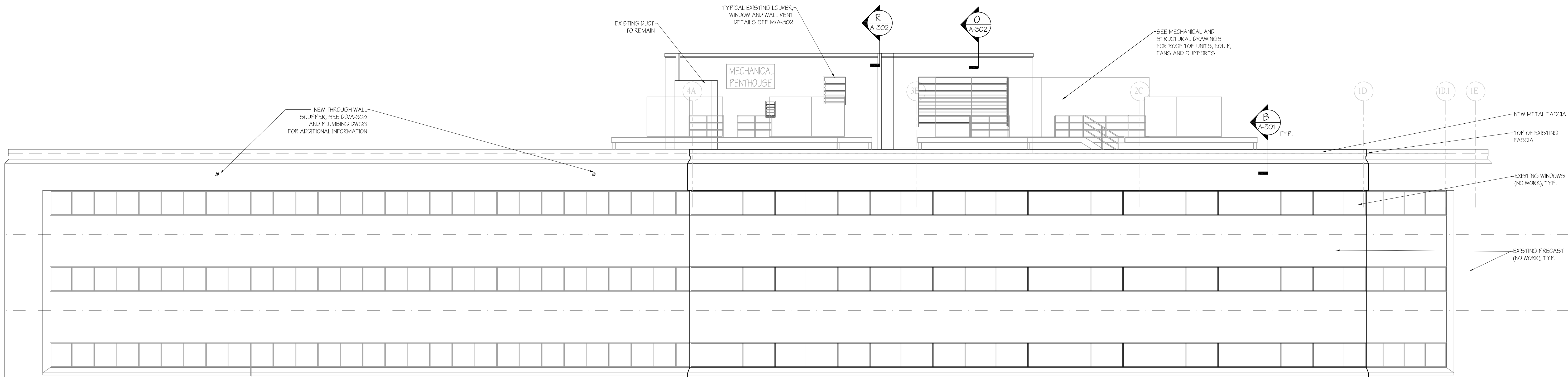


SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

drawing title			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
EXTERIOR ELEVATIONS			drawing prepared by OakPark Architects LLC 312 Park St West Hartford CT 06119 www.opaarch.com 860.232.4444	
professional seal	REVISIONS		date	2/2/2019
	mark	date	scale	AS NOTED
	description		project	drawn by L.L.D.
			approved by M.A.W.	drawing no.
			project no. Bl-2B-387	A-201



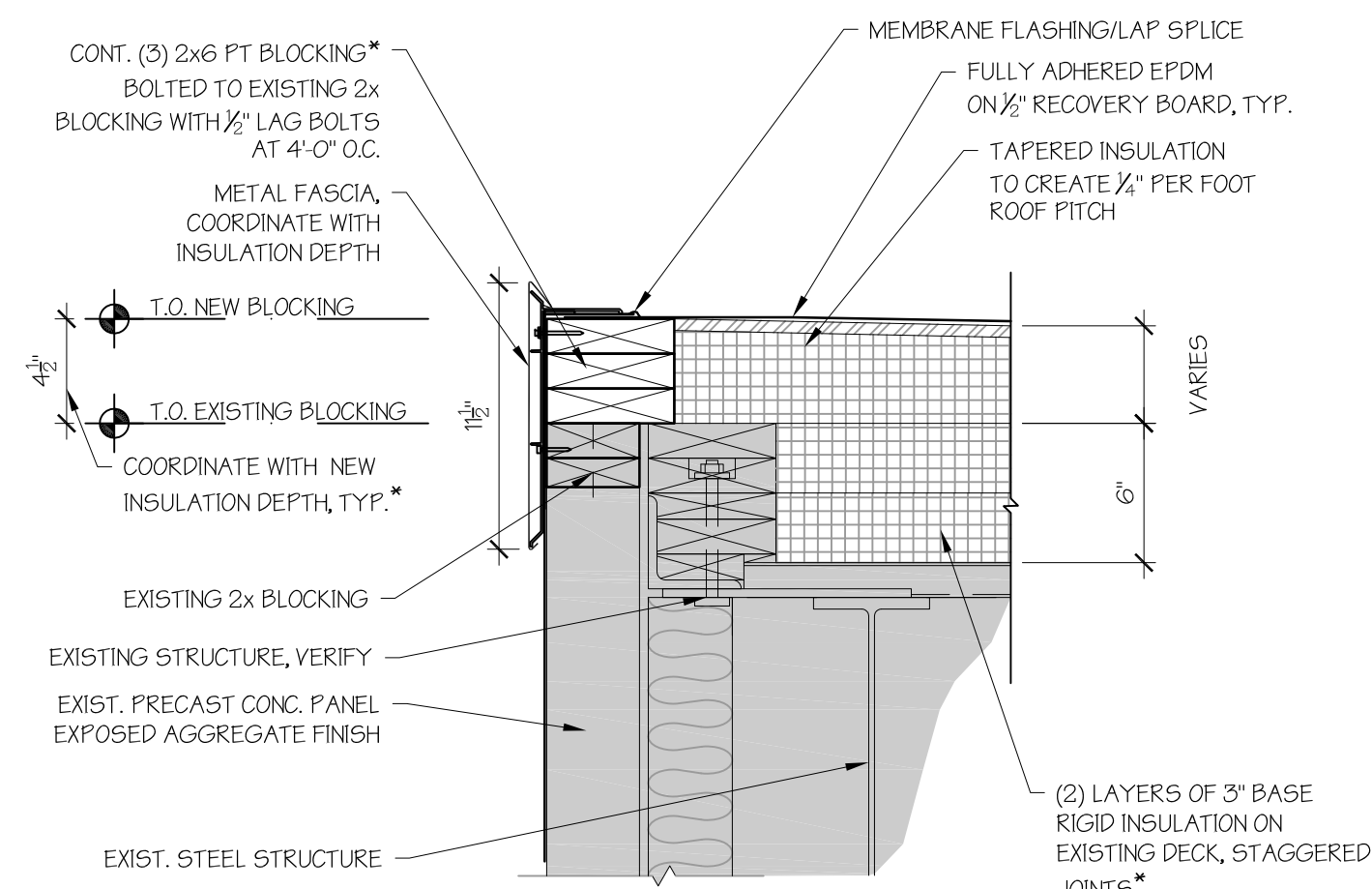
1 NORTH ELEVATION
A-202 SCALE: 1/8"=1'-0"



2 WEST ELEVATION
A-202 SCALE: 1/8"=1'-0"

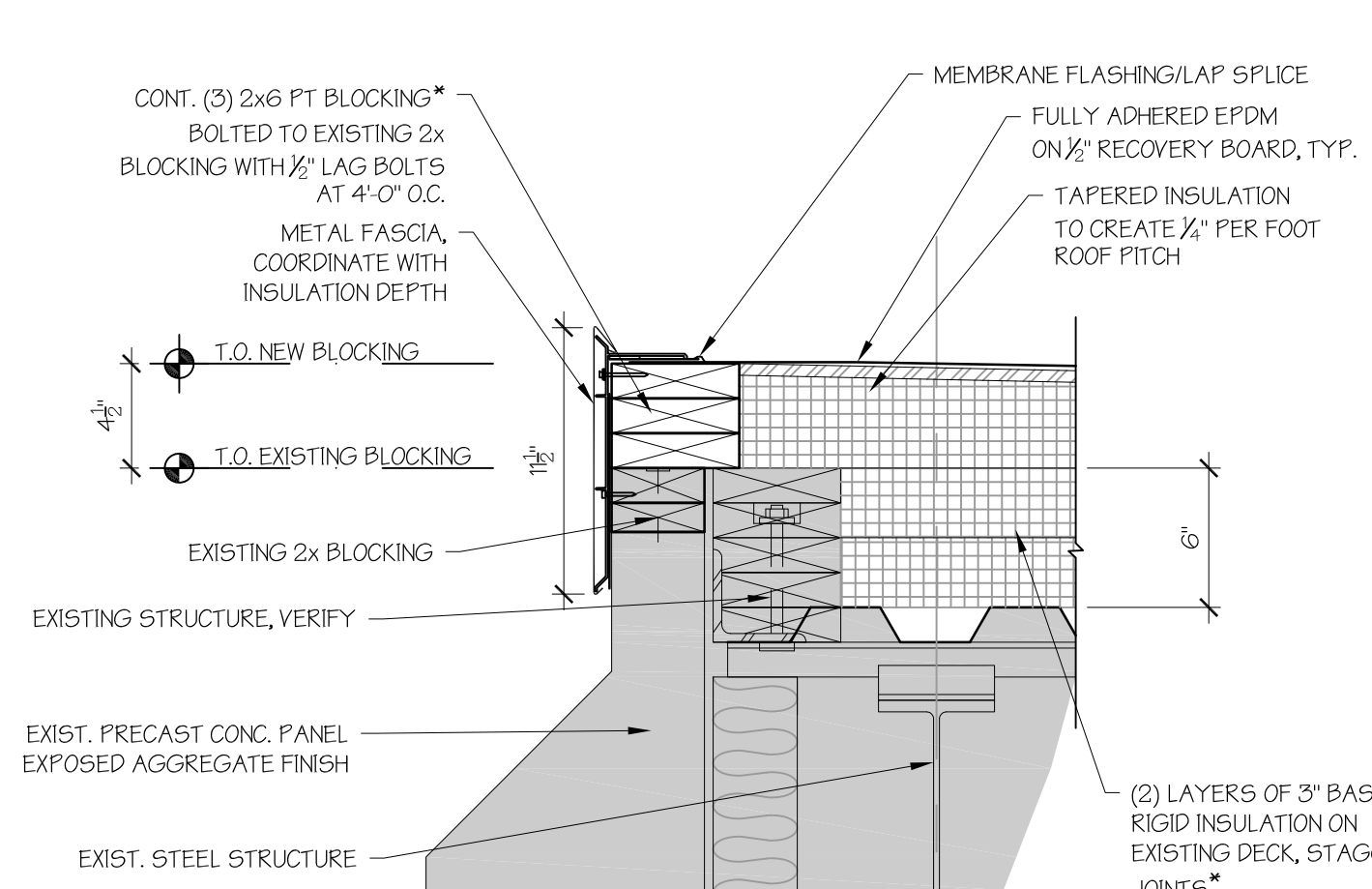


drawing title EXTERIOR ELEVATIONS		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC 312 Park St West Hartford CT 06119 www.opaarch.com 860.232.4444
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/2/2019	scale AS NOTED
CAD no.		project no. BI-2B-387	drawn by L.L.D. approved by M.A.W. drawing no. A-202

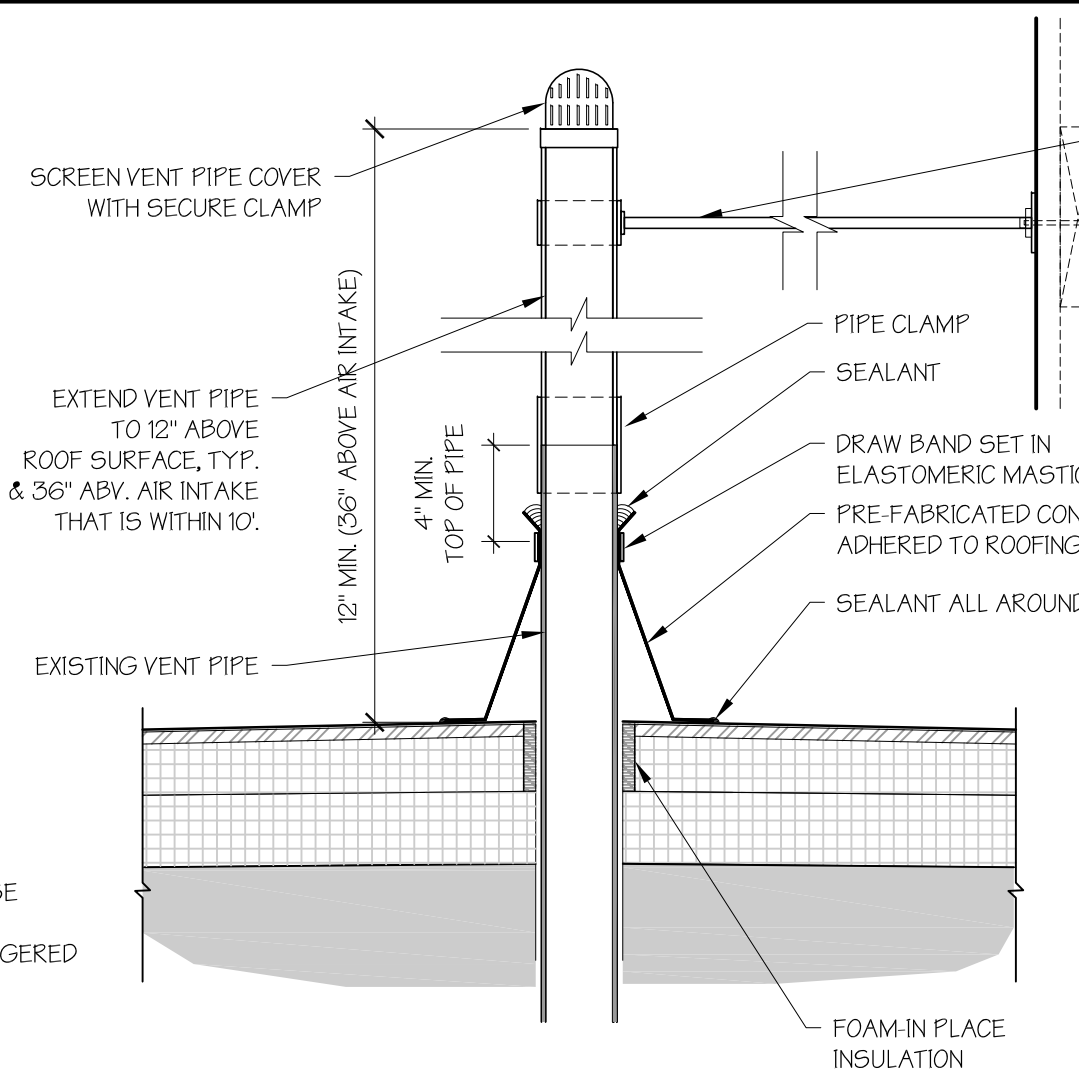


A ROOF EDGE DETAIL AT ENTRY AREA
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 AND A-101A FOR DETAIL LOCATION

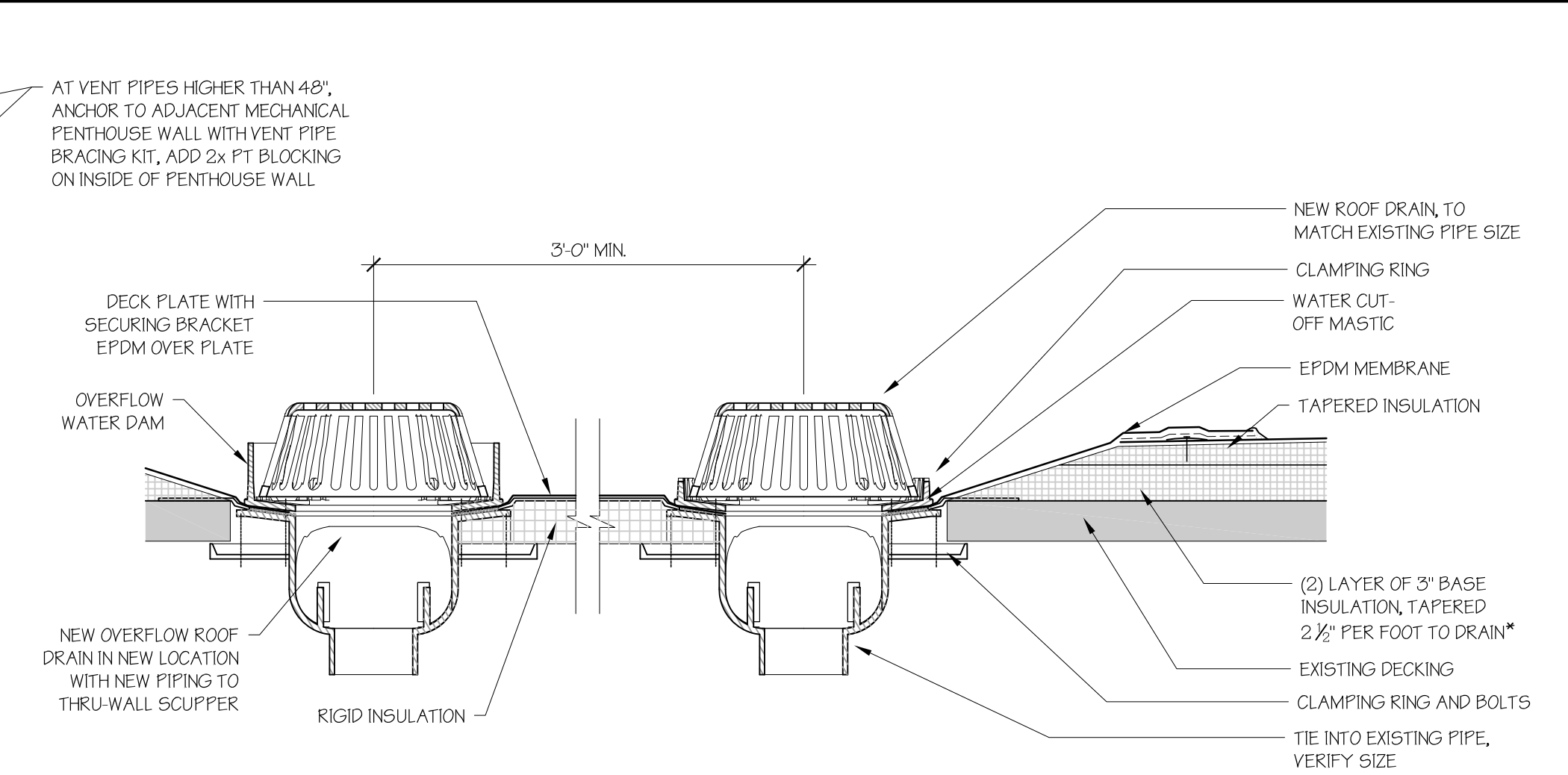
*INSULATION DEPTH:
1- INSULATION BASE TO PROVIDE A MINIMUM
AVERAGE OF 6" DEPTH. DRAWINGS
INDICATE (2) LAYERS OF 3" BASE
INSULATION. BASE INSULATION CAN BE
MODIFIED TO MAINTAIN MINIMUM CLEARANCES
AND AVERAGE INSULATION DEPTH.
2- FASCIA DEPTH TO BE ADJUSTED
ACCORDINGLY



B TYPICAL ROOF EDGE DETAIL
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION

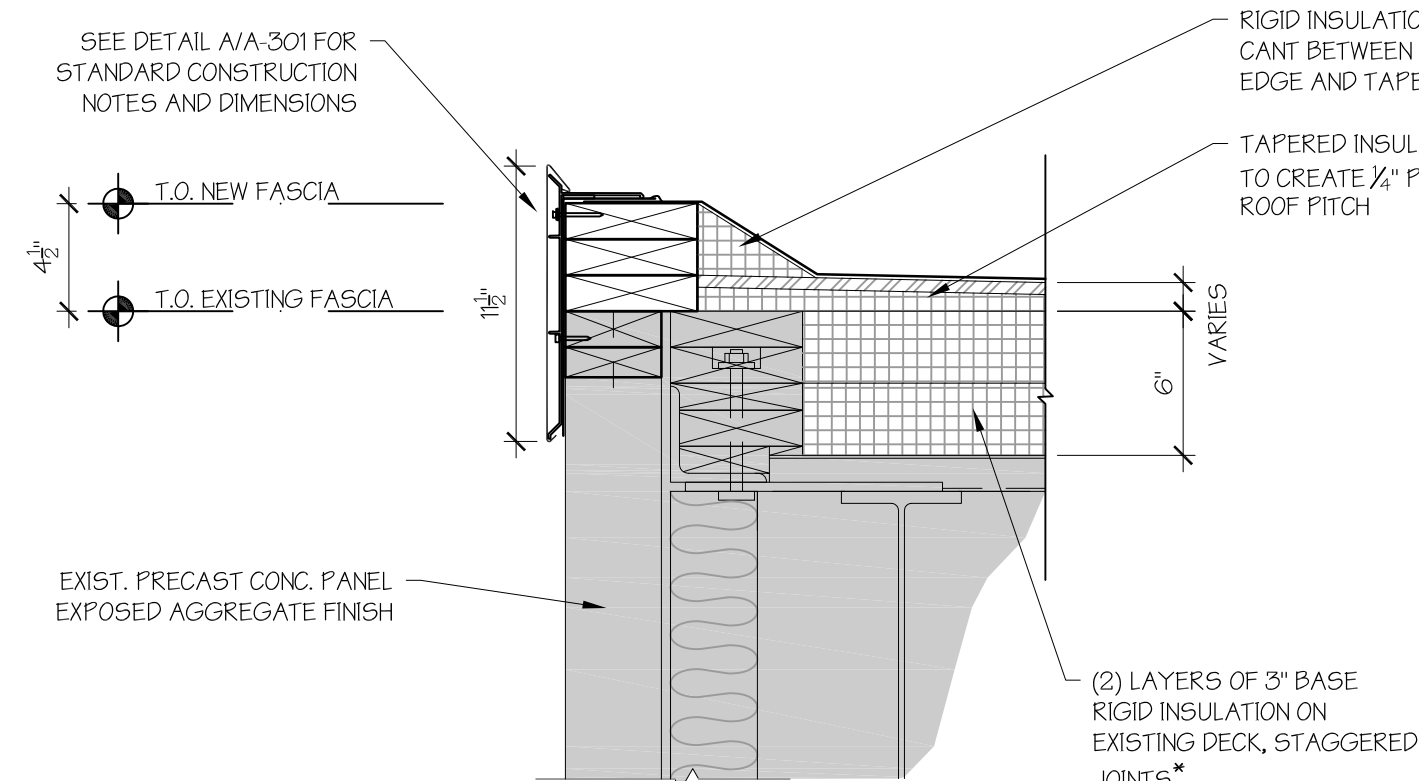


C TYP. ROOF VENT DETAIL
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION

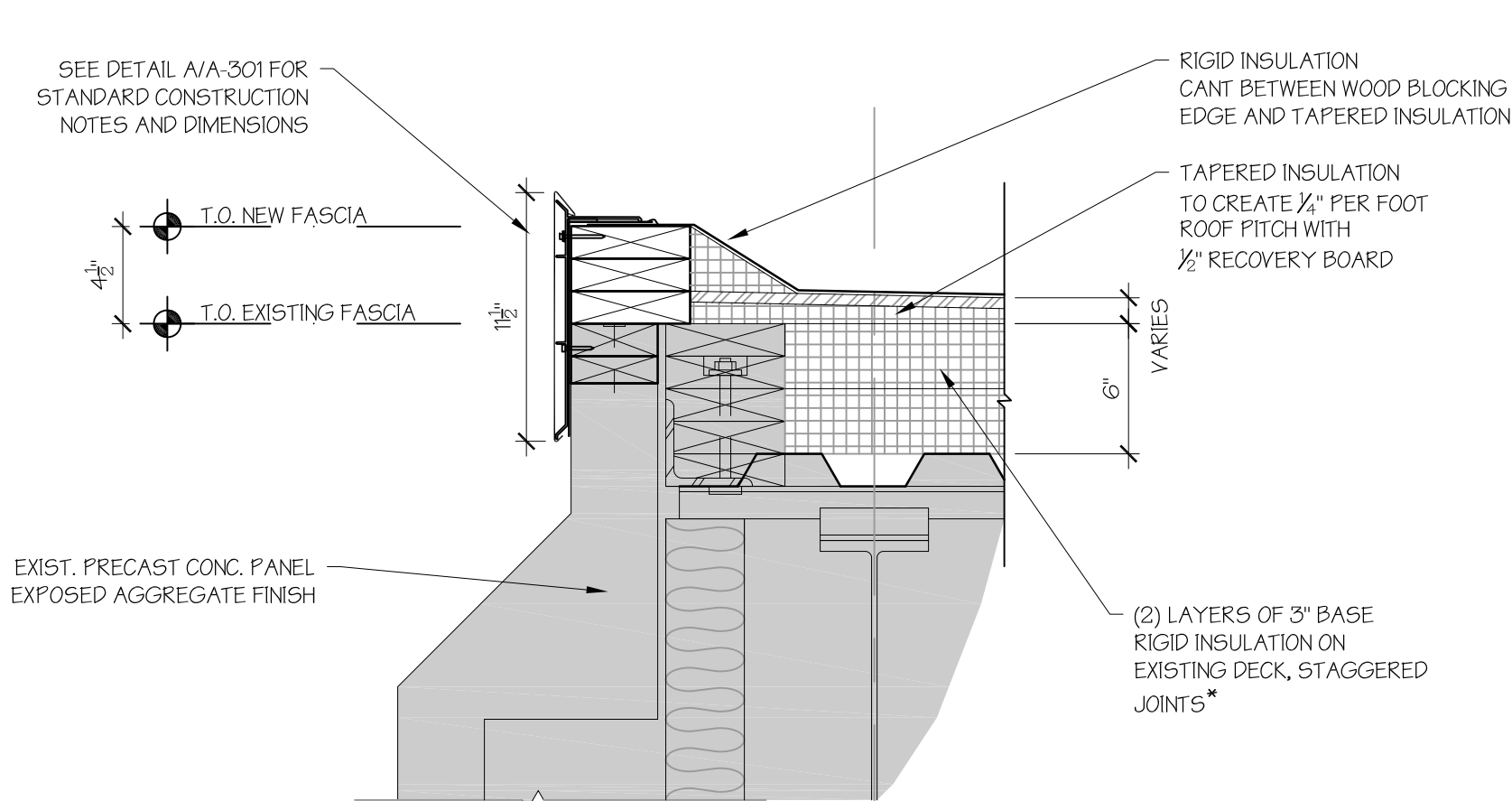


D TYP. ROOF DRAIN DETAIL
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION

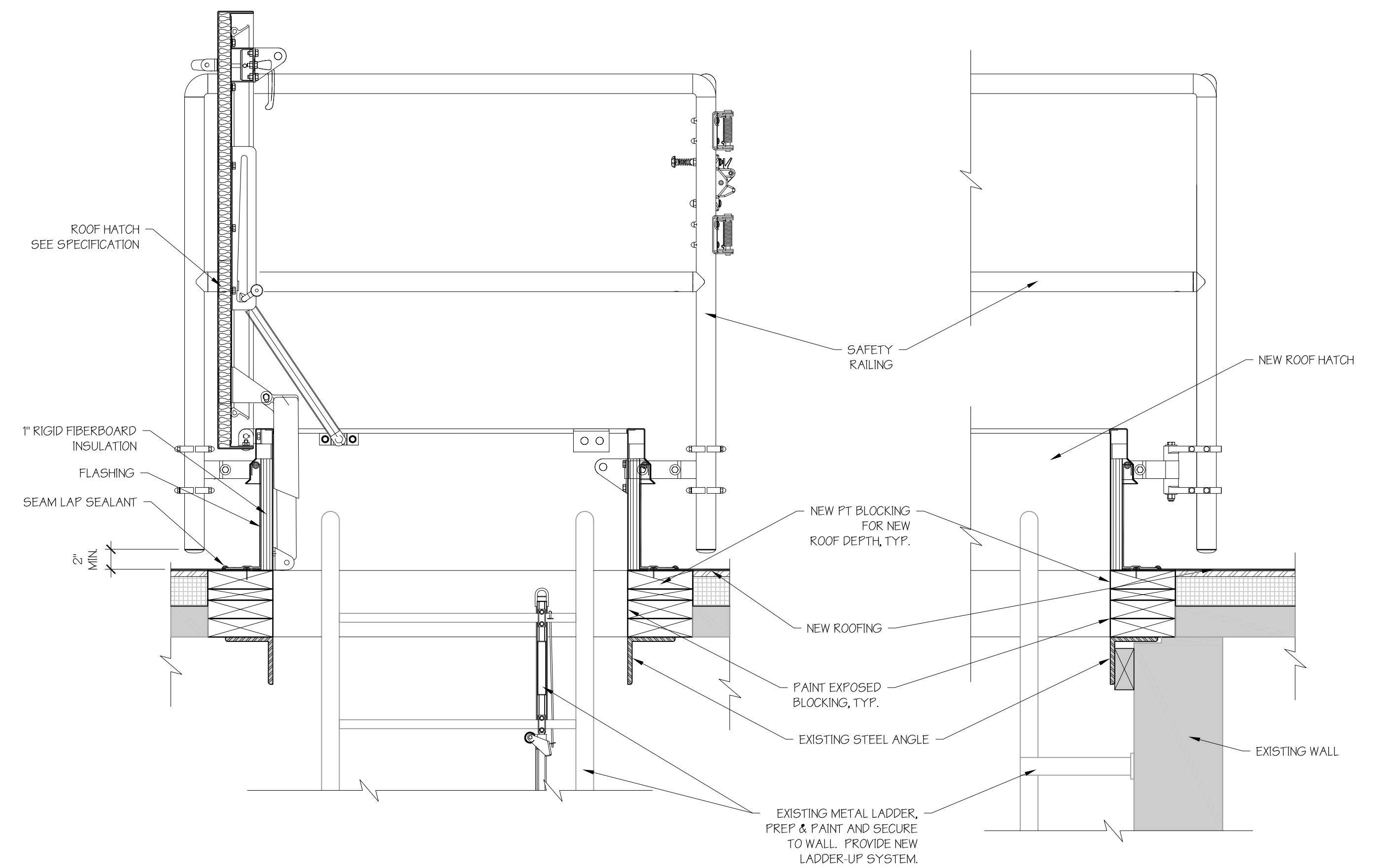
GENERAL ROOF DRAIN NOTE:
1- VERIFY STRUCTURAL CLEARANCE FOR ROOF DRAINS
WHERE A NEW OVERFLOW DRAIN IS BEING INSTALLED.
2- ENLARGE OPENING IN EXISTING DECK AND PROVIDE NEW
DECK MOUNT PLATE. REFER TO STRUCTURAL DRAWINGS
FOR ADDITIONAL INFORMATION.
3- PROVIDE INSULATION AROUND DRAINS. SEE PLUMBING
DRAWINGS FOR ADDITIONAL INFO.



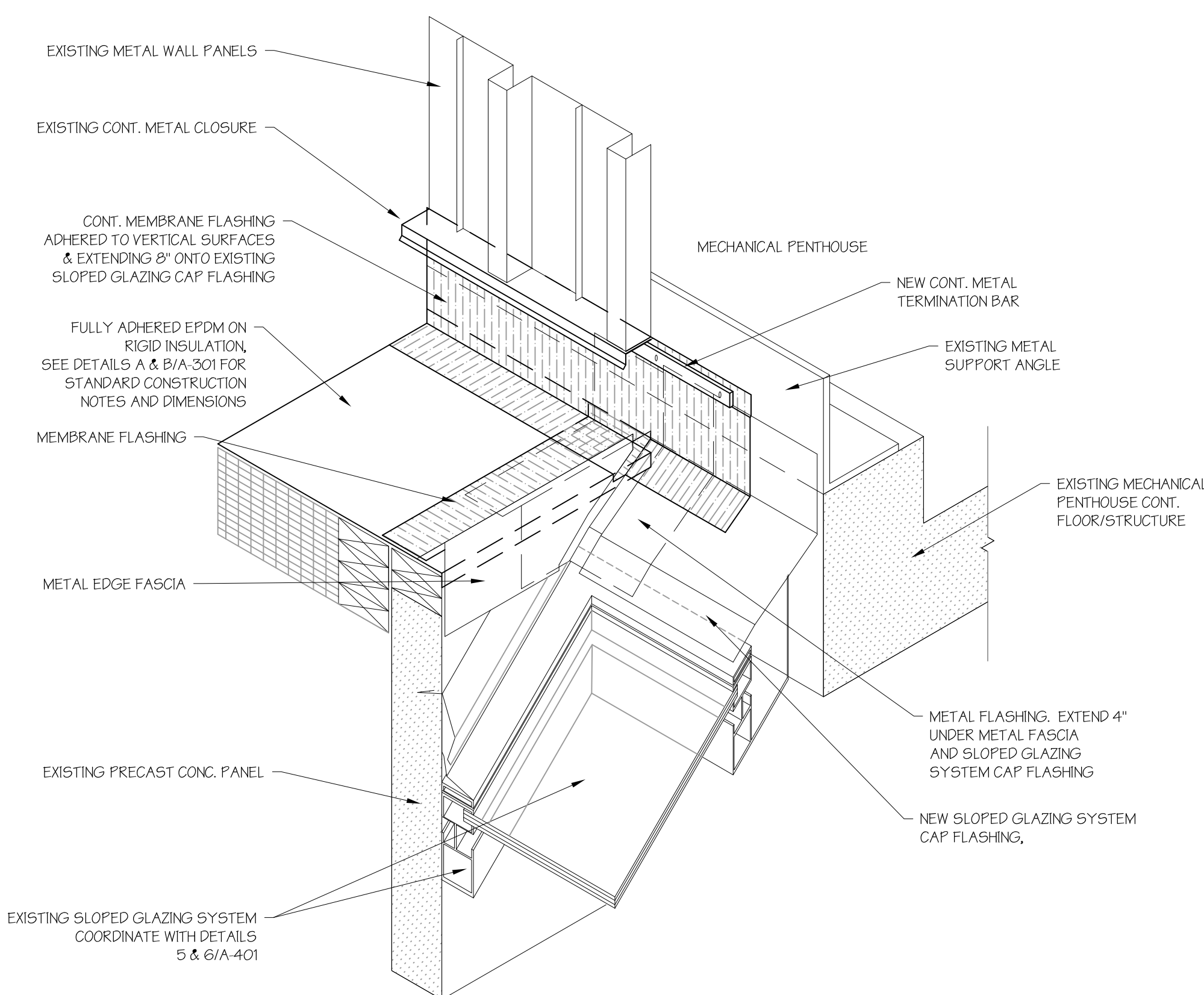
A-1 ROOF EDGE DETAIL AT ENTRY AREA
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 AND A-101A FOR DETAIL LOCATION



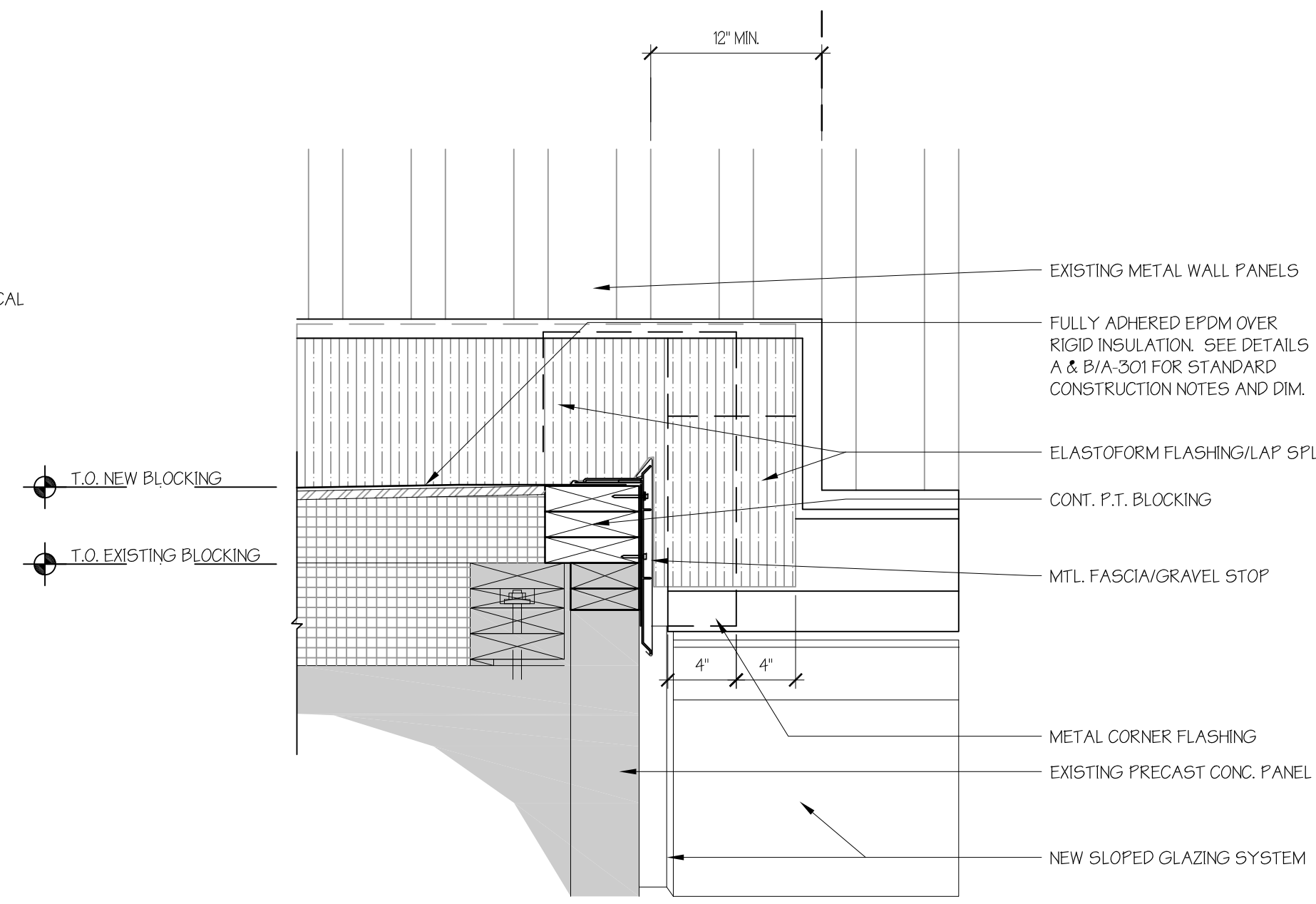
B-1 TYPICAL ROOF EDGE DETAIL
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION



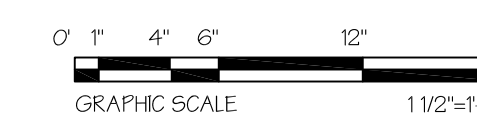
E ROOF HATCH DETAIL
A-301 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION



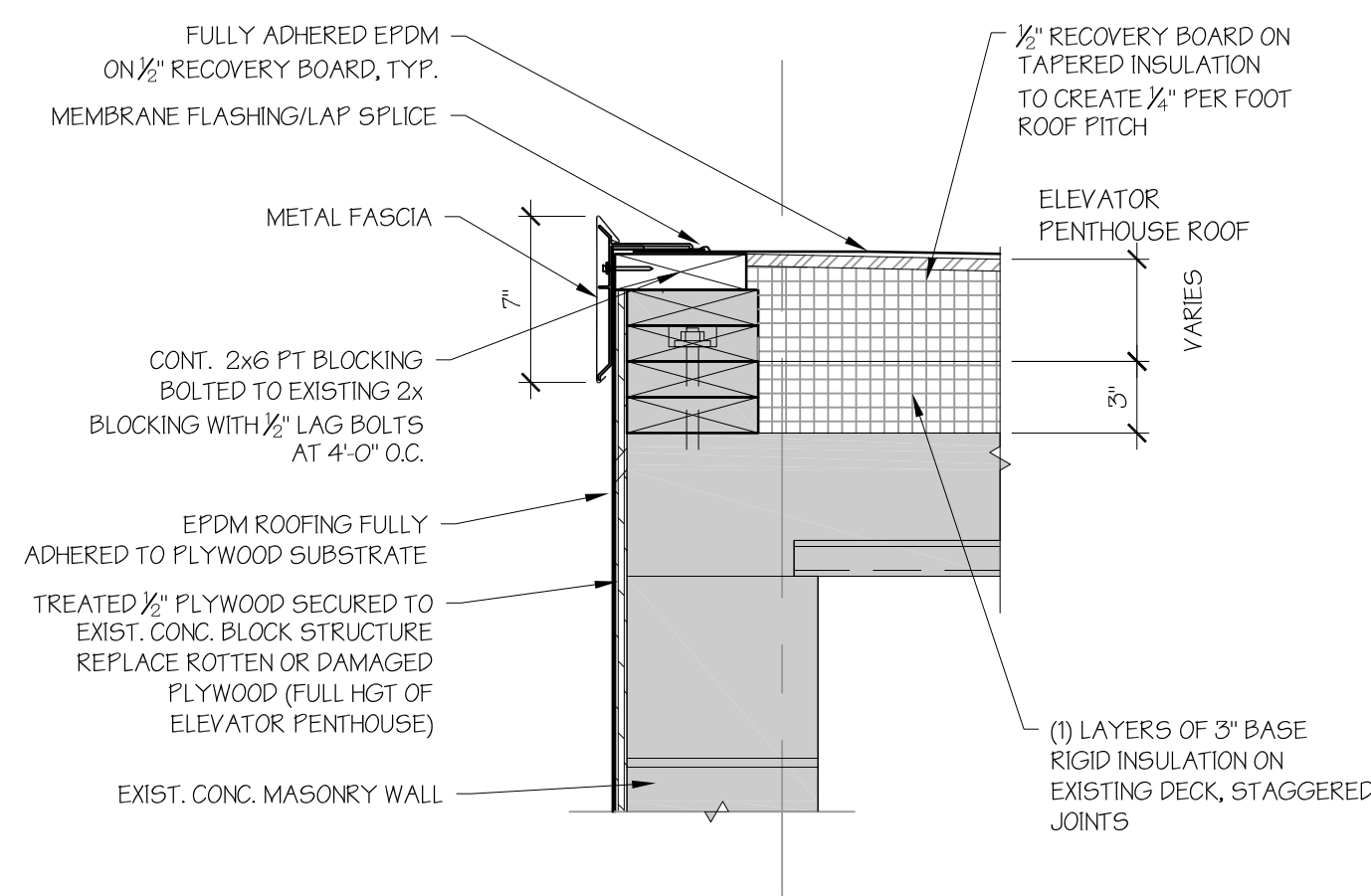
G DETAIL AT CORNER PENTHOUSE, ROOF AND SLOPED GLAZING
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION



F JUNCTION DETAIL AT SLOPED GLAZING
A-301 SCALE: 1 1/2"=1'-0"
SEE A-104 FOR DETAIL LOCATION

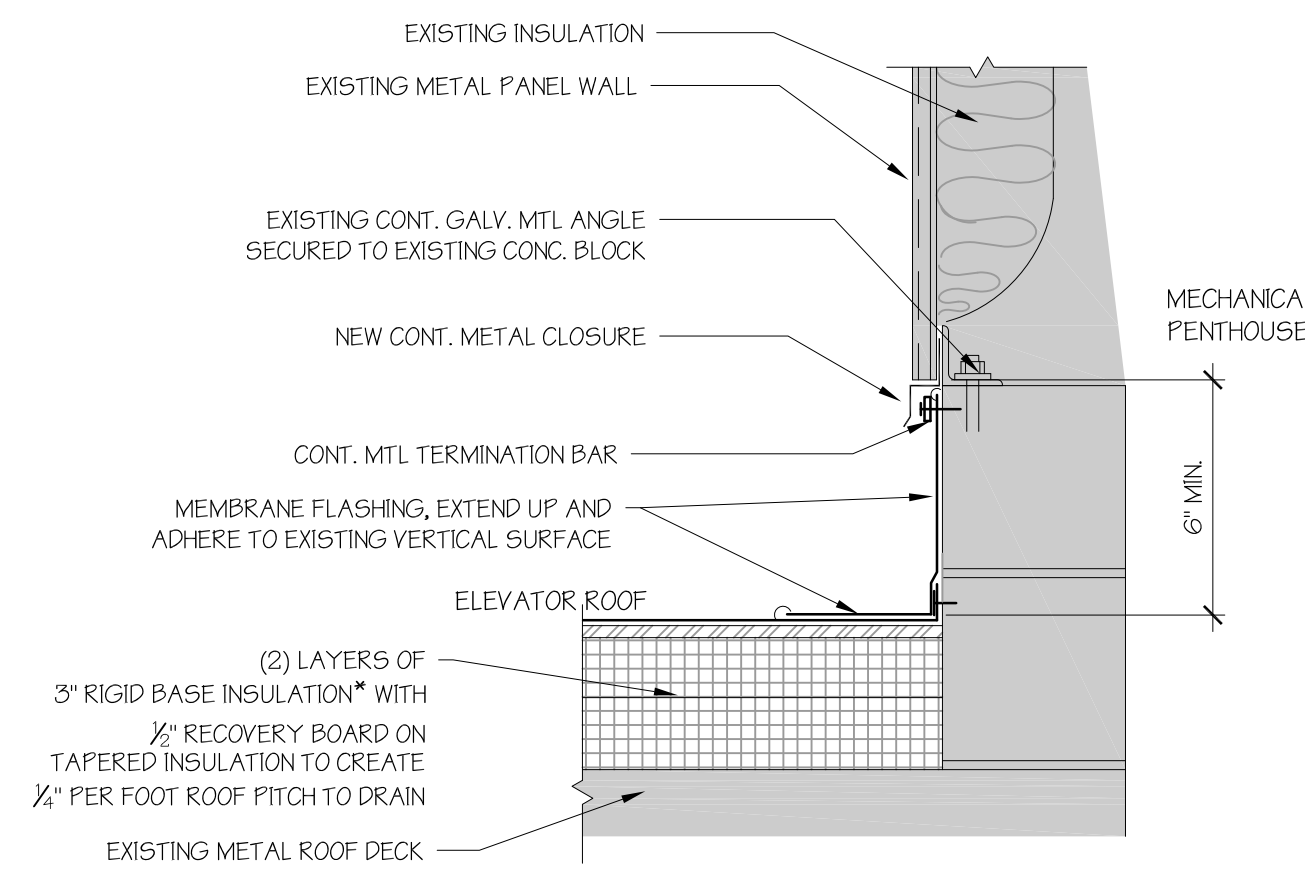


drawing title		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
ROOF DETAILS		drawing prepared by OakPark Architects LLC 312 Park St West Hartford CT 06119 www.opaArch.com 860.232.4444	
professional seal	REVISIONS	date	2/2/2019
	mark	scale	AS NOTED
	date	project	ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT
	description	drawn by	L.L.D.
		approved by	M.A.W.
		drawing no.	A-301
		CAD no.	Bl-2B-387



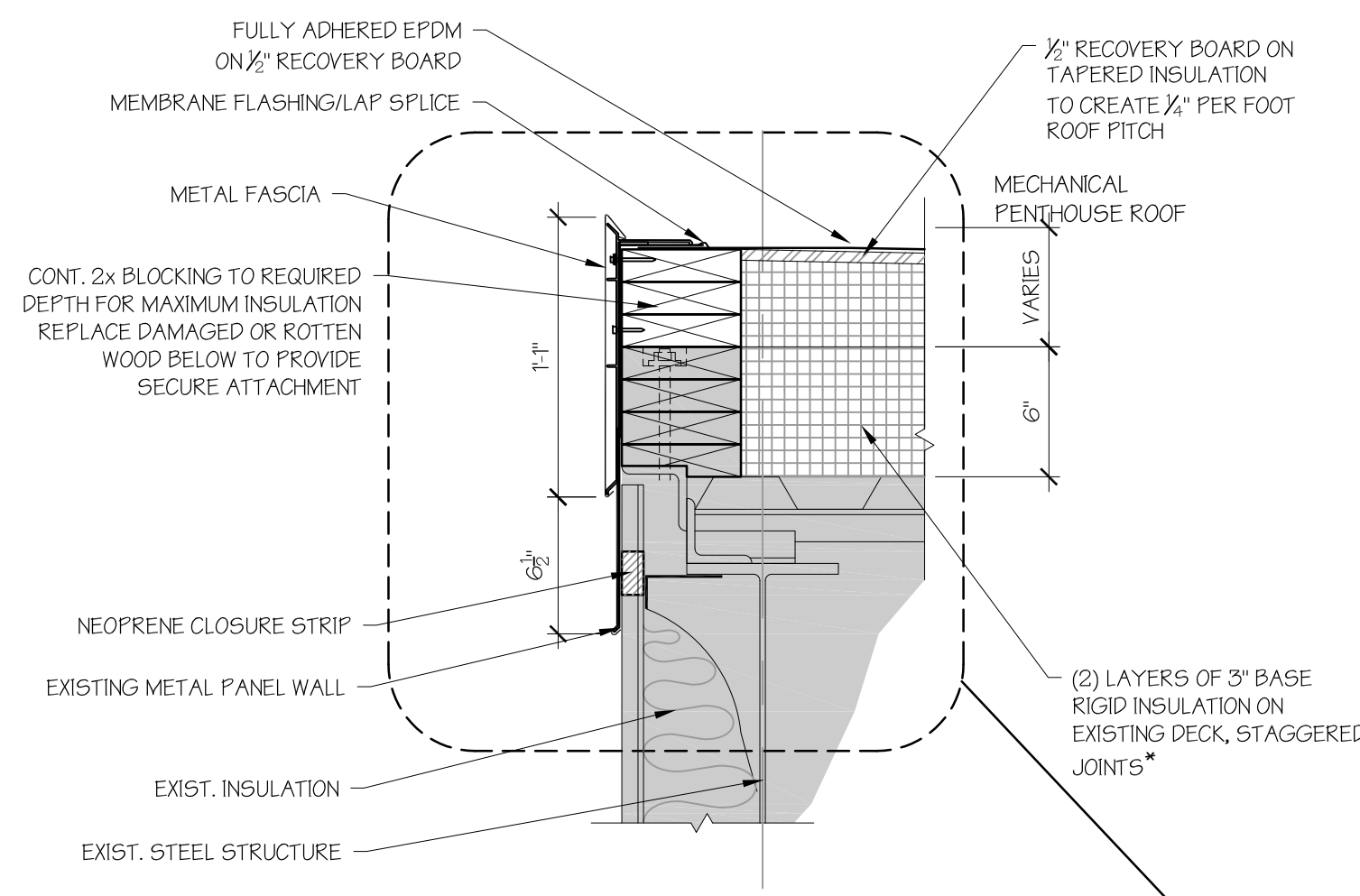
H ROOF EDGE DETAIL AT ELEVATOR PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



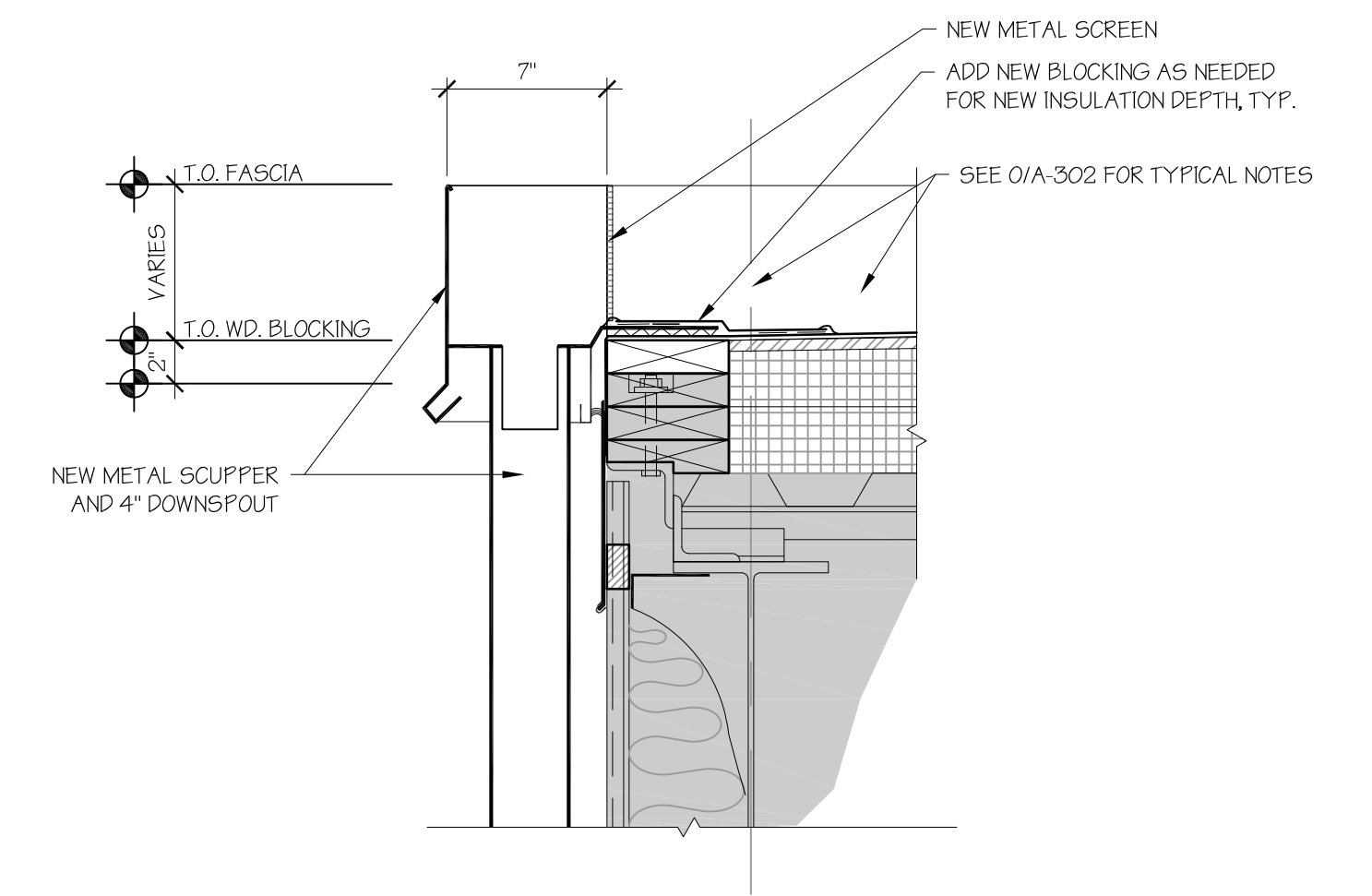
L DETAIL AT ELEVATOR PENTHOUSE ROOF TO MECHANICAL PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



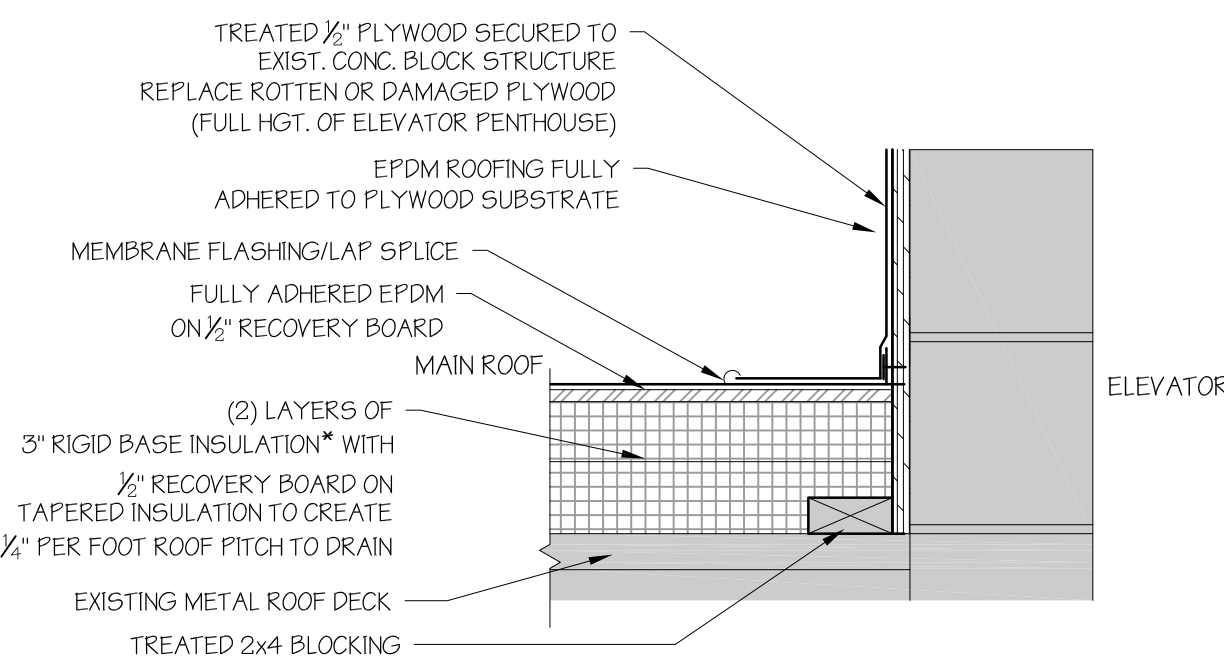
O ROOF EDGE DETAIL AT MECHANICAL PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



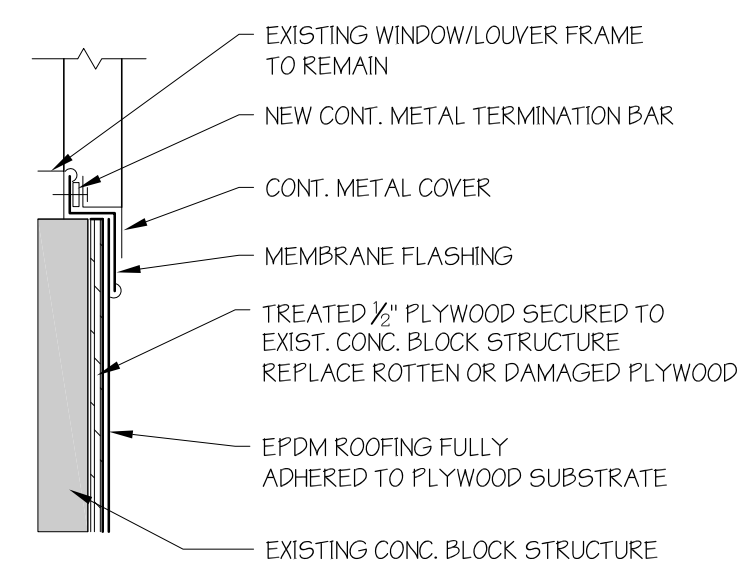
R SCUPPER DETAIL

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



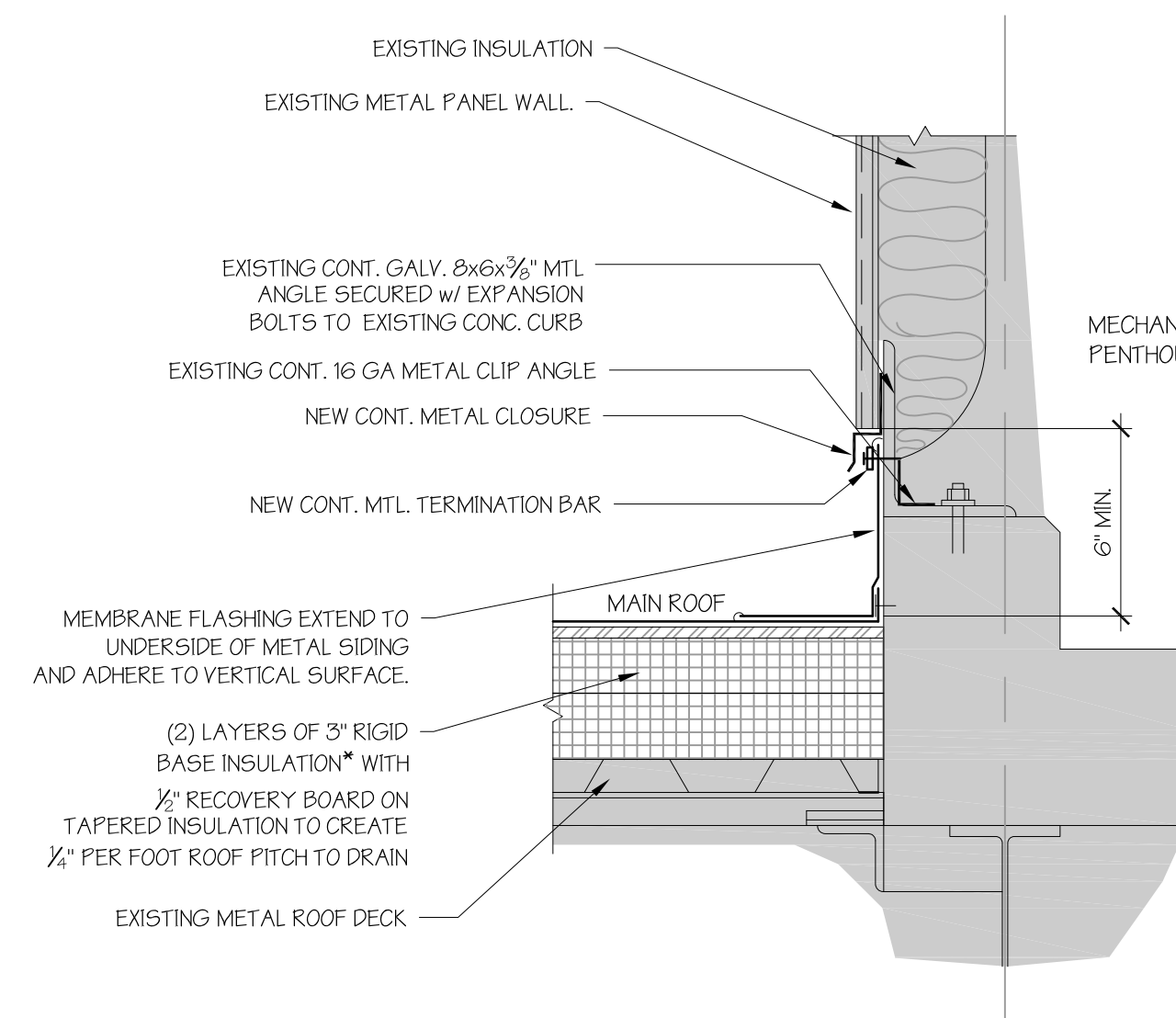
J BASE DETAIL AT ELEVATOR PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



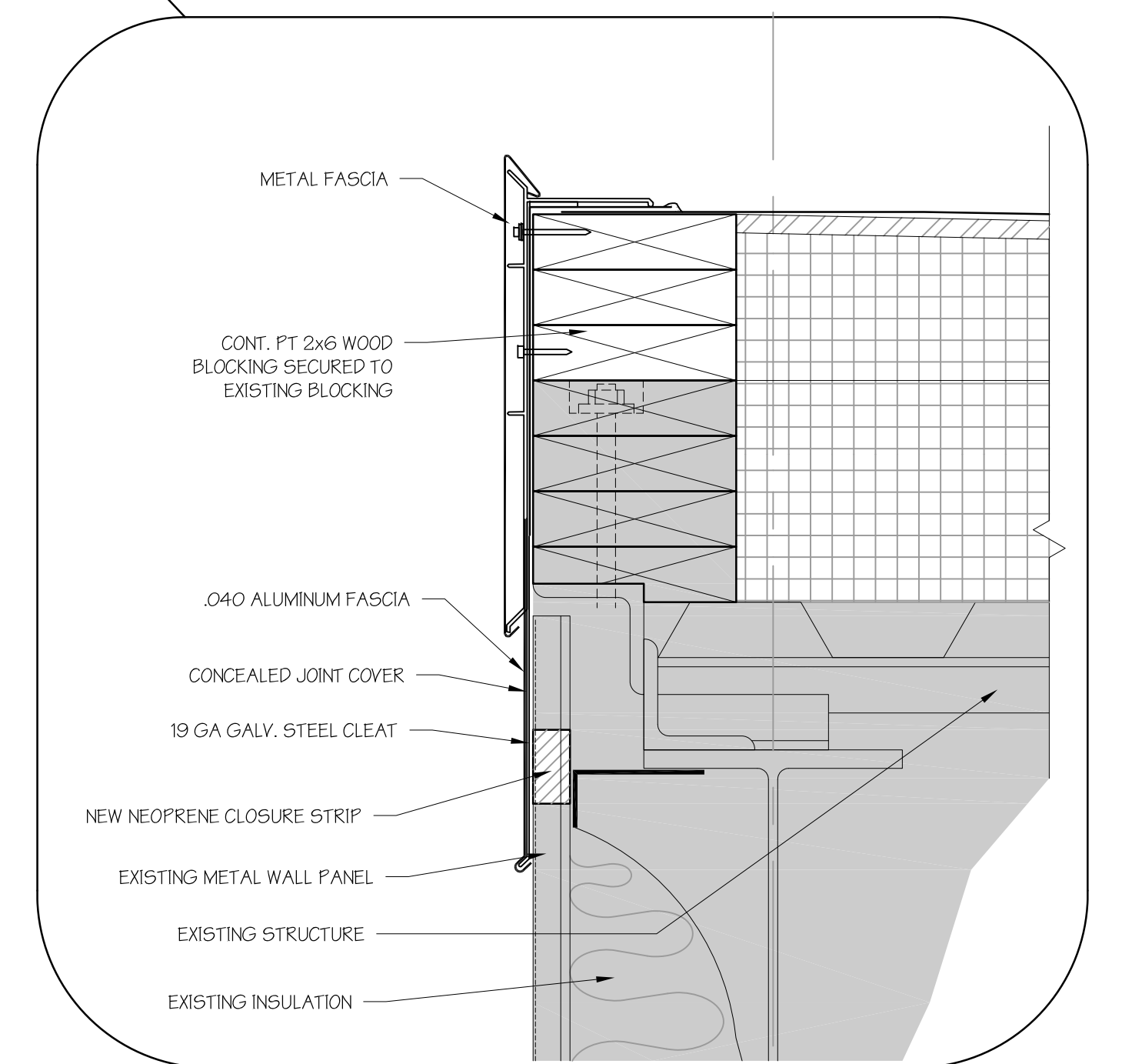
M WINDOW DETAIL AT ELEVATOR PENTHOUSE LOUVER DETAIL AT MECHANICAL PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



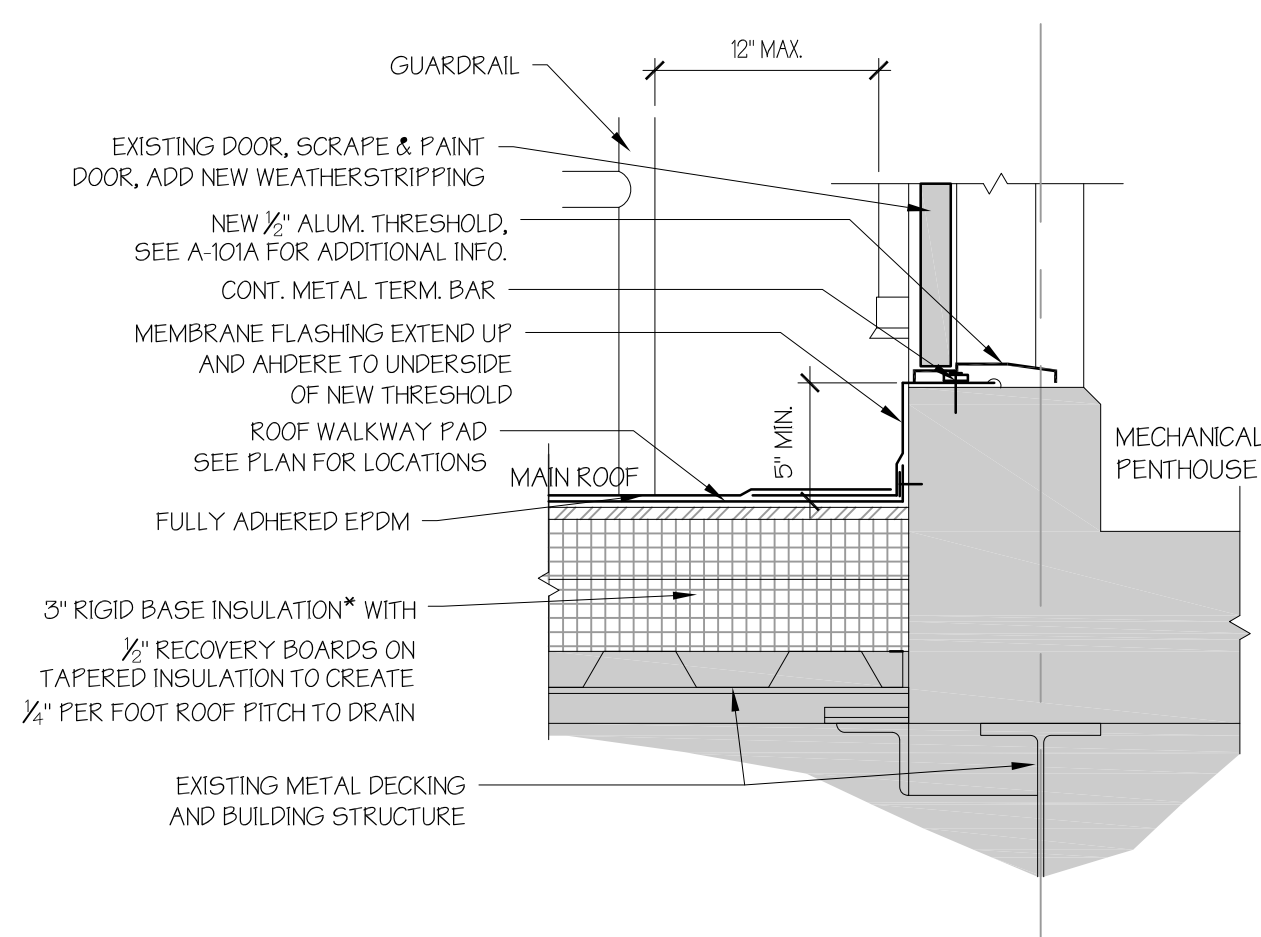
P BASE DETAIL AT MECHANICAL PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



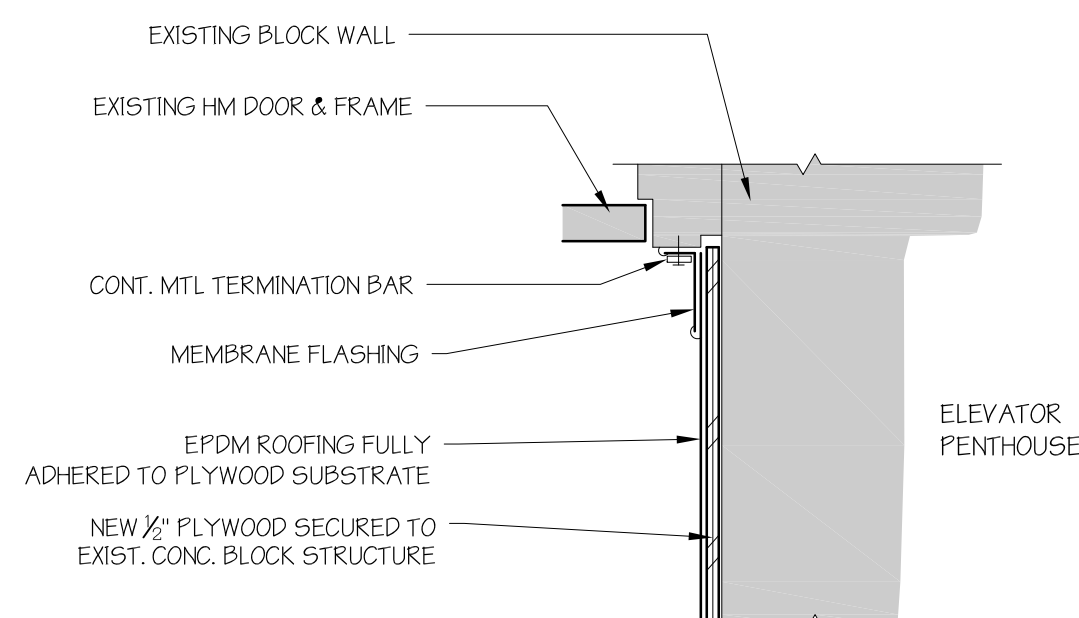
S ENLARGED ROOF EDGE DETAIL

A-302 SCALE: 1 1/2"=1'-0"



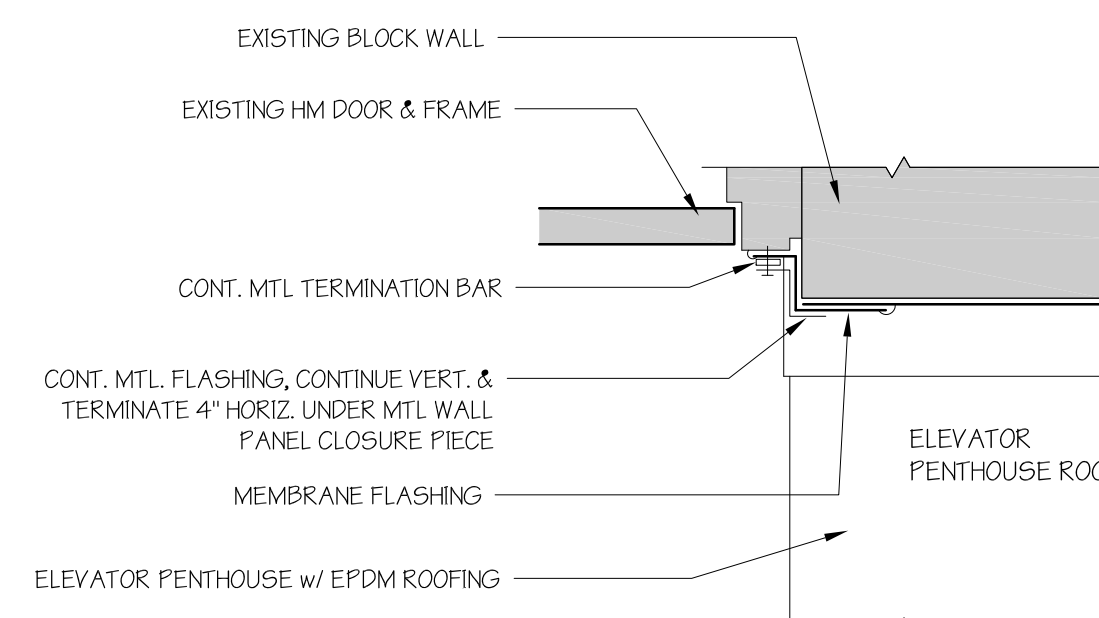
K DOOR SILL DETAIL AT MECHANICAL PENTHOUSE

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



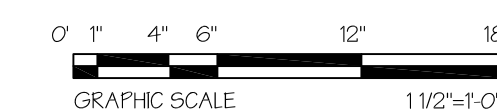
N DOOR JAMB AT MECHANICAL PENTHOUSE ROOF - PLAN DETAIL

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION

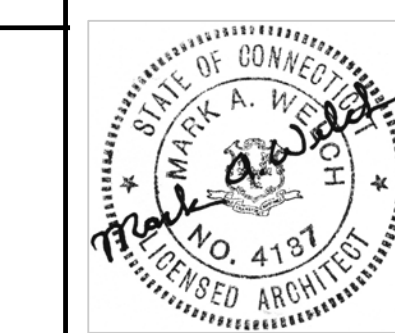


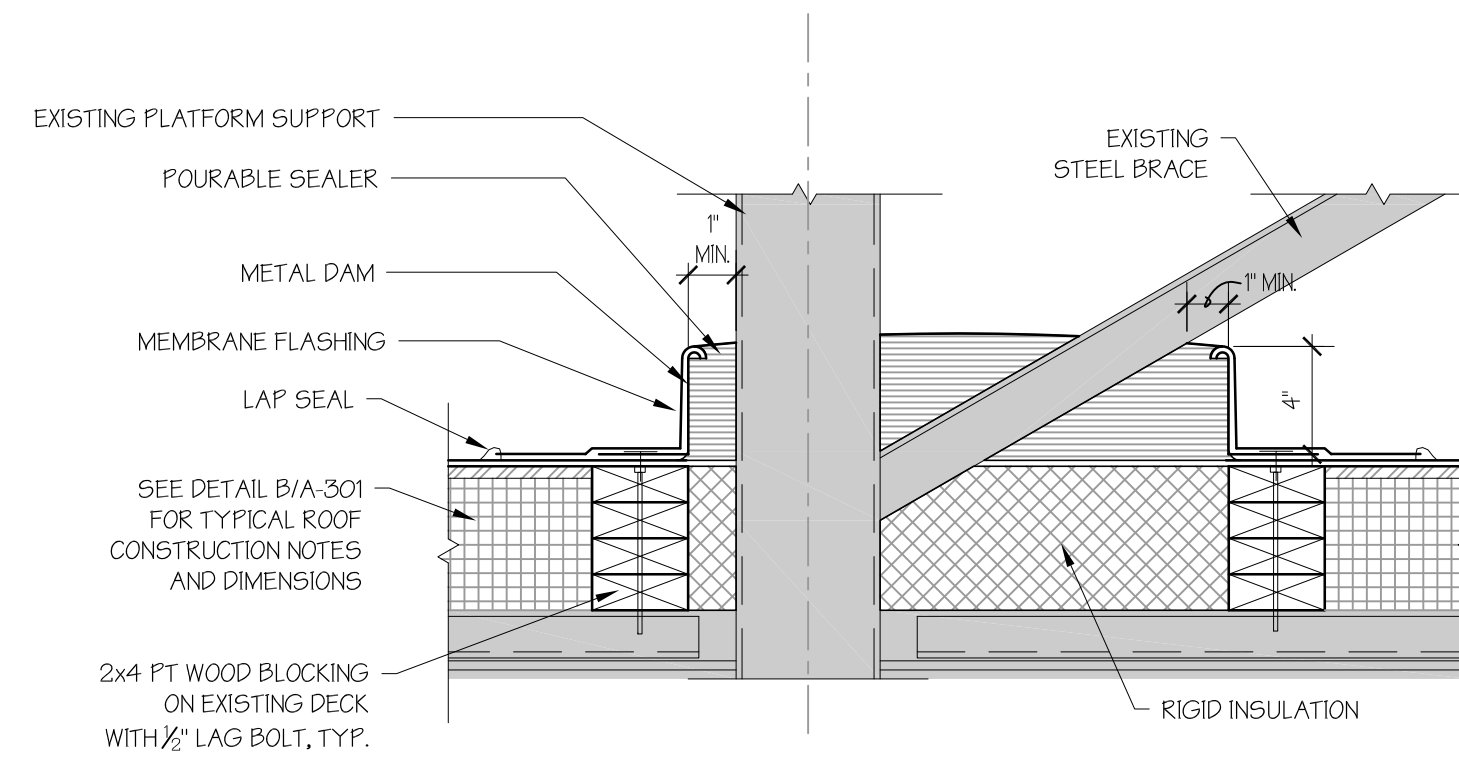
Q DOOR JAMB AT MECHANICAL PENTHOUSE ROOF - PLAN DETAIL

A-302 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION

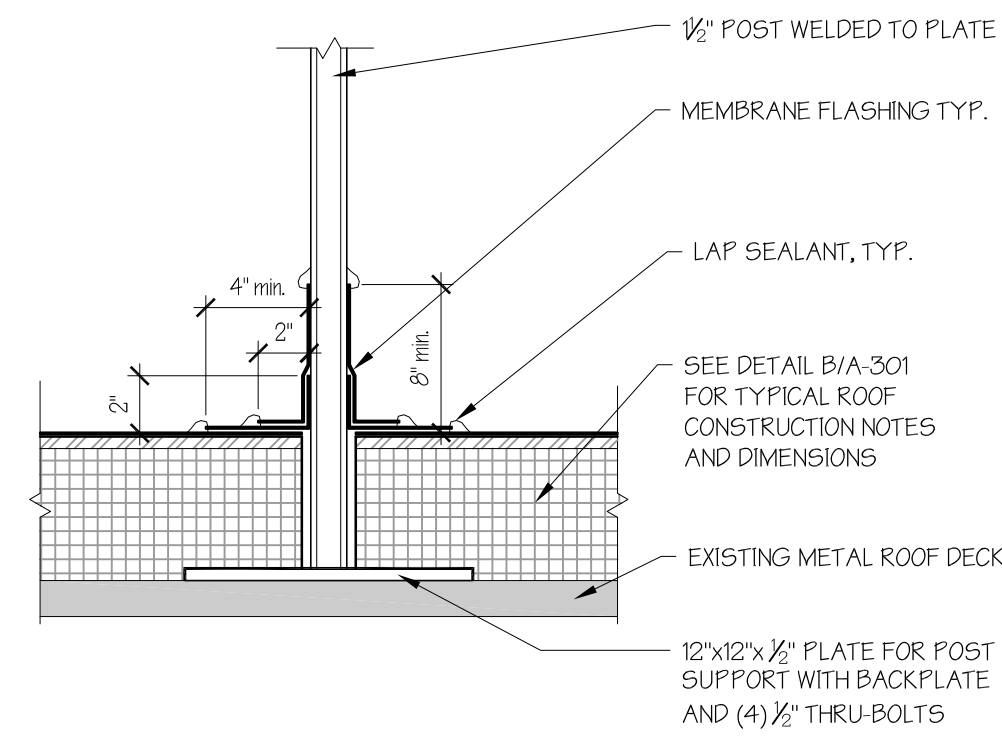


drawing title			STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
ROOF DETAILS			drawing prepared by OakPark Architects LLC 312 Park St West Hartford CT 06119 www.opaarch.com 860.232.4444	
professional seal	REVISIONS		date	2/2/2019
	mark	date	scale	AS NOTED
			project	ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT
			approved by	L.L.D. M.A.W.
			drawing no.	A-302
			CAD no.	BL-2B-387

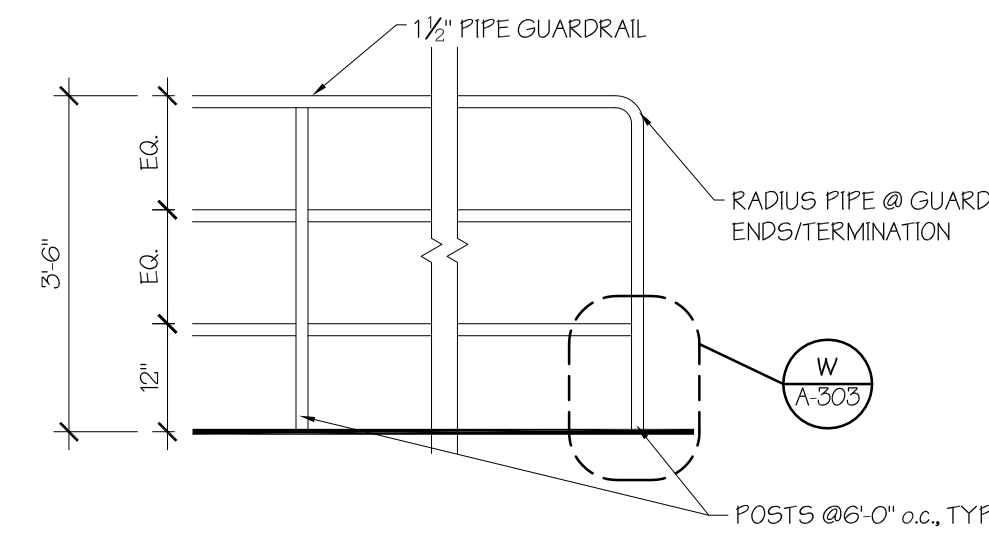




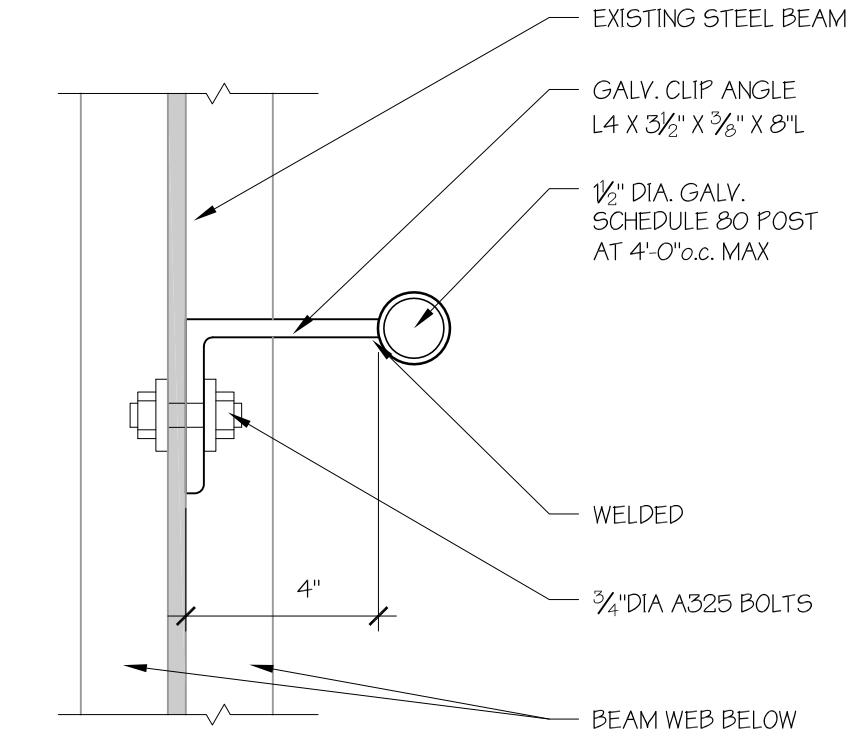
T POURABLE SEALER POCKET
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATIONS



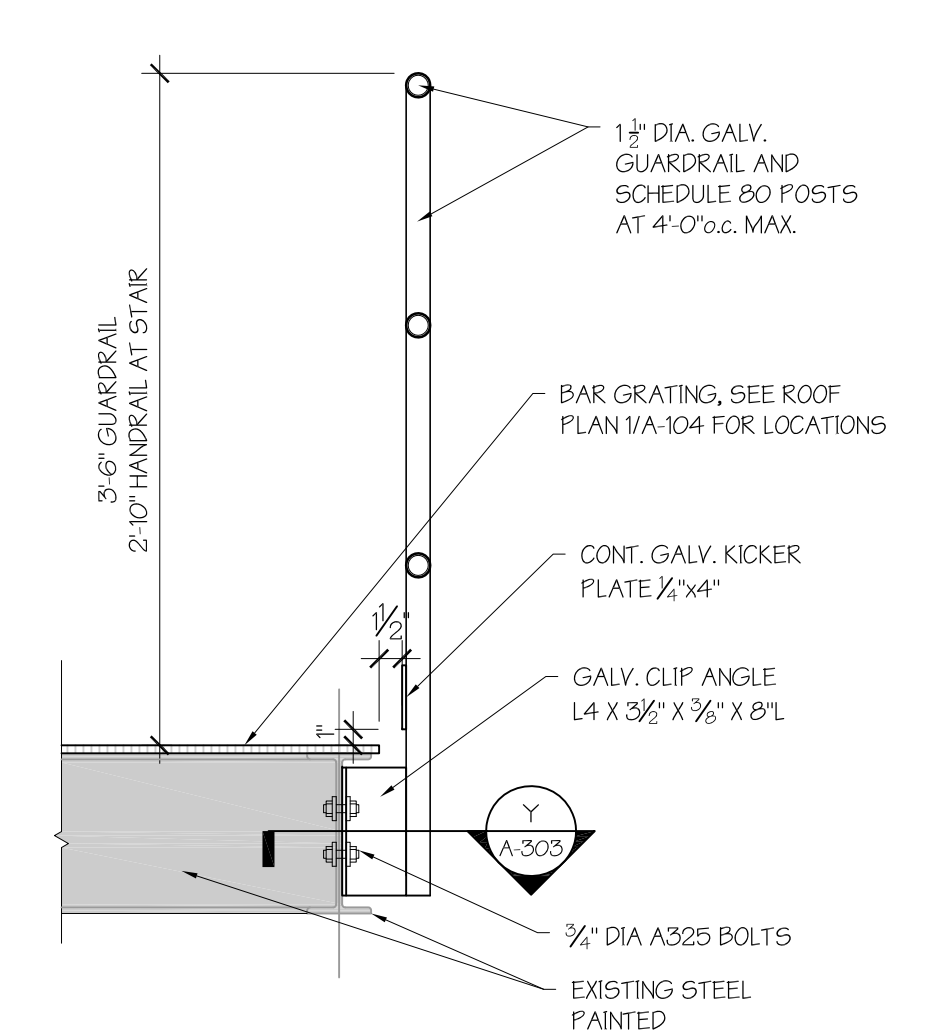
W DETAIL AT GUARDRAIL POST
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 AND A-101A FOR DETAIL LOCATIONS



X SAFETY GUARDRAIL ELEVATION
 A-303 SCALE: 1/2"=1'-0" SEE A-104 AND A-101A FOR DETAIL LOCATIONS

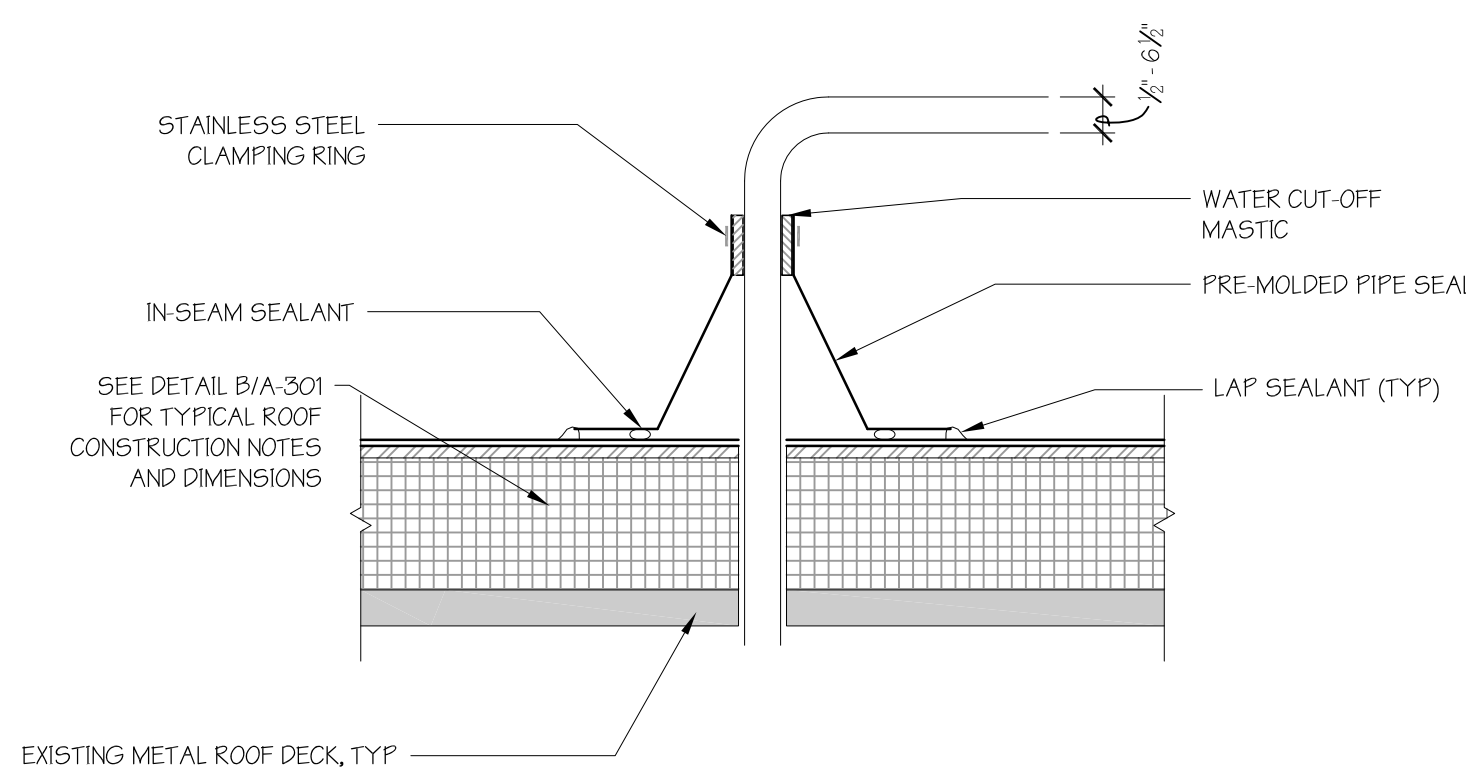


Y PLAN DETAIL - HANDRAIL
 A-303 SCALE: 3"=1'-0"

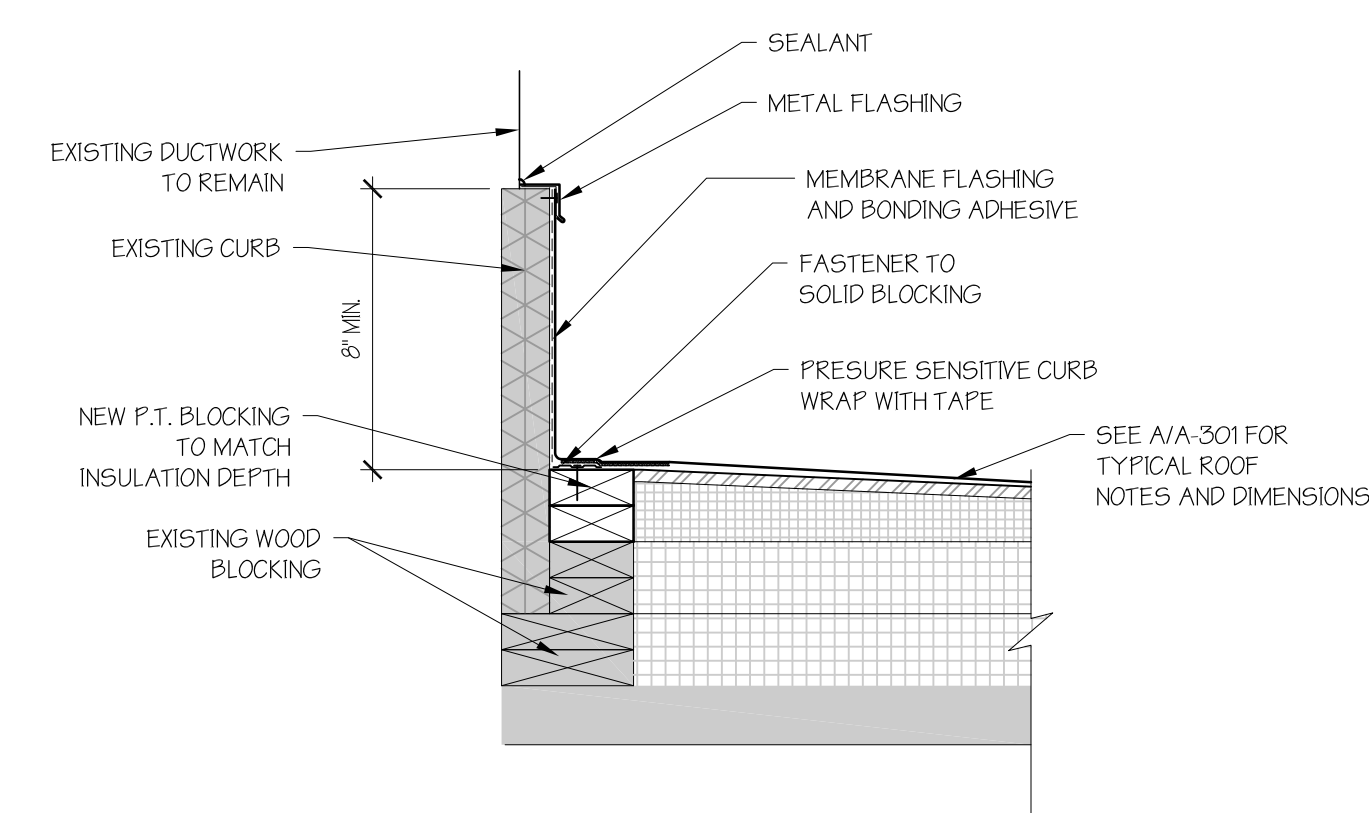


Z PLATFORM HANDRAIL
 A-303 SCALE: 1"=1'-0" SEE A-104 FOR DETAIL LOCATIONS

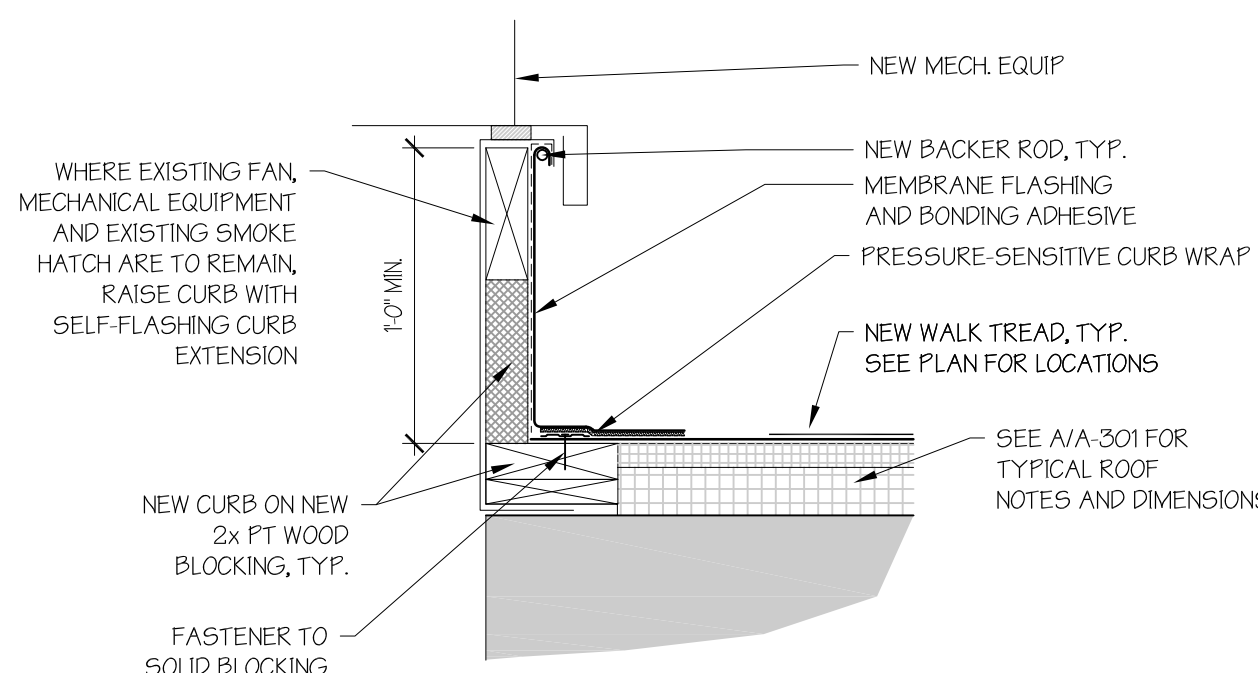
HANDRAIL NOTE:
 WHERE RAILING OVERLAPS EQUIPMENT CLEARANCES, PROVIDE 1 1/2" (O.D.) X 8" METAL SLEEVE (CLOSED BOTTOM) WITH CLAMPING BOLTS.



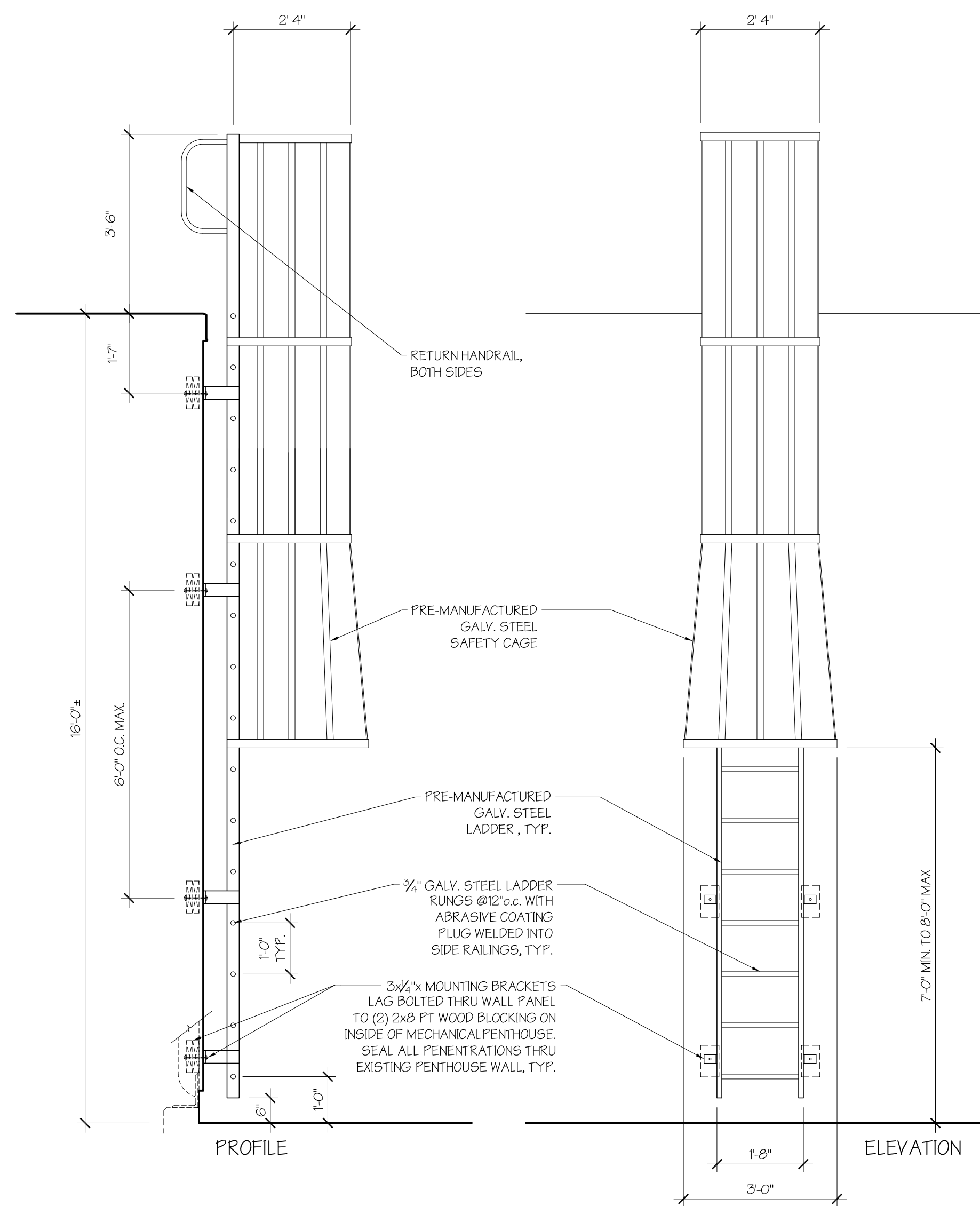
U TYPICAL ROOF PIPE PENETRATION DETAIL - MECH. EQUIP.
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATIONS



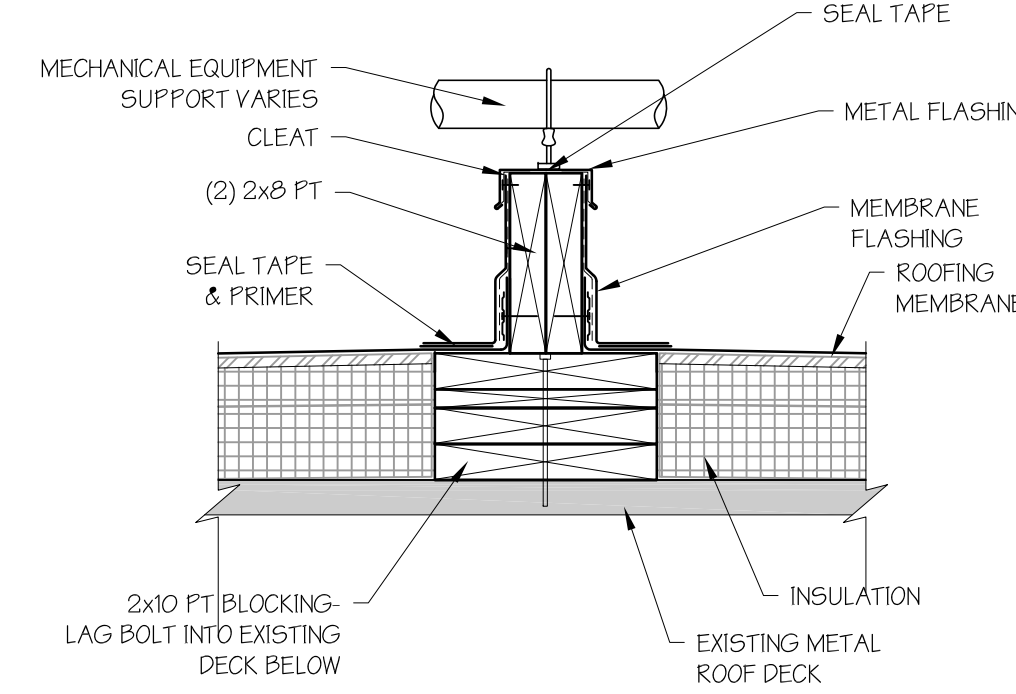
Y EXISTING DUCT CURB FLASHING
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 AND A-101A FOR DETAIL LOCATIONS



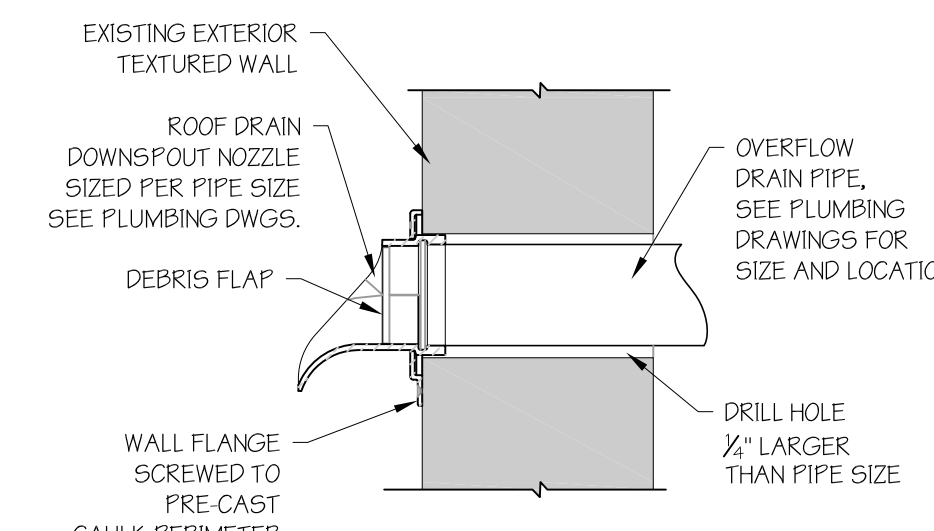
Y-1 MECHANICAL CURB FLASHING DETAIL
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 AND A-101A FOR DETAIL LOCATIONS



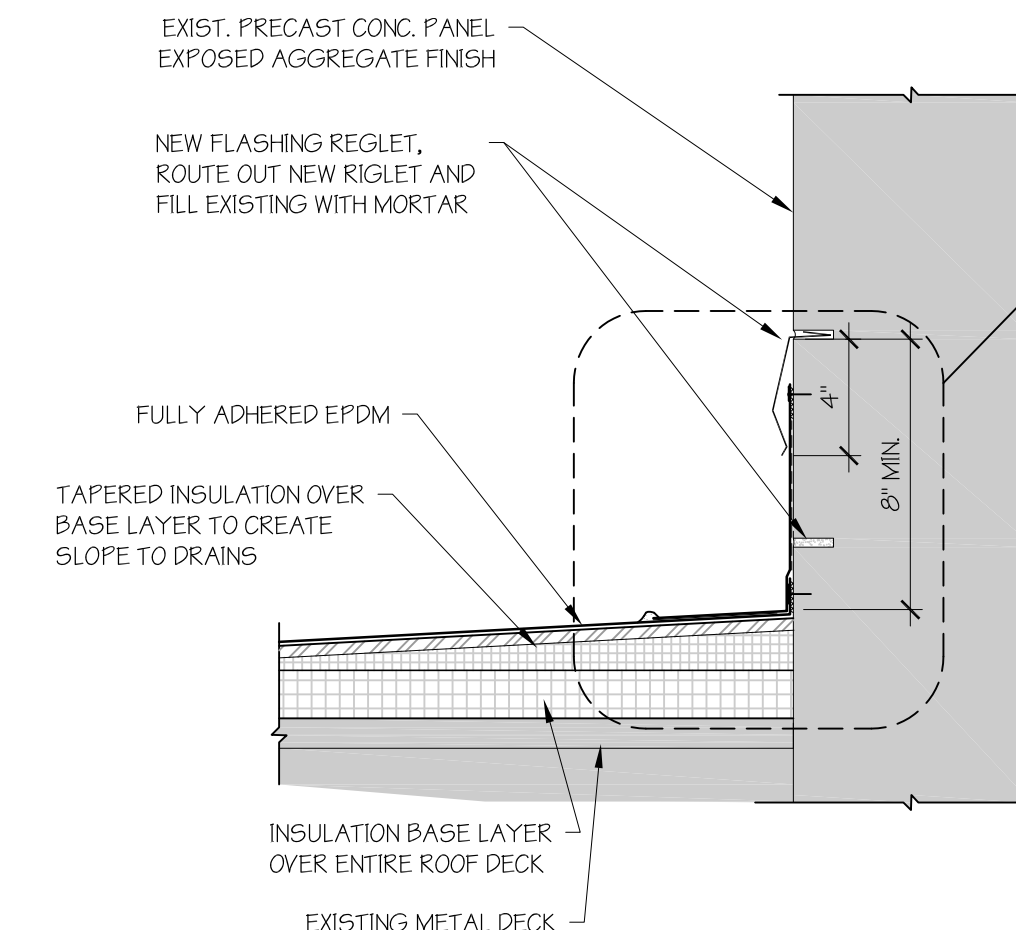
AA FIXED LADDER DETAIL
 A-303 SCALE: 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



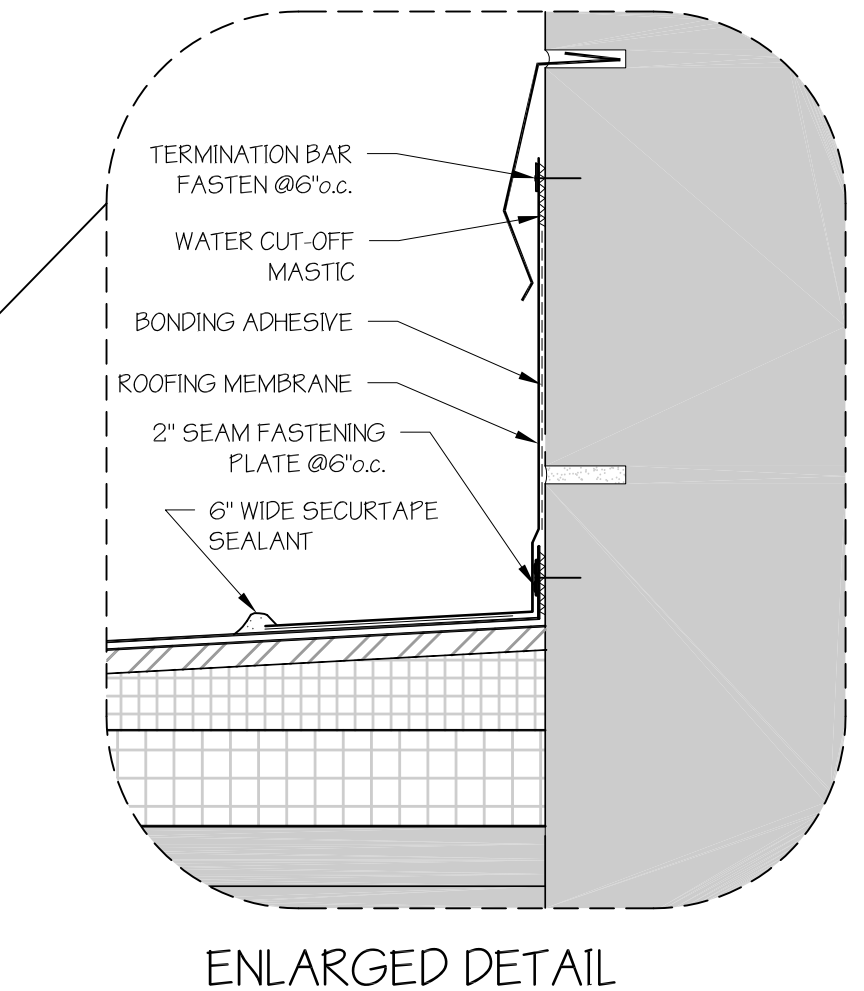
BB DETAIL AT DUNNAGE CURB
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



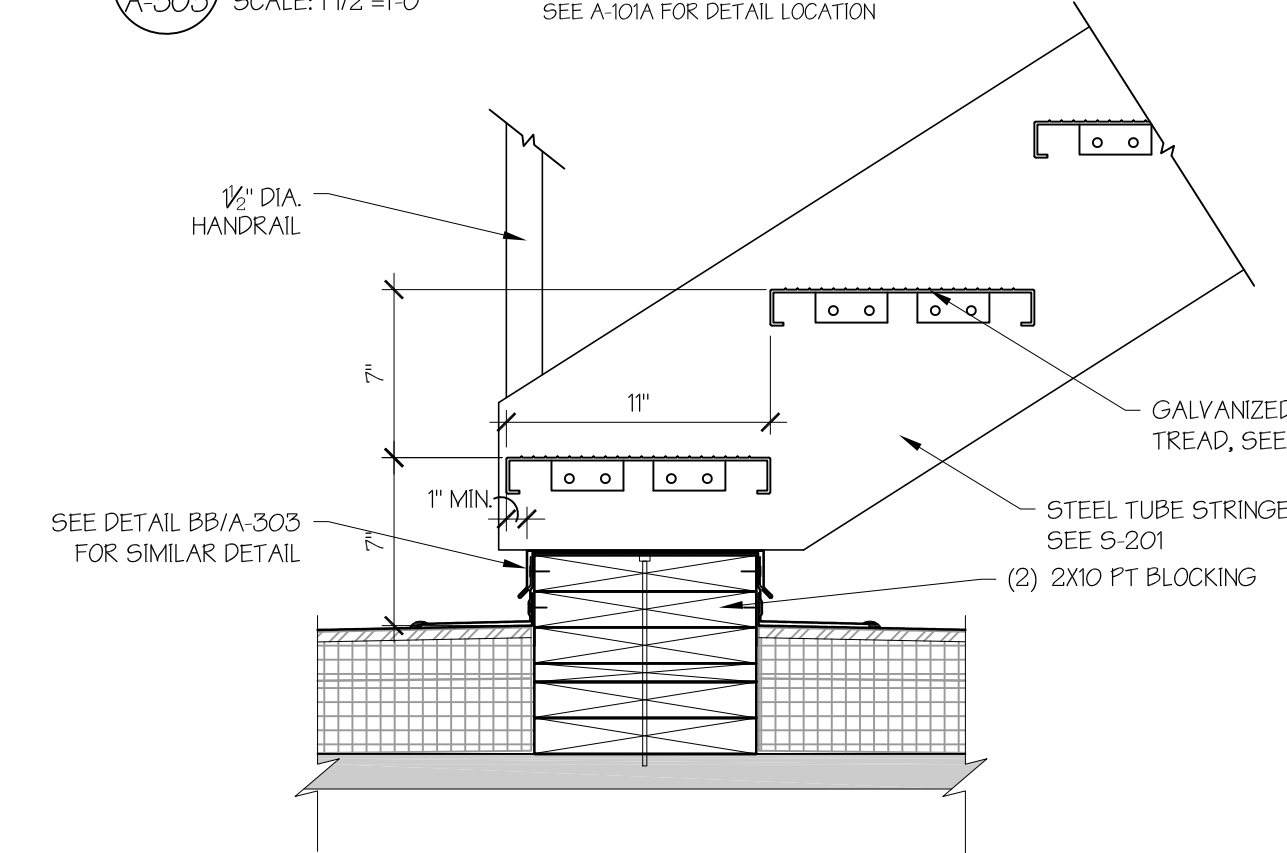
DD THRU-WALL SCUPPER
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



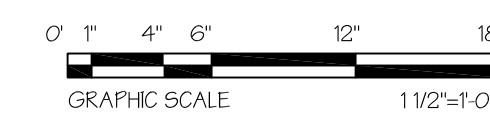
CC WALL FLASHING RIGLET
 A-303 SCALE: 1 1/2"=1'-0" SEE A-101A FOR DETAIL LOCATION



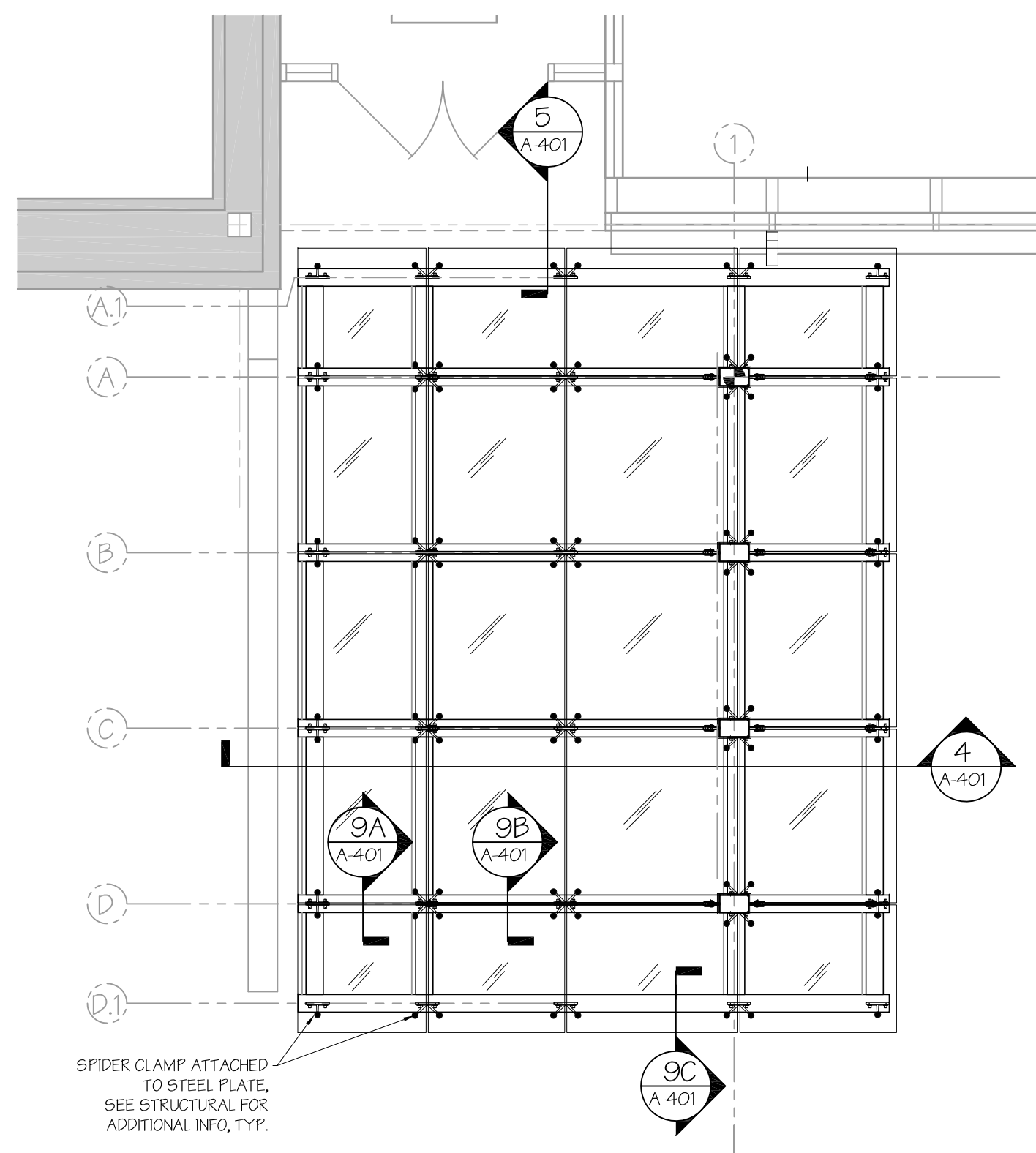
ENLARGED DETAIL
 SCALE: 3"=1'-0"



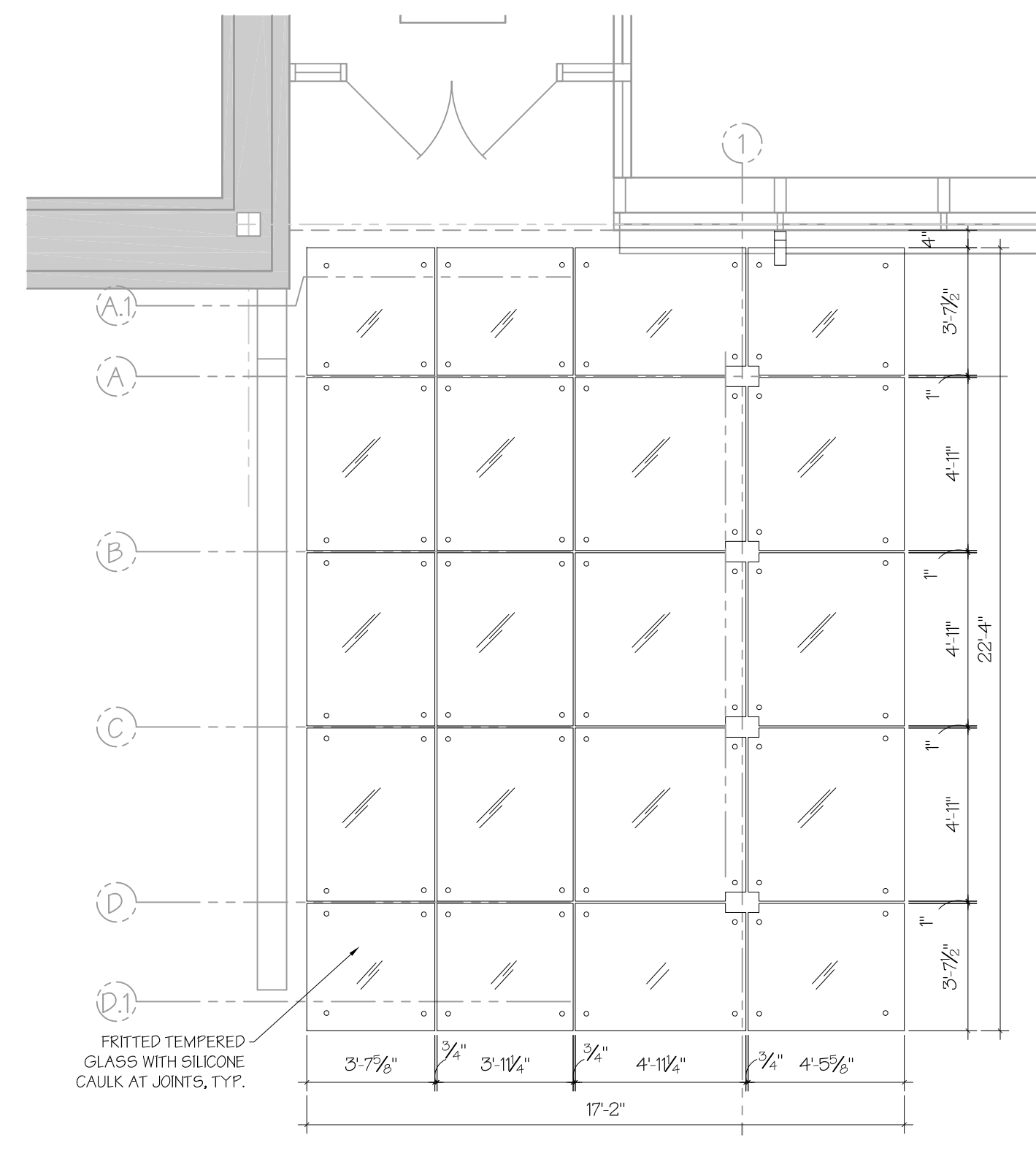
EE STAIR DETAIL
 A-303 SCALE: 1 1/2"=1'-0" SEE A-104 FOR DETAIL LOCATION



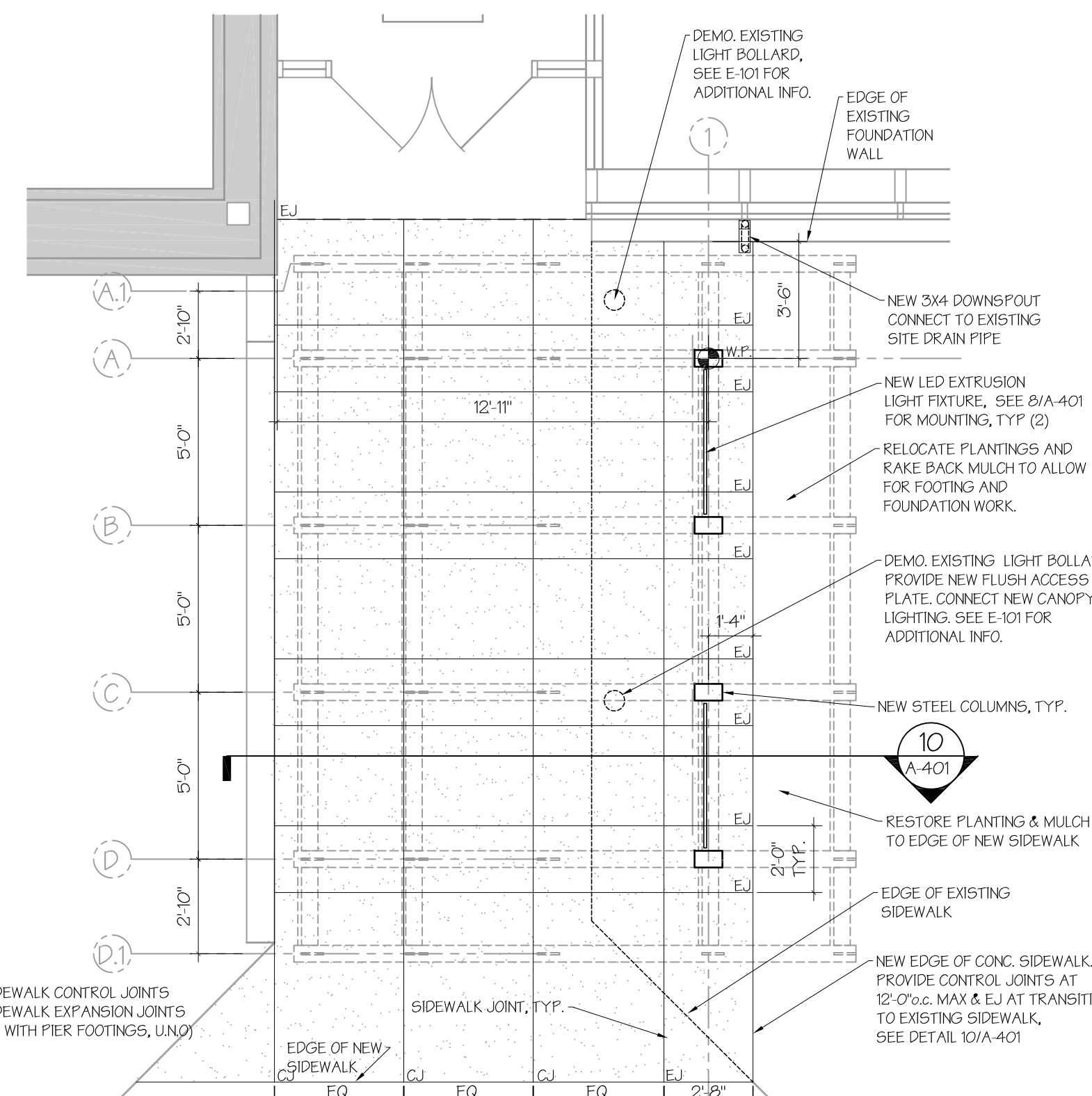
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professional seal	REVISIONS			drawing prepared by	date
	mark	date	description	OakPark Architects LLC	2/2/2019
				312 Park St West Hartford CT 06119 www.opaarch.com 860.232.4444	scale
				project	AS NOTED
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT	drawn by
				300 CORPORATE PLACE	L.L.D.
				ROCKY HILL, CT	approved by
					M.A.W.
					drawing no.
					A-303
CAD no.	project no.				
	Bl-2B-387				



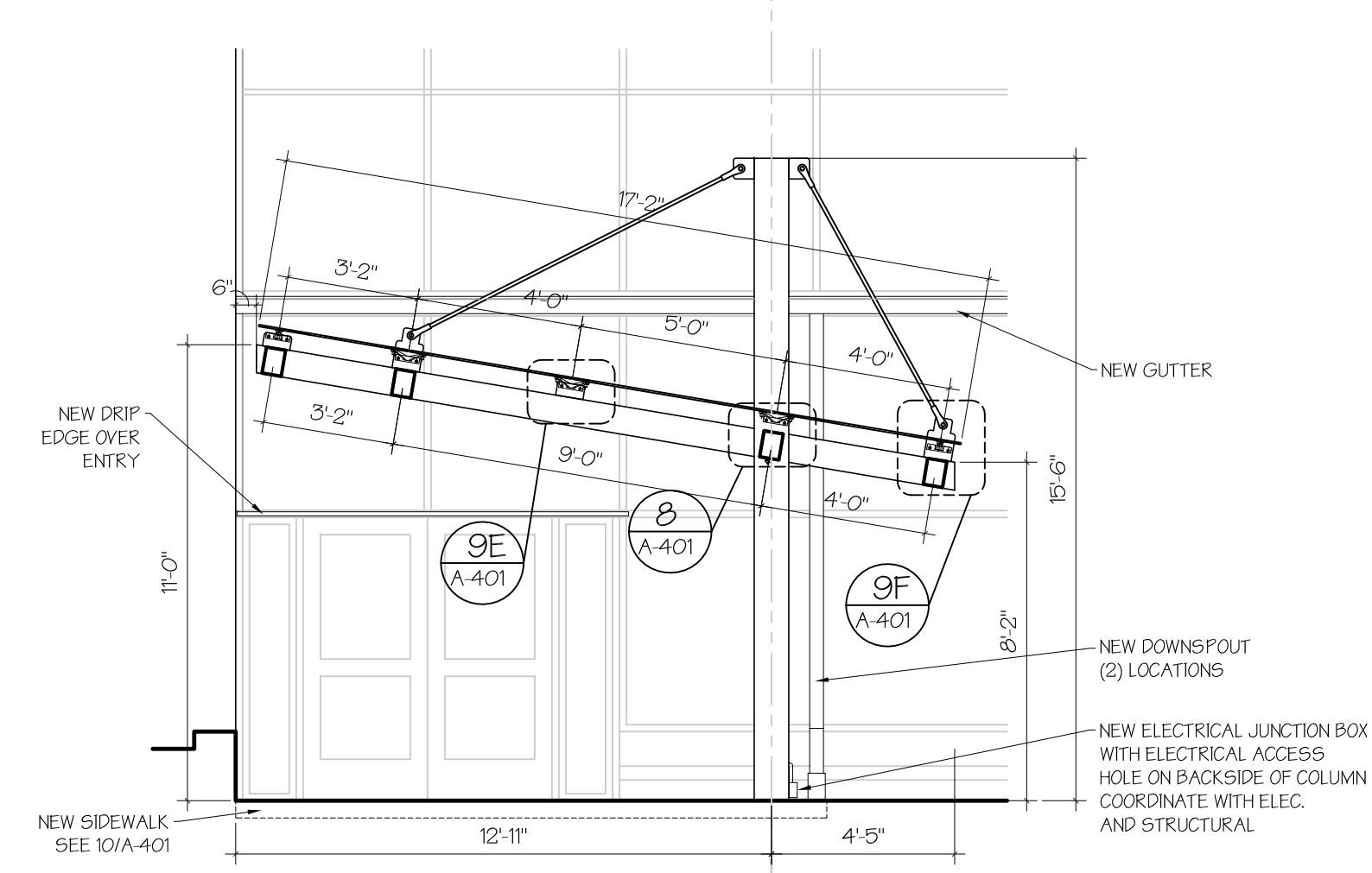
1 CANOPY PLAN FROM ABOVE
SCALE: 1/4" = 1'-0"



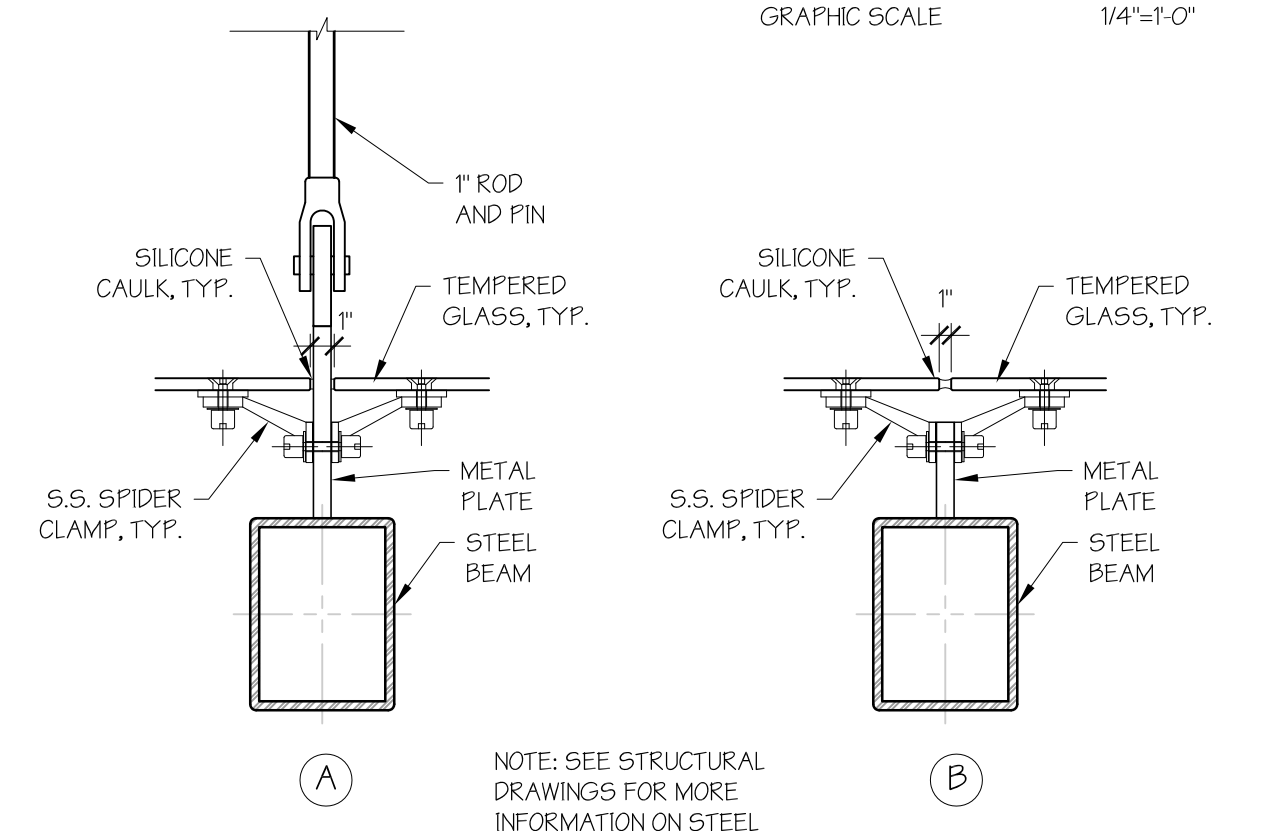
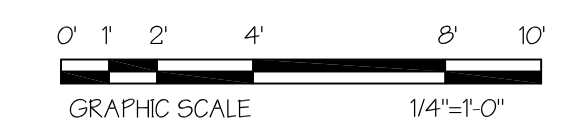
2 CANOPY GLASS LAYOUT
SCALE: 1/4" = 1'-0"



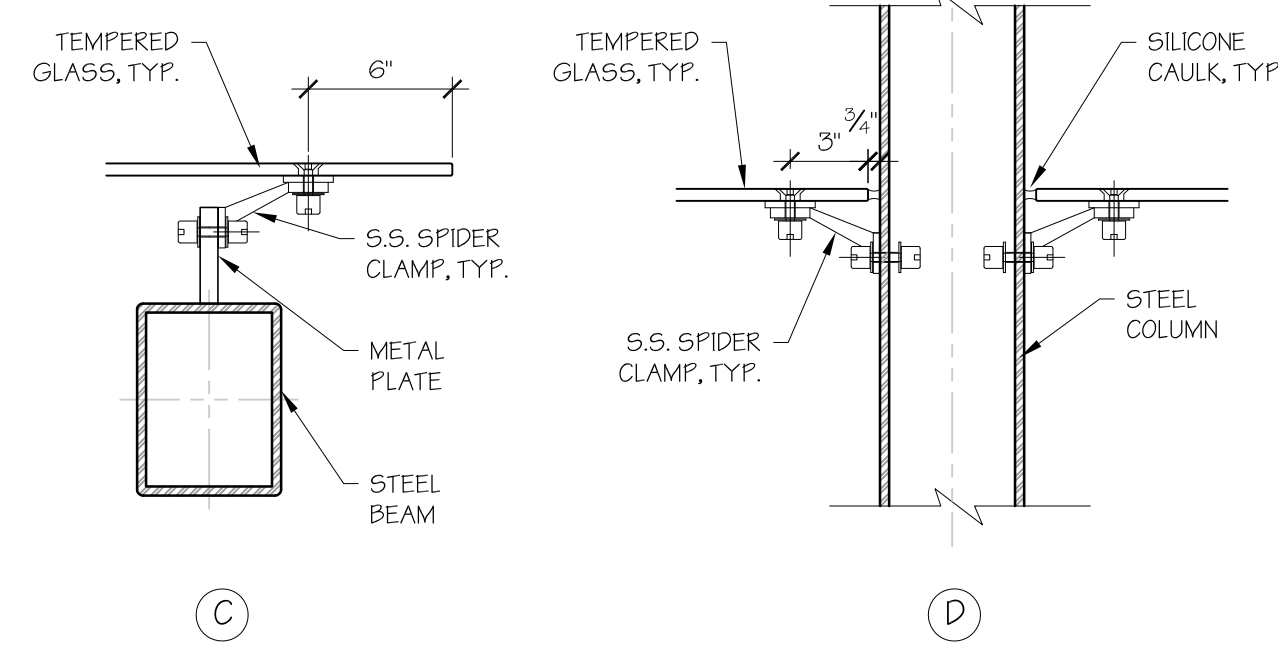
3 ENLARGED CANOPY FLOOR PLAN AT 3'-0" AFF
SCALE: 1/4" = 1'-0"



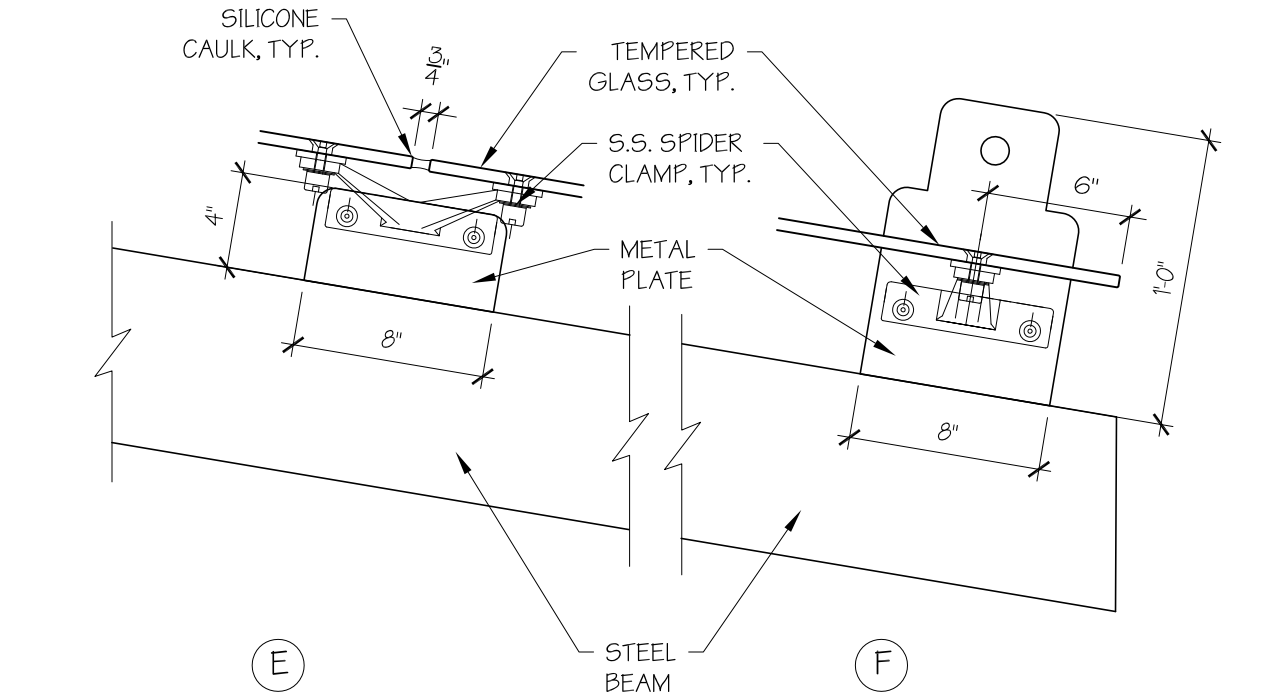
4 CANOPY SECTION/ELEVATION
SCALE: 1/4" = 1'-0"



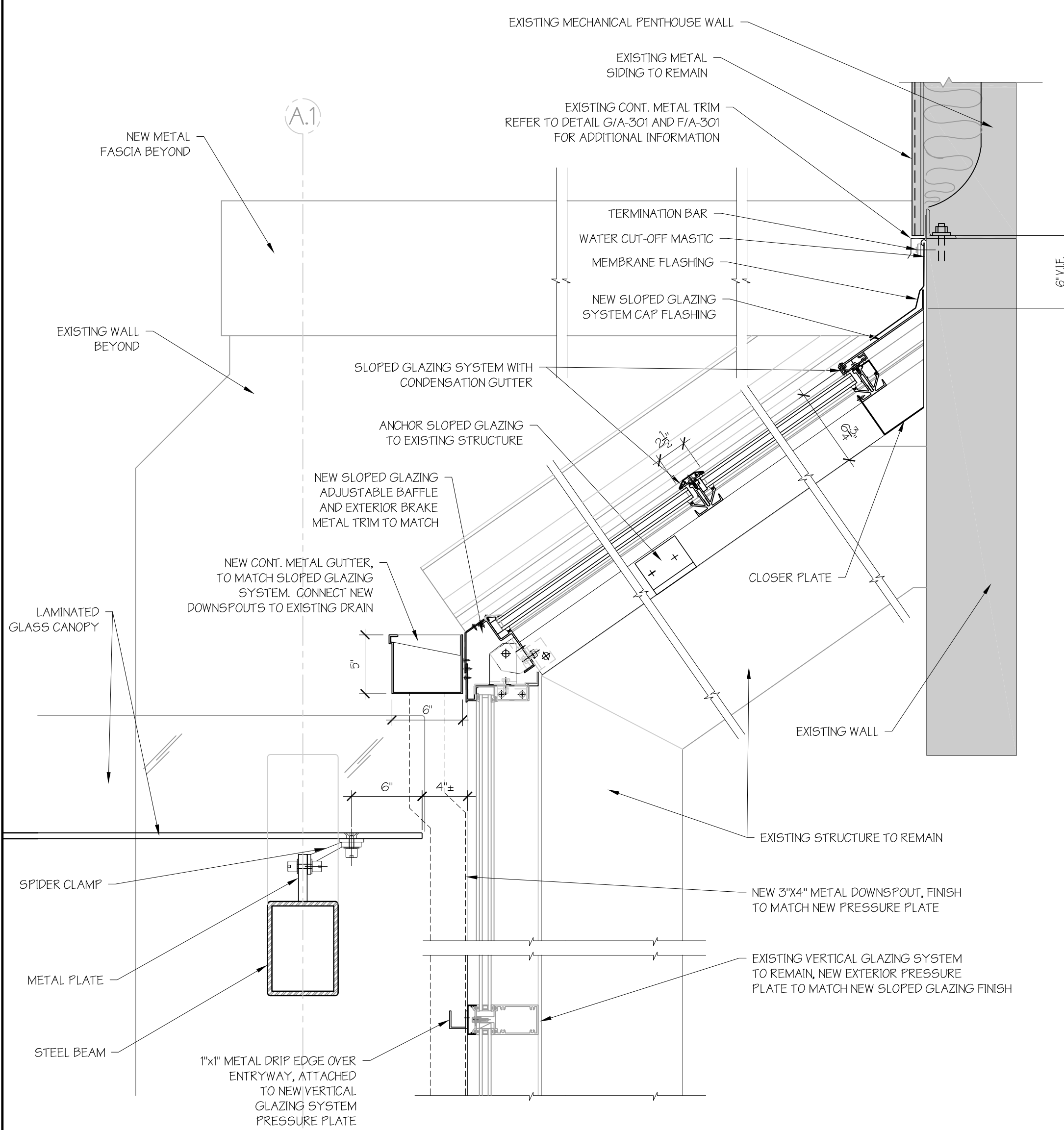
NOTE: SEE STRUCTURAL DRAWINGS FOR MORE INFORMATION ON STEEL



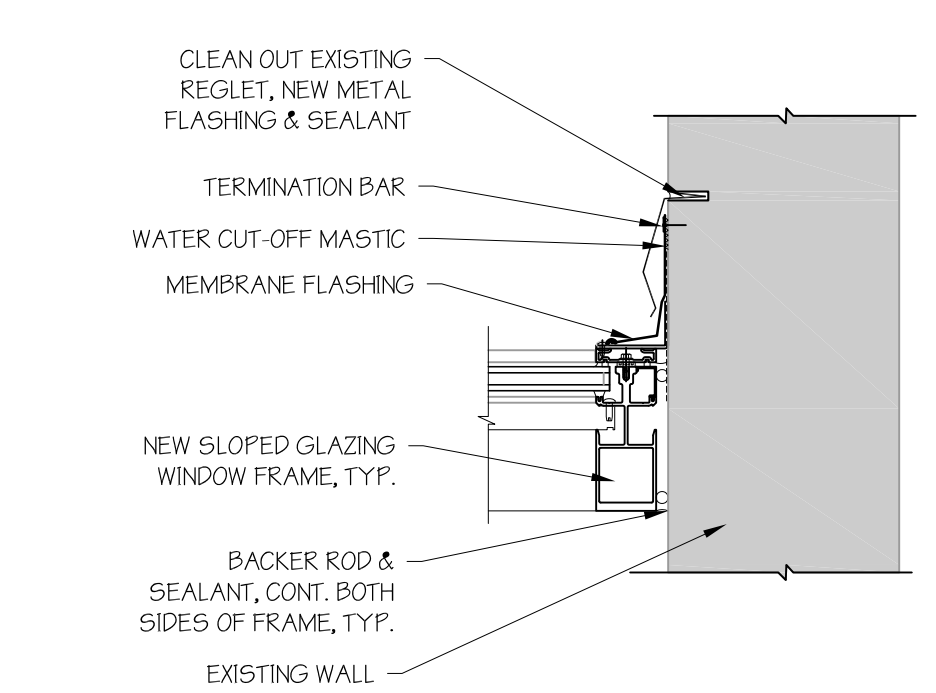
SCALE: 1 1/2" = 1'-0"



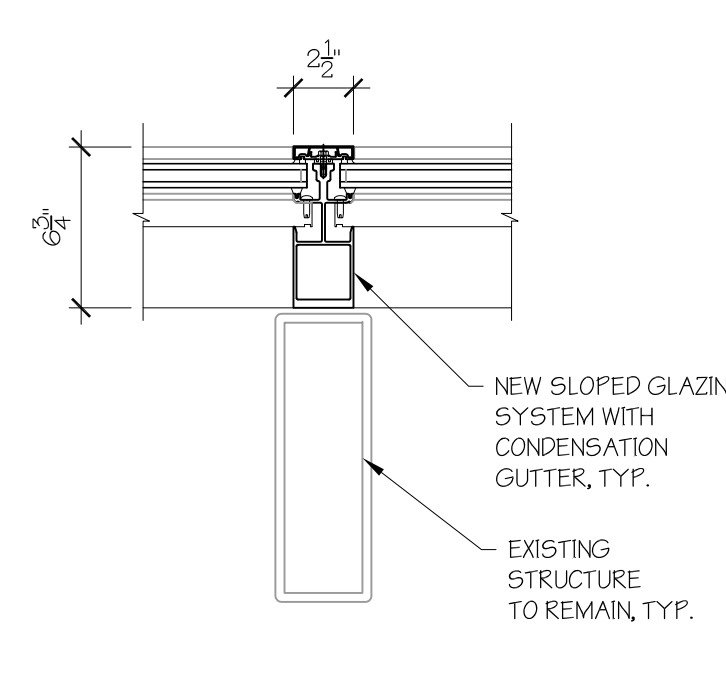
SCALE: 1/4" = 1'-0"



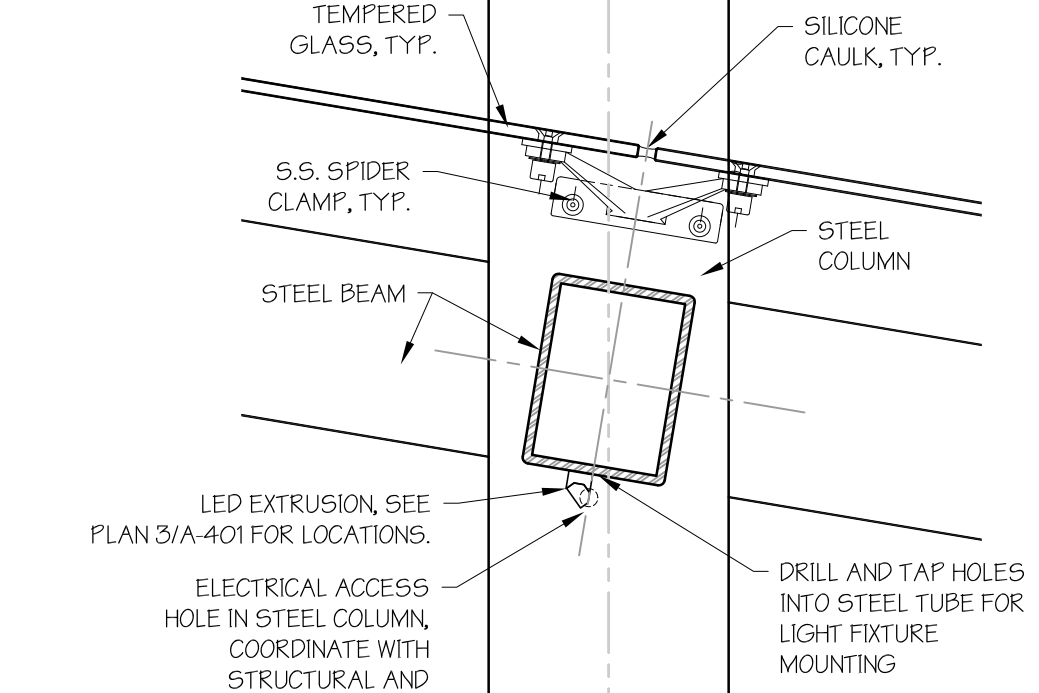
5 SLOPED GLAZING SECTION
SCALE: 1/4" = 1'-0"



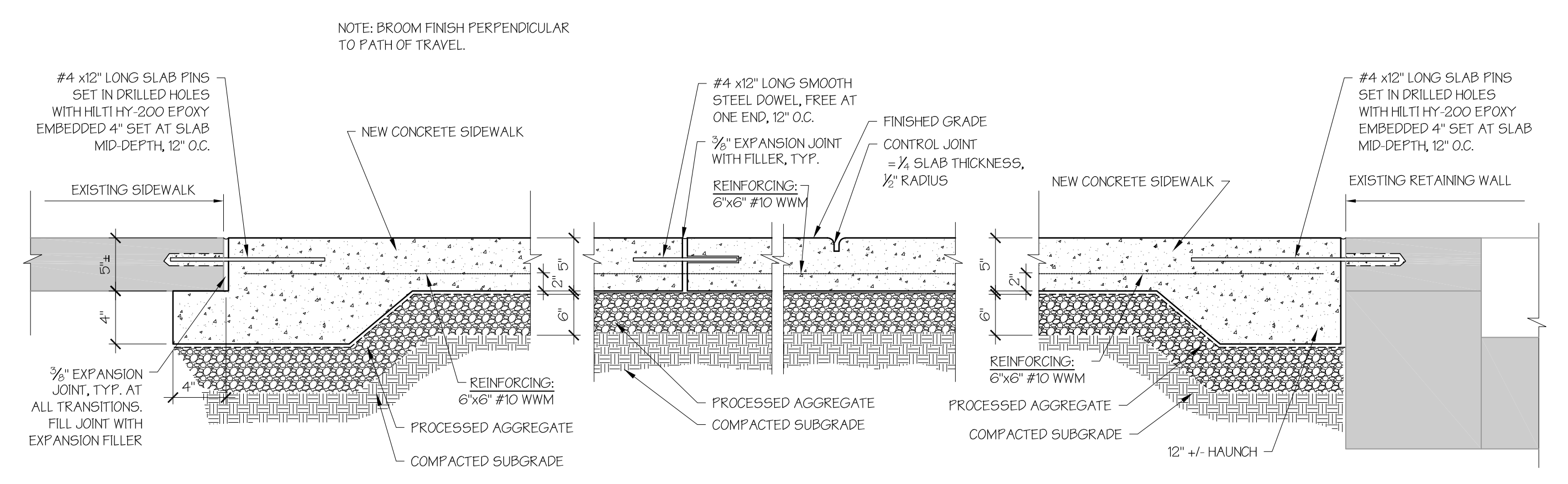
6 SLOPED GLAZING SIDE WALL
SCALE: 1/4" = 1'-0"



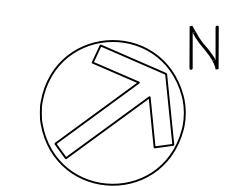
7 SLOPED GLAZING
SCALE: 1/4" = 1'-0"



8 CANOPY ENLARGED DETAIL
SCALE: 1 1/2" = 1'-0"

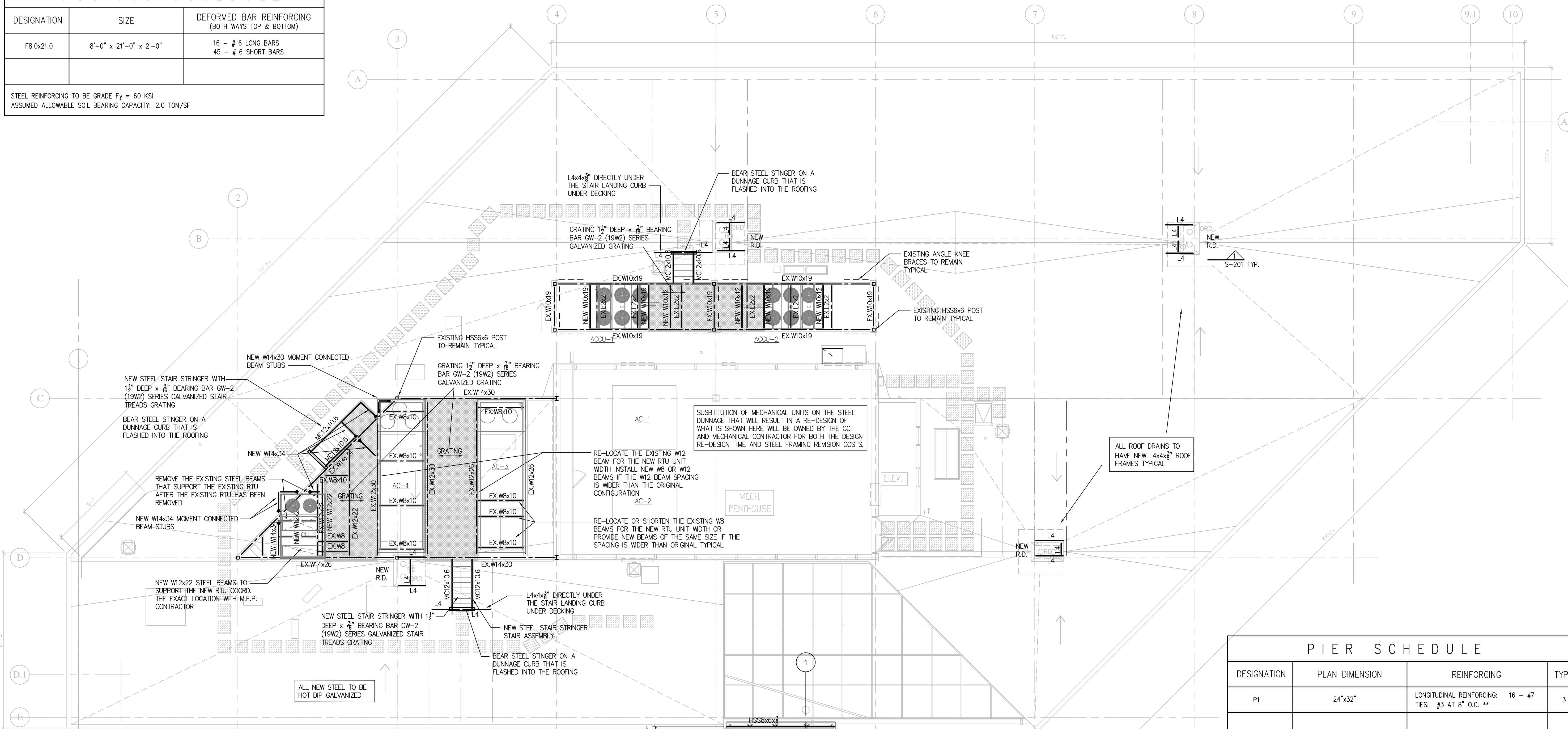


10 SIDEWALK DETAILS
SCALE: 1/4" = 1'-0"



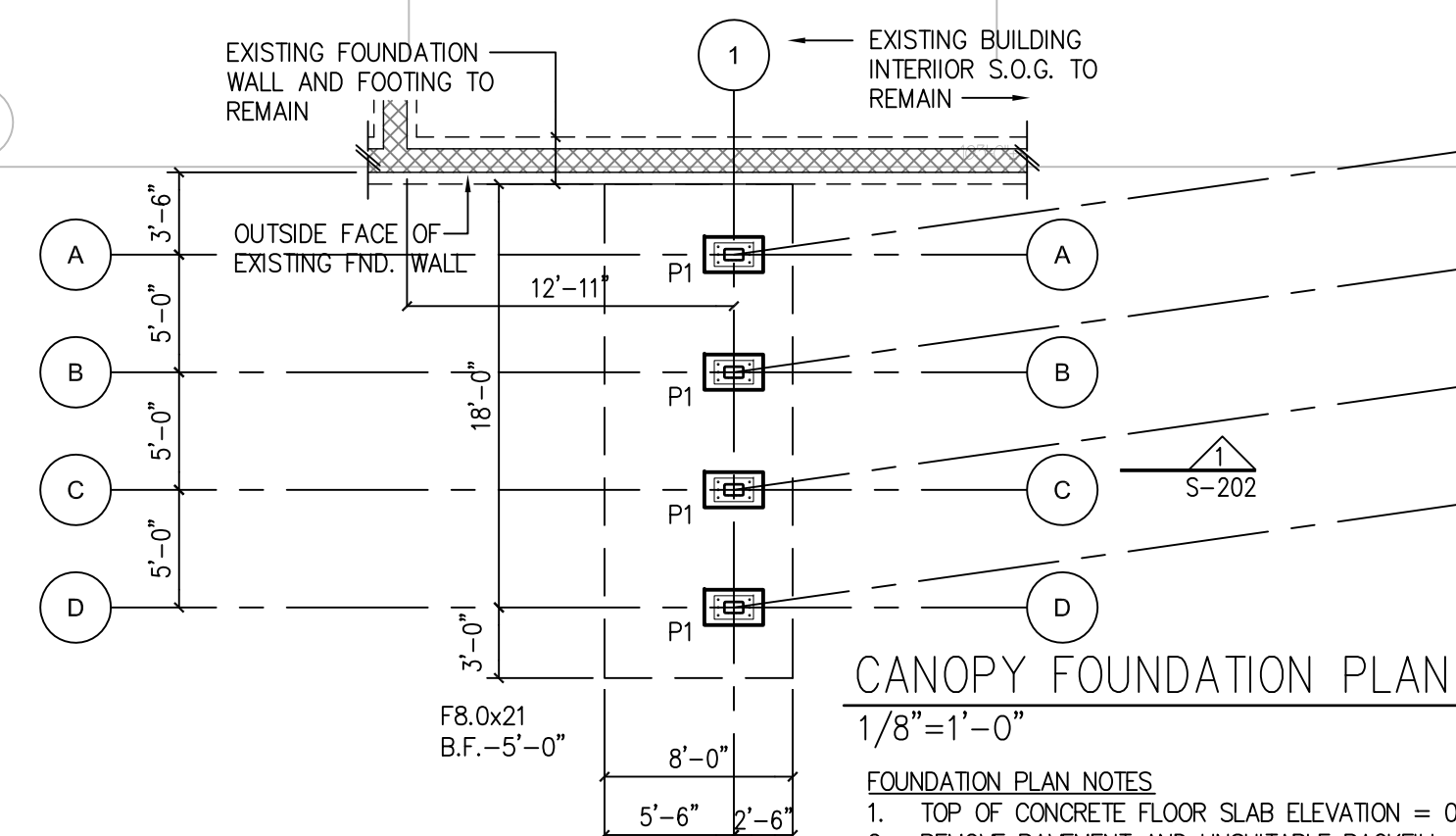
drawing title ENTRY CANOPY PLANS & DETAILS		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by OakPark Architects LLC
	mark	date	date 2/2/2019
			scale AS NOTED
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT		drawn by L.L.D.	
300 CORPORATE PLACE ROCKY HILL, CT		approved by M.A.W.	
CAD no.	project no. BL-2B-387	drawing no. A-401	

FOOTING SCHEDULE		
DESIGNATION	SIZE	DEFORMED BAR REINFORCING (BOTH WAYS TOP & BOTTOM)
F8.0x21.0	8'-0" x 21'-0" x 2'-0"	16 - # 6 LONG BARS 45 - # 6 SHORT BARS
STEEL REINFORCING TO BE GRADE Fy = 60 KSI ASSUMED ALLOWABLE SOIL BEARING CAPACITY: 2.0 TON/SF		



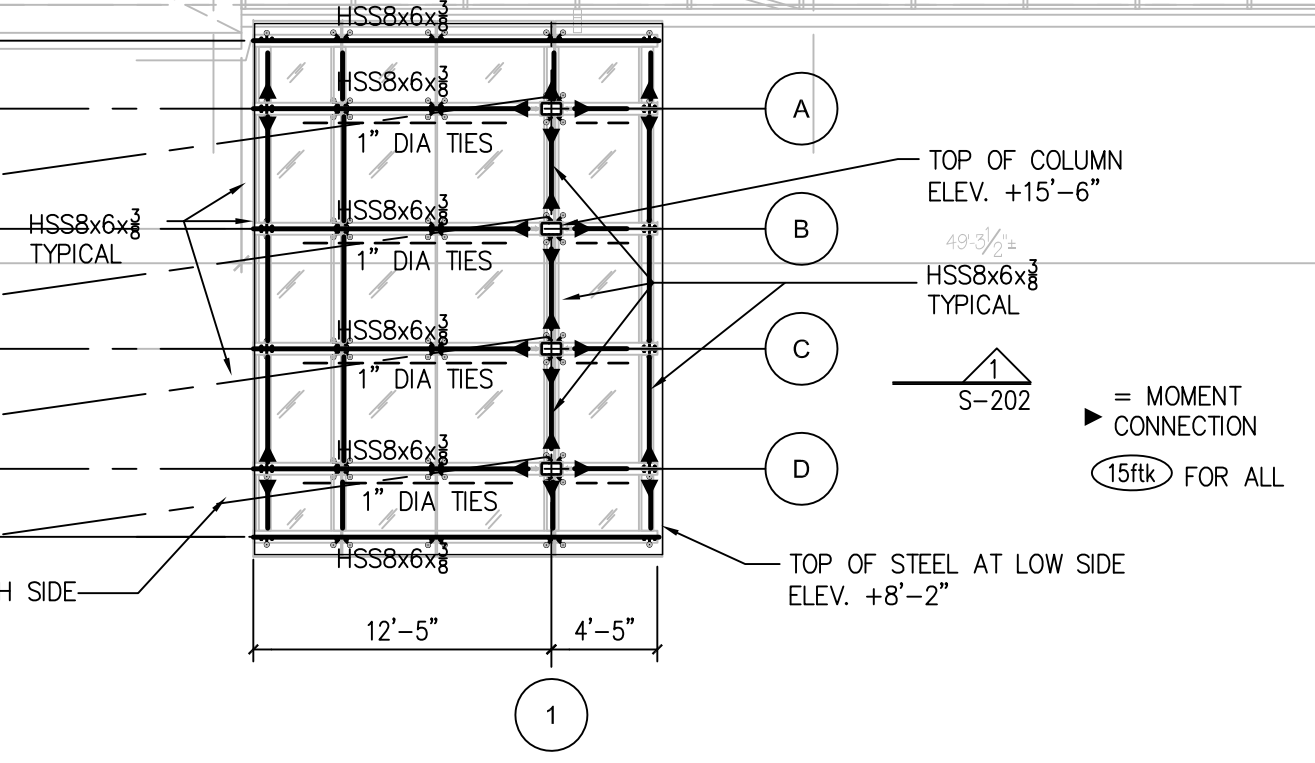
PIER SCHEDULE			
DESIGNATION	PLAN DIMENSION	REINFORCING	TYPE
P1	24"x32"	LONGITUDINAL REINFORCING: 16 - #7 TIES: #3 AT 8" O.C. **	3

REINFORCING TO BE GRADE Fy = 60 KSI



FOUNDATION PLAN NOTES

- TOP OF CONCRETE FLOOR SLAB ELEVATION = 0'-0"
- REMOVE PAVEMENT AND UNSUITABLE BACKFILL MATERIAL FOR THE ENTIRE NEW ADDITION FOOTPRINT. AFTER THE REMOVAL OF THE UNSUITABLE MATERIALS THE SLAB ON GRADE SHOULD BEAR ON A MINIMUM OF A 8" LAYER OF #3 CRUSHED STONE.
- Fxx INDICATES CONCRETE FOOTING, REFER TO SCHEDULE ON S101
- Px INDICATES CONCRETE PIER, REFER TO SCHEDULE ON S101
- B.F. INDICATES BOTTOM OF FOOTING ELEVATION
- G.C. IS RESPONSIBLE FOR LOCATING AND PROTECTING ANY AND ALL UNDERGROUND UTILITIES EVEN IF THESE UTILITIES ARE NOT INDICATED ON THESE PLANS. COORDINATE WITH CALL BEFORE YOU DIG AND THE SITE/CIVIL DRAWINGS.



STEEL FRAMING PLAN NOTES

- TOP OF STEEL REFER TO PLAN, SECTIONS & DETAILS.
- COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND SLEEVES WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
- G.C. SHALL VERIFY ALL EXISTING CONDITIONS, MATERIALS, AND DIMENSIONS BEFORE COMPLETING FRAMING, ORDERING, FABRICATING AND/OR ASSEMBLING ANY AND ALL PARTS OF THE WORK.
- PROVIDE L3x3x3/8 ANGLE FRAMES FOR NEW ROOF DECK OPENINGS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE FRAMING PLAN.
- ANY ROOF DECK INFILLS TO HAVE L4x4x3/8 ANGLE FRAME WITH 1 1/2" DEEP-20 GAGE WIDE RIB ROOF DECKING

MOMENT CONNECTION VALUE USED FOR CONNECTION DESIGN

STRUCTURAL STEEL NOTATIONS

MEMBER SIZE: **W**x****

COLUMN REFER TO PLAN OR SCHEDULE FOR SIZE

drawing title ROOF TOP DUNNAGE & CANOPY PLANS		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by	date
	mark	Toce Structural Engineering LLC 1750 Meriden Waterbury Turnpike Meriden, CT 06467-0360 T: 860-963-9978, F: 860-436-3174	2/2/2019
	date	scale	AS NOTED
	description	project	drawn by
		ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	approved by
		CAD no.	drawing no.
		project no. BI-2B-387	S-101

GENERAL NOTES

- ASSUMED BEARING PRESSURE ON UNDISTURBED SOIL: 4000 PSF
- SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
 - THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, CHYS OR TIEDOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
 - LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO REQUIREMENTS OF OTHER (NON-STRUCTURAL) DISCIPLINES ARE SHOWN FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL OBTAIN FROM THE HEATING AND VENTILATING, ELECTRICAL, PLUMBING AND OTHER SUBCONTRACTORS THE FINAL APPROVED SIZE AND LOCATION OF ALL OPENINGS AND WORK TO BE PROVIDED FOR THEIR TRADE IN ROOFS, FLOORS AND WALLS, WHETHER SHOWN OR NOT ON STRUCTURAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSMISSION OF REQUIREMENTS, LOCATIONS AND DETAILS TO STRUCTURAL SUBCONTRACTORS. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS ARE NOT TO BE BORNE BY THE OWNER.
 - MECHANICAL EQUIPMENT WEIGHTS USED IN DESIGN OF SUPPORTING ELEMENTS HAVE BEEN INDICATED ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO INSTALLATION IF ACTUAL WEIGHT EXCEEDS WEIGHT SHOWN ON DRAWINGS.
 - IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
 - SHOP DRAWINGS ARE TO BE CHECKED BY THE CONTRACTOR AND SUBCONTRACTOR AND BEAR CHECKER'S INITIALS BEFORE BEING SUBMITTED TO THE ARCHITECT FOR APPROVAL.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.
 - ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY FOR THE SAME AND SIMILAR SITUATIONS THROUGHOUT THE BUILDING, UNLESS OTHERWISE SPECIFICALLY NOTED.

FOUNDATIONS

- BACKFILLING SHALL BE ACCOMPLISHED TO EQUAL HEIGHTS ON BOTH SIDES OF FOUNDATION WALLS TO PREVENT MOVEMENTS DUE TO UNBALANCED EARTH PRESSURE. WHERE EARTH ON ONE SIDE ONLY, BACKFILLING AND COMPACTION SHALL NOT START UNTIL FLOOR SLAB OR ADEQUATE BRACING IS PROVIDED FOR WALL SUPPORT (EXCEPT AT RETAINING WALLS).
- ALL FOOTINGS ARE TO REST ON UNDISTURBED NATURAL SOIL, AS DEFINED IN THE SPECIFICATIONS, OR CONTROLLED COMPACTED FILL, REGARDLESS OF ELEVATIONS SHOWN ON DRAWINGS. FOOTING BOTTOM ELEVATIONS SHALL NOT BE HIGHER THAN INDICATED ON THE FOUNDATION PLAN, NOR LESS THAN 3'-6" BELOW FINISH GRADES.
- IF FILL MATERIALS ARE ENCOUNTERED AT FOOTING BEARING ELEVATIONS, ALL FILL MATERIAL SHALL BE EXCAVATED AND DISPOSED OF LEGALLY OFF-SITE. THE OVER EXCAVATION SHALL BE BACKFILLED WITH CONTROLLED COMPACTED FILL TO THE BOTTOM OF FOOTING ELEVATION AS REQUIRED.
- BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 3'-6" BELOW FINISHED GRADE. PRIOR TO PROCEEDING WITH FOOTING EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF FINISH GRADES AND BOTTOM OF EXTERIOR FOOTING ELEVATIONS TO MAINTAIN THE 3'-6" FROST PROTECTION.
- ALL SOIL SURROUNDINGS AND UNDER ALL FOOTINGS SHALL BE PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION.
- FOOTING BOTTOMS SHALL STEP AT THE RATE OF 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0".
- WHERE SUBSURFACE PIPING PASSES THROUGH FOUNDATION WALLS< TOP OF FOOTINGS SHALL BE AT LEAST 8" BELOW THE INVERT ELEVATION OF THE PIPING, UNLESS OTHERWISE SHOWN ON DRAWINGS.
- WHERE FOOTINGS ARE IN CLOSE PROXIMITY OF SUBSURFACE PIPING, BOTTOM OF FOOTINGS SHALL BE AT LEAST 8" BELOW INVERT ELEVATION OF PIPING, UNLESS OTHERWISE SHOWN ON DRAWINGS.
- KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES.
- PLACEMENT OF ALL COMPACTED FILL MATERIALS MUST BE UNDER SUPERVISION OF AN APPROVED TESTING LABORATORY (SEE SPECIFICATIONS). CONCRETE FOUNDATIONS SHALL NOT BE PLACED UNTIL SUBGRADE HAS BEEN CHECKED IN PLACE AND APPROVED BY TESTING LABORATORY.
- EXISTING ON-SITE EXCAVATION MATERIALS SHALL NOT BE ACCEPTABLE BACKFILL MATERIAL BELOW BUILDING FOUNDATIONS, SLABS ON GRADE, OR FOR BACKFILLING OF FOUNDATION WALLS, OR WITHIN 2 FEET OF PAVEMENT GRADES.
- CONTROL JOINT SPACING IN FOUNDATION WALLS SHALL NOT EXCEED 30 FEET. 50% OF HORIZONTAL REINFORCEMENT SHALL EXTEND THROUGH JOINT AND HAVE A CLASS "B" SPLICE (PER ACI 318-95).
- WHERE REQUIRED, CONSTRUCTION JOINTS SHALL BE KEVED AND OCCUR AT CONTROL JOINT INTERVALS. PROVIDE BENTONITE WATERSTOP FULL HEIGHT IN ALL WALL CONSTRUCTION JOINTS BELOW GRADE.
- SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BRICK OR CONCRETE MASONRY BLOCK SHELF ELEVATIONS IN THE FOUNDATION WALLS.
- FOUNDATION DESIGN SITE PREPARATION:
THE FOUNDATION DESIGN AS INDICATED ON THE STRUCTURAL DRAWINGS HAS BEEN BASED ON THE FOLLOWING SITE PREPARATION. THE SITE HAS BEEN PREPARED BY THE EXCAVATION AND REMOVAL FROM THE SITE OF ALL EXISTING FILL AND CONTAMINATED SOILS. THE FOUNDATION DESIGN IS BASED ON THE CONTROLLED FILL COMPACTED TO AT LEAST 95% OF MODIFIED OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D1557.

CONCRETE

MATERIALS:
CONCRETE SHALL DEVELOP STRENGTH IN 28 DAYS AS FOLLOWS:
LOCATION STRENGTH (PSI)
FOUNDATIONS 4000 W/C RATIO .50 OR LESS, WITH AIR 5% SLUMP 5", +/-1"
WALLS 4000 W/C RATIO .50 OR LESS, WITH AIR 5% SLUMP 5", +/-1"
SIDEWALK 5000 W/C RATIO .45 OR LESS, WITH AIR 5% SLUMP 5", +/-1"
(IF ANY INTERIOR SLABS ARE TO BE EXPOSED TO THE FREEZE THAW CYCLES DURING CONSTRUCTION PROVIDE AIR ENTRAINMENT ADMIXTURE, G.C. COORDINATE)

- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS MUST FOLLOW THE LATEST ACI CODE AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
- REINFORCING STEEL SHALL BE 60,000 PSI YIELD.
- NO TACK WELDING OF REINFORCING WILL BE PERMITTED.
- UNLESS NOTED OTHERWISE, ALL LAP SPLICES SHALL BE CLASS B, IN ACCORDANCE WITH ACI 318-02.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM-185.
- WIRE MESH REINFORCEMENT MUST LAP ONE MESH SIZE AT SIDES AND ENDS AND BE WIRED TOGETHER.
- WELDED WIRE FABRIC SIDE LAPS SHALL BE STAGGERED TO AVOID FOUR MESH THICKNESS AT COINCIDING END LAP AND SIDE LAP LOCATION.
- NO CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.1% CHLORIDE BY WEIGHT OF ADMIXTURE SHALL BE USED IN THE CONCRETE.
- BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 3'-6" BELOW FINISHED GRADE. PRIOR TO PROCEEDING WITH FOOTING FORMWORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF BOTTOM OF EXTERIOR FOOTING ELEVATIONS WITH THE FINISH GRADES AND MAINTAINING THE 3'-6" FROST PROTECTION.
- CONTRACTOR SHALL ANTICIPATE DEFLECTION OF STEEL AT SUPPORTED ELEVATED SLABS, AND PROVIDE ADDITIONAL CONCRETE AS REQUIRED.
- ALL HORIZONTAL STEEL SHOWN IN SECTIONS AND DETAILS SHALL BE CONTINUOUS, UNLESS OTHERWISE NOTED. ALL LAPS SHALL BE CLASS "B" SPLICES IN ACCORDANCE WITH ACI 318.
- ALL INTERSECTIONS OF REINFORCED CONCRETE WALLS, PROVIDE CORNER DOWELS OF SAME SIZE AND AT THE SAME SPACING AS THE SMALLER HORIZONTAL REINFORCING DOWELS SHALL HAVE A CLASS "B" LAP WITH HORIZONTAL REINFORCING IN EACH DIRECTION.
- PROVIDE DRILLED AND EPOXY DOWELS OF SAME SIZE TO MATCH NEW REINFORCING WHERE NEW CONSTRUCTION ADJUTS EXISTING CONCRETE CONSTRUCTION. LENGTH SHALL BE THE REQUIRED EMBEDMENT DEPTH PER THE ANCHOR BOLT MANUFACTURER PLUS A CLASS "B" LAP SPLICE FOR THE SIZE OF BAR.
- PROVIDE CORROSION RESISTANT ACCESSORIES IN ALL EXPOSED CONSTRUCTION.
- ALL KEYS IN CONCRETE WALLS SHALL BE 2 X 4 UNLESS NOTED OTHERWISE.
- CONCRETE PIERS: PLACE CONCRETE PIERS AND WALLS TOGETHER. SET PIER REINFORCING AND SET WALL REINFORCING THROUGH PIER VERTICAL BARS. PROVIDE DOWELS WITH STANDARD HOOK FROM FOOTING AT ALL PIERS. SIZE AND QUANTITY OF DOWELS TO MATCH VERTICAL PIER REINFORCING, PROVIDE CLASS "B" SPLICE.
- SEE ARCHITECTURAL, MECHANICAL AND EQUIPMENT DRAWINGS FOR CONCRETE PADS, SLEEVES, OPENINGS, RECESSES, AND BUILT-IN WORK IN CONCRETE ELEMENTS.
- ALL CONCRETE TO REMAIN EXPOSED TO VIEW SHALL RECEIVE A SMOOTH RUBBED FINISH (SEE SPECIFICATIONS).
- ALL CONCRETE CORNERS WITH BOTH SIDES EXPOSED TO VIEW SHALL BE SQUARE UNLESS OTHERWISE SHOWN OR NOTED. THE EDGE SHALL BE RUBBED, PRODUCING A SMOOTH, DENSE SURFACE WITHOUT PITS OR IRREGULARITIES.
- PROVIDE CLEARANCE FROM EDGE OF REINFORCING TO EDGE OF CONCRETE AS FOLLOWS:
FOOTINGS (AGAINST EARTH) 3"
WALLS, INTERIOR FACE 2"
WALLS, EXTERIOR FACE (#5 AND SMALLER) 3/4"
WALLS, EXTERIOR FACE (#6 AND LARGER) 1 1/2"
SLABS (INTERIOR) 3/4"
SLABS (EXTERIOR) 1 1/2"
SLABS ON GRADE (W.W.F.) 1 1/3" X THK FROM TOP SURFACE
- NO SLEEVES, HOLES OR INSERTS SHALL BE PLACED IN SLABS WITHIN 2'-0" OF THE EDGE OF COLUMNS OR ANYWHERE IN BEAMS, COLUMNS OR JOISTS WITHOUT APPROVAL OF THE ARCHITECT.
- JOINTS NOT INDICATED ON THE DRAWINGS SHALL BE MADE SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE. THERE SHALL BE NO HORIZONTAL JOINTS IN BEAMS OR SUSPENDED SLABS.
- PROVIDE REBAR SHOP DRAWINGS THAT INDICATE ALL FOOTING, WALL, PIER REINFORCED LOCATIONS OF ALL WALL CONTROL AND CONSTRUCTION JOINTS.

STRUCTURAL STEEL

MATERIALS:
STRUCTURAL STEEL PLATE & BAR ASTM A 36
ALL WITH SHAPES ASTM A 362, GR.50
STRUCTURAL STEEL TUBING ASTM A500, GRADE B
STRUCTURAL STEEL PIPE ASTM A535, GRADE B
BOLTS ASTM A325
ANCHOR BOLTS ASTM F1554
WELDING ELECTRODE ASTM E 70

- DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS AISC 360-05 ASD
- WELDING SHALL CONFORM TO THE CODE FOR "ARC AND GAS WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
- PROVIDE SHOP DRAWINGS SHOWING PLAN LAYOUT, PIECE MARKS PROVIDING ALL DIMENSIONED AND DETAILED PIECES OF ALL THE STRUCTURAL STEEL FOR THE PROJECT.
- ALL LOOSE BEAM UNTELS SHALL HAVE 8" MINIMUM BEARING. SEE ARCHITECTURAL JAMB DETAILS AND LENGTHS.
- FOR MISCELLANEOUS STEEL REFER TO ARCHITECTURAL DRAWINGS.
- ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.
- PROVIDE LEVELING NUTS FOR ALL COLUMN BASE PLATES WITH FOUR (4) ANCHOR BOLTS AND PROVIDE 1 1/2" MINIMUM NON-SHRINK GROUT.
- CONNECTIONS:
CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION. CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONSTRUCTION UNLESS OTHERWISE DETAILED.
MOMENT CONNECTIONS CALCULATIONS SHALL BE SUBMITTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT AS PART OF THE STEEL SHOP DRAWING PROCESS. CALCULATIONS SHALL BE STAMPED AND SIGNED.
STANDARD SHEAR CONNECTIONS STANDARD SHALL BE SUBMITTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT AS PART OF THE STEEL SHOP DRAWING PROCESS. STANDARD SHEAR CONNECTIONS SHALL BE RECENTLY (WITHIN THE LAST 6 MONTHS) STAMPED AND SIGNED.
CONNECTIONS SHALL BE DESIGNED TO ACCOMMODATE THE REACTIONS SHOWN ON PLAN. DESIGN FOR A MINIMUM REACTION OF 6 KIPS.
MINIMUM CONNECTION ANGLE THICKNESS SHALL BE 5/16".

IN ADDITION TO PROVIDING ADEQUATE BOLTS TO ACCOMMODATE REACTIONS, THE FOLLOWING MINIMUM NUMBER OF BOLT ROWS SHALL BE USED:

MEMBER DEPTH	MINIMUM BOLT ROWS
10" or Less	2
12" to 14"	3
16" to 18"	4
21" to 24"	5
27" to 30"	6
Over 30"	7

- CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER ASTM A325 BOLTS (SNUG TIGHT OR SLIP CRITICAL) OR WELDS, UNLESS NOTED OTHERWISE.
- PROVIDE SLOTTED BOLTED CONNECTIONS WHERE SHOWN WITH 13/16" X 1 7/8" SLOTTED HOLES USING ASTM A 325 BOLTS WITH WASHERS. NUTS SHALL BE FASTENED SNUG TIGHT, THEN UNTIGHTENED BY ONE-HALF TURN. PEEN THREADS TO PREVENT FURTHER LOOSENING OF NUT.
- USE LARGER OF 1/4" FILLET WELDS OR MINIMUM SIZE PER AISC REQUIREMENTS WHERE NO WELD SIZE IS SHOWN ON DRAWINGS.
- WELDS IN EXCESS OF 24" IN LENGTH SHALL BE 3" STITCH WELDS AT 8" ON CENTERS, UNLESS SPECIFICALLY SHOWN ON DRAWINGS TO BE CONTINUOUS.
- NO WELDING OR FINAL BOLTING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURE THAT WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
 - SEQUENCE OF PLACING WELDS SHALL BE SUCH AS TO AVOID DISTORTION OF MEMBERS.
 - SUBSTITUTION OF STRUCTURAL STEEL MEMBERS IS PERMITTED TO FACILITATE DELIVERY AT NO ADDITIONAL COST TO THE OWNER. SUBSTITUTED MEMBERS MUST BE OF THE SAME NOMINAL DEPTH AS THE MEMBER ORIGINALLY INDICATED AND HAVE A WEIGHT GREATER THAN THAT INDICATED. BEAM FLANGES MUST NOT INFRINGE ON ADJACENT ARCHITECTURAL ELEMENTS.
 - HOT DIPPED GALVANIZING TOUCHUP ALL WELDS WITH COLD GALVANIZING COMPOUND, REFER TO SPECIFICATIONS.
 - ALL STEEL MEMBERS EXPOSED TO WEATHER OR IN CONTACT WITH PRESSURE TREATED LUMBER OR WOOD PRODUCTS IN THE COMPLETED CONSTRUCTION SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
 - PROVIDE BITUMASTIC PROTECTION COATING FOR ALL STRUCTURAL STEEL BELOW GRADE.
 - PROVIDE 1/4" CLOSURE PLATES WITH FULL SEAL WELDS FOR ALL TUBE OR PIPE HOLLOW STEEL SECTIONS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

DESIGN DATA / DESIGN LOADS

LOADING	LIVE LOAD	GLASS	FRAMING	FINISH	CEILING	M.E.P.	MISC.	TOTAL
GLASS CANOPY ROOF	30 PSF ^A	7 PSF	13 PSF ^C	-	-	- B	-	50 PSF

LOADING NOTES:
A. SNOW LOADS INCREASED AS REQUIRED IN SNOW DRIFT REGIONS AS DESCRIBED IN THE STATE OF CONNECTICUT BUILDING CODE
B. LOCAL DEAD LOAD INCREASES AS REQUIRED FOR ROOF TOP AND HUNG MECHANICAL UNITS.
C. INPUT AS ZERO FOR COMPUTER ANALYSIS PROGRAMS THAT ACCOUNT FOR SELF DEAD WEIGHTS OF MEMBERS
D. THE EXISTING ROOFING SYSTEM WILL BE REMOVED DOWN TO THE EXISTING WIDE RIB STEEL ROOF DECKING. BASED UPON THE WEIGHTS OF THE EXISTING ROOFING SYSTEM AND THE NEW ROOFING SYSTEM THE NEW ROOFING SYSTEM WILL ADD 0.4 PSF TO THE DEAD LOAD OF THE EXISTING ROOF FRAMING.

DESIGN CRITERIA

ROOF SNOW LOAD DATA
GROUND SNOW LOAD P_g = 30 psf
FLAT ROOF SNOW LOAD P_f = 30 psf
SNOW EXPOSURE FACTOR C_e = 0.9
IMPORTANCE FACTOR I_s = 1.0
THERMAL FACTOR C_t = 1.0

WIND DESIGN DATA
ULTIMATE DESIGN WIND SPEED V_{ult} = 125 MPH
NOMINAL DESIGN WIND SPEED V_{des} = 97 MPH
WIND IMPORTANCE FACTOR I_w = 1.00
EXPOSURE CATEGORY EXPOSURE B
INTERNAL PRESSURE COEFFICIENT C_{pi} = +/-0.18
BUILDING CATEGORY II

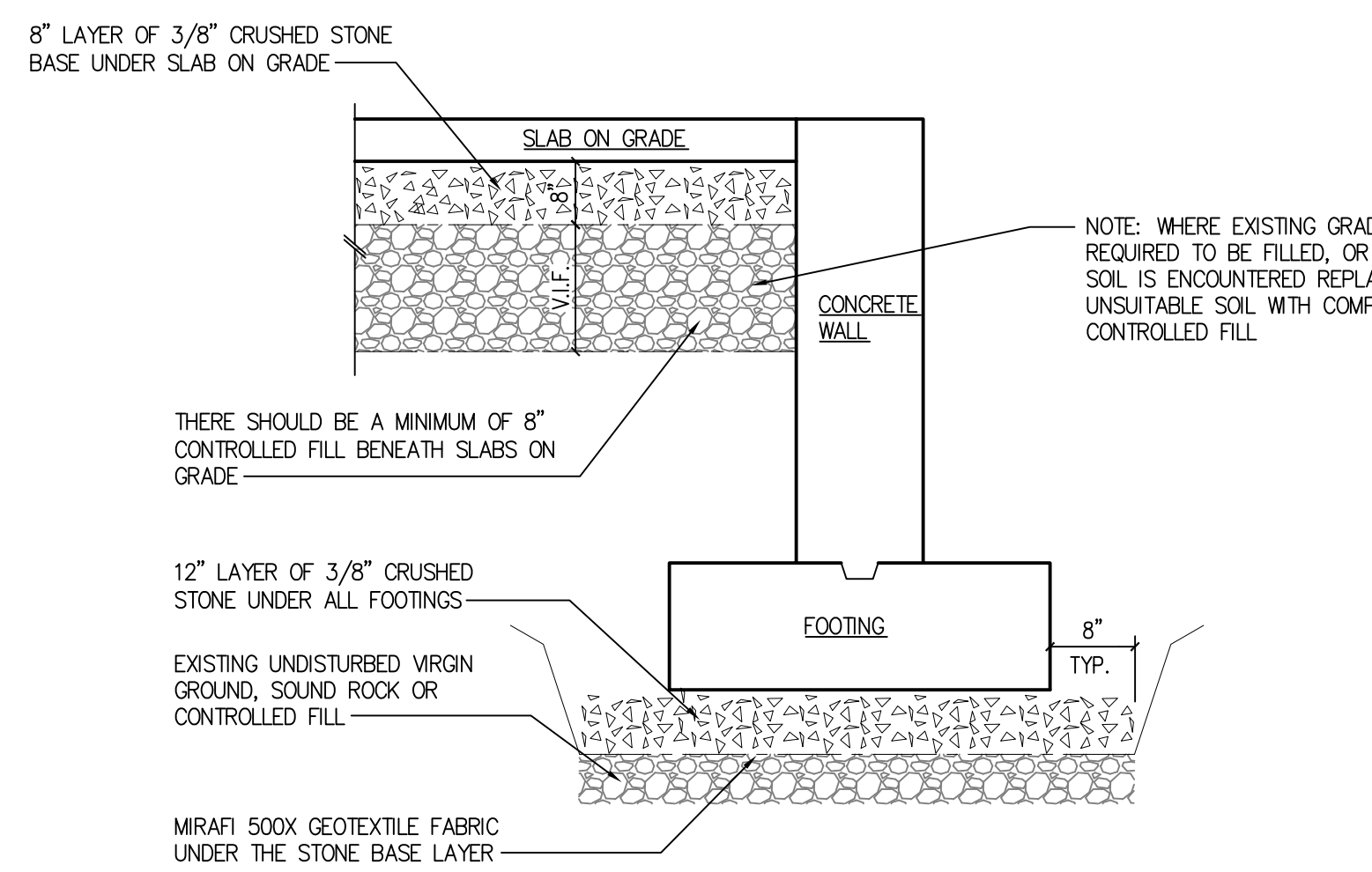
EARTHQUAKE DESIGN DATA
BUILDING CATEGORY II
SEISMIC OCCUPANCY IMPORTANCE FACTOR, I = 1.00
SEISMIC USE GROUP I
SEISMIC SITE CLASSIFICATION = D (ASSUMED)
SEISMIC DESIGN CATEGORY = B

SITE COORDINATES: LATITUDE 41.6573'
LONGITUDE -72.6656'

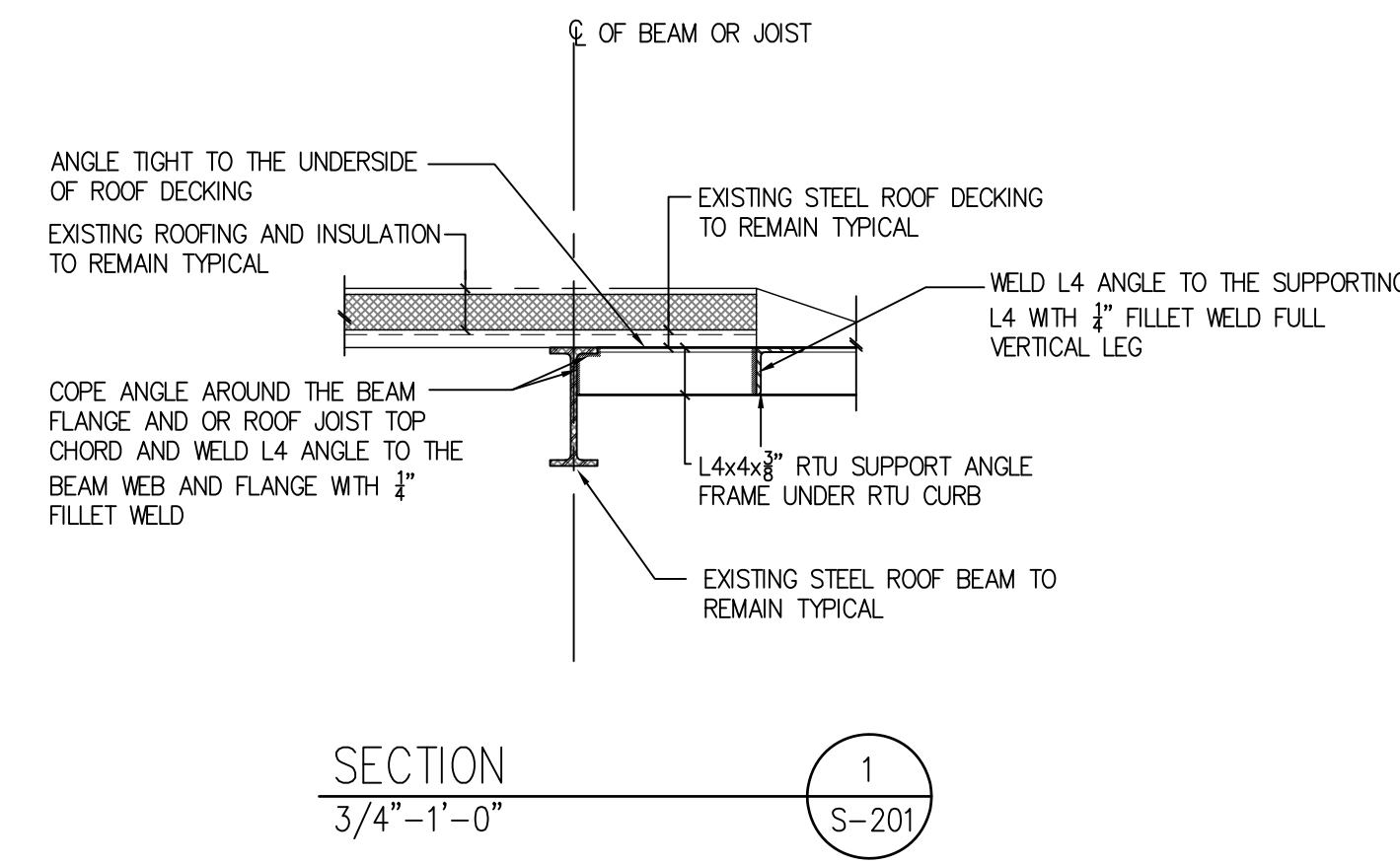
SEISMIC LOAD FACTORS S_s .181 S₁ = 0.063
F_a = 1.6 F_v = 2.4
S_{ms} = 0.289 S_{m1} = 0.151
S_{os} = 0.193 S_{o1} = 0.100

RESPONSE MODIFICATION COEFFICIENT, R = 3
BASED ON A LATERAL-FORCE-RESISTING SYSTEM CONSISTING OF ORDINARY MOMENT FRAMES OF STEEL.
SEISMIC DESIGN BASED ON THE EQUIVALENT LATERAL FORCE PROCEDURE GIVEN IN SECTION 9.5.5 OF ASCE 7-10.

* GROUND SNOW LOAD, BASIC WIND SPEED AND SEISMIC LOAD FACTORS TAKEN FROM THE TABULATED VALUES LISTED IN APPENDIX K OF THE 2016 CONNECTICUT BUILDING CODE SUPPLEMENT FOR THE TOWN OF ROCKY HILL CONNECTICUT.

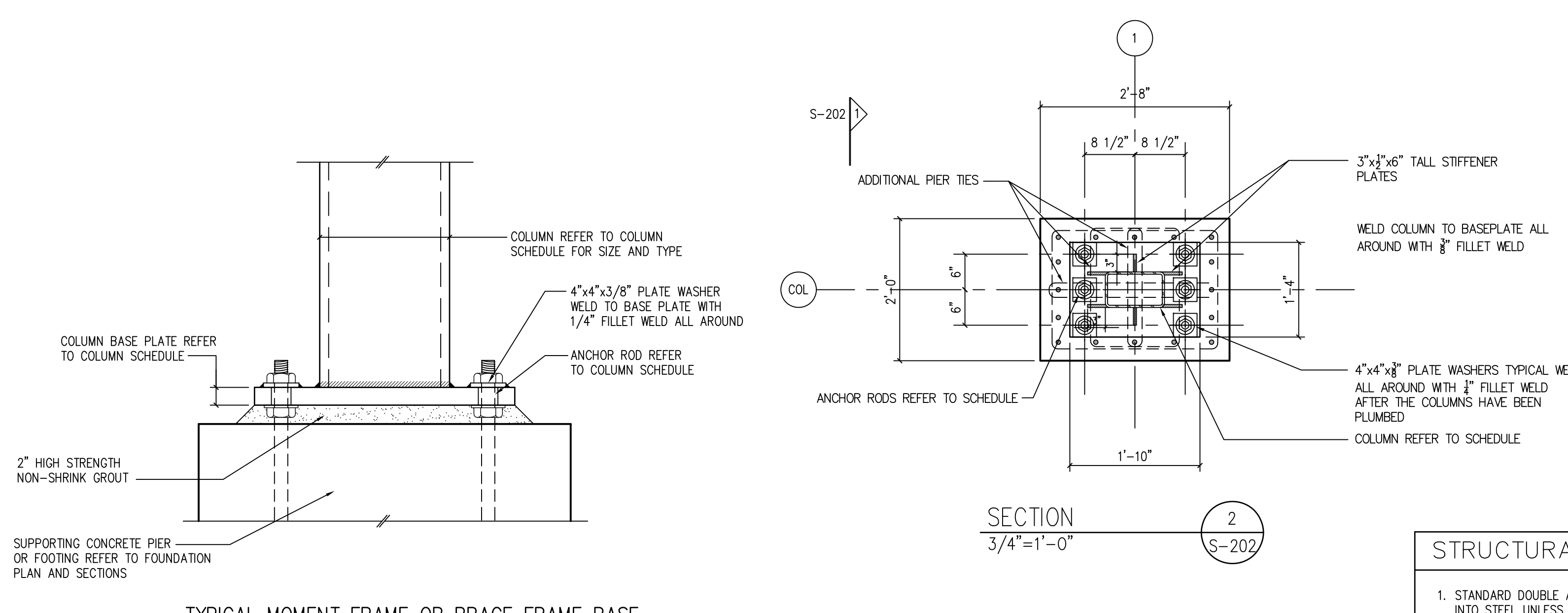
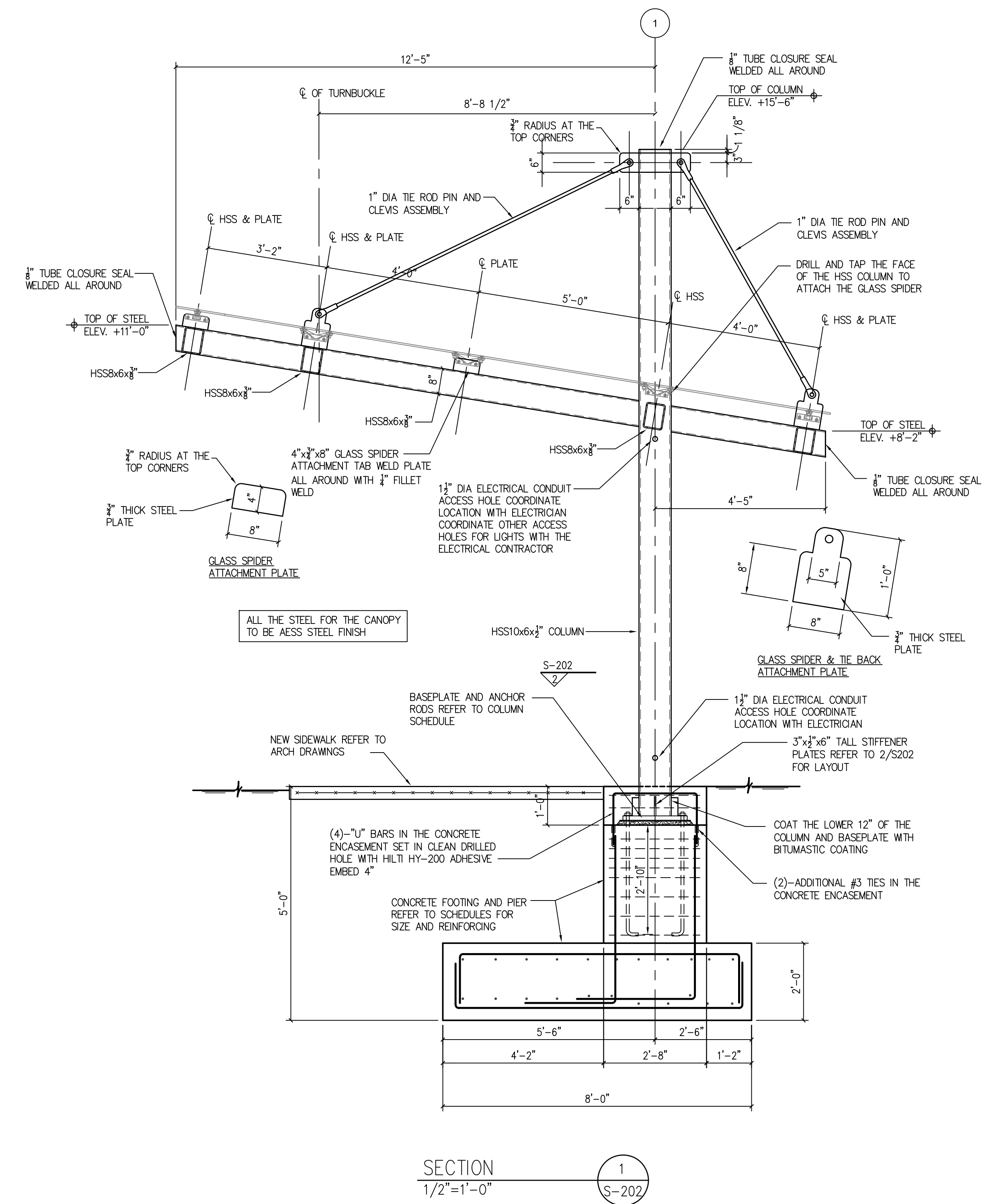


CONTROLLED FILL	
PERCENT PASSING	SIIEVE SIZE
100	3.5"
50-110	3"
25-100	No. 4
NO MORE THAN 15% PASSING THE No. 4 SIEVE	



drawing title		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
GENERAL NOTES & DETAILS		drawing prepared by Toce Structural Engineering LLC 1700 Meriden Waterbury Turnpike Meriden, CT 06467-0360 T: 860-963-9978, F: 860-436-3174	
professional seal	REVISIONS	date	2/2/2019
	mark date description	scale	AS NOTED
		drawn by	
		approved by	
		drawing no.	S-201
CAD no.	project no. Bl-2B-387		

COLUMN SCHEDULE					
COLUMN LABEL	A	B	C	D	
STORY LABEL	1	1	1	1	
ROOF TOP OF STEEL ELEVATION = SEE PLANS					
MAIN LEVEL TOP OF CONCRETE SLAB ELEVATION = +0'-0"					
BASE PLATE	22"x1 1/2"x14"	22"x1 1/2"x14"	22"x1 1/2"x14"	22"x1 1/2"x14"	
ANCHOR RODS (F1554 GRADE 55)	(6)-1 1/4"	(6)-1 1/4"	(6)-1 1/4"	(6)-1 1/4"	
BUTTRESS/PIER DOWELS REFER U.N.O. ON PIER SCHEDULE					
1. TUBE STEEL TO BE A.S.T.M. A-500, GRADE "B" STEEL Fy=46 KSI. WIDE FLANGE COLUMNS A992 GR 50 Fy=50 KSI 2. COLUMN BASES TO BE SET ON LEVELING NUTS AND HARDENED WASHERS WITH 2" HIGH STRENGTH NON-SHRINK GROUT. 3. BASEPLATES TO BE FABRICATED OUT OF A36 STEEL 4. THE TOP OF THE SUPPORTING CONCRETE WILL BE 2" LOWER THAN THE ELEVATIONS PROVIDED IN THIS SCHEDULE.					



- STRUCTURAL STEEL NOTES**
- STANDARD DOUBLE ANGLE CONNECTIONS ARE TO BE USED FOR STEEL FRAMING INTO STEEL UNLESS OTHERWISE NOTED. ALL CANOPY CONNECTIONS TO BE FULLY WELDED ALL AROUND.
 - ALL CONNECTIONS TO BE SELECTED TO SUPPORT THE UNIFORM LOAD TABLE'S MAXIMUM UNIFORM LOAD AS CALLED FOR IN THE A.I.S.C.
 - ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH ALL AWS STANDARDS.
 - ALL WELDING TO BE PERFORMED USING E70-XX ELECTRODES.
 - THE STEEL ERECTOR IS RESPONSIBLE FOR SUPPLYING TEMPORARY BRACING AND GUYING ON CONCRETE AND STEEL FRAMING UNTIL ALL CONNECTIONS, FLOOR SLABS AND MASONRY WALLS HAVE BEEN COMPLETED. BRACING SHALL NOT BE REMOVED.

drawing title		SECTIONS & DETAILS I		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	mark	date	description	drawing prepared by	date
				Toce Structural Engineering LLC 1703 Meriden Waterbury Turnpike Meriden, CT 06467-0360 T: 860-963-9978, F: 860-426-3174	2/2/2019
				project	scale
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	AS NOTED
				approved by	drawn by
				drawing no.	
				CAD no.	project no.
				Bl-2B-387	S-202

GENERAL PLUMBING NOTES

GENERAL

LEAD-FREE STATEMENT

SEVERAL PLUMBING FIXTURES DESCRIBED IN THIS SECTION FALL UNDER JURISDICTION OF THE FEDERAL REDUCTION OF LEAD IN DRINKING WATER ACT (42 USC 3005) WHICH MANDATES THAT EFFECTIVE JANUARY 4, 2014 THE WETTED SURFACES OF ANY VALVE, FITTING OR FIXTURE THAT COMES IN CONTACT WITH POTABLE WATER MUST HAVE A WEIGHTED-AVERAGE LEAD CONTENT OF NO MORE THAN 0.25 PERCENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PRODUCTS THAT ARE LEAD-FREE PRODUCTS AND MEET THE REQUIREMENTS OF SAFE DRINKING WATER ACT SECTION 1417 (E) (SECTION 9 OF NSF/ANSI STANDARD 61) AND AUTHORITIES HAVING JURISDICTION.

WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.

IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

PROVIDE AND INSTALL ALL MAKE-UP WATER DISTRIBUTION TO HVAC EQUIPMENT SUPPLIED FROM EXISTING BACKFLOW PREVENTER.

ALTERATION WORK AND DEMOLITION

ALL FIXTURES, PIPING, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.

UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.

NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.

EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

RE-ROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.

COORDINATION DRAWINGS

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

SHEET METAL AND PLUMBING SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVISED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:

- MECHANICAL SHEET METAL
- PLUMBING PIPING
- MECHANICAL PIPING
- ELECTRICAL WORK

AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.

THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.

EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

SHOP DRAWINGS

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE APPROVED, REVISED, OR RESUBMITTED AS PER THE ENGINEERS COMMENTS, PRIOR TO CONSTRUCTION. INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- DRAINS
- FITTINGS
- INSULATION
- PIPING
- BRACING
- PIPE SEALS
- HANGERS/SUPPORTS

AS BUILT DRAWINGS

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:

INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART.

APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

HANGERS AND SUPPORT

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING, EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERRECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS

SUPPORTING PIPING 2 INCHES, FOR PIPING 2-1/2 INCHES AND LARGER, I BEAM CLAMPS SHALL BE FORGED STEEL. "C" CLAMPS ARE NOT TO BE USED.

PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

DRAINS AND CLEANOUTS

PROVIDE A MANUFACTURED POWDER COATED OUTLET FITTING FOR ALL SECONDARY ROOF DRAIN OUTLETS.

CLEANOUTS SHALL BE LOCATED AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING.

CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL STORM, WASTE, OR SOIL LINES GREATER THAN 45 DEGREES (INCLUDING P-TRAPS), WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING. ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.

MINIMUM SIZE. CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.

CAST-IRON CLEANOUT SIZING SHALL BE IN ACCORDANCE WITH ASTM A 888 OR CISPI 301 FOR HUBLESS FITTINGS.

ACCESS SHALL BE PROVIDED TO ALL CLEANOUTS.

PIPING GENERAL

NO PIPING SHALL BE COVERED UNTIL TESTED APPROVED BY THE AUTHORITIES HAVING JURISDICTION.

ALL PIPING SHALL BE RUN PERPENDICULAR AND/OR PARALLEL TO FLOORS, INTERIOR WALLS, ETC. PIPING AND VALVES SHALL BE GROUPED NEATLY AND SHALL BE RUN AS TO MAXIMIZE HEADROOM OR PASSAGE CLEARANCE. ALL VALVES, CONTROLS AND ACCESSORIES CONCEALED IN FURRED SPACES AND REQUIRING ACCESS FOR OPERATION AND MAINTENANCE SHALL BE ARRANGED TO ASSURE THE USE OF A MINIMUM NUMBER OF ACCESS DOORS.

ALL PIPE LINES MADE WITH SCREWED FITTINGS MUST BE PROVIDED WITH A SUFFICIENT NUMBER OF FLANGES AND/OR UNIONS TO ALLOW FOR EASY AND CONVENIENT DISMANTLING OF THE SYSTEM WITHOUT BREAKING FITTINGS.

ALL PIPING SHALL RUN CONCEALED IN FURRED SPACES OF OCCUPIED AREAS OR CHASES. CONTRACTOR SHALL OBTAIN PERMISSION TO RUN ANY EXPOSED PIPES.

CAP ALL PIPE AND EQUIPMENT OUTLETS DURING CONSTRUCTION AND KEEP LINES AND INSIDE OF EQUIPMENT FREE OF FOREIGN MATERIALS.

PROVIDE FOR EXPANSION WITHOUT WARPING OR DISLOCATING LINES OR STRAINING CONNECTED EQUIPMENT. INSTALL PIPING TO CLEAR BUILDING CONSTRUCTION AND TO AVOID INTERFERENCE WITH OTHER WORK. THE CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE PIPING EXPANSION SYSTEM (INCLUDING SEISMIC JOINT EXPANSION) AND DEVICES AS REQUIRED FOR PROPER EXPANSION COMPENSATION STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.

THE DRAWINGS INDICATE SCHEMATICALLY THE SIZE AND LOCATION OF PIPING. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO MEET CONSTRUCTION CONDITIONS.

THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS, OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES, AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

WHEREVER DISSIMILAR METALS ARE JOINED TOGETHER AN APPROVED DIELECTRIC FITTING SHALL BE USED. THE DIELECTRIC FITTING SHALL BE A LISTED ASSEMBLY.

PLUMBING LEGEND

SYMBOL OR ABBREVIATION	DESCRIPTION
-----	EXISTING PIPE/EQUIPMENT TO REMAIN
-X-X-X-X-X-X-X-X-X-X-	EXISTING PIPE/EQUIPMENT TO BE REMOVED
CW	DOMESTIC COLD WATER PIPING (CW)
G	GAS PIPING (G)
ST	STORM PIPING ABOVE FINISHED FLOOR/SLAB (ST)
OST	OVERFLOW STORM PIPING ABOVE FINISHED FLOOR/SLAB (OST)
+	PIPE DROP/DOWN (DN)
↑	PIPE RISE/UP
	CLEANOUT (CO)
⊕	CONNECT TO EXISTING (C.T.E.)
⊖	POINT OF DISCONNECTION
⊔	PLUG VALVE
⊗	PRESSURE REGULATOR


C.I.	CAST IRON	EX./EXIST.	EXISTING
BLDG.	BUILDING	TYP.	TYPICAL
CONN.	CONNECT	V.I.F.	VERIFY IN FIELD
DR.	DRAIN	D#	DRAIN DESIGNATION

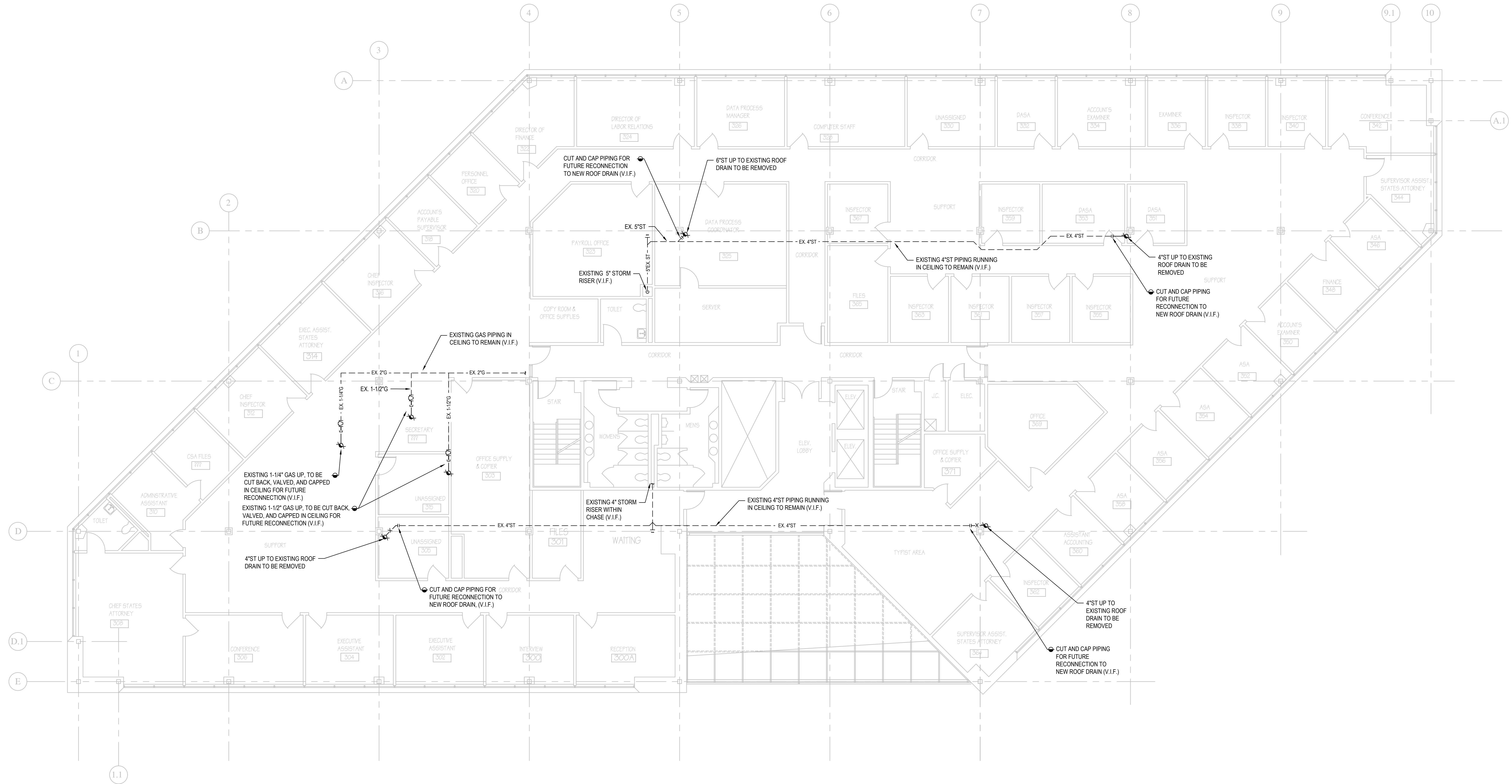
NUMBER
SHEET

DETAIL DESIGNATION SYMBOL

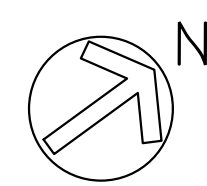
GENERAL PHASING NOTES

1. COORDINATE ALL WORK IN PHASED MANNER TO ENSURE SERVICE IS RESTORED BY NEXT BUSINESS DAY FOR ALL SYSTEMS.
2. PROJECT WILL REQUIRE THE WORK SEQUENCE TO BE PHASED FOR SEASONAL WORK. REFER TO DIVISION 01 SPECIFICATIONS FOR PHASING PLAN.

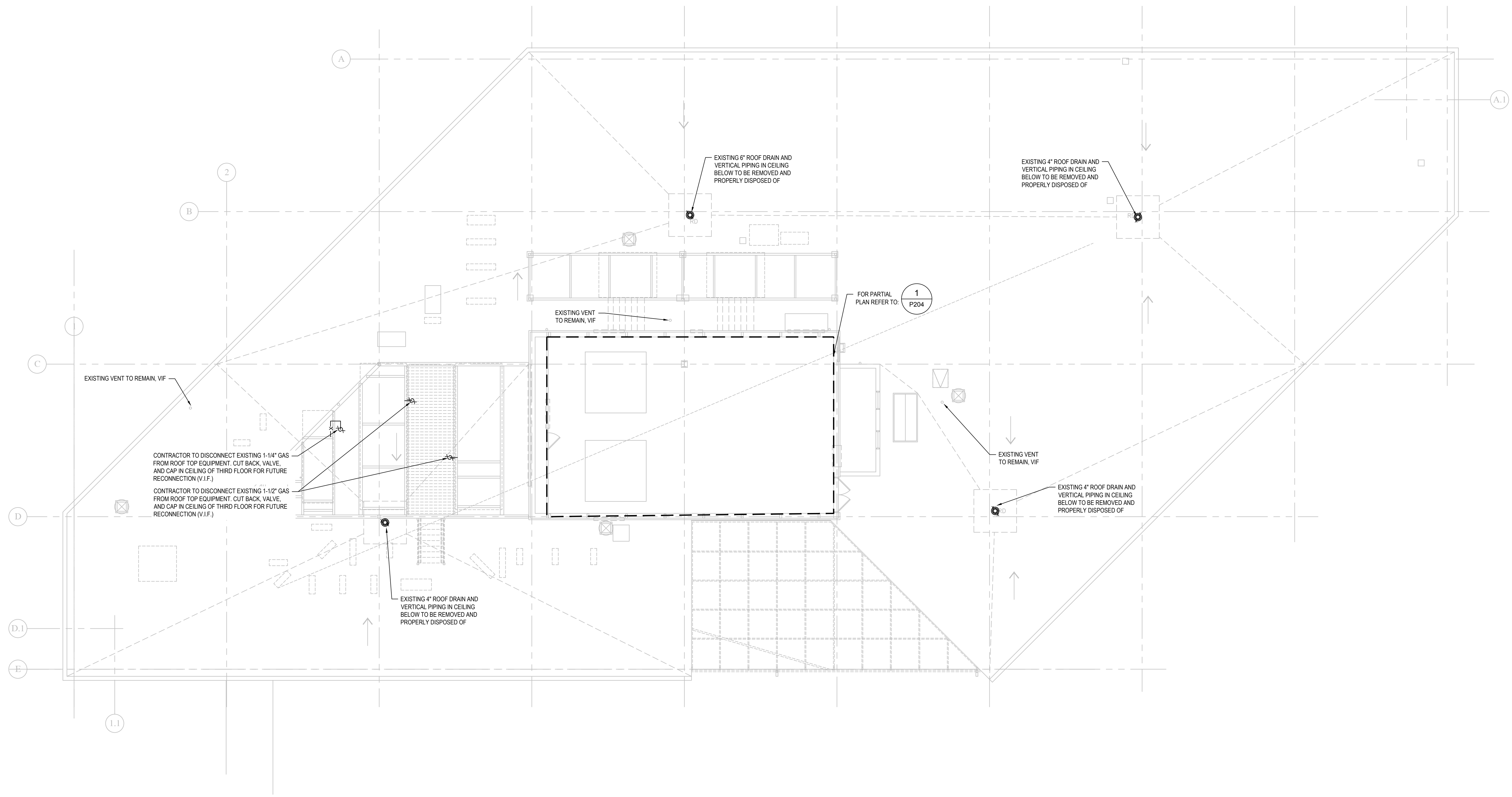
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COVER SHEET - PLUMBING		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810		date 2/4/2019
professional seal	REVISIONS			scale NONE
	mark	date	description	drawn by TH
				approved by JPK
				drawing no. P-001
CAD no.	project no. BI-2B-387			



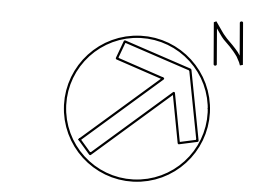
1 THIRD FLOOR DEMOLITION PLAN
 PD-103 SCALE: 1/8"=1'-0"




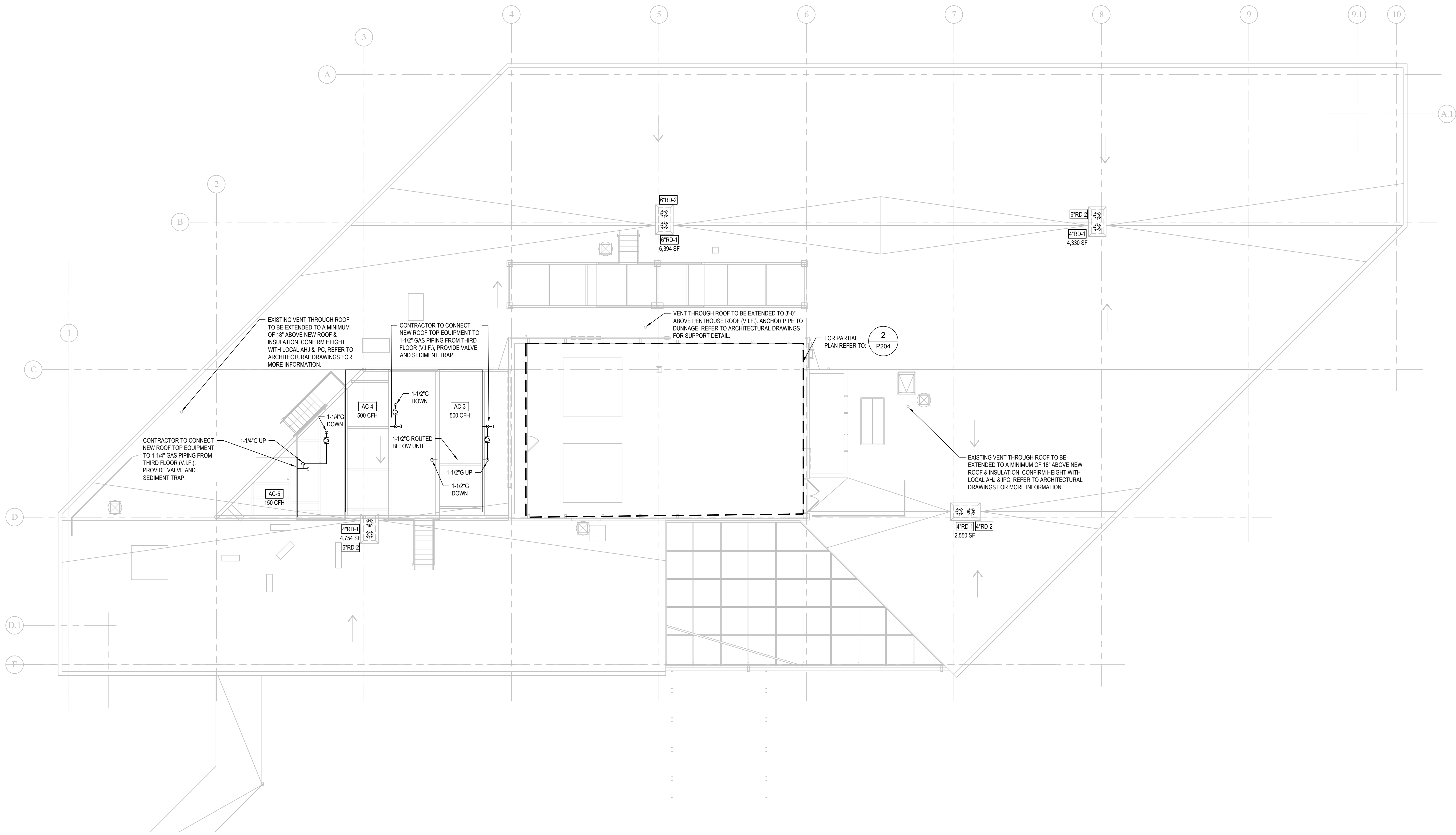
drawing title THIRD FLOOR DEMOLITION PLAN - PLUMBING		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/8"=1'-0"
	mark	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	drawn by TH
	date		approved by JPK
		CAD no.	drawing no. PD-103
		project no. BI-2B-387	



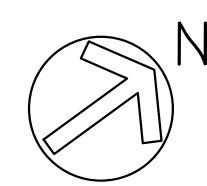
1 ROOF DEMOLITION PLAN
 PD-104 SCALE: 1/8"=1'-0"



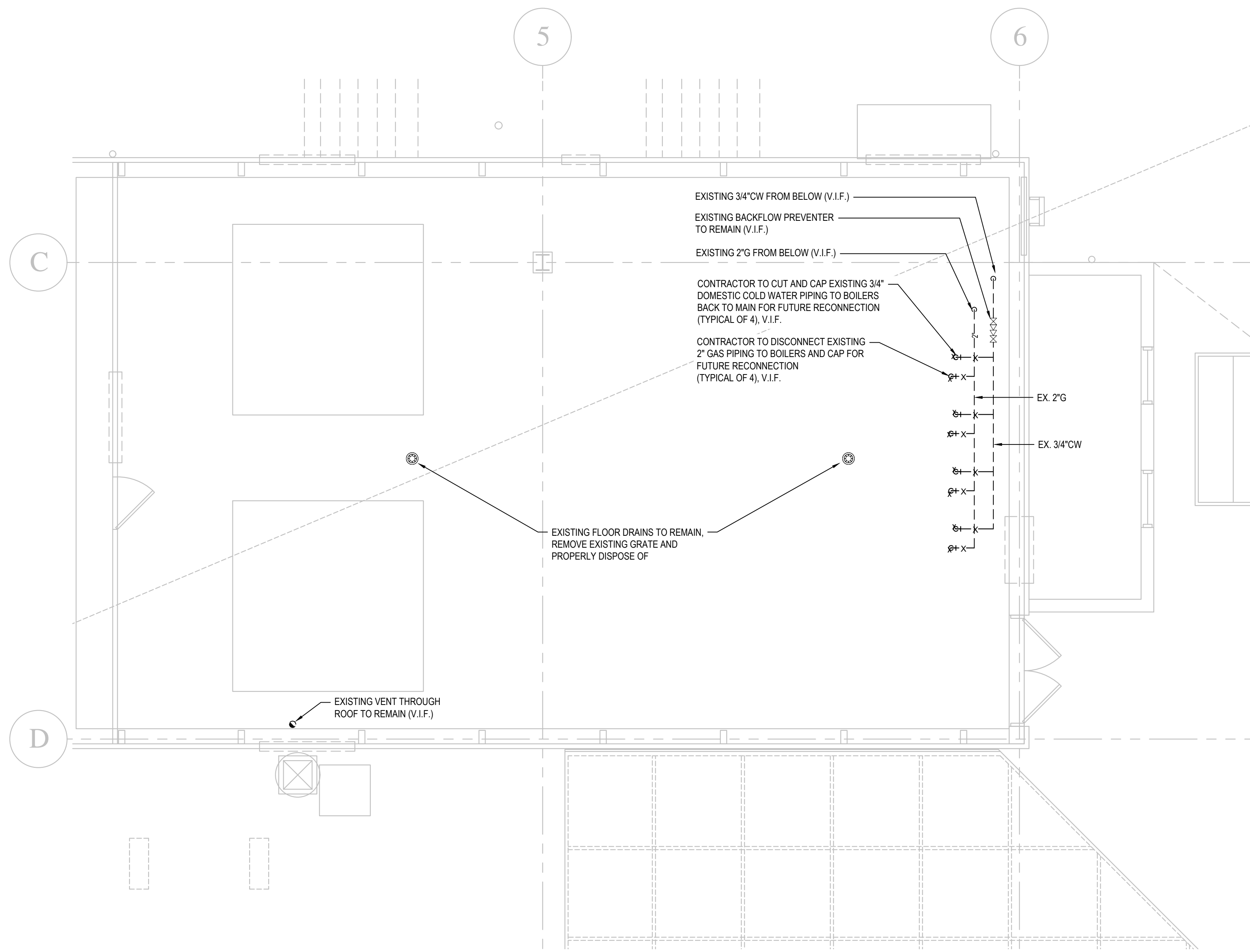
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professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT			date 2/4/2019 scale 1/8"=1'-0" drawn by TH approved by JPK drawing no. PD-104
CAD no.	project no. BI-2B-387		



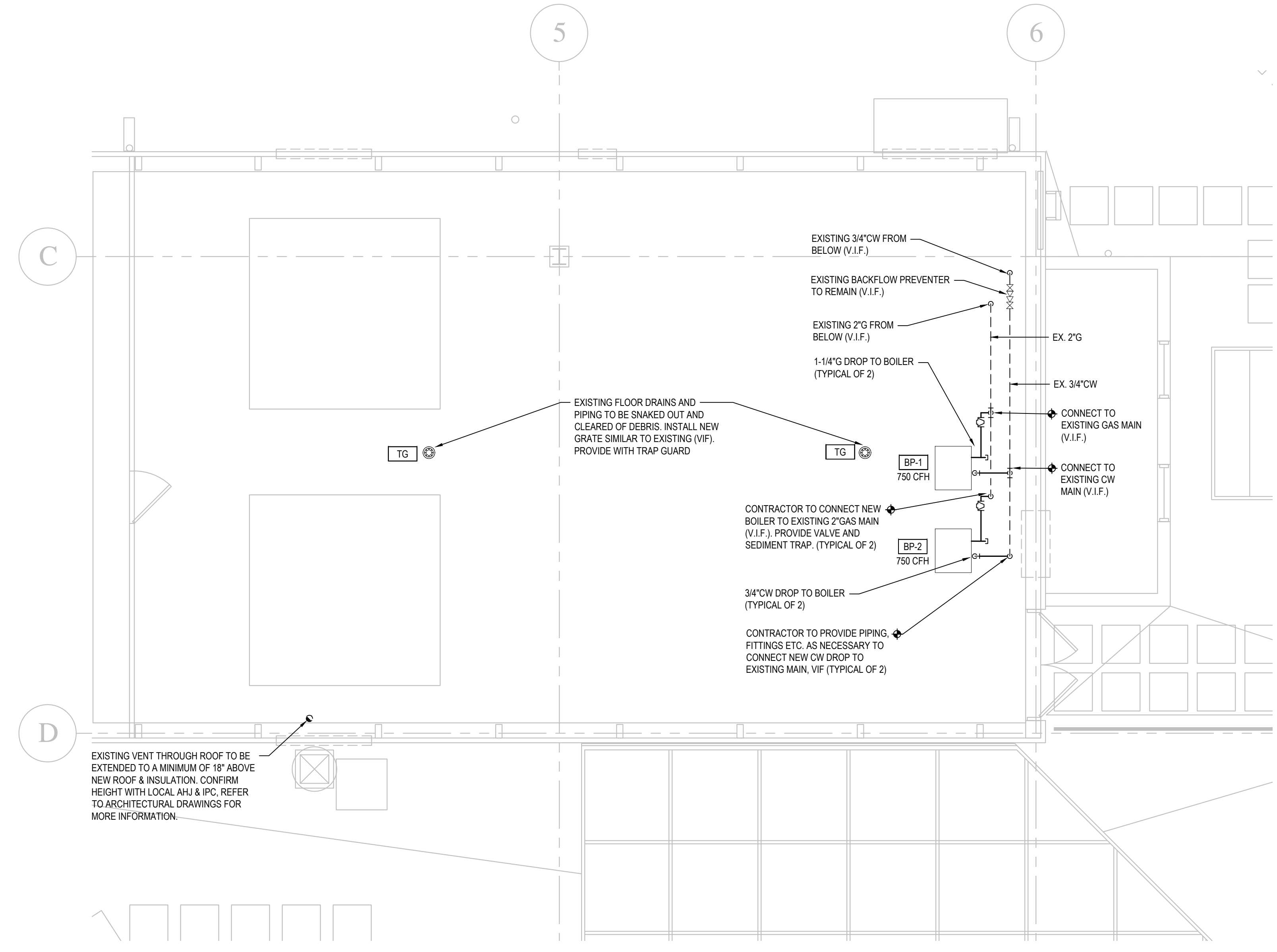
1 ROOF PLAN
P-104 SCALE: 1/8"=1'-0"



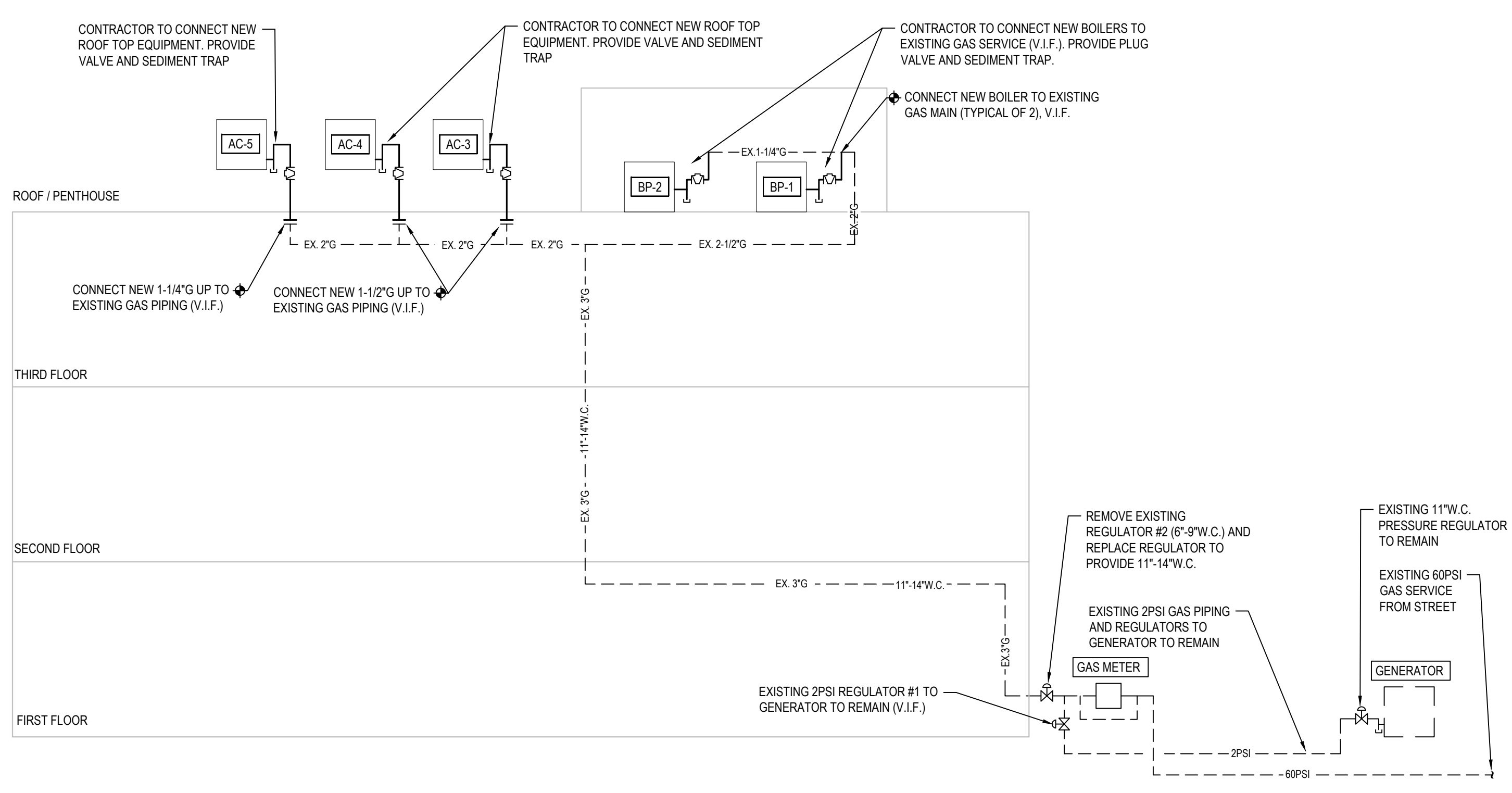
drawing title ROOF PLAN - PLUMBING		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale 1/8"=1'-0"
CAD no.		project no. BI-2B-387	drawn by TH approved by JPK drawing no. P-104



1 MECHANICAL PENTHOUSE DEMOLITION PLAN
 P-204 SCALE: 1/4"=1'-0"



2 MECHANICAL PENTHOUSE PLAN
 P-204 SCALE: 1/4"=1'-0"



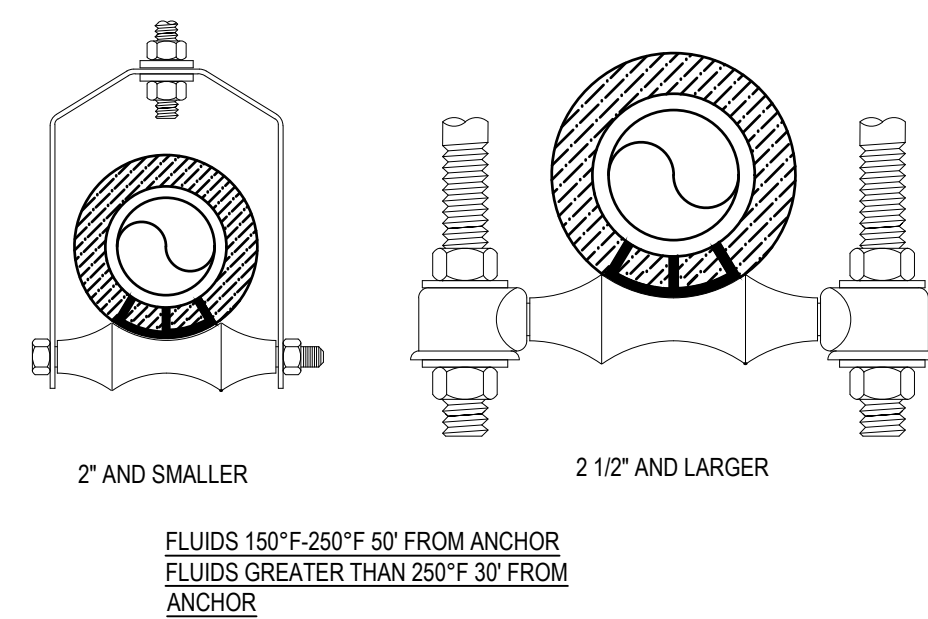
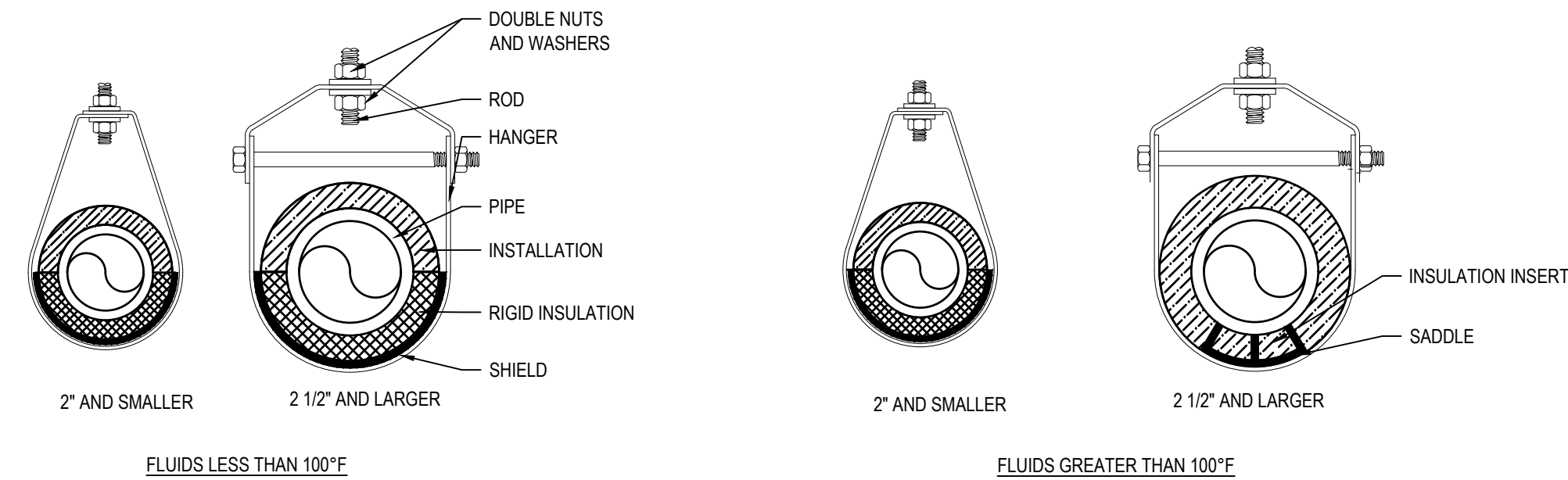
3 GAS RISER DIAGRAM
 P-204 SCALE: NOT TO SCALE

GAS METER ASSEMBLY	
CONNECTED LOADS	
EXISTING GAS EQUIPMENT:	
GENERATOR (EXISTING TO REMAIN) =	1,373 CFH
BOILER #1 =	375 CFH
BOILER #2 =	375 CFH
BOILER #3 =	375 CFH
BOILER #4 =	375 CFH
AC-3 =	500 CFH
AC-4 =	500 CFH
*AC-5 =	300 CFH
TOTAL (EXISTING)	4,173 CFH TOTAL CONNECTED LOAD @ 2 PSI DELIVERY PRESSURE
EXISTING & NEW GAS EQUIPMENT:	
GENERATOR (EXISTING) =	1,373 CFH
BOILER #1 =	750 CFH
BOILER #2 =	750 CFH
AC-3 =	500 CFH
AC-4 =	500 CFH
AC-5 =	150 CFH
TOTAL (NEW & EXISTING)	4,023 CFH TOTAL CONNECTED LOAD @ 11"-14"W.C. DELIVERY PRESSURE
TOTAL (CHANGE IN LOAD)	-150 CFH
NOTES	
*EQUIPMENT LOAD MAY VARY FROM STOCK EQUIPMENT INFORMATION AS UNIT HAS BEEN FIELD MODIFIED	

GAS NOTES
<ul style="list-style-type: none"> PRESSURE REGULATOR #1 SET AT 2PSI - SERVES GENERATOR PRESSURE REGULATOR #2 SET AT 6"-9"W.C. - SERVES ROOFTOP EQUIPMENT AND BOILERS. EXISTING REGULATOR #1 IS TO REMAIN EXISTING REGULATOR #2 (6"-9"W.C.) SERVING EXISTING BOILERS AND ROOFTOP EQUIPMENT TO BE REMOVED AND REPLACED WITH NEW REGULATOR THAT WILL PROVIDE 11"-14"W.C. @ 4,023 CFH. CONTRACTOR TO COORDINATE REGULATOR REPLACEMENT WITH CONNECTICUT NATURAL GAS COMPANY A MINIMUM OF THREE (3) WEEKS PRIOR TO STARTING WORK.

drawing title MECHANICAL PENTHOUSE PARTIAL PLANS - PLUMBING		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		
CAD no.	project no. BI-2B-387	date 2/4/2019	scale AS NOTED
			drawn by TH
			approved by JPK
			drawing no. P-204

PIPE AND FITTING SCHEDULE						
DESCRIPTION	SIZE	PIPE		FITTING		REMARKS
		TYPE	SCHEDULE	TYPE	RATING	
STORM DRAIN ABOVE GROUND	ALL	CI-NH	SV	CI	SV	-
DOMESTIC COLD WATER WITHIN BUILDING	2-1/2" AND BELOW	COPPER	TYPE L	CUS	STD	HARD TEMPERED
GAS PIPING	2" AND BELOW	STL-BLK	40	MIT	CLASS 150	-
GAS PIPING	ABOVE 2"	STL-BLK	40	WE	SCHED 40	-
VENT ABOVE GROUND	ALL	CI-NH	SV	CI	SV	-



HANGER SCHEDULE		
PIPE SIZE	ROD SIZE	MAX. SPACING
UP TO 1 1/4"	3/8" DIA.	8' STEEL
UP TO 1 1/4"	3/8" DIA.	6' COPPER & BRASS
1 1/2" & 2"	3/8" DIA.	10'
2 1/2" & 3"	1/2" DIA.	10'
4" & 5"	5/8" DIA.	10'
6"	3/4" DIA.	10'
8", 10", 12"	7/8" DIA.	10'

1 PIPE HANGER DETAIL
P-301 NOT TO SCALE

PLUMBING DRAIN/EQUIPMENT SCHEDULE											
FIXTURE TAG	FIXTURE TYPE	FIXTURE MANUFACTURER MODEL, MODEL NO.	MATERIAL	DESCRIPTION	SUPPLY SIZE	TRAP SIZE	MINIMUM BRANCH SIZES				REMARKS
							WASTE/SANITARY	VENT	COLD WATER	HOT WATER	
RD-1	15" ROOF DRAIN	FROET 200C SERIES	CAST IRON	HEAVY DUTY DRAIN, WITH 15" DIAMETER CAST IRON BODY, BOTTOM OUTLET, 12" DIAMETER CAST IRON DOME, ROOF SUMP RECEIVER, UNDER DECK CLAMP, EXTENSION COLLAR, AND COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD.	--	--	--	--	--	--	NOTE: INCLUDE EXTENSION COLLAR AS REQUIRED FOR INSTALLATION OR CONSTRUCTION THICKNESS
RD-2	15" OVERFLOW ROOF DRAIN	FROET 200C SERIES (WD2 OPTION)	CAST IRON	HEAVY DUTY DRAIN, WITH 15" DIAMETER CAST IRON BODY, BOTTOM OUTLET, 12" DIAMETER CAST IRON DOME, ROOF SUMP RECEIVER, UNDER DECK CLAMP, EXTENSION COLLAR, AND COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, 2" HIGH INTERIOR WEIR.	--	-	--	--	--	--	NOTE: INCLUDE EXTENSION COLLAR AS REQUIRED FOR INSTALLATION OR CONSTRUCTION THICKNESS
OFS	OVERFLOW ROOF DRAIN OUTLET	FROET LPS (WITH FLAPPER OPTION)	ALUMINUM-POWDER COAT COLOR SELECTION BY ARCHITECT	THREADED INLET, FITTING EQUIPPED WITH ANCHOR FLANGE, PRE-DRILLED COUNTER SUNK MOUNTING HOLES AND HINGED FLAPPER. COORDINATE SIZING WITH OVERFLOW DRAINAGE. REFER TO DRAWINGS.	--	--	--	--	--	--	NOTE: PROVIDE A BIRD SCREEN IF MODEL DOES NOT HAVE FLAPPER OPTION.
TG	TRAP GUARD MECHANICAL ROOMS	TRAP GUARD: PROSET TG SERIES	--	INSERTABLE TRAP GUARD FOR USE ON EXISTING DRAIN PIPING AND FLOOR DRAINS.	--	-	--	--	--	--	--

INSULATION SCHEDULE					
SYSTEM	PIPE SIZE	PIPE INSULATION TYPE	PIPE INSULATION THICKNESS	FITTINGS, VALVES, FLANGES - INSULATION TYPE	REMARKS
CONDENSATE DRAINS	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER PVC JACKET	TYPE I
ALL INTERIOR STORM DRAIN PIPING	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER PVC JACKET	TYPE I - INCLUDE ROOF DRAIN BODY
DOMESTIC COLD WATER	ALL	MINERAL FIBER, ASJ, SSL	1"	MOLDED, PRE-FORMED MINERAL FIBER PVC JACKET	TYPE I

- FIBERGLASS INSULATION: THERMAL CONDUCTIVITY .22 TO .28 BTU x IN./H x FT x °F W/ 100°F MEAN TEMP. THICKNESS BASED ON IECC 2015
- ALL EXPOSED INDOOR PIPING/TUBING AND FITTINGS WITHIN OCCUPIED SPACES, CORRIDORS, MECHANICAL ROOMS AND OTHER NON-CONCEALED LOCATIONS SHALL BE FITTED WITH PVC FITTING COVERS AND PVC PIPE COVERS FROM THE FLOOR LEVEL TO 12" ABOVE THE FINISHED FLOORS, PLATFORMS, AND MEZZANINES. PVC FITTING AND PIPE COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED. COVERS AND JACKETING COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.
- ALL ELBOWS, CONCEALED OR EXPOSED, SHALL BE INSULATED WITH PRE-MOLDED, FACTORY FORMED FIBROUS GLASS WITH 3.5 PCF MINIMUM DENSITY AS MANUFACTURED BY HAMFAB OR APPROVED EQUAL. ALL ELBOWS, CONCEALED OR EXPOSED, SHALL BE COVERED WITH PVC FITTING COVERS. PVC FITTING COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED. COVER COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.
- DIAPER AND LOOSE FILL STYLE INSULATION ON PIPE FITTINGS IS NOT ACCEPTABLE. ELBOWS WITHOUT PVC COVERS ARE NOT ACCEPTABLE.

VALVE SCHEDULE											
DESCRIPTION	SIZE	TYPE							REMARKS	ABBREVIATIONS	
		GATE	GLOBE	CHECK	BALL	PLUG	BALAN.	CLASS		ABB.	DESCRIPTION
DOMESTIC COLD WATER	2" AND SMALLER	--	--	CVT	BVT	--	--	125 PSI	--	"BVT	BALL VALVE THREADED - 2-PIECE, FULL PORT, 400PSI, BRONZE
GAS	2" AND SMALLER	--	--	--	--	PGVT	--	125 PSI	--	"CVT	CHECK VALVE THREADED - BRONZE
GAS	2-1/2" AND OVER	--	--	--	--	PGVF	--	125 PSI	--	"PGVF	PLUG VALVE FLANGED - AGA APPROVED
										"PGVT	PLUG VALVE THREADED - AGA APPROVED

*PRODUCTS SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE REQUIREMENTS OF THE "REDUCTION OF LEAD IN DRINKING WATER ACT".

drawing title SCHEDULES & DETAILS - PLUMBING		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale NONE
CAD no.		project no. BI-2B-387	drawn by TH approved by JPK drawing no. P-301

GENERAL MECHANICAL NOTES

GENERAL

1. WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.
3. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.
4. WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
5. DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO INCLUDE THE PROVISIONS AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.
6. PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.
7. WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.
9. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS. COORDINATE REQUIREMENTS WITH DIVISION 26.
10. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.
11. ALL EXISTING CONDITIONS AS INDICATED ARE APPROXIMATIONS OF EXACT CONDITIONS TO BE VERIFIED IN THE FIELD. CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE CONSTRUCTION CONDITIONS BEFORE SUBMITTING BID.
12. WHENEVER THE DOCUMENTS INDICATE FOR NEW PIPING TO CONNECT TO AN EXISTING PIPING SYSTEM (OTHER THAN A STEAM SYSTEM), CONTRACTOR SHALL INSTALL A TEMPORARY CORROSION INHIBITOR SYSTEM TO TREAT THE EXISTING PIPING. THE SYSTEM SHALL CONSIST OF AN INJECTOR, PIPING MODIFICATIONS AND APPLICABLE CHEMICALS REQUIRED TO TREAT THE EXISTING SYSTEM FOR A MINIMUM OF THREE WEEKS PRIOR TO ANY NEW CONNECTIONS. UPON INSTALLATION OF THE NEW PIPING SYSTEM, THE ENTIRE SYSTEM (NEW & EXISTING) SHALL BE FLUSHED WITH A CHEMICAL CLEANSING AGENT.
13. PROVIDE TRAPPED CONDENSATION DRAIN PIPING FROM COOLING COIL DRAIN PAN TO AN APPROVED POINT OF DISCHARGE WHETHER INDICATED OR NOT. REFER TO PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS.
14. RUN REFRIGERATION PIPING FROM AIR COOLED CONDENSING UNITS TO RESPECTIVE DX COOLING COILS. ROUTE AND SIZE PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
15. ALL HWS AND HWR PIPING SERVING RADIATION SHALL BE CONCEALED IN WALLS OR FLOORS UNLESS OTHERWISE NOTED.
16. REFER TO SPECIFICATION SECTION 230000 FOR ADDITIONAL PENETRATION SEALING REQUIREMENTS. PENETRATIONS TO COMPLY WITH ASTM E84 & E814 AND APPROVED UL 1479 AND SPECIFIC UL ASSEMBLIES AS REQUIRED TO SUIT PENETRATION CONDITIONS.
17. LOCATE ALL ROOF MOUNTED EQUIPMENT REQUIRING SERVICE A MINIMUM OF 10'-0" FROM EDGE OF ROOF. CONTRACTOR MUST COMPLY W/ THIS SET BACK.
18. DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.
19. COORDINATE ALL ROOF AND FLOOR PENETRATIONS W/ STRUCTURAL DWGS AND PROVIDE STRUCTURAL CONTRACTOR W/ FLOOR, WALL & ROOF OPENING SIZES.
20. TEMPERATURE CONTROL CONTRACTOR (TCC) IS RESPONSIBLE FOR ALL CONTROL WIRING 120 VOLT AND LESS. EXTEND POWER FOR PRESSURE CONTROL DAMPERS FROM JUNCTION BOXES PROVIDED BY DIVISION 26. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS. TCC TO EXTEND 120V POWER TO EACH PRESSURE CONTROL DAMPER TRANSFORMER. SHARED TRANSFORMERS ARE NOT ALLOWED. RUN POWER PER DIVISION 26 REQUIREMENTS.

21. TCC SHALL EXTEND ALL POWER FOR DAMPER ACTUATORS, VALVE ACTUATORS AND OTHER CONTROL DEVICES FROM LOCAL ELECTRICAL PANEL, DIVISION 26 TO SUPPLY POWER TO TCCPS. REFER TO ELECTRICAL DRAWINGS FOR PANEL LOCATIONS.
22. THE DRAWINGS AND SPECIFICATIONS ARE DIVIDED INTO SECTIONS TO MEET THE NEEDS OF THE ARCHITECT, THE ENGINEERS, AND THE DESIGN CONSULTANTS. THEY ARE NOT PREPARED AS INSTRUCTIONS TO THE CONTRACTOR FOR HOW TO BUY OUT OR SUBCONTRACT THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, REGARDLESS OF WHERE IT IS SHOWN. FOR EXAMPLE, ELECTRICAL WORK IS SHOWN ON FP-SERIES DRAWINGS AS WELL AS ON M-SERIES DRAWINGS AND E-SERIES DRAWINGS. MISCELLANEOUS METALS AND STRUCTURAL ELEMENTS ARE SHOWN ON A-SERIES DRAWINGS AS WELL AS ON S-SERIES DRAWINGS. STRUCTURAL SUPPORTS ARE REQUIRED BY THE FP DRAWINGS. TO AVOID OMITTING ANY COMPONENT OF THE PROJECT, REFER TO ALL THE CONTRACT DOCUMENTS IN THEIR ENTIRETY.
23. WHEREVER EXISTING SYSTEMS ARE ALTERED OR EXTENDED THE INTEGRITY OF THE SYSTEM IS TO BE MAINTAINED AND FUNCTION FULLY AS BEFORE. COORDINATE SCHEDULE FOR HOOK-UPS TO EXISTING SYSTEMS AND EQUIPMENT REMOVAL OR RELOCATION WITH THE OWNER AND PERFORM THIS WORK AT SUCH TIMES TO ENSURE THAT PERIODS OF SHUTDOWN WILL BE ACCEPTABLE TO THE OWNER.
24. VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.
25. RELOCATE EXISTING DUCTWORK AND/OR PIPE WORK IN EXISTING CEILING SPACES TO ACCOMMODATE ALL RENOVATIONS AND ADDITIONS.
26. PATCH ALL WALLS, FLOORS, CEILINGS, AND ROOFS TO MATCH EXISTING IN ALL CASES WHERE EXISTING WALLS, FLOORS, CEILINGS, AND ROOFS REMAIN AND HVAC DEMOLITION IS INDICATED.
27. THIS PROJECT CONSISTS OF MULTIPLE PHASES OF CONSTRUCTION OVER A SPECIFIED TIME PERIOD. PROVIDE ALL WORK NECESSARY TO KEEP EXISTING SYSTEMS IN SAFE OPERATION. PROVIDE ISOLATION (SHUTOFF) VALVES AT ALL CONNECTION POINTS TO EXISTING SYSTEMS.

ALTERATION WORK AND DEMOLITION

1. ALL EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.
2. UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL DUCTWORK AND PIPING TO REMAIN SHALL BE PROPERLY VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.
3. NO DEAD ENDS SHALL BE LEFT ON ANY DUCTWORK OR PIPING SYSTEM UPON COMPLETION OF WORK.
4. EXISTING DUCTWORK AND PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.
5. ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER AND DAS PM UPON COMPLETION OF ALL NEW WORK.
6. ALL EXISTING UNNECESSARY DUCTWORK AND PIPING NOT RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.
7. RE-ROUTE ALL EXISTING DUCTWORK, PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.
8. WHERE PORTIONS OF EXISTING DUCT SYSTEMS ARE TO REMAIN CONTRACTOR SHALL TAKE AIRFLOW READINGS AT ALL AIR REGISTER, GRILLES AND DIFFUSERS ASSOCIATED WITH THE DUCT SYSTEM TO BE MODIFIED BEFORE COMMENCEMENT OF WORK AND AFTER ALTERATION WORK IS COMPLETE. AIR BALANCING WORK SHALL BE PERFORMED BY AN INDEPENDENT NEEB CERTIFIED COMPANY, NOT ASSOCIATED WITH THE CONTRACTOR. REPORTS ARE TO BE ISSUED TO THE OWNER AND ENGINEER AT BOTH OCCURRENCES. IF AS-BUILTS ARE AVAILABLE, DISCREPANCIES NOTED BETWEEN THE AS BUILT DRAWINGS AND THE INITIAL AIR FLOW READINGS ARE TO BE NOTED ON THE AIR FLOW REPORT. EXISTING AIR REGISTERS, GRILLES AND DIFFUSERS ARE TO BE BALANCED TO THE ORIGINAL READINGS AT COMPLETION OF WORK UNLESS OTHERWISE IDENTIFIED.

SHOP DRAWINGS


1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR DUCTWORK LAYOUT, PIPING LAYOUT, SHEET METAL SHOP STANDARDS AND ALL EQUIPMENT FURNISHED.
2. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTOCAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION 2010 IF NOT SPECIFIED.
3. PRIOR TO THE SUBMISSION AND REVIEW OF SHEET METAL SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEET METAL SHOP STANDARDS. ANY SHEET METAL SHOP DRAWINGS SUBMITTED PRIOR TO THE SUBMISSION OF THE SHOP STANDARDS SHALL BE RETURNED "NOT REVIEWED".

MECHANICAL DEMOLITION NOTES

1. COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
2. THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
3. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING PIPING OR DUCTWORK WHICH MAY CAUSE DISRUPTION TO OCCUPIED FACILITIES, CONFER WITH THE OWNER, AND SCHEDULE A MUTUALLY AGREEABLE PERIOD OF INTERRUPTION.
4. WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY SERVICES, CONNECTIONS, CONTROLS, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
5. NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.
6. THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING MECHANICAL EQUIPMENT UNTIL THE NEW SYSTEMS COME ON LINE.
7. IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
8. REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
9. HAZARDOUS MATERIALS - SHALL BE DISPOSED OF BY AN EPA APPROVED, LICENSED DISPOSAL SERVICE. CONTRACTOR SHALL OBTAIN AND HAVE ON FILE, AFFIDAVIT, AND RECEIPTS STATING HOW AND WHERE THE WASTE WAS DISPOSED OF OR CONVERTED.
10. IT IS THE INTENTION OF THESE DEMO DRAWINGS TO INDICATE GENERAL SYSTEMS AND MATERIALS TO BE REMOVED. CONTRACTOR SHALL REMOVE ALL OBSOLETE PIPING, DUCTWORK, EQUIPMENT, CONTROLS, ETC. INDICATED OR NOT.
11. DUCTWORK, EQUIPMENT AND TERMINAL DEVICES HAVE BEEN TAKEN FROM FIELD OBSERVATION AND ARE TO BE USED FOR REFERENCE AND SHALL NOT BE CONSTRUED TO BE ACTUAL FIELD CONDITIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SYSTEMS PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
12. ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF PER OR STORED PER DIRECTION OF OWNER. ANY ITEM NOT RETAINED BY OWNER SHALL BE REMOVED FROM SITE AND DISCARDED IN AN APPROVED MANNER.
13. IT IS THE INTENTION OF THESE SPECIFICATION TO REMOVE ALL MATERIALS ABANDONED BY THE SCOPE OF THIS CONSTRUCTION PROJECT. NO OBSOLETE MATERIALS (I.E. HANGERS, SUPPORTS, INSULATION, DUCTWORK, ETC.) SHALL REMAIN.
14. DISCONNECT AND REMOVE ALL DUCTWORK AND ASSOCIATED SUPPLY, RETURN OR EXHAUST GRILLES INCLUDING BUT NOT LIMITED TO ALL HANGERS, SUPPORTS, VOLUME DAMPERS AND FLEXIBLE DUCTWORK.
15. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION TO ANY EXPOSED OR UNCAPPED NEW OR EXISTING DUCTWORK TO REMAIN TO MINIMIZE DUST CONTAMINATION IN ANY AND ALL OF THE AIR SYSTEMS. THIS SHALL INCLUDE BUT IS NOT LIMITED TO TEMPORARY FILTERS, CAPS, ENCLOSURES, ETC.

GENERAL PHASING NOTES

1. COORDINATE ALL WORK IN A PHASED MANNER TO ENSURE SERVICE IS RESTORED BY NEXT BUSINESS DAY FOR ALL SYSTEMS.
2. PROJECT WILL REQUIRE THE WORK SEQUENCE TO BE PHASED FOR SEASONAL WORK. REFER TO DIVISION 01 SPECIFICATIONS FOR PHASING PLAN.

drawing title COVER SHEET - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by
	mark	date	description
		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
		project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	scale NONE
		CAD no.	project no. BI-2B-387
		drawing by JNR approved by CR drawing no. M-001	

GENERAL MECHANICAL SYMBOLS

	HWS	HOT WATER SUPPLY PIPING		EXISTING DUCTWORK TO REMAIN
	HWR	HOT WATER RETURN PIPING		EXISTING DUCTWORK TO BE REMOVED
	CD	CONDENSATE DRAIN PIPING		HIDDEN DUCTWORK
		HIDDEN PIPING		SUPPLY DUCT UP / DOWN
		EXISTING PIPING / EQUIPMENT TO REMAIN		RETURN AIR DUCT UP / DOWN
		EXISTING PIPING / EQUIPMENT TO BE REMOVED		EXHAUST AIR DUCT UP / DOWN
		DIRECTION OF FLOW IN PIPE		DOUBLE LINE DUCTWORK WITH INDICATION OF INSIDE DIMENSIONS
		PITCH PIPE DOWN IN DIRECTION OF ARROW		DOUBLE LINE DUCTWORK WITH INTERNAL ACOUSTICAL INSULATION AND INDICATION OF INSIDE DIMENSIONS
		PIPE ELBOW UP / DOWN		DOUBLE LINE DUCTWORK WITH DUCT LAGGING AND INDICATION OF INSIDE DIMENSIONS
		PIPE TOP CONNECTION		ACCESS DOOR IN DUCT
		PIPE BOTTOM CONNECTION		ROUND DUCT DIAMETER SIZE
		CAPPED PIPING		FLEXIBLE DUCT CONNECTION
		PIPING CONTINUATION		UNDERCUT DOOR
		PIPE UNION		SUPPLY AIR FLOW
		PIPE ANCHOR		EXHAUST / RETURN AIR FLOW
		PIPE GUIDE		MITERED ELBOW WITH TURNING VANES
		PIPE EXPANSION JOINT		DUCT TAKE-OFF
		FLEXIBLE PIPE CONNECTOR		VANE EXTRACTOR
		PRESSURE REDUCING VALVE		CEILING DIFFUSER REFER TO SCHEDULE FOR SIZE & TYPE
		MOTORIZED CONTROL VALVE - 2 WAY		RETURN / EXHAUST GRILLE REFER TO SCHEDULE FOR SIZE & TYPE
		MOTORIZED CONTROL VALVE - 3 WAY		LINEAR DIFFUSER REFER TO SCHEDULE FOR SIZE & TYPE
		BALL VALVE		THERMOSTAT
		GLOBE VALVE		TEMPERATURE SENSOR
		GATE VALVE		RELATIVE HUMIDITY SENSOR OR HUMIDISTAT
		BUTTERFLY VALVE		SMOKE DETECTOR IN DUCT
		COMBINATION BALANCING / FLOW MEASURING DEVICE		STATIC PRESSURE SENSOR
		PLUG VALVE		SMOKE DAMPER
		BALL VALVE WITH PRESSURE GAUGE		FIRE DAMPER
		PRESSURE GAUGE WITH BALL VALVE		COMBINATION SMOKE & FIRE DAMPER
		PIPE REDUCER OR INCREASER		MOTORIZED DAMPER
		THERMOMETER		MANUAL VOLUME DAMPER / CABLE OPERATED DAMPER (COD)
		PIPE WELL		UNDERLINED TEXT DENOTES EQUIPMENT REFER TO SCHEDULES
		PIPE AIR VENT (M - MANUAL, A - AUTOMATIC)		DIFFUSER LEGEND LTR = TYPE DESIGNATION. REFER TO SCHEDULES CFM = CFM QUANTITY
		BALL DRAIN VALVE WITH HOSE COUPLING AND CAP		# = BLOW ARRANGEMENT, 4-WAY BLOW IS TYPICAL UNLESS OTHERWISE NOTED
		CHECK VALVE		3 = 3-WAY BLOW
		STRAINER W/ BLOWDOWN BALL VALVE		2 = 2-WAY BLOW
		FLOW MEASURING STATION		1 = 1-WAY BLOW
		AIR SEPARATOR		
		MANUAL BUTTERFLY VALVE W/ HAND WHEEL		
		MOTORIZED VALVE		
		VARIABLE FREQUENCY DRIVE		
		COMBINATION MOTOR STARTER / DISCONNECT		
		TEMPERATURE CONTROL PANEL		
		POINT OF CONNECTION		
		POINT OF DEMOLITION		
		OCCUPANCY SENSOR		
		CARBON MONOXIDE SENSOR		
		CARBON DIOXIDE SENSOR		

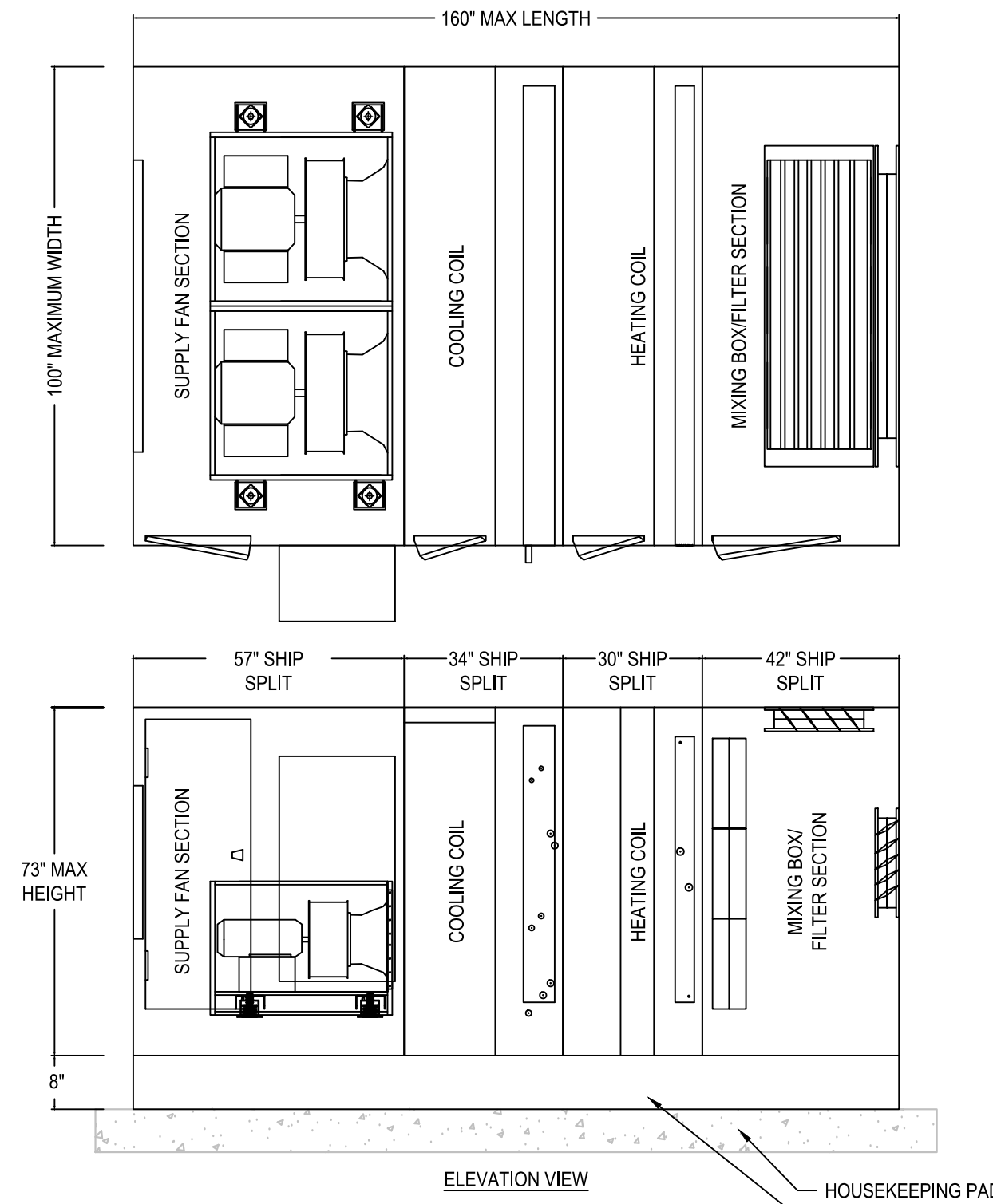
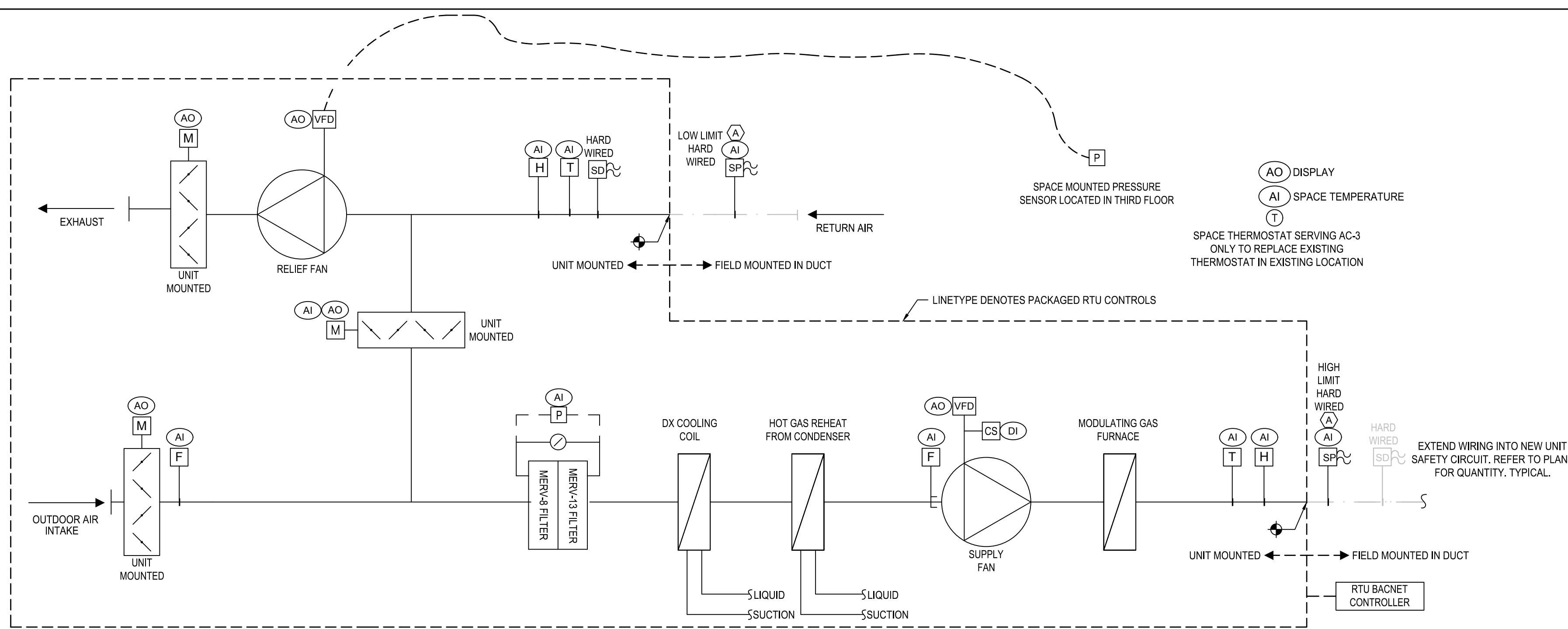
* ALL SYMBOLS MAY NOT BE USED IN THESE DOCUMENTS.

GENERAL MECHANICAL ABBREVIATIONS

ABV	ABOVE	FA	FACE AREA	NTS	NOT TO SCALE
AC	AIR COMPRESSOR	FC	FORWARD CURVE	OA	OUTSIDE AIR
ACC-#	AIR COOLED CONDENSER	F.C.	FLEX CONNECTION	OAT	OUTDOOR AIR TEMPERATURE
ACU-#	AIR CONDITIONING UNIT	FCU-#	FAN COIL	OAI	OUTDOOR AIR INTAKE
ACCU-#	AIR COOLED CONDENSING UNIT	FCU-#	FAN COIL UNIT	OD	OPPOSED BLADE DAMPER
AD	ACCESS DOOR	FD	FIRE DAMPER WITH ACCESS DOOR	OD	OUTSIDE DIMENSION
AF	AIRFOIL	FF	FINAL FILTER	O.E. T.D.	OPEN END TRANSFER DUCT
AFC	ADJUSTABLE FREQUENCY CONTROLLER	FIN FL	FINISH FLOOR	OED	OPEN END DUCT
AFF	ABOVE FINISHED FLOOR	FL	FLOOR	P-#	PUMP
AFMS	AIR FLOW MEASURING STATION	FLA	FULL LOAD AMPERES	PB	PUSH BUTTON
AHU-#	AIR HANDLING UNIT	FLEX	FLEXIBLE	PBD	PARALLEL BLADE DAMPER
AL	ACOUSTIC LINING	FO	FLAT OVAL	PD	PRESSURE DROP
ALD	AUTOMATIC LOUVER DAMPER	PPF	FINS PER FOOT	PF	PREFILTER
ALP	ACOUSTICALLY LINED PLENUM	FT	FEET	PH	PHASE
APD	AIR PRESSURE DROP	F.T.	FLOAT & THERMOSTATIC TRAP	PHC	PREHEAT COIL
AUTO	AUTOMATIC	FT-#	FIN TUBE RADIATION	PPH	POUND PER HOUR
B-#	BOILER	FV	FACE VELOCITY	PRV	PRESSURE REDUCING VALVE
BC	BACKWARD CURVED	GC	GENERAL CONTRACTOR	PSI	POUND PER SQUARE INCH
BD	BYPASS DAMPER	GH	GRAVITY INTAKE HOOD	RA	RETURN AIR
BMCS	BUILDING MANAGEMENT & CONTROL SYSTEM	GPH	GALLONS PER HOUR	RAD	RETURN AIR DAMPER
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE	RAF-#	RETURN AIR FAN
BV	BYPASS VALVE	H-C	HEATING/COOLING	RAT	RETURN AIR TEMPERATURE
CH-#	CHILLER	H-#	HUMIDIFIER	REG	REGISTER
CHR	CHILLED WATER RETURN	H-O-A	HAND-OFF-AUTOMATIC	RH	RELATIVE HUMIDITY
CHS	CHILLED WATER SUPPLY	HC-#	HEATING COIL	RHC	REHEAT COIL
CAP	CAPACITY	HD	FEET OF HEAD	RLA	RATED LOAD AMPERES
CB-#	CONTROL BOX	HP	HORSEPOWER	RM	ROOM
CC-#	COOLING COIL	HTG	HEATING	RP	RADIANT PANEL
CD	CEILING DIFFUSER	HTR	HEATER	RPM	REVOLUTIONS PER MINUTE
CFM	CUBIC FEET PER MINUTE	HV-#	HEATING AND VENTILATING UNIT	RTU-#	ROOFTOP AIR CONDITIONING UNIT
CG	CEILING GRILLE	HVAC	HEATING, VENTILATING & AIR CONDITIONING	RV	RADIATION VALVE
CLG	CEILING CONNECTOR	HX-#	HEAT EXCHANGER CONVERTOR	SAF-#	SUPPLY AIR FAN
C-#	CABLE OPERATED DAMPER	IBT	INVERTED BUCKET TRAP	SAT	SUPPLY AIR TEMPERATURE
C.O.D.	CONDENSATE RECEIVER/PUMPING SYSTEM	ID	INSIDE DIMENSION	SB	SECURITY BARS
CP	CEILING REGISTER	IN	INCHES	VSC	VERTICAL SPLIT CASE
CT-#	COOLING TOWER	IP	INTAKE PENTHOUSE	HSC	HORIZONTAL SPLIT CASE
CTD	CEILING TRANSFER DUCT	IV	INLET GUIDE VANES	SD	SMOKE DAMPER
CUH-#	CABINET UNIT HEATER	KWH	KILOWATT	SG	SUPPLY GRILLE
CV	CONTROL VALVE	KWH	KILOWATT HOUR	SP	STATIC PRESSURE
D&T	DRIP AND TRAP	IL	INLINE	SQ FT	SQUARE FOOT (AREA)
DB	DRY BULB	LAT	LEAVING AIR TEMPERATURE	ST	SINGLE POLE SWITCH
DD	DIRECT DRIVE	LD	LINEAR DIFFUSER	TSTAT	THERMOSTAT
DDC	DIRECT DIGITAL CONTROL	LIN	LINEAR	TB	TERMINAL BOX
DIFF	DIFFUSER	LRA	LOCKED ROTOR AMPERES	TCP	TEMPERATURE CONTROL PANEL
DL	DOOR LOUVER	LPR	LOW PRESSURE RETURN	TD	TEMPERATURE DIFFERENCE
DN	DOWN	LPS	LOW PRESSURE SUPPLY	TEMP	TEMPERATURE
DP	DEWPOINT TEMPERATURE	LVG	LEAVING	TG	AIR TRANSFER GRILLE
DR	DROP	LWT	LEAVING WATER TEMPERATURE	TOT	TOTAL
DX	DIRECT EXPANSION	MAN	MANUAL	TN-HR	TON HOUR REFRIGERATION
EF-#	EXHAUST FAN	MAT	MIXED AIR TEMPERATURE	TR	TOP REGISTER
EAT	ENTERING AIR TEMPERATURE	MAX	MAXIMUM	TRD	TRANSFER DUCT
EER	ENERGY EFFICIENCY RATIO	MBH	1000 BTU'S	TT	THERMOSTATIC TRAP
EG	EXHAUST GRILLE	MCA	MINIMUM CIRCUIT AMPACITY	TYP	TYPICAL
EHC-#	ELECTRIC HEATING COIL	MD	MOTORIZED DAMPER	UC	UNDERCUT DOOR
ENT	ENTERING	MER	MECHANICAL EQUIPMENT ROOM	UH-#	UNIT HEATER HOT WATER
HEPA	HIGH EFFICIENCY PARTICULATE FILTER	MEZZ	MEZZANINE	UV-#	UNIT VENTILATOR
ER	EXHAUST REGISTER	MFS	MAXIMUM FUSE SIZE	VD	VOLUME DAMPER
ES	END SUCTION	MIN	MINIMUM	VE	VOLUME EXTRACTOR
ESP	EXTERNAL STATIC PRESSURE	MTR	MOTOR	VFD	VARIABLE FREQUENCY DRIVE
ET-#	EXPANSION TANK	MUA	MAKE-UP AIR	VI	VIBRATION ISOLATOR
ETR	EXISTING TO REMAIN	MV	MOTORIZED VALVE	VSF	VARIABLE SPEED FAN SWITCH
EUH-#	ELECTRIC UNIT HEATER	NC	NOISE CRITERIA	W	WITH
EWIT	ENTERING WATER TEMPERATURE	NFA	NET FREE AREA	WB	WET BULB
EXP-#	EXPANSION LOOP	NIC	NOT IN THIS CONTRACT	WFM	WATER FLOW MEASURING STATION
EX	EXISTING	NO	NORMALLY OPEN	WMS	WIRE MESH SCREEN
EXH	EXHAUST			WPD	WATER PRESSURE DROP
EXT	EXTERNAL			WT	WEIGHT (LBS)
F	DEGREES FAHRENHEIT			ZD	ZONE DAMPER
F&B	FACE & BYPASS DAMPER				

* ALL ABBREVIATIONS MAY NOT BE USED IN THESE DOCUMENTS.

drawing title		COVER SHEET - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS			drawing prepared by	date
	mark	date	description	KOHLER RONAN, LLC	2/4/2019
				93 LAKE AVENUE DANBURY, CT 06810	NONE
				project	drawn by
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT	JNR
				300 CORPORATE PLACE ROCKY HILL, CT	approved by
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					M-002
CAD no.		project no.	BI-2B-387		



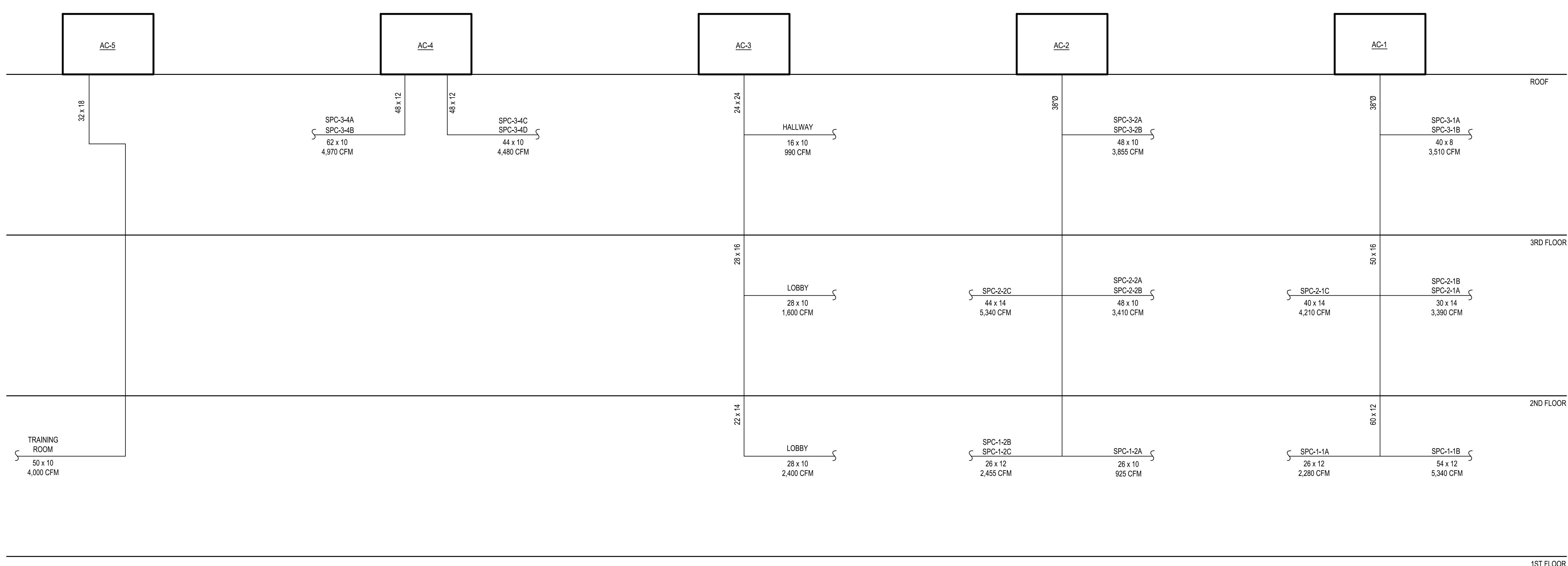
MECHANICAL CONTROLS SYMBOL LIST

(A)	ALARM
(AI)	DDC ANALOG INPUT POINT
(AO)	DDC ANALOG OUTPUT POINT
(BAC)	BTU METER
(CO)	CARBON MONOXIDE SENSOR
(CDO)	CARBON DIOXIDE SENSOR
(CS)	CURRENT SENSOR
(DI)	DDC DIGITAL INPUT POINT
(DO)	DDC DIGITAL OUTPUT POINT
(DPT)	DIFFERENTIAL PRESSURE TRANSMITTER
(ECM)	ELECTRONICALLY COMMUTATED MOTOR
(ES)	END SWITCH
(F)	FLOW MEASURING STATION
(FS)	FREEZE STAT
(H)	ROOM HUMIDISTAT / HUMIDITY SENSOR
(HL)	HUMIDITY SENSOR
(HLI)	HIGH LIMIT HUMIDISTAT
(L)	ELECTRONIC LIQUID LEVEL SENSOR
(M)	DAMP/VALVE MOTOR
(MS)	MOTOR STARTER
(NG)	NATURAL GAS SENSOR
(OC)	OCCUPANCY SENSOR
(P)	PRESSURE SENSOR
(SD)	SMOKE DETECTOR, FURNISHED AND WIRED BY DIVISION 26 CONTRACTOR AND MOUNTED BY DIVISION 23 CONTRACTOR
(SP)	STATIC PRESSURE SENSOR
(TCP)	TEMPERATURE CONTROL PANEL
(TCL)	TERMINAL CONTROL UNIT
(T)	ROOM THERMOSTAT (TEMPERATURE SENSOR)**
(TS)	ROOM TEMPERATURE SENSOR
(T)	TEMPERATURE SENSOR
(VFD)	VARIABLE FREQUENCY CONTROLLER*
(VSE)	VARIABLE SPEED FAN SWITCH
(V)	VELOCITY MEASURING DEVICE
(V)	MAGNAHELIC PRESSURE GAUGE
(H)	HUMIDIFIER
(C)	COIL
(D)	OPPOSED BLADE DAMPER
(P/F)	PUMP / FAN
(D)	DISCONNECT SWITCH
(H)	HARDWIRED

ALL SYMBOLS MAY NOT BE USED IN THESE DOCUMENTS.
 *REFER TO VARIABLE FREQUENCY CONTROLLER CONTROL DIAGRAM FOR REQUIRED CONTROL POINTS FOR ALL VFD & VS SYMBOLS INDICATED.
 **REFER TO SPACE THERMOSTAT CONTROL DIAGRAM FOR REQUIRED CONTROL POINTS FOR ALL SPACE THERMOSTAT SYMBOLS INDICATED.

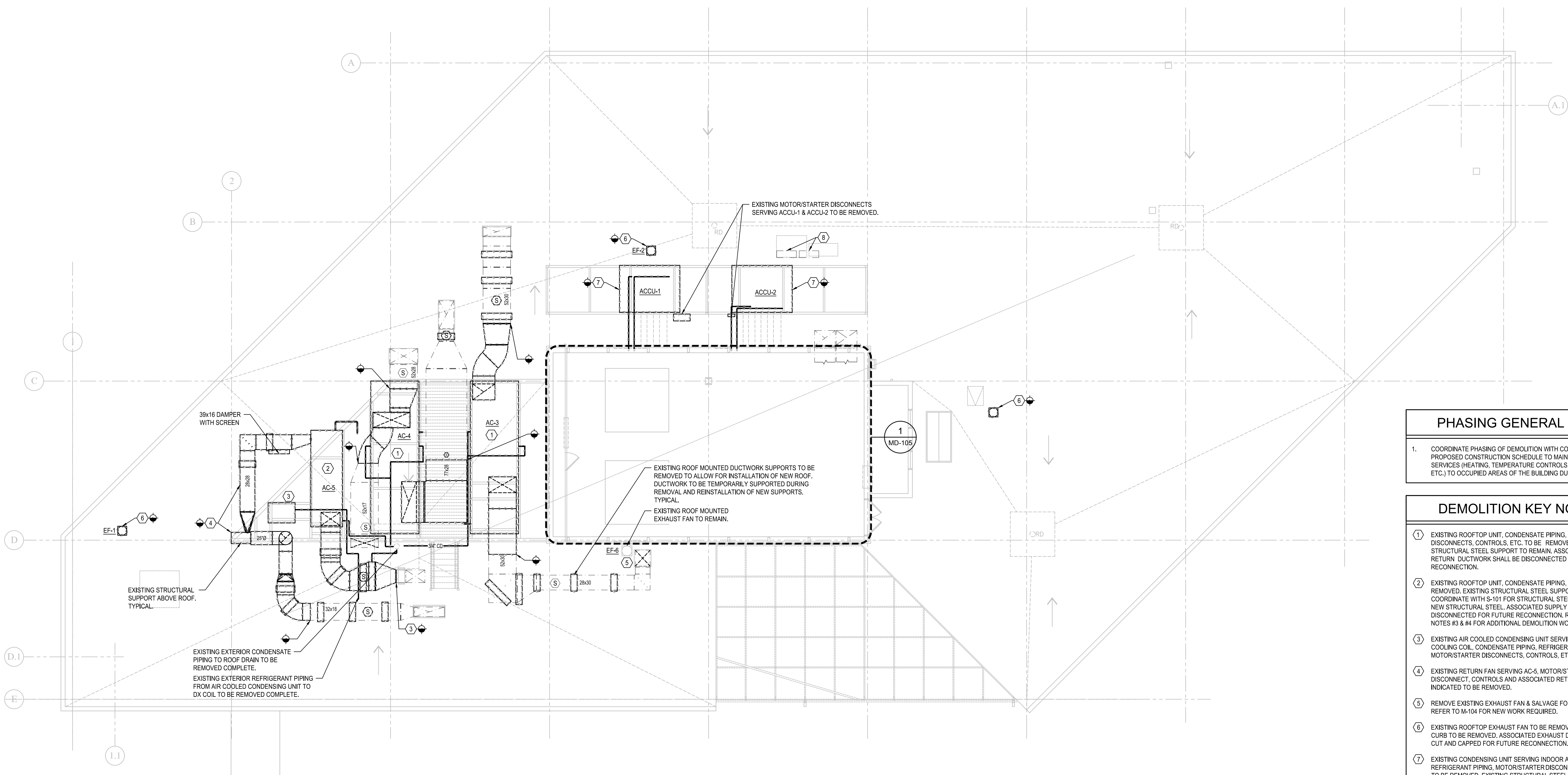
1 RTU FLOW AND CONTROL DIAGRAM (AC-3 & AC-4)
 M-005 SCALE: NONE

2 AC-1 & AC-2 UNIT DIAGRAMS
 M-005 SCALE: NONE



3 AIR HANDLER RISER DIAGRAM
 M-005 SCALE: NONE

drawing title FLOW & CONTROL DIAGRAMS - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
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	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		
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			drawn by JNR
			approved by CR
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PHASING GENERAL NOTES

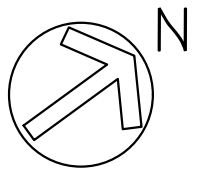
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.

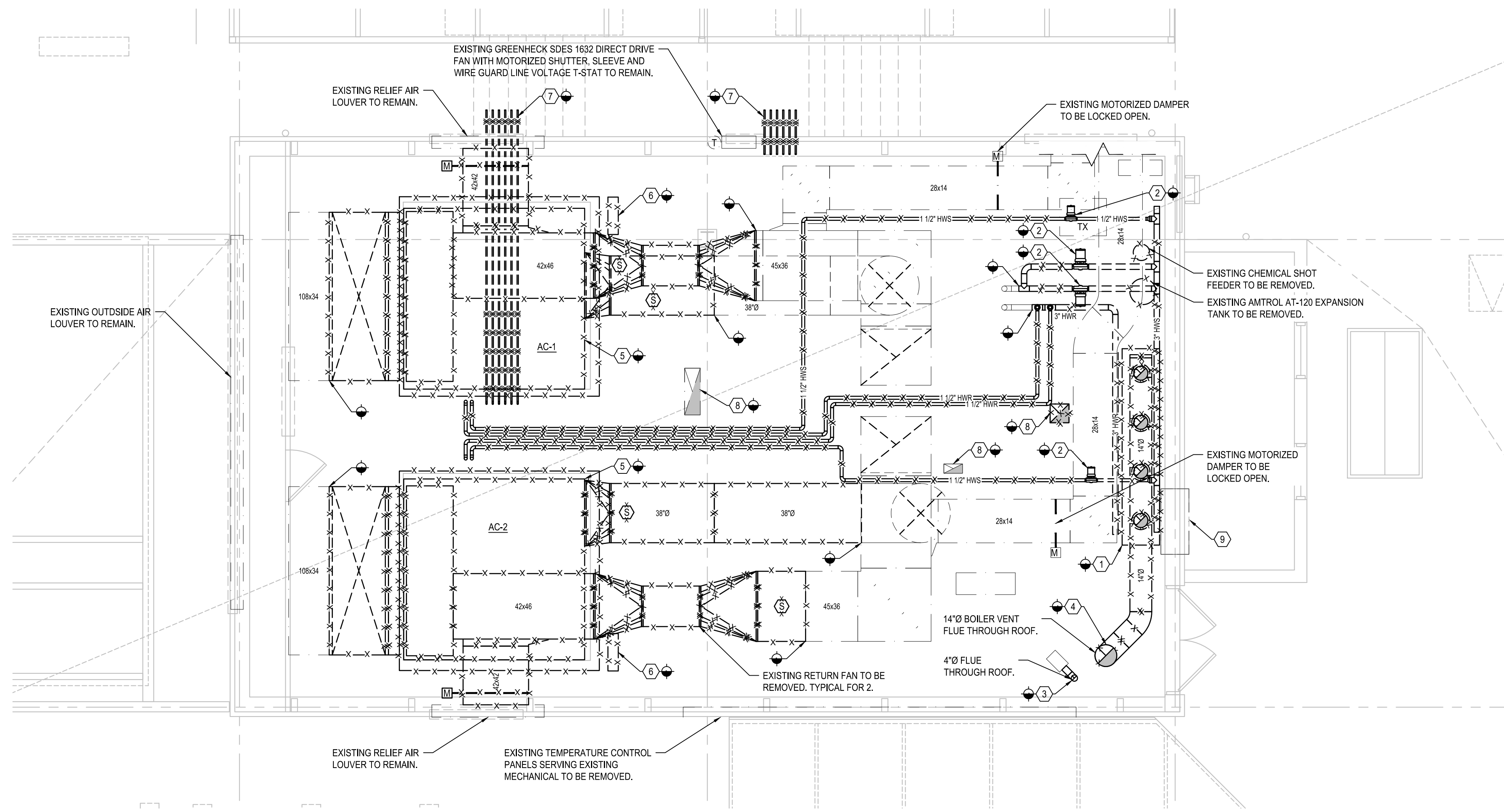
DEMOLITION KEY NOTES

- EXISTING ROOFTOP UNIT, CONDENSATE PIPING, MOTOR/STARTER DISCONNECTS, CONTROLS, ETC. TO BE REMOVED. EXISTING STRUCTURAL STEEL SUPPORT TO REMAIN. ASSOCIATED SUPPLY AND RETURN DUCTWORK SHALL BE DISCONNECTED FOR FUTURE RECONNECTION.
- EXISTING ROOFTOP UNIT, CONDENSATE PIPING, CONTROLS, ETC. TO BE REMOVED. EXISTING STRUCTURAL STEEL SUPPORT TO REMAIN. COORDINATE WITH S-101 FOR STRUCTURAL STEEL MODIFICATIONS AND NEW STRUCTURAL STEEL. ASSOCIATED SUPPLY DUCTWORK SHALL BE DISCONNECTED FOR FUTURE RECONNECTION. REFER TO DEMO KEY NOTES #3 & #4 FOR ADDITIONAL DEMOLITION WORK FOR AC-5.
- EXISTING AIR COOLED CONDENSING UNIT SERVING AC-5 DUCT MOUNTED COOLING COIL, CONDENSATE PIPING, REFRIGERANT PIPING, MOTOR/STARTER DISCONNECTS, CONTROLS, ETC. TO BE REMOVED.
- EXISTING RETURN FAN SERVING AC-5, MOTOR/STARTER DISCONNECT, CONTROLS AND ASSOCIATED RETURN DUCTWORK AS INDICATED TO BE REMOVED.
- REMOVE EXISTING EXHAUST FAN & SALVAGE FOR REINSTALLATION. REFER TO M-104 FOR NEW WORK REQUIRED.
- EXISTING ROOFTOP EXHAUST FAN TO BE REMOVED. EXISTING ROOF CURB TO BE REMOVED. ASSOCIATED EXHAUST DUCTWORK SHALL BE CUT AND CAPPED FOR FUTURE RECONNECTION.
- EXISTING CONDENSING UNIT SERVING INDOOR AIR HANDLING UNITS REFRIGERANT PIPING, MOTOR/STARTER DISCONNECTS, CONTROLS, ETC. TO BE REMOVED. EXISTING STRUCTURAL STEEL SUPPORT TO REMAIN.
- EXISTING CONDENSING UNIT SERVING INDOOR SPLIT UNIT AND ASSOCIATED REFRIGERANT PIPING, MOTOR/STARTER DISCONNECTS, CONTROLS, ETC. TO BE REMOVED AND REINSTALLED ON NEW ROOF SUPPORTS TO ALLOW FOR INSTALLATION OF NEW ROOF. THE REMOVAL AND REINSTALLATION OF THE CONDENSING UNITS SERVING THE SERVER ROOM SHALL BE PHASED TO ALLOW ONE UNIT TO REMAIN OPERATIONAL WHILE THE OTHER UNIT IS REMOVED AND REINSTALLED. REFER TO PHASING PLAN FOR ADDITIONAL REQUIREMENTS.

1 ROOF DEMOLITION PLAN
MD-104 SCALE: 1/8"=1'-0"

drawing title ROOF DEMOLITION PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/8"=1'-0"
	mark	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	drawn by JNR
	date		approved by CR
	description	CAD no.	drawing no. MD-104
		project no. BI-2B-387	



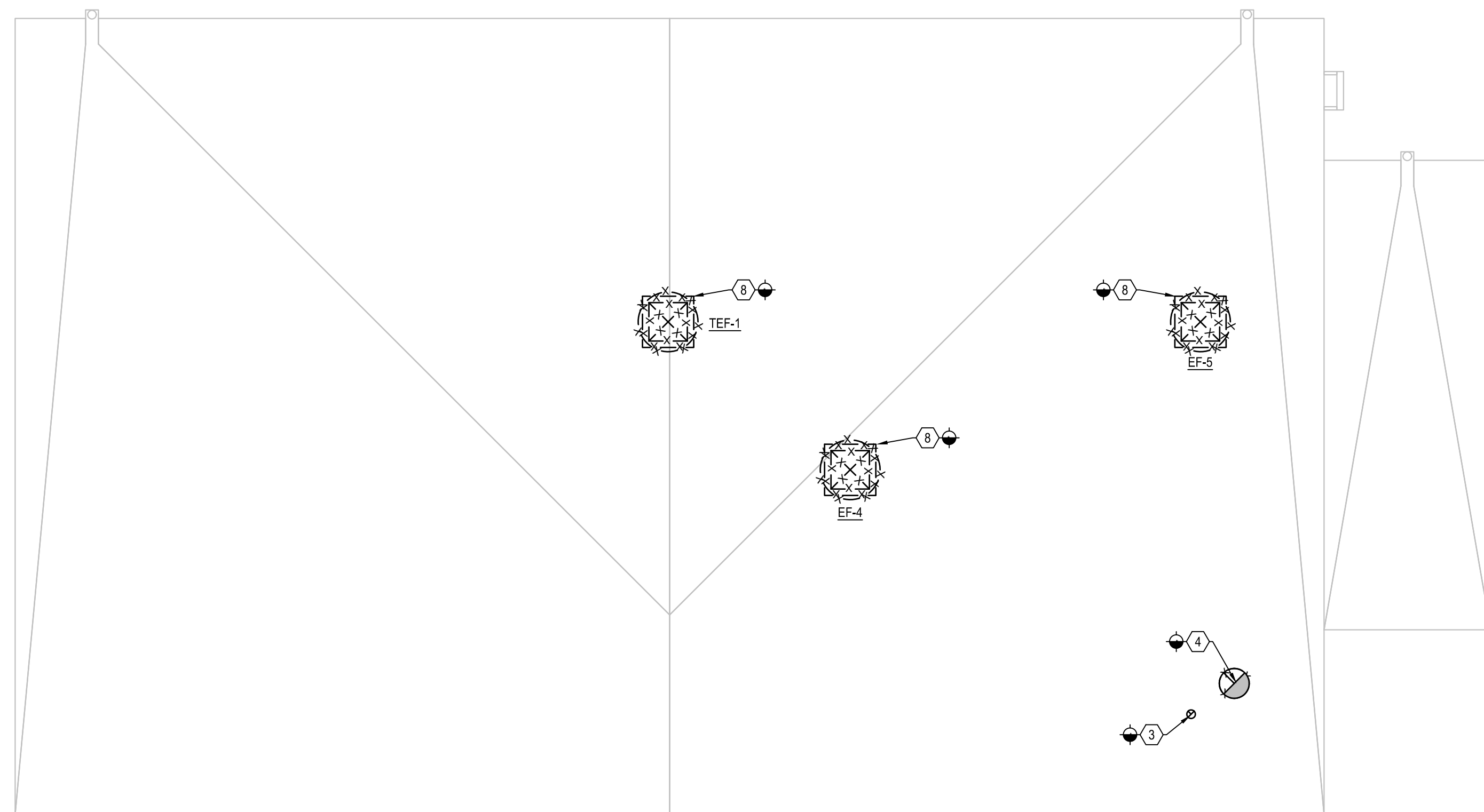


- ### PHASING GENERAL NOTES
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
 - REFER TO MD-107 & MD-108 FOR PHASED DEMOLITION WORK. DEMOLITION SCOPE OF WORK SHALL BE COORDINATED WITH THE TEMPORARY PHASING PLANS FOR AC-1 & AC-2.

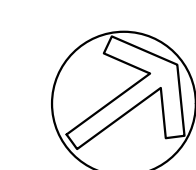
- ### GENERAL NOTES
- ALL ABANDONED AND UNUSED PIPING, HANGERS, SUPPORTS, ETC WITHIN AREA OF WORK SHALL BE REMOVED.

- ### DEMOLITION KEY NOTES
- REMOVE EXISTING BOILERS, ASSOCIATED DRAIN PIPING, SUPPORTS, HANGERS, CONTROLS, GAS PIPING, MAKE-UP WATER, ETC COMPLETE. VALVE & CAP ALL ASSOCIATED PIPING FOR FUTURE CONNECTION AT POINTS INDICATED. EXISTING CONCRETE HOUSEKEEPING PAD TO BE REMOVED.
 - REMOVE EXISTING HWS/R PIPING, PUMPS, HANGERS, ETC BACK TO VALVES INDICATED ON DRAWING 1M003. EXISTING VALVES TO REMAIN.
 - REMOVE EXISTING SINGLE WALL 4" UNIT HEATER FLUE COMPLETE. EXISTING ROOF PENETRATION TO BE REUSED FOR NEW UNIT HEATER FLUE.
 - REMOVE EXISTING SINGLE WALL 14" BOILER FLUE COMPLETE. EXISTING ROOF PENETRATION TO BE REUSED FOR NEW BOILER FLUE. PROVIDE TEMPORARY CAP FOR WEATHER TIGHT ENCLOSURE.
 - REMOVE EXISTING INDOOR AIR HANDLING UNIT, ASSOCIATED RETURN FAN, ASSOCIATED DRAIN PIPING, SUPPORTS, HANGERS, CONTROLS, & CONCRETE PAD COMPLETE. EXISTING SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK TO BE DISCONNECTED AT THE POINT INDICATED FOR RECONNECTION.
 - EXISTING STEAM HUMIDIFIER, CONTROLS, PIPING, SUPPORTS, ETC. SERVING INDOOR AIR HANDLING UNIT TO BE REMOVED COMPLETE.
 - EXISTING REFRIGERANT PIPING FROM OUTDOOR CONDENSING UNIT TO BE REMOVED COMPLETE.
 - EXISTING PENTHOUSE ROOFTOP EXHAUST FAN TO BE REMOVED. EXISTING ROOF CURB TO BE REMOVED. ASSOCIATED EXHAUST DUCTWORK SHALL BE CUT AND CAPPED FOR FUTURE RECONNECTION.
 - EXISTING LOUVERS & HOODS TO REMAIN. PROVIDE INSULATED PANEL TO BLANK OFF LOWER LOUVER. TOP LOUVER & HOOD TO BE USED FOR BOILER COMBUSTION AIR.

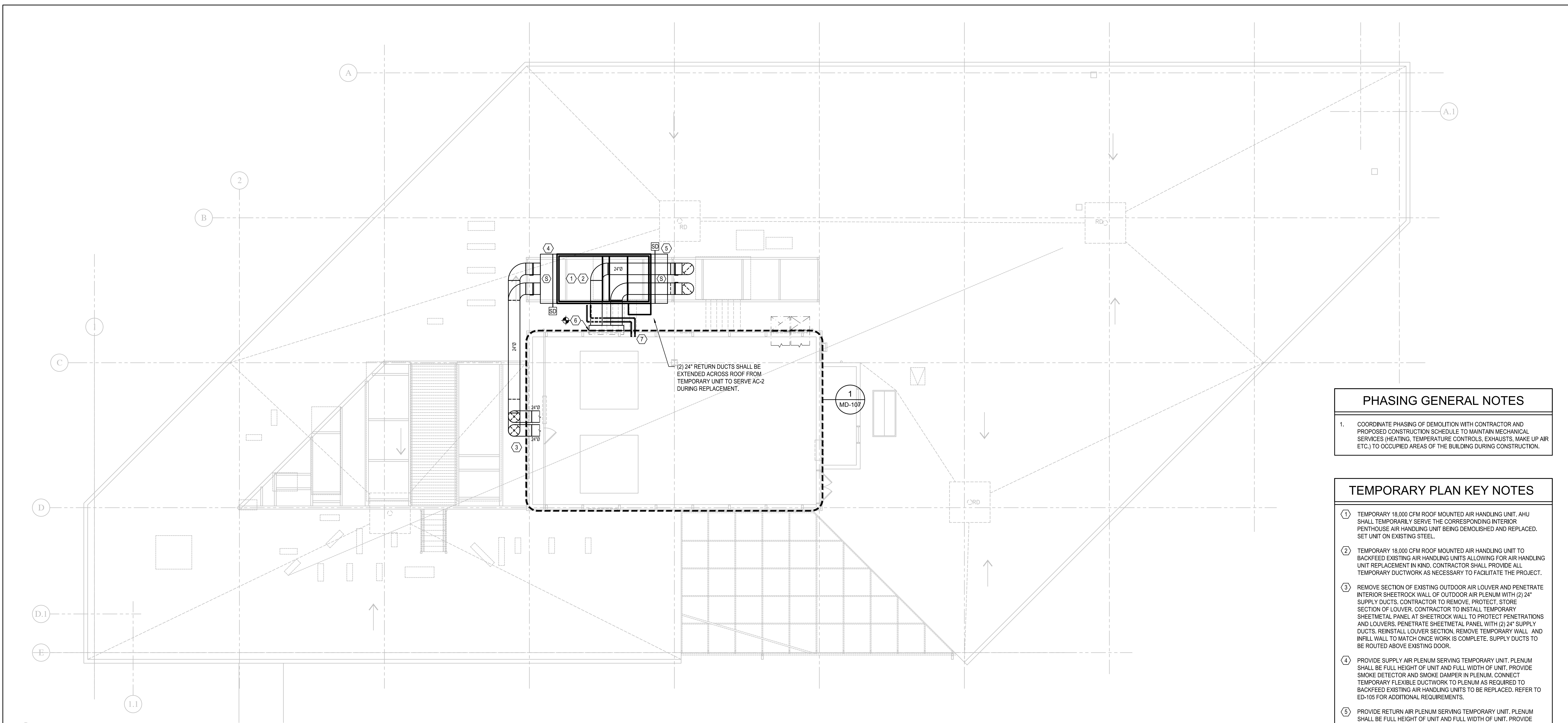
1 ROOF DEMOLITION PART PLAN
MD-105 SCALE: 1/4"=1'-0"



2 PENTHOUSE ROOF DEMOLITION PART PLAN
MD-105 SCALE: 1/4"=1'-0"



drawing title ROOF DEMOLITION PART PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale 1/4"=1'-0"
CAD no.		project no. BI-2B-387	drawn by JNR approved by CR drawing no. MD-105



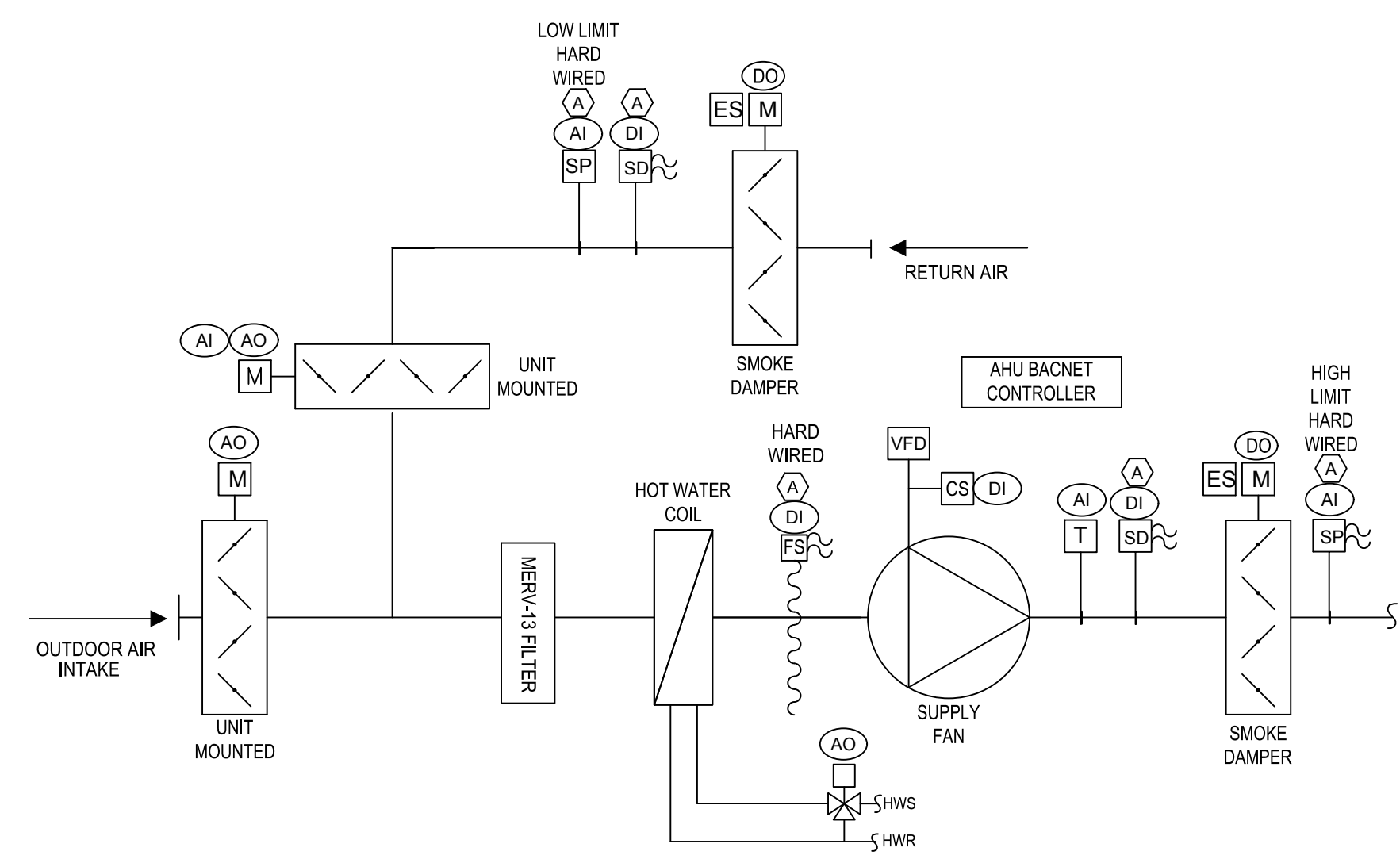
PHASING GENERAL NOTES

- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.

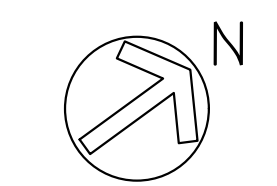
TEMPORARY PLAN KEY NOTES

- TEMPORARY 18,000 CFM ROOF MOUNTED AIR HANDLING UNIT. AHU SHALL TEMPORARILY SERVE THE CORRESPONDING INTERIOR PENTHOUSE AIR HANDLING UNIT BEING DEMOLISHED AND REPLACED. SET UNIT ON EXISTING STEEL.
- TEMPORARY 18,000 CFM ROOF MOUNTED AIR HANDLING UNIT TO BACKFEED EXISTING AIR HANDLING UNITS ALLOWING FOR AIR HANDLING UNIT REPLACEMENT IN KIND. CONTRACTOR SHALL PROVIDE ALL TEMPORARY DUCTWORK AS NECESSARY TO FACILITATE THE PROJECT.
- REMOVE SECTION OF EXISTING OUTDOOR AIR LOUVER AND PENETRATE INTERIOR SHEETROCK WALL OF OUTDOOR AIR PLENUM WITH (2) 24" SUPPLY DUCTS. CONTRACTOR TO REMOVE, PROTECT, STORE SECTION OF LOUVER. CONTRACTOR TO INSTALL TEMPORARY SHEETMETAL PANEL AT SHEETROCK WALL TO PROTECT PENETRATIONS AND LOUVERS. PENETRATE SHEETMETAL PANEL WITH (2) 24" SUPPLY DUCTS. REINSTALL LOUVER SECTION. REMOVE TEMPORARY WALL AND INFILL WALL TO MATCH ONCE WORK IS COMPLETE. SUPPLY DUCTS TO BE ROUTED ABOVE EXISTING DOOR.
- PROVIDE SUPPLY AIR PLENUM SERVING TEMPORARY UNIT. PLENUM SHALL BE FULL HEIGHT OF UNIT AND FULL WIDTH OF UNIT. PROVIDE SMOKE DETECTOR AND SMOKE DAMPER IN PLENUM. CONNECT TEMPORARY FLEXIBLE DUCTWORK TO PLENUM AS REQUIRED TO BACKFEED EXISTING AIR HANDLING UNITS TO BE REPLACED. REFER TO ED-105 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE RETURN AIR PLENUM SERVING TEMPORARY UNIT. PLENUM SHALL BE FULL HEIGHT OF UNIT AND FULL WIDTH OF UNIT. PROVIDE SMOKE DETECTOR AND SMOKE DAMPER IN PLENUM. CONNECT TEMPORARY FLEXIBLE DUCTWORK TO PLENUM AS REQUIRED TO BACKFEED EXISTING AIR HANDLING UNITS TO BE REPLACED.
- FABRICATE & PROVIDE RETURN AIR PLENUM CONNECTED TO EXISTING RELIEF AIR LOUVER SERVING TEMPORARY UNIT. PLENUM SHALL BE FULL HEIGHT OF UNIT AND FULL WIDTH OF LOUVER (72"X48"X12" DEEP).
- PROVIDE TEMPORARY HOT WATER SUPPLY AND RETURN PIPING SERVING TEMPORARY AIR HANDLING UNIT. EXTERIOR HOT WATER SUPPLY AND RETURN PIPING SHALL BE HEAT TRACED.

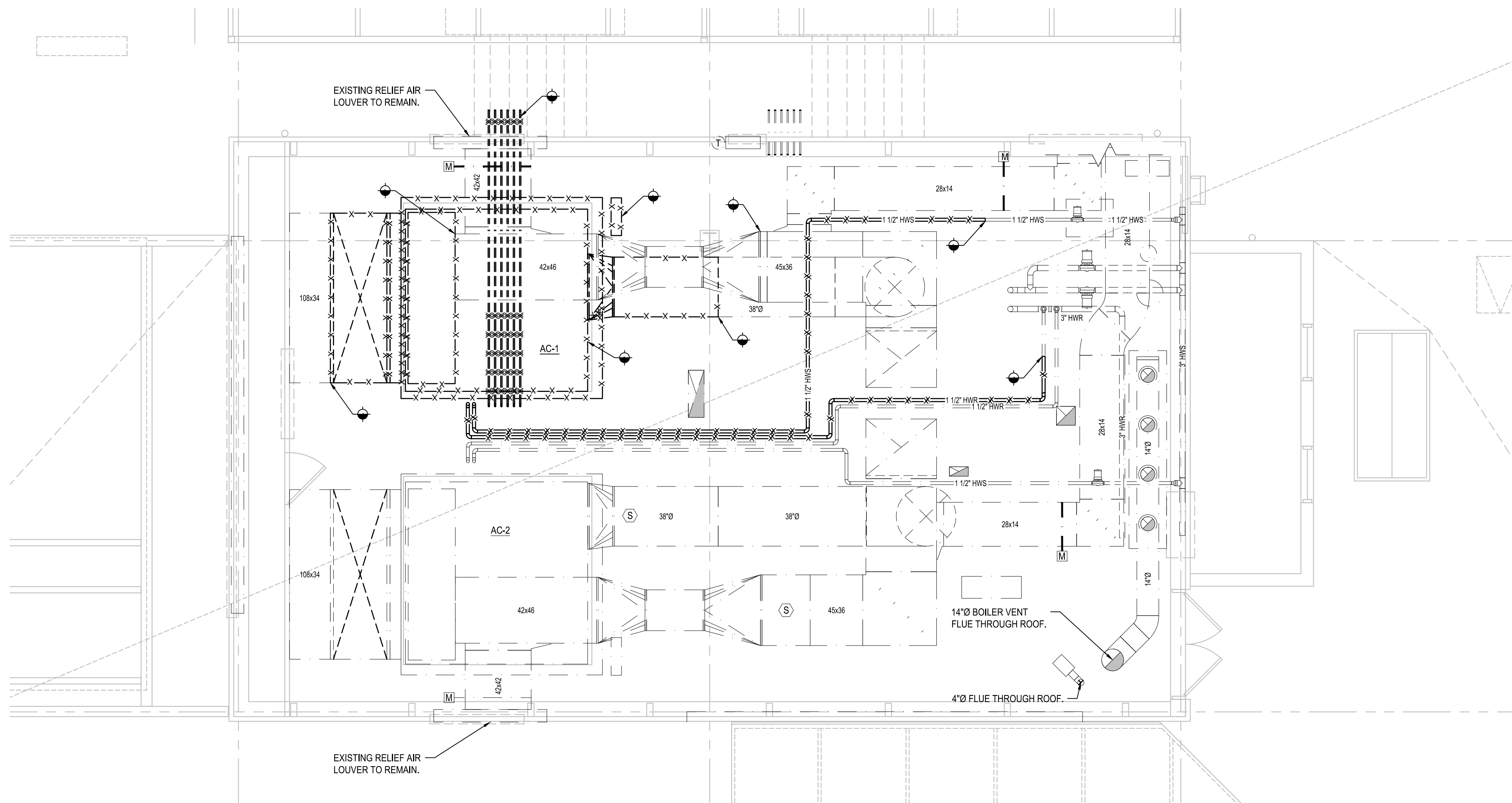
1 TEMPORARY ROOF PLAN
MD-106 SCALE: 1/8"=1'-0"



2 TEMPORARY AHU FLOW AND CONTROL DIAGRAM
MD-106 SCALE: NONE

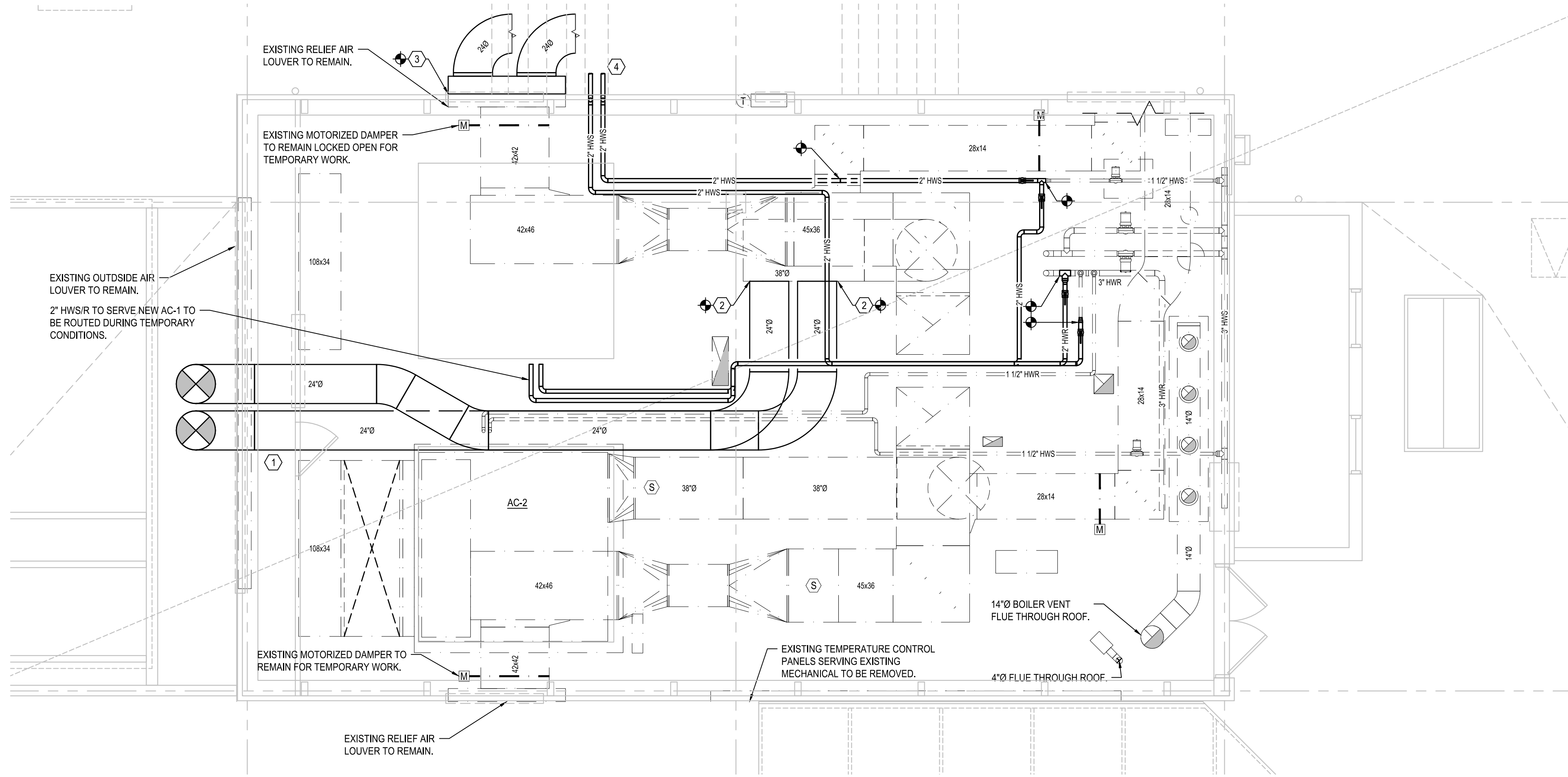


drawing title TEMPORARY ROOF PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
	mark	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	scale 1/8"=1'-0"
	date		drawn by JNR
	description	approved by CR	drawing no. MD-106
		CAD no.	project no. BI-2B-387



- ### PHASING GENERAL NOTES
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
 - REFER TO MD-105 FOR OVERALL SCOPE OF DEMOLITION WORK. DEMOLITION SCOPE OF WORK SHALL BE COORDINATED WITH THE TEMPORARY PHASING PLANS FOR AC-1 & AC-2.


1 AC-1 TEMPORARY DEMOLITION ROOF PART PLAN
MD-107 SCALE: 1/4"=1'-0"

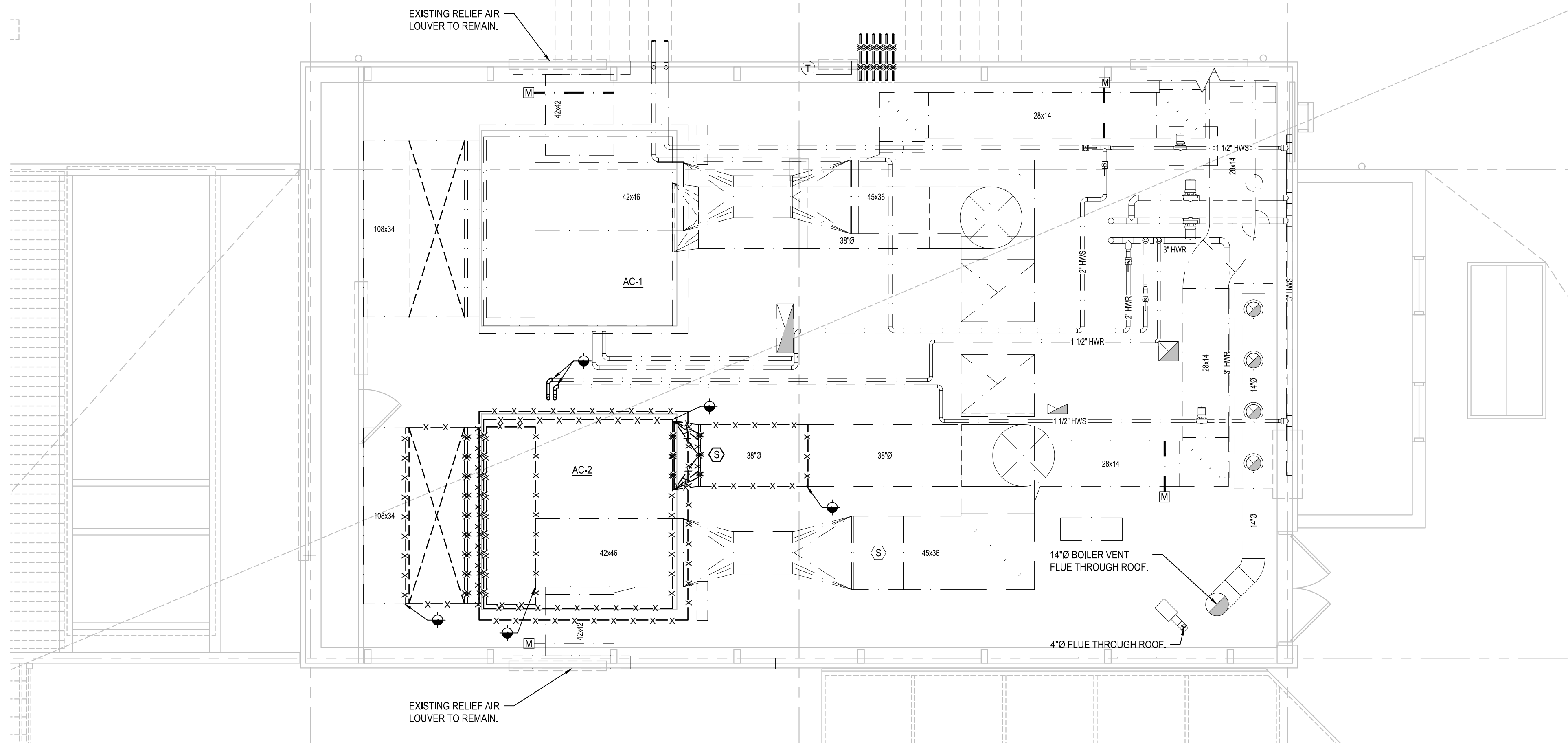


- ### PHASING GENERAL NOTES
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.

- ### TEMPORARY PLAN KEY NOTES
- REMOVE SECTION OF EXISTING OUTDOOR AIR LOUVER AND PENETRATE INTERIOR SHEETROCK WALL OF OUTDOOR AIR PLENUM WITH (2) 24" SUPPLY DUCTS. CONTRACTOR TO REMOVE, PROTECT, STORE SECTION OF LOUVER. CONTRACTOR TO INSTALL TEMPORARY SHEETMETAL PANEL AT SHEETROCK WALL TO PROTECT PENETRATIONS AND LOUVERS. PENETRATE SHEETMETAL PANEL WITH (2) 24" SUPPLY DUCTS. REINSTALL LOUVER SECTION, REMOVE TEMPORARY WALL AND INFILL WALL TO MATCH ONCE WORK IS COMPLETE.
 - CONNECT (2) 24" SUPPLY DUCTS SERVED BY TEMPORARY UNIT TO BACKFEED EXISTING AIR HANDLING UNITS ALLOWING FOR AIR HANDLING UNIT REPLACEMENT IN KIND.
 - FABRICATE AND PROVIDE RETURN AIR PLENUM CONNECTED TO EXISTING RELIEF AIR LOUVER SERVING TEMPORARY UNIT. PLENUM SHALL BE FULL HEIGHT OF UNIT AND FULL WIDTH OF LOUVER (72"x48"x12" DEEP). CONNECT (2) 24" RETURN DUCTS SERVED BY TEMPORARY UNIT TO BACKFEED EXISTING AIR HANDLING UNITS ALLOWING FOR AIR HANDLING UNIT REPLACEMENT IN KIND.
 - PROVIDE TEMPORARY HOT WATER SUPPLY AND RETURN PIPING SERVING TEMPORARY AIR HANDLING UNIT. EXTERIOR HOT WATER SUPPLY AND RETURN PIPING SHALL BE HEAT TRACED. EXISTING PUMP SHALL REMAIN ACTIVE UNTIL REPLACEMENT OF INDOOR AIR HANDLING UNITS HAS BEEN COMPLETED. CUT, VALVE AND CAP AT MARK ONCE ALL INDOOR AIR HANDLING UNIT HAVE BEEN REPLACED AND THE TEMPORARY UNIT IS NO LONGER REQUIRED.

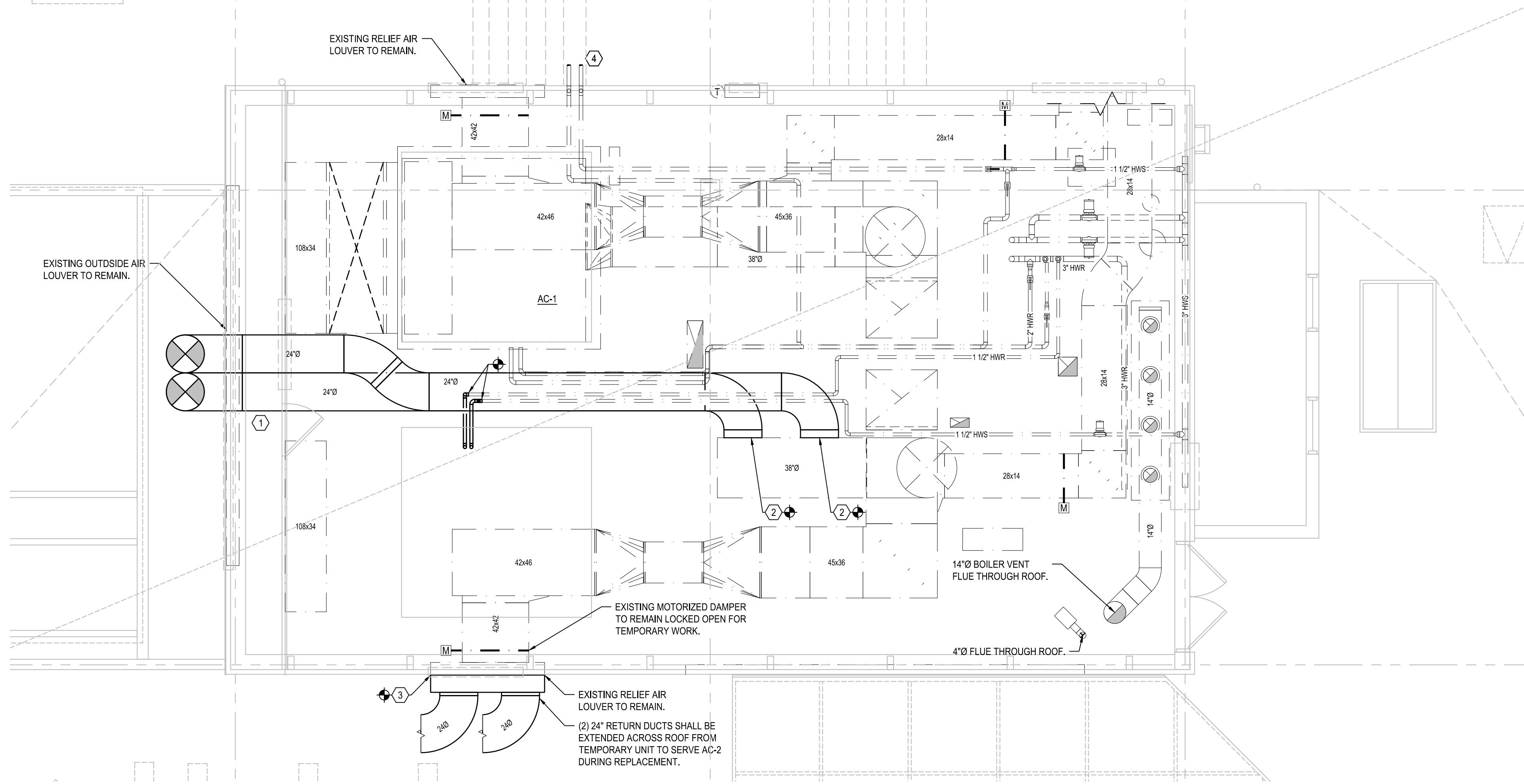
2 AC-1 TEMPORARY ROOF PART PLAN
MD-107 SCALE: 1/4"=1'-0"

drawing title TEMPORARY ROOF PART PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019 scale 1/4"=1'-0" drawn by JNR approved by CR drawing no. MD-107
CAD no.	project no. BI-2B-387		



1 AC-2 TEMPORARY ROOF PART PLAN
MD-108 / SCALE: 1/4"=1'-0"

- ### PHASING GENERAL NOTES
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.
 - REFER TO MD-105 FOR OVERALL SCOPE OF DEMOLITION WORK. DEMOLITION SCOPE OF WORK SHALL BE COORDINATED WITH THE TEMPORARY PHASING PLANS FOR AC-1 & AC-2.

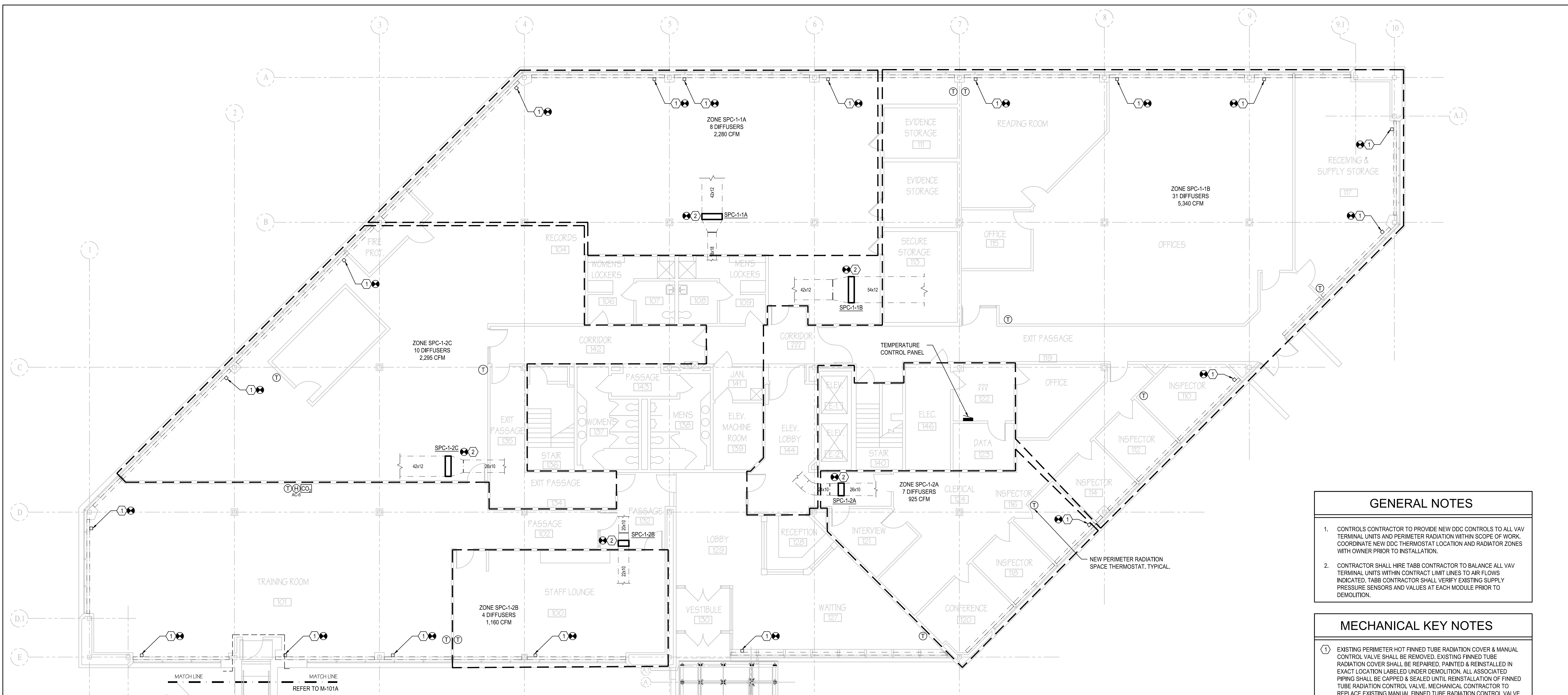


2 AC-2 TEMPORARY ROOF PART PLAN
MD-108 / SCALE: 1/4"=1'-0"

- ### PHASING GENERAL NOTES
- COORDINATE PHASING OF DEMOLITION WITH CONTRACTOR AND PROPOSED CONSTRUCTION SCHEDULE TO MAINTAIN MECHANICAL SERVICES (HEATING, TEMPERATURE CONTROLS, EXHAUSTS, MAKE UP AIR ETC.) TO OCCUPIED AREAS OF THE BUILDING DURING CONSTRUCTION.

- ### TEMPORARY PLAN KEY NOTES
- REMOVE SECTION OF EXISTING OUTDOOR AIR LOUVER AND PENETRATE INTERIOR SHEETROCK WALL OF OUTDOOR AIR PLENUM WITH (2) 24" SUPPLY DUCTS. CONTRACTOR TO REMOVE, PROTECT, STORE SECTION OF LOUVER. CONTRACTOR TO INSTALL TEMPORARY SHEETMETAL PANEL AT SHEETROCK WALL TO PROTECT PENETRATIONS AND LOUVERS. PENETRATE SHEETMETAL PANEL WITH (2) 24" SUPPLY DUCTS. REINSTALL LOUVER SECTION, REMOVE TEMPORARY WALL AND INFILL WALL TO MATCH ONCE WORK IS COMPLETE.
 - CONNECT (2) 24" SUPPLY DUCTS SERVED BY TEMPORARY UNIT TO BACKFEED EXISTING AIR HANDLING UNITS ALLOWING FOR AIR HANDLING UNIT REPLACEMENT IN KIND.
 - FABRICATE AND PROVIDE RETURN AIR PLENUM CONNECTED TO EXISTING RELIEF AIR LOUVER SERVING TEMPORARY UNIT. PLENUM SHALL BE FULL HEIGHT OF UNIT AND FULL WIDTH OF LOUVER (72"x48"x12" DEEP). CONNECT (2) 24" RETURN DUCTS SERVED BY TEMPORARY UNIT TO BACKFEED EXISTING AIR HANDLING UNITS ALLOWING FOR AIR HANDLING UNIT REPLACEMENT IN KIND.
 - PROVIDE TEMPORARY HOT WATER SUPPLY AND RETURN PIPING SERVING TEMPORARY AIR HANDLING UNIT. EXTERIOR HOT WATER SUPPLY AND RETURN PIPING SHALL BE HEAT TRACED. EXISTING PUMP SHALL REMAIN ACTIVE UNTIL REPLACEMENT OF INDOOR AIR HANDLING UNITS HAS BEEN COMPLETED. CUT, VALVE AND CAP AT MAIN ONCE ALL INDOOR AIR HANDLING UNITS HAVE BEEN REPLACED AND THE TEMPORARY UNIT IS NO LONGER REQUIRED.


drawing title TEMPORARY ROOF PART PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/4"=1'-0"
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by JNR approved by CR drawing no. MD-108
CAD no.	project no. BI-2B-387		

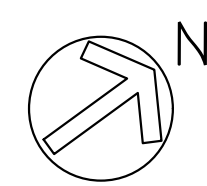


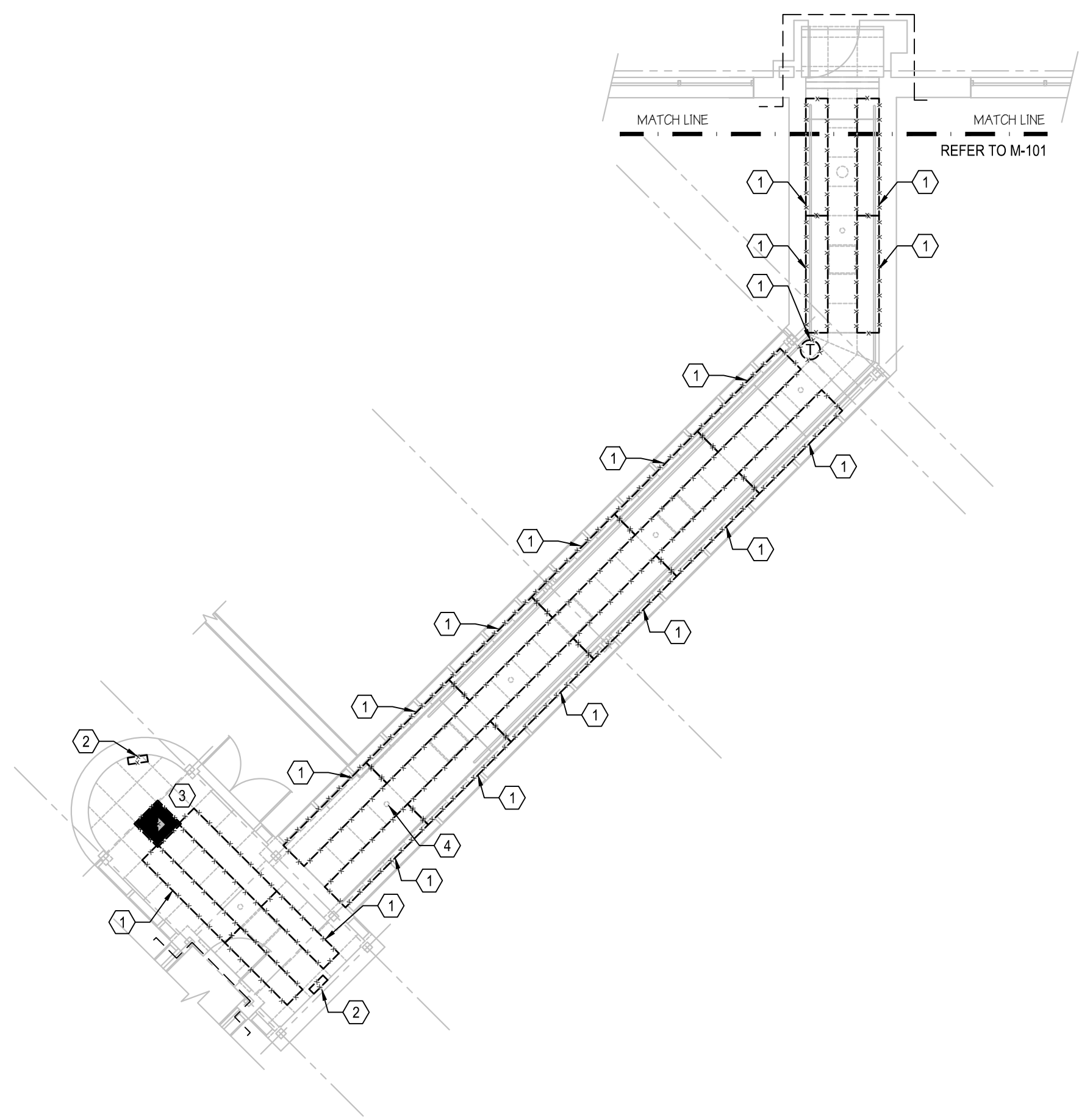
1 FIRST FLOOR PLAN
M-101 SCALE: 1/8"=1'-0"

- GENERAL NOTES**
- CONTROLS CONTRACTOR TO PROVIDE NEW DDC CONTROLS TO ALL VAV TERMINAL UNITS AND PERIMETER RADIATION WITHIN SCOPE OF WORK. COORDINATE NEW DDC THERMOSTAT LOCATION AND RADIATOR ZONES WITH OWNER PRIOR TO INSTALLATION.
 - CONTRACTOR SHALL HIRE TABB CONTRACTOR TO BALANCE ALL VAV TERMINAL UNITS WITHIN CONTRACT LIMIT LINES TO AIR FLOWS INDICATED. TABB CONTRACTOR SHALL VERIFY EXISTING SUPPLY PRESSURE SENSORS AND VALUES AT EACH MODULE PRIOR TO DEMOLITION.

- MECHANICAL KEY NOTES**
- EXISTING PERIMETER HOT FINNED TUBE RADIATION COVER & MANUAL CONTROL VALVE SHALL BE REMOVED. EXISTING FINNED TUBE RADIATION COVER SHALL BE REPAIRED, PAINTED & REINSTALLED IN EXACT LOCATION LABELED UNDER DEMOLITION. ALL ASSOCIATED PIPING SHALL BE CAPPED & SEALED UNTIL REINSTALLATION OF FINNED TUBE RADIATION CONTROL VALVE. MECHANICAL CONTRACTOR TO REPLACE EXISTING MANUAL FINNED TUBE RADIATION CONTROL VALVE WITH NEW DDC CONTROL VALVE. CONTRACTOR TO MODIFY PIPING TO ACCOMMODATE CONTROL VALVE. REFER TO DETAIL 2 ON DRAWING M-402. TYPICAL FOR ALL WITHIN AREA OF WORK UNLESS OTHERWISE NOTED. CONTROLS CONTRACTOR TO PROVIDE CONTROL OF RADIATION THROUGH THE BUILDING AUTOMATION SYSTEM (BAS), TYPICAL FOR 19.
 - EXISTING THERMA-FUSER PRESSURE INDEPENDENCE MODULE, TUBING, STATIC PRESSURE PROBE TO BE REMOVED. PROVIDE NEW PRESSURE INDEPENDENT RETROFIT VAV BOXES, STATIC PRESSURE SENSOR AND CONTROLS. DDC CONTROLS SHALL BE TIED INTO NEW BAS SYSTEM. CONTRACTOR SHALL PROVIDE ALL DUCT MODIFICATIONS, WIRING AND CONTROLLERS FOR COMPLETE INSTALLATION. CONTRACTOR SHALL UTILIZE EXISTING PANELS, & CABINETS AND PROVIDE NEW TEMPERATURE CONTROL PANELS AND ENCLOSURES AS REQUIRED.

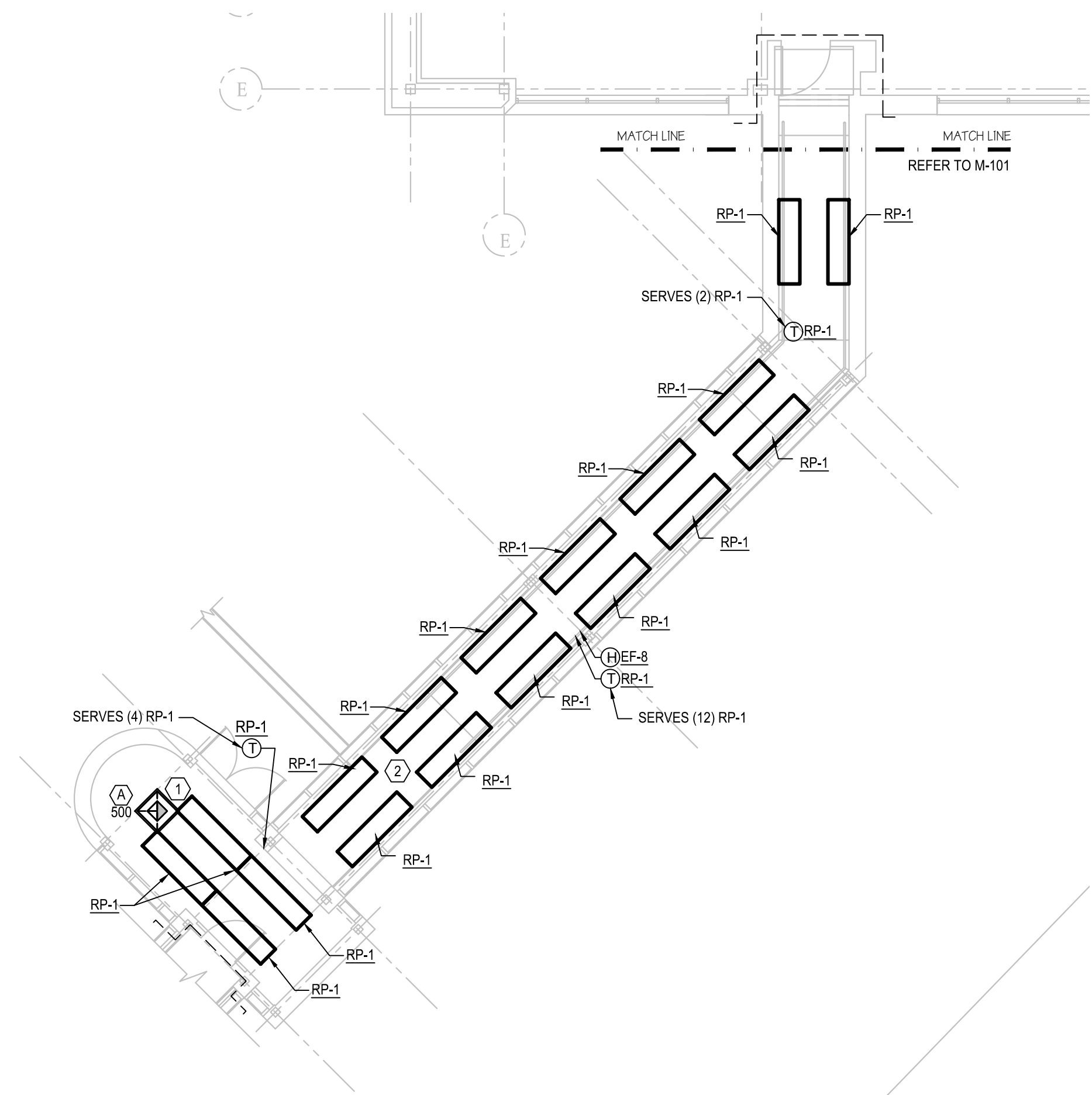
drawing title FIRST FLOOR PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
	mark	scale 1/8"=1'-0"	drawn by JNR
	date	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	approved by CR
	description	CAD no.	drawing no. M-101
		project no. BI-2B-387	





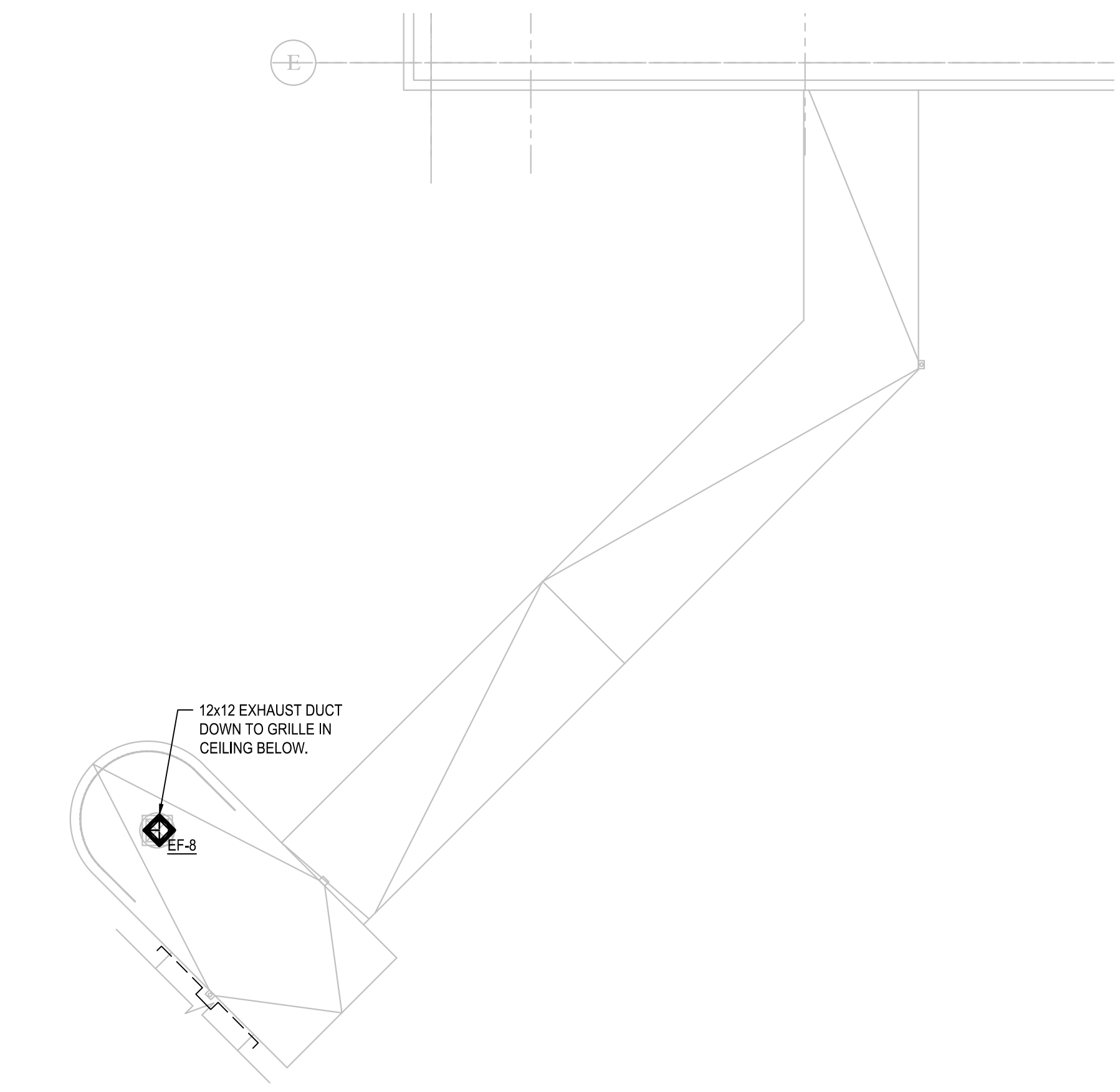
- DEMOLITION KEY NOTES**
- ① EXISTING ELECTRIC RADIANT PANEL AND ASSOCIATED CONTROLS TO BE REMOVED COMPLETE.
 - ② EXISTING ELECTRIC CABINET UNIT HEATER TO BE REMOVED COMPLETE.
 - ③ EXISTING ROOF MOUNTED EXHAUST FAN, ROOF CURB, CONTROLS, ASSOCIATED DUCTWORK AND EXHAUST GRILLE SHALL BE REMOVED COMPLETE.
 - ④ EXISTING FIRE PROTECTION PIPING AND ASSOCIATED HEADS TO REMAIN. TYPICAL FOR ALL.

1 CONNECTOR DEMOLITION FLOOR PLAN
M-101A Scale: 1/8"=1'-0"




- MECHANICAL KEY NOTES**
- ① ROOF MOUNTED EXHAUST FAN SHALL BE REPLACED WITH NEW EXHAUST FAN, INCLUDING ROOF CURB, CONTROLS, MOTORIZED DAMPER, ETC. 12x12 EXHAUST DUCTWORK UP TO EF-8, EXHAUST FAN AND ASSOCIATED DUCTWORK SHALL EXISTING ROOF PENETRATION OPENING. 12x12 EXHAUST DUCTWORK DOWN TO 24"x24" EXHAUST GRILLE.
 - ② COORDINATE INSTALLATION OF CEILING TILES WITH EXISTING SPRINKLER HEADS TO REMAIN. TYPICAL FOR ALL SPRINKLER HEADS TO REMAIN IN CONNECTOR SCOPE OF WORK. PROVIDE ALL NEW TRIM PIECES REQUIRED.

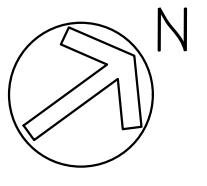
2 CONNECTOR FLOOR PLAN
M-101A Scale: 1/8"=1'-0"

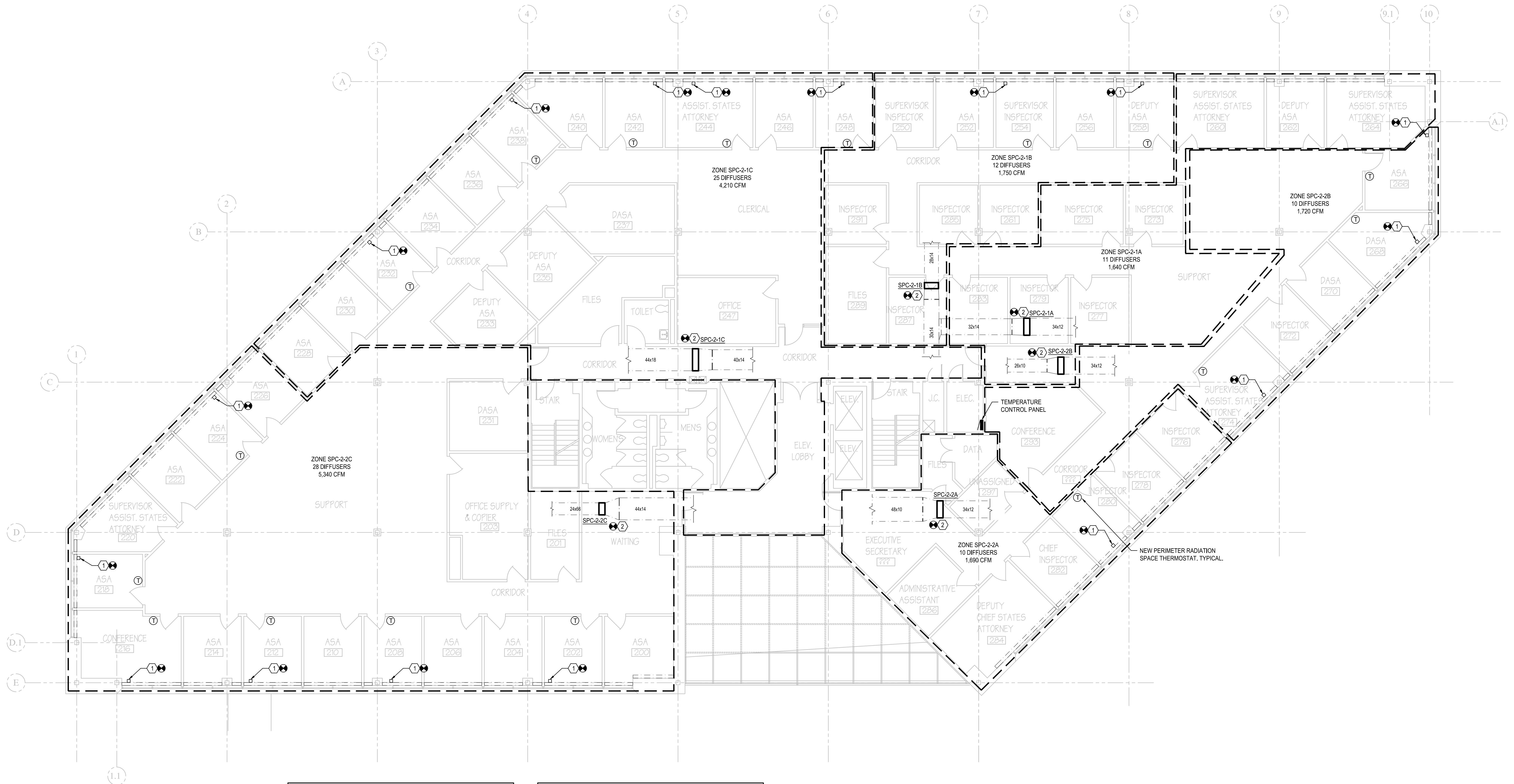


3 CONNECTOR ROOF PLAN
M-101A Scale: 1/8"=1'-0"

**SUPPLEMENTAL BID #1:
NORTH CONNECTOR**
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

drawing title		CONNECTOR FLOOR PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
drawing prepared by	KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810			date	2/4/2019
professional seal				scale	1/8"=1'-0"
project		ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by	JNR
				approved by	CR
CAD no.		project no.		M-101A	
		BI-2B-387			





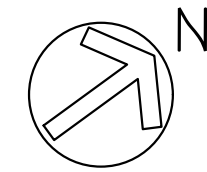
GENERAL NOTES

- CONTROLS CONTRACTOR TO PROVIDE NEW DDC CONTROLS TO ALL VAV TERMINAL UNITS AND PERIMETER RADIATION WITHIN SCOPE OF WORK. COORDINATE NEW DDC THERMOSTAT LOCATION AND RADIATOR ZONES WITH OWNER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL HIRE TABB CONTRACTOR TO BALANCE ALL VAV TERMINAL UNITS WITHIN CONTRACT LIMIT LINES TO AIR FLOWS INDICATED. TABB CONTRACTOR SHALL VERIFY EXISTING SUPPLY PRESSURE SENSORS AND VALVES AT EACH MODULE PRIOR TO DEMOLITION.

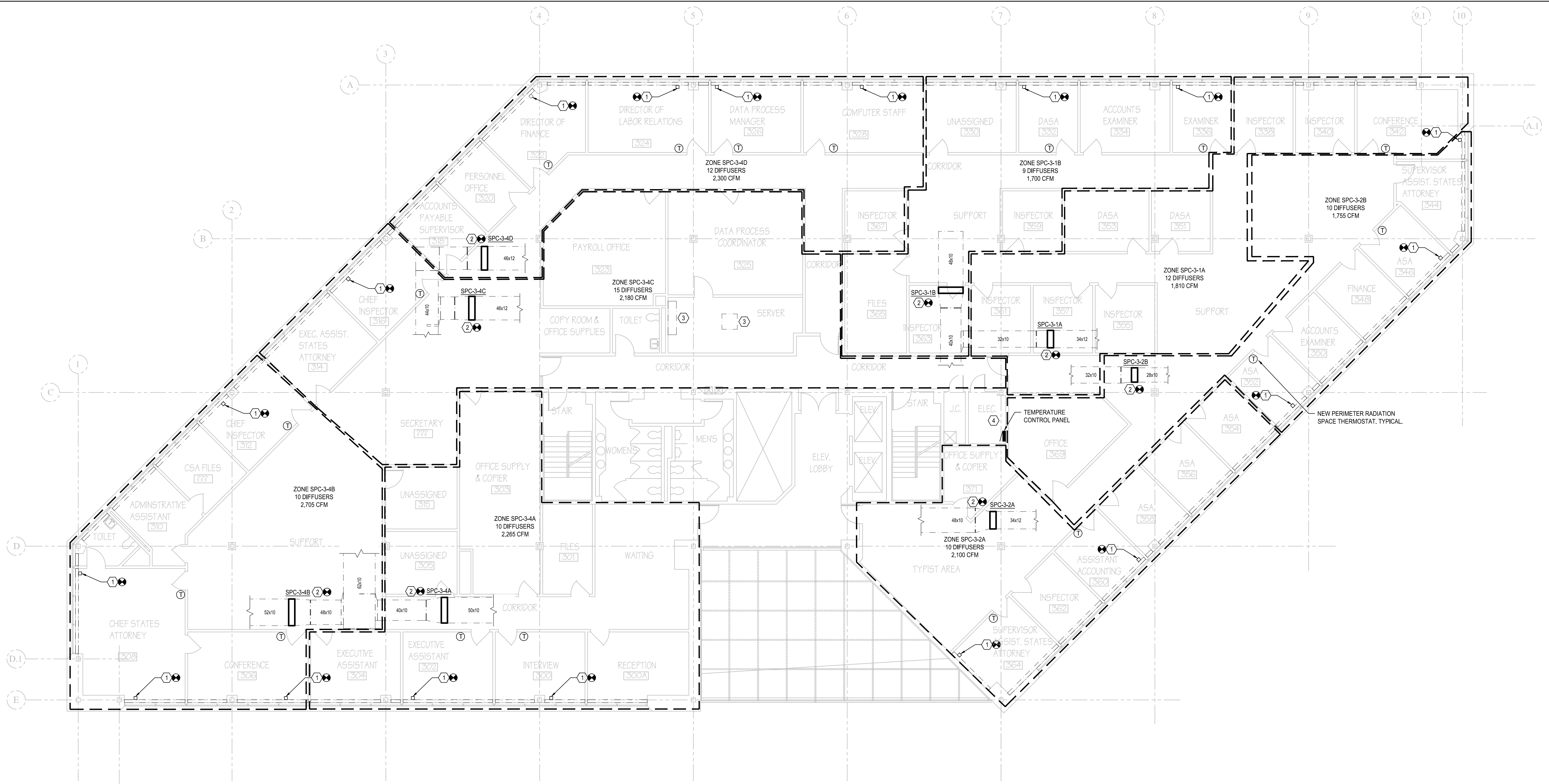
MECHANICAL KEY NOTES

- EXISTING PERIMETER HOT FINNED TUBE RADIATION COVER & MANUAL CONTROL VALVE SHALL BE REMOVED. EXISTING FINNED TUBE RADIATION COVER SHALL BE REPAIRED, PAINTED & REINSTALLED IN EXACT LOCATION LABELED UNDER DEMOLITION. ALL ASSOCIATED PIPING SHALL BE CAPPED & SEALED UNTIL REINSTALLATION OF FINNED TUBE RADIATION CONTROL VALVE. MECHANICAL CONTRACTOR TO REPLACE EXISTING MANUAL FINNED TUBE RADIATION CONTROL VALVE WITH NEW DDC CONTROL VALVE. CONTRACTOR TO MODIFY PIPING TO ACCOMMODATE CONTROL VALVE. REFER TO DETAIL 2 ON DRAWING M-402. TYPICAL FOR ALL WITHIN AREA OF WORK UNLESS OTHERWISE NOTED. CONTROLS CONTRACTOR TO PROVIDE CONTROL OF RADIATION THROUGH THE BUILDING AUTOMATION SYSTEM (BAS). TYPICAL FOR 19.
- EXISTING THERMA-FUSER PRESSURE INDEPENDENCE MODULE, TUBING, STATIC PRESSURE PROBE TO BE REMOVED. PROVIDE NEW PRESSURE INDEPENDENT RETROFIT VAV BOXES, STATIC PRESSURE SENSOR AND CONTROLS. DDC CONTROLS SHALL BE TIED INTO NEW BAS SYSTEM. CONTRACTOR SHALL PROVIDE ALL DUCT MODIFICATIONS, WIRING AND CONTROLLERS FOR COMPLETE INSTALLATION. CONTRACTOR SHALL UTILIZE EXISTING PANELS, & CABINETS AND PROVIDE NEW TEMPERATURE CONTROL PANELS AND ENCLOSURES AS REQUIRED.

1 SECOND FLOOR PLAN
M-102 SCALE: 1/8"=1'-0"



drawing title SECOND FLOOR PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019 scale 1/8"=1'-0"
CAD no.	project no. BI-2B-387	drawn by JNR approved by CR	drawing no. M-102



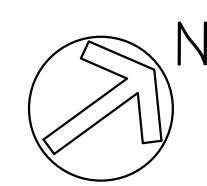
GENERAL NOTES

1. CONTROL CONTRACTOR TO PROVIDE NEW DDC CONTROLS TO ALL VAV TERMINAL UNITS AND PERIMETER RADIATION WITHIN SCOPE OF WORK. COORDINATE NEW DDC THERMOSTAT LOCATION AND RADIATOR ZONES WITH OWNER PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL HIRE TABB CONTRACTOR TO BALANCE ALL VAV TERMINAL UNITS WITHIN CONTRACT LIMIT LINES TO AIR FLOWS INDICATED. TABB CONTRACTOR SHALL VERIFY EXISTING SUPPLY PRESSURE SENSORS AND VALVES AT EACH MODULE PRIOR TO DEMOLITION.

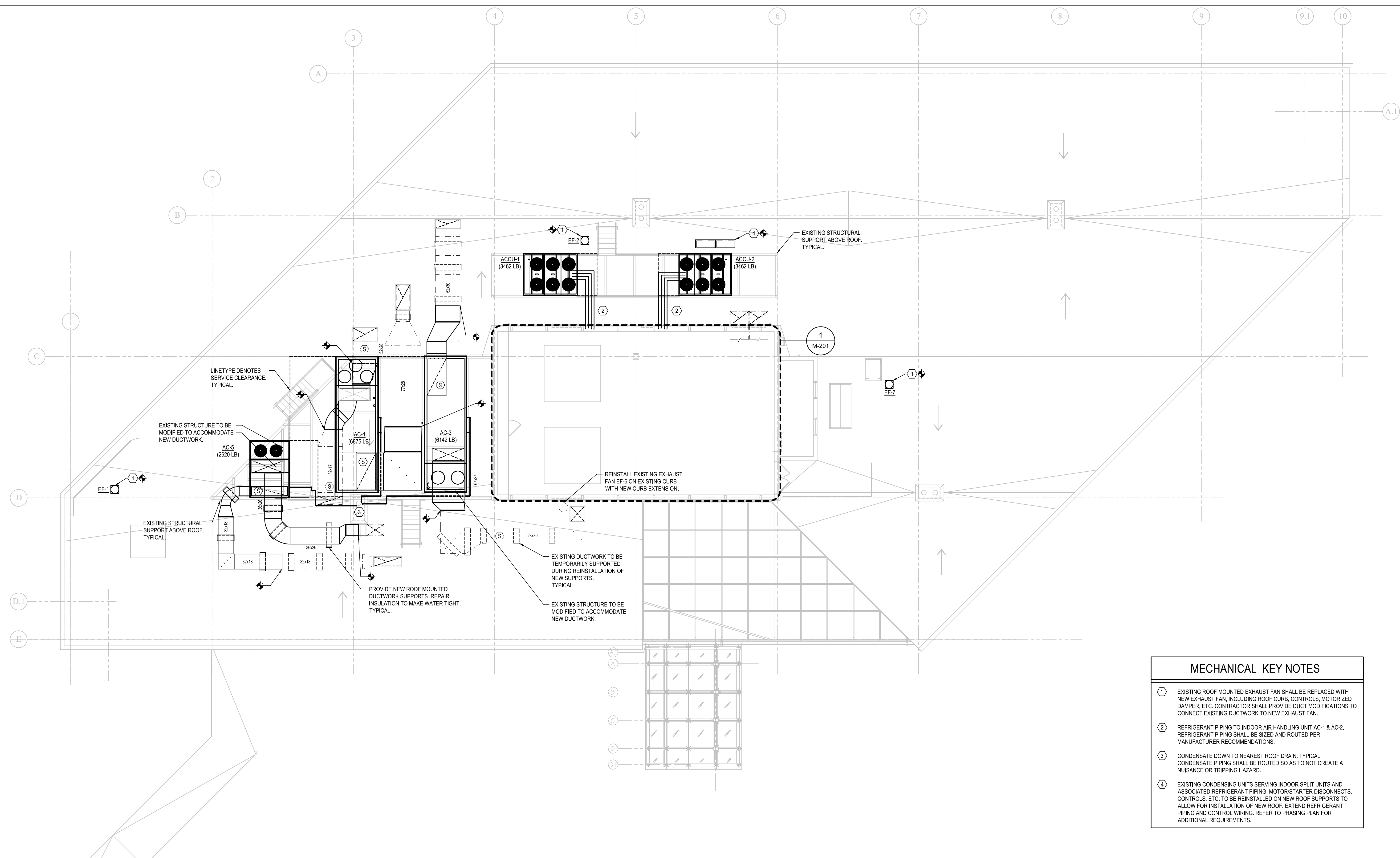
MECHANICAL KEY NOTES

1. EXISTING PERIMETER HOT FINNED TUBE RADIATION COVER & MANUAL CONTROL VALVE SHALL BE REMOVED. EXISTING FINNED TUBE RADIATION COVER SHALL BE REPAIRED, PAINTED & REINSTALLED IN EXACT LOCATION LABELED UNDER DEMOLITION. ALL ASSOCIATED PIPING SHALL BE CAPPED & SEALED UNTIL REINSTALLATION OF FINNED TUBE RADIATION CONTROL VALVE. MECHANICAL CONTRACTOR TO REPLACE EXISTING MANUAL FINNED TUBE RADIATION CONTROL VALVE WITH NEW DDC CONTROL VALVE. CONTRACTOR TO MODIFY PIPING TO ACCOMMODATE CONTROL VALVE. REFER TO DETAIL 2 ON DRAWING M-402. TYPICAL FOR ALL WITHIN AREA OF WORK UNLESS OTHERWISE NOTED. CONTROL CONTRACTOR TO PROVIDE CONTROL OF RADIATION THROUGH THE BUILDING AUTOMATION SYSTEM (BAS), TYPICAL FOR 19.
2. EXISTING THERMA-FUSER PRESSURE INDEPENDENCE MODULE, TUBING, STATIC PRESSURE PROBE TO BE REMOVED. PROVIDE NEW PRESSURE INDEPENDENT RETROFIT VAV BOXES, STATIC PRESSURE SENSOR AND CONTROLS. DDC CONTROLS SHALL BE TIED INTO NEW BAS SYSTEM. CONTRACTOR SHALL PROVIDE ALL DUCT MODIFICATIONS, WIRING AND CONTROLLERS FOR COMPLETE INSTALLATION. CONTRACTOR SHALL UTILIZE EXISTING PANELS, & CABINETS AND PROVIDE NEW TEMPERATURE CONTROL PANELS AND ENCLOSURES AS REQUIRED.
3. EXISTING INDOOR SPLIT A/C UNITS SERVED BY ROOF MOUNTED SANYO AIR COOLED CONDENSING UNITS TO REMAIN. UNITS ARE SHOWN FOR REFERENCE ONLY.
4. NEW LOCATION OF CONTROL COMPUTER (BMS WORKSTATION) TO REPLACE EXISTING DELTA CONTROLS DDC COMPUTER TERMINAL.

1 THIRD FLOOR PLAN
M-103 SCALE: 1/8"=1'-0"

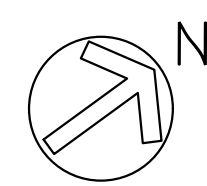


drawing title THIRD FLOOR PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/8"=1'-0"
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by JNR approved by CR drawing no. M-103
CAD no.	project no. BI-2B-387		



1 ROOF PLAN
M-104 Scale: 1/8"=1'-0"

drawing title ROOF PLAN - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale 1/8"=1'-0"
CAD no.		project no. BI-2B-387	drawn by JNR approved by CR drawing no. M-104



HVAC PIPING/TUBING MATERIAL, JOINTS & FITTINGS

SYSTEM	PIPE SIZE	CONSTRUCTION	PIPING	FITTINGS	UNIONS	FLANGES
HOT WATER SUPPLY AND RETURN, VENTS AND DRAINS	2" AND SMALLER	SOLDER JOINT CONSTRUCTION WITH THREADED ADAPTERS AS REQUIRED. 95-5 TIN/ANTIMONY SOLDER.	COPPER, TYPE L, HARD DRAWN, ANSI H23.1, ASTM B88.	CAST BRONZE OR WROUGHT COPPER, SOLDER ENDS, ANSI B16.9 OR ANSI B16.22.	BRONZE SOLDER ENDS, GROUND JOINTS, ANSI B16.19 OR ANSI B16.22.	CAST BRONZE, CLASS 150, SOLDER TYPE, ANSI B16.24.
	2 1/2" AND LARGER	BUTT WELDED CONSTRUCTION WITH FLANGED CONNECTIONS TO VALVES AND EQUIPMENT AS REQUIRED.	BLACK STEEL, SCHEDULE 40, SEAMLESS, ASTM A53, GRADE B.	STEEL, CLASS 150, BUTT WELD ENDS, ANSI B16.9, ASTM A234.	STEEL, CLASS 150, WELD TYPE, ANSI B16.5, ASTM A234, GRADE WPA.	STEEL, CLASS 150, WELD TYPE, ANSI B16.5, ASTM A234, GRADE WPA.
COOLING COIL CONDENSATE DRAINS	2" AND SMALLER	SOLDER JOINT CONSTRUCTION WITH THREADED ADAPTERS AS REQUIRED. 95-5 TIN/ANTIMONY SOLDER.	COPPER, TYPE L, HARD DRAWN, ANSI H23.1, ASTM B88.	CAST BRONZE OR WROUGHT COPPER, SOLDER ENDS, ANSI B16.9 OR ANSI B16.22.	BRONZE SOLDER ENDS, GROUND JOINTS, ANSI B16.19 OR ANSI B16.22.	USE UNIONS
	2 1/2" AND LARGER	SOLDER JOINT CONSTRUCTION WITH THREADED ADAPTERS AS REQUIRED. 95-5 TIN/ANTIMONY SOLDER.	COPPER, TYPE L, HARD DRAWN, ANSI H23.1, ASTM B88.	CAST BRONZE OR WROUGHT COPPER, SOLDER ENDS, ANSI B16.9 OR ANSI B16.22.	BRONZE SOLDER ENDS, GROUND JOINTS, ANSI B16.19 OR ANSI B16.22.	USE UNIONS
REFRIGERANT SUCTION, HOT GAS AND LIQUID PIPING AND TUBING	2" AND SMALLER	BRAZED JOINT CONSTRUCTION. AWS A5.8 FILLER METAL.	COPPER, ACR TUBING, STRAIGHT LENGTHS, DRAWN H58, ASTM B 280.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	USE UNIONS
	2 1/2" AND LARGER	BRAZED JOINT CONSTRUCTION. AWS A5.8 FILLER METAL.	COPPER, ACR TUBING, STRAIGHT LENGTHS, DRAWN H58, ASTM B 280.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	WROUGHT COPPER, BRAZED ENDS, ANSI B16.22.	USE UNIONS

HVAC PIPING/TUBING INSULATION

SYSTEM	LOCATION	PIPE SIZE	CELLULAR GLASS		FLEXIBLE ELASTOMERIC		MINERAL-FIBER TYPE I	
			THICKNESS, IN.	CONDUCTIVITY, k	THICKNESS, IN.	CONDUCTIVITY, k	THICKNESS, IN.	CONDUCTIVITY, k
CONDENSATE & EQUIPMENT DRAIN, BELOW 60°F	INDOOR	ALL	1-1/2"	0.29	-	-	1"	0.23
	OUTDOOR ABOVE GRADE	ALL	1-1/2"	0.29	-	-	-	-
HEATING HOT WATER, BELOW 200°F	INDOOR	1-1/2" & SMALLER	2"	0.33	-	-	1-1/2"	0.25
		2" & LARGER	2-1/2"	0.33	-	-	2"	0.25
	OUTDOOR ABOVE GRADE	ALL	2-1/2"	0.33	-	-	-	-
REFRIGERANT (ALL) SUCTION, HOT GAS, VAPOR, & LIQUID PIPING	INDOOR	ALL	1-1/2"	0.29	1"	0.26	1"	0.23
	OUTDOOR ABOVE GRADE	ALL	1-1/2"	0.29	1"	0.26	-	-
REFRIGERANT (ALL) SUCTION, HOT GAS, VAPOR, & LIQUID FLEXIBLE TUBING	INDOOR	ALL	-	-	1"	0.26	-	-
	OUTDOOR ABOVE GRADE	ALL	-	-	1"	0.26	-	-

BLANKS (-) INDICATE INSULATION TYPE SHALL NOT BE USED.

THICKNESS BASED ON INSULATION HAVING A THERMAL CONDUCTIVITY (K) NOT EXCEEDING VALUES NOTED IN TABLE ABOVE (BTU PER INCH*FT*°F). FOR ALL OTHER K VALUES CONTRACTOR TO PERFORM CALCULATIONS IN ACCORDANCE WITH THE 2015 IECC TO PROVE OTHER INSULATION THICKNESSES.

- ALL EXPOSED INDOOR PIPING/TUBING AND FITTINGS WITHIN OCCUPIED SPACES, CORRIDORS, MECHANICAL ROOMS AND OTHER NON-CONCEALED LOCATIONS SHALL BE FITTED WITH PVC FITTING COVERS AND PVC PIPE COVERS FROM THE FLOOR LEVEL. PVC FITTING AND PIPE COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED, COVERS AND JACKETING COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.
- ALL ELBOWS, CONCEALED OR EXPOSED, SHALL BE INSULATED WITH PRE-ANODIZED, FACTORY FORMED FIBROUS GLASS WITH 3.5 PCF MINIMUM DENSITY AS MANUFACTURED BY HAMFAB OR APPROVED EQUAL. ALL ELBOWS, CONCEALED OR EXPOSED, SHALL BE COVERED WITH PVC FITTING COVERS. PVC FITTING COVERS SHALL BE 25/50 FLAME AND SMOKE SPREAD RATED. COVER COLOR TO BE SELECTED BY ARCHITECT. PROVIDE TEMPLATE OF JACKET COLORS FOR THE ARCHITECT'S REVIEW.
- DIAPER AND LOOSE FILL STYLE INSULATION ON PIPE FITTINGS IS NOT ACCEPTABLE. ELBOWS WITHOUT PVC COVERS ARE NOT ACCEPTABLE.
- ALL OUTDOOR PIPING/TUBING SHALL BE FITTED WITH A PRE-MANUFACTURED ALUMINUM JACKET PRODUCT. 0.024" ALUMINUM JACKET LOCK-ON OR SLIP-ON TYPE JACKETING TO BE COVERED WITH ACRYLIC COATING ON THE OUTER SURFACE AND A BAKED EPOXY MOISTURE BARRIER ON THE INNER SURFACE. MANUFACTURER SHALL BE SIMILAR TO CHILDERS PRODUCTS, DIVISION OF ITW. METAL JACKETING SYSTEMS. ALL EXPOSED JOINTS IN THE JACKET PRODUCT SHALL BE INSTALLED IN SUCH A WAY AS TO PREVENT THE INFILTRATION OF MOISTURE AND WATER.

HVAC EQUIPMENT INSULATION

SYSTEM	INSULATION TYPE	INSULATION THICKNESS	NOMINAL DENSITY
HEATING HOT WATER PUMP	MINERAL-FIBER BOARD	2"	3 LB/FT ³
HEATING HOT WATER EXPANSION TANK	MINERAL-FIBER BOARD	2"	3 LB/FT ³
	MINERAL-FIBER PIPE & TANK	2"	-
HEATING HOT WATER AIR, DIRT OR HYDRAULIC SEPARATOR	MINERAL-FIBER BOARD	2"	3 LB/FT ³
	MINERAL-FIBER PIPE & TANK	2"	-

- PROVIDE FIELD APPLIED JACKET FOR ALL INDOOR & OUTDOOR, CONCEALED AND EXPOSED EQUIPMENT. JACKET SHALL BE PRE-MANUFACTURED ALUMINUM PRODUCT. 0.024" ALUMINUM JACKET LOCK-ON OR SLIP-ON TYPE JACKETING TO BE COVERED WITH ACRYLIC COATING ON THE OUTER SURFACE AND A BAKED EPOXY MOISTURE BARRIER ON THE INNER SURFACE. MANUFACTURER SHALL BE SIMILAR TO CHILDERS PRODUCTS, DIVISION OF ITW. METAL JACKETING SYSTEMS.

HVAC DUCT/PLENUM INSULATION

SYSTEM	INSULATION TYPE	MINIMUM INSTALLED INSULATION VALUES	NOMINAL DENSITY
INDOOR DUCT/PLENUM CONCEALED SA, RA, OA; OTHER THAN PRE-MANUFACTURED LINEAR SUPPLY AND RETURN GRILLE PLENUMS.	MINERAL FIBER BLANKET	2" R-6.0	3/4 LB/FT ³
	MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER.	2" R-6.0	3 LB/FT ³
INDOOR DUCT/PLENUM EXPOSED SA, RA & OA; LOCATED IN MECHANICAL ROOMS, OTHER NON-OCCUPIED SPACES, NON-AIR CONDITIONED SPACES, PASSING THROUGH AIR CONDITIONED SPACES.	MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER.	2" R-6.0	3 LB/FT ³
DUCT LINING SA AND RA DUCTS/PLENUMS INSTALLED OUTDOORS, ATTICS, AND CRAWL SPACES. SA AND RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT UPSTREAM & DOWNSTREAM OF SUPPLY FANS AND RETURN FANS.	FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING EDGES. (REFER TO NOTES #1)	2" R-8.0	1.5 LB/FT ³
DUCT LINING DUCTS/PLENUMS INSTALLED IN INDOOR SPACES; EXPOSED AND CONCEALED SA OR RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT UPSTREAM & DOWNSTREAM OF SUPPLY FANS AND RETURN FANS.	FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING EDGES.	1-1/2" R-6.0	1.5 LB/FT ³
ABOVEGROUND, OUTDOOR DUCT/PLENUM CONCEALED OR EXPOSED SA, RA, AND OA.	MINERAL FIBER BOARD (REFER TO NOTE #1)	2" R-8.0	3 LB/FT ³

- ALL DUCTWORK INSTALLED OUTDOOR. PROVIDE A PRE-MANUFACTURED SELF-ADHERING PRODUCT WITH AN UV RESISTANT, STUCCO EMBOSSED FACING. WATER VAPOR TRANSMISSION OF THE INSTALLED PRODUCT SHALL BE 0.20 PERMS OR LESS. PRODUCT SHALL BE SUITABLE FOR CONTINUOUS USE IN LOW TEMPERATURES OF -10°F. MANUFACTURERS SHALL BE SIMILAR TO FLEX-CLAD 400, MFM BUILDING PRODUCTS CORP. OR ALUMAGUARD 60, POLYGUARD PRODUCTS, INC.
- INSULATION TYPES INDICATED IN THE SCHEDULE SHALL USED UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.

OA = OUTDOOR AIR DUCTWORK
SA = SUPPLY AIR DUCTWORK
RA = RETURN AIR DUCTWORK
EA = EXHAUST AIR DUCTWORK

HVAC VIBRATION-CONTROL

EQUIPMENT	BASE	ISOLATOR*	DEFLECTION
INLINE PUMPS	-	HSN	1"
ROOF MOUNTED AIR HANDLING UNITS	MOUNTED ON EXISTING STEEL SUPPORTS	FSNTL	2.0"
CONDENSING UNITS (ROOF MOUNTED)	MOUNTED ON EXISTING STEEL SUPPORTS	FSNTL	2.0"
INDOOR AHU'S, FLOOR MOUNTED	4" HOUSEKEEPING PAD	NP	0.2"
ROOF MOUNTED FANS	RC	-	-
PIPING WITHIN 50FT OF CONNECTION TO ANY PIECE OF EQUIPMENT WITH A MOTOR	-	HSN	1.2"
DUCTWORK IN MECHANICAL ROOMS OR WITHIN 50FT OF CONNECTED VIBRATION-ISOLATED EQUIPMENT	-	HN	0.25"
PIPE TO PUMP CONNECTION	-	FPC	-
PIPE CONNECTION TO ANY PIECE OF EQUIPMENT ON SPRING ISOLATION	-	FPC	-

REMARKS:

- REFER TO SPECIFICATION SECTION 230548 - "VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR A DESCRIPTION OF EACH VIBRATION CONTROL DEVICE.

BB - BASE, INERTIA BASE
BSF - BASE, STEEL FRAME
DNP - DOUBLE NEOPRENE PAD
FPC - FLEXIBLE PIPE CONNECTIONS
FNC - FLOOR NEOPRENE RESTRAINED MOUNTS
FSN - FLOOR SPRING AND NEOPRENE SPRING ISOLATOR
FSNTL - FLOOR SPRING AND NEOPRENE TRAVEL LIMITED RESTAINED SPRING ISOLATOR
HN - NEOPRENE HANGER
HSN - SPRING AND NEOPRENE HANGER
NP - NEOPRENE PAD
RC - ROOF CURB
SRC - SEISMIC ROOF CURB.

- SEISMIC ANCHORS, SUPPORTS AND BRACING EQUIPMENT SHALL BE PROVIDED. THE DESIGN OF ALL COMPONENTS SHALL BE SUBMITTED SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUT SHEETS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.
- PROVIDE SUPPLEMENTAL STEEL WITHIN THE ROOF CURB TO SUPPORT DUCTWORK INDEPENDENT FROM THE ROOF CURB.

* IN ADDITION TO ANY INTERNAL VIBRATION ISOLATION.
** SYSTEM SHALL BE DESIGNED TO BE 90% EFFICIENT.

HVAC DUCT/PLENUM MATERIAL

APPLICATION	SUPPLY	RETURN	EXHAUST
TYPICAL (UNLESS OTHERWISE SPECIFIED)	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL	G90 GALVANIZED STEEL
10 FT UPSTREAM AND DOWNSTREAM OF DUCT MOUNTED HUMIDIFIER DISPERSION TUBE OR DISPERSION GRID.	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM
OUTDOOR AIR, COMBUSTION AIR INTAKE DUCT AND PLENUM	3003 H-14 ALUMINUM	-	-
EXPOSED AND CONCEALED EXHAUST DUCTWORK AND PLENUMS SERVING TOILET ROOMS, SHOWER ROOMS, AND CLOTHES DRYER. ALL EXPOSED DUCTWORK RUNNING THROUGH, OVER OR WITHIN SHOWER ROOMS.	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM	3003 H-14 ALUMINUM
CONDENSING BOILER AND WATER HEATER FLUES	3003 H-14 ALUMINUM	-	AL29-4C


- DUCT CONSTRUCTION SHALL MEET SMACNA METAL & FLEXIBLE 2005 3RD EDITION STANDARDS.

DUCT PRESSURE CLASS

APPLICATION	PRESSURE CLASS
AHU SUPPLY AIR DUCTWORK TO RISERS (HORIZONTAL MAINS)	4" W.G.
AHU SUPPLY AIR RISERS (VERTICAL MAINS)	4" W.G.
SUPPLY AIR DUCTWORK TO TERMINAL UNIT	4" W.G.
RETURN AIR DUCTWORK	2" W.G.
OUTDOOR AIR DUCTWORK	2" W.G.
GENERAL EXHAUST DUCTWORK	2" W.G.
TOILET EXHAUST DUCTWORK	2" W.G.

NOTES:

- LEAKAGE CLASS SHALL BE DETERMINED PER ASHRAE 90.1-2010 REQUIREMENTS.
- PRESSURE CLASS SHALL BE DEFINED PER SMACNA THIRD EDITION - 2015.
- DUCTWORK, JOINTS, SEALING, AND FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA THIRD EDITION - 2015.

drawing title		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
SCHEDULES - MECHANICAL		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	
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project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by JNR	scale NONE
CAD no.		approved by CR	drawing no.
project no. BI-2B-387		M-301	

AIR HANDLING UNITS

UNIT NO	LOCATION	SERVES	VENT AIR	FAN SECTION									DIRECT EXPANSION COIL							HOT WATER COIL							PRE FILTER	FINAL FILTER	UNIT FLA	UNIT MCA	MAKE/MODEL	REMARKS					
				CFM	STATIC PRESS	NUMBER OF FANS	WHEEL TYPE	FAN RPM	MAX BHP	ELECTRICAL				CAP MBH	AIR DATA			REFRIG SST	VEL FPM	AIR PD	ROWS FINS	CAP MBH	AIR DATA		WATER DATA								VEL FPM	AIR PD	WATER PD	ROWS FINS	
										HP	VOLTS	PH	RPM		EAT	LAT	LAT						SST	TYPE	EAT	LAT											EWT
AC-1	ROOF PENTHOUSE	REFER TO PLANS	2,500	18,400	4.89" TSP 2.0" ESP	2	NONE	2137	22.56	15/FAN	460	3	1,800	813.6 T 464.0 S	78.0°F DB 64.6°F WB	55.0°F DB 53.3°F WB	40°F	R-410A	527.0	0.57"	4 107/FT	359.19	57.0°F	75.0°F	140.0°F	120.0°F	36.0	500 MAX	0.09"	2.89 FT	1 91/FT	MERV-8	MERV-13	40.0	50.0	TRANE CSAA35	
AC-2	ROOF PENTHOUSE	REFER TO PLANS	2,500	18,400	4.89" TSP 2.0" ESP	2	NONE	2137	22.56	15/FAN	460	3	1,800	813.6 T 464.0 S	78.0°F DB 64.6°F WB	55.0°F DB 53.3°F WB	40°F	R-410A	527.0	0.57"	4 107/FT	359.19	57.0°F	75.0°F	140.0°F	120.0°F	36.0	500 MAX	0.09"	2.89 FT	1 91/FT	MERV-8	MERV-13	40.0	50.0	TRANE CSAA35	

- NOTES:
- FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
 - FAN MOTORS SHALL BE INVERTOR DUTY RATED FOR USE WITH VARIABLE FREQUENCY DRIVES.
 - VARIABLE AIR VOLUME UNITS SHALL BE BALANCED TO ACCOUNT FOR 85% DIVERSITY.
 - FANS SHALL BE SELECTED BASED ON THE PRESSURE DROP ACROSS DIRTY FILTERS.
 - PROVIDE 1 COMPLETE SET OF SPARE SET OF FILTERS FOR EACH UNIT (TOTAL NUMBER OF FILTER SETS = 2).
 - PROVIDE UNIT MOUNTED MANUFACTURER FURNISHED VFD DRIVES FOR SUPPLY FAN WITH THREE CONTACTOR ELECTRONIC BYPASS.
 - PROVIDE 8" HIGH BASE RAIL.
 - AC-1 & AC-2 UNIT SECTIONS TO BE KNOCKED DOWN AND SPLIT TO FIT THROUGH EXISTING 64"x83"H DOOR AND NAVIGATE THROUGH EXISTING CONDITIONS TO REACH FINAL INSTALLED LOCATION. CONTRACTOR TO VERIFY PATH AND SPACE CONSTRAINTS PRIOR TO INSTALLATION OF EQUIPMENT.

ROOFTOP UNITS

UNIT NO	SERVES	MAX VENT. AIR	SUPPLY FAN SECTION									DIRECT EXPANSION COIL							GAS-FIRED HEATING SECTION				
			CFM	STATIC PRESS	NUMBER OF FANS	WHEEL TYPE	FAN RPM	OP. BHP	ELECTRICAL				MBH	AIR DATA			REFRIG SST	ROWS FINS	CAP MBH	AIR DATA		VEL FPM	STAGES
									HP	VOLTS	PH	RPM		EAT	LAT	LAT				TYPE	EAT		
AC-3	REFER TO PLANS	1,500	6,140	3.8" TSP 2.0" ESP	1	CF	1653	6.05	7.5	460	3	1,700	264.9 T.C. 169.0 S.C	78.8°F DB 65.2°F WB	54.1°F DB 51.8°F WB	-	R-410A	-	500 INPUT 400 OUTPUT	56.8°F	116.9°F	600 FPM MAX	FOUR STAGE
AC-4	REFER TO PLANS	1,500	8,000	4.0" TSP 1.8" ESP	1	CF	1847	8.0	10	460	3	1,900	310.1 T.C. 229.8 S.C	78.1°F DB 65.2°F WB	53.2°F DB 52.3°F WB	-	R-410A	-	500 INPUT 400 OUTPUT	56.8°F	102.9°F	600 FPM MAX	FOUR STAGE
AC-5	REFER TO PLANS	820	4,000	1.8"	1	CF	817	2.90	3.0	460	3	-	144.6	79.7°F DB 53.8°F WB	56.5°F DB 54.2°F WB	-	R-410A	-	150 INPUT 120 OUTPUT	57.7°F	85.3°F	600 FPM MAX	TWO STAGE

ROOFTOP UNITS (CONTINUED)

UNIT NO	SERVES	RETURN / EXHAUST FAN SECTION										PRE FILTER	FINAL FILTER	EER	WEIGHT LBS.	RTU L x W x H	UNIT MCA	UNIT MOCOP	MAKE/MODEL	REMARKS
		CFM	ESP	NUMBER OF FANS	WHEEL TYPE	FAN RPM	MAX BHP	ELECTRICAL												
								HP	VOLTS	PH	RPM									
AC-3	REFER TO PLANS	-	1.0	1	CF	-	2.04	3.0	460	3	700	MERV-8	MERV-13	11.0	6,142	290" x 94" x 95"	62.57	80.0	TRANE SFHLF20	
AC-4	REFER TO PLANS	-	0.9	1	CF	-	2.15	3.0	460	3	700	MERV-8	MERV-13	10.8	6,875	290" x 94" x 95"	71.05	90.0	TRANE SFHLF25	
AC-5	REFER TO PLANS	-	-	1	-	-	-	0.75	460	3	1040	-	MERV-8	12.4	2,550	122" x 85" x 57"	36.0	45.0	TRANE YZD150	

- NOTES:
- FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
 - AC-3 & AC-4 SHALL BE PROVIDED WITH HOT GAS REHEAT, CONVENIENCE OUTLET AND ALL ACCESSORIES REQUIRED FOR DUAL ENTHALPY CONTROL AIR SIDE ECONOMIZER.
 - FAN MOTORS SHALL BE INVERTOR DUTY RATED FOR USE WITH VARIABLE FREQUENCY DRIVES.
 - VARIABLE AIR VOLUME UNITS SHALL BE BALANCED TO ACCOUNT FOR 85% DIVERSITY.
 - FANS SHALL BE SELECTED BASED ON THE PRESSURE DROP ACROSS DIRTY FILTERS.
 - PROVIDE 1 COMPLETE SET OF SPARE SET OF FILTERS FOR EACH UNIT (TOTAL NUMBER OF FILTER SETS = 2).
 - PROVIDE UNIT MOUNTED MANUFACTURER FURNISHED VFD DRIVES FOR SUPPLY FAN WITH THREE CONTACTOR ELECTRONIC BYPASS.
 - PROVIDE SINGLE POINT POWER WITH FACTORY SUPPLIED DISCONNECT, UNIT SCCR RATING TO BE 65 KAIC.
 - AC-5 SHALL BE PROVIDED WITH VFD COMPRESSORS, STAGED LOW HEAT AND ENHANCED DEHUMIDIFICATION MODE.

BOILERS

UNIT NO	LOCATION	TYPE	INPUT MBH	GROSS MBH	DOE MBH	FUEL	MIN/MAX PRESS	ELECTRICAL				MAKE/MODEL	REMARKS
								AMPS	VOLTS	PH	RPM		
B-1	ROOF PENTHOUSE	CONDENSING	750	716	-	NATURAL GAS	4" W.C. DURING FLOW, 14" W.C. MAX	13	120	1	-	AERCO BMK 750	
B-2	ROOF PENTHOUSE	CONDENSING	750	716	-	NATURAL GAS	4" W.C. DURING FLOW, 14" W.C. MAX	13	120	1	-	AERCO BMK 750	

- NOTES:
- FURNISHED WITH CONDENSATE NEUTRALIZER AND ALL GAS VALVES REQUIRED FOR A COMPLETE FUNCTIONAL SYSTEM.
 - PROVIDE LOW WATER CUTOFF AND HIGH TEMPERATURE LIMIT.

AIR SEPARATORS


ITEM	MANUFACTURER	MODEL	LOCATION	GPM	SIZE		PD	REMARKS
					LENGTH	DIAMETER		
AS-1	SPIROTHERM	SPIROVENT VSR300	REFER TO PLANS	80	23.7"	8.6"	3FT MAX	

- NOTES:
- AIR SEPARATOR SHALL BE COALESCING TYPE. VORTEX AND CENTRIFUGAL TYPE ARE NOT ACCEPTABLE.

VARIABLE FREQUENCY DRIVES

ITEM	MANUFACTURER	MODEL	LOCATION	HORSEPOWER	VOLT/PHASE		EQUIPMENT SERVED	REMARKS
					IN	OUT		
VFD-1	AESA BROWN BOVERI	ACH550 + F267	MECHANICAL ROOM	REFER TO NOTE #1	460/3	460/3	AC-1 RETURN FAN	
VFD-2	AESA BROWN BOVERI	ACH550 + F267	MECHANICAL ROOM	REFER TO NOTE #1	460/3	460/3	AC-2 RETURN FAN	

- NOTES:
- REFER TO EQUIPMENT SCHEDULES FOR HORSEPOWER REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE FINAL VFD SIZING WITH RATED MOTOR AMPS INDICATED ON APPROVED SHOP DRAWINGS FOR THE EQUIPMENT SERVED.
 - ALL VFD'S SHALL BE PROVIDED WITH ELECTRONIC BYPASS AND SERVICE SWITCH.

drawing title SCHEDULES - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES			
professional seal 	REVISIONS			drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
	mark	date	description		scale NONE
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT				drawn by JNR	M-302
CAD no.				approved by CR	
project no. BI-2B-387				drawing no.	

PUMPS														
UNIT NO	LOCATION	SYSTEM SERVED	FLUID	GPM	MAX TEMP	HEAD FT	MAX BHP	ELECTRICAL				TYPE	MAKE/MODEL	REMARKS
								HP	VOLTS	PH	RPM			
HWP-1	ROOF PENTHOUSE	AC-1 HOT WATER COIL	WATER	36	225°F	25	-	1.0	460	3	4600	INLINE	B&G eocirc XL 65-130 3 PH	
HWP-2	ROOF PENTHOUSE	RADIATION	WATER	100	225°F	30	-	3.0	460	3	4600	INLINE	B&G eocirc XL 45-340 3 PH	
HWP-3	ROOF PENTHOUSE	RADIATION	WATER	100	225°F	30	-	3.0	460	3	4600	INLINE	B&G eocirc XL 45-340 3 PH	
HWP-4	ROOF PENTHOUSE	AC-2 HOT WATER COIL	WATER	36	225°F	25	-	1.0	460	3	4600	INLINE	B&G eocirc XL 65-130 3 PH	
BP-1	ROOF PENTHOUSE	B-1 PRIMARY PUMP	WATER	70	225°F	15	-	3.0	460	3	4600	INLINE	B&G eocirc XL 105-155 3 PH	
BP-2	ROOF PENTHOUSE	B-2 PRIMARY PUMP	WATER	70	225°F	15	-	3.0	460	3	4600	INLINE	B&G eocirc XL 105-155 3 PH	

- NOTES:
1. ALL PUMP MOTORS SHALL BE PREMIUM EFFICIENCY.

EXPANSION TANKS										
ITEM	MANUFACTURER	MODEL	LOCATION	SERVICE	TYPE	GAL. CAP.	INITIAL FILL PRESS.	SIZE		REMARKS
								HEIGHT	DIA.	
ET-1	ARMSTRONG	A-300L	REFER TO PLANS	HOT WATER	BLADDER	80.0	21 PSI	53"	24"	VERTICAL - BASE MOUNTED

AIR COOLED CONDENSING UNITS																		
UNIT NO	LOCATION	CAP MBH	REFR	COMPRESSORS			CONDENSER					ELECTRICAL			MAKE/MODEL	REMARKS		
				TYPE	NO	STEP	FAN	NO	ESP	HP	RPM	SCT	AMB	VOLT			PH	MCA
ACCU-1	REFER TO PLANS	690.7	R-410A	DIGITAL SCROLL	4	-	DIRECT DRIVE	6	-	1.0	1,140	-	95°F	460	3	102.0	TRANE RAUJCS04B	ASSOCIATED W/ AC-1 2 CIRCUITS
ACCU-2	REFER TO PLANS	690.7	R-410A	DIGITAL SCROLL	4	-	DIRECT DRIVE	6	-	1.0	1,140	-	95°F	460	3	102.0	TRANE RAUJCS04B	ASSOCIATED W/ AC-1 2 CIRCUITS

- NOTES:
1. THE COMPRESSORS SHALL BE DIGITAL SCROLL AND UTILIZE R-410A REFRIGERANT.
2. ALL AIR COOLED CONDENSING UNITS SHALL BE FURNISHED WITH LOW AMBIENT CONTROL TO 0°F.
3. ALL AIR COOLED CONDENSING UNITS SHALL BE FURNISHED WITH COIL FROST PROTECTION FOR PART LOAD CONDITIONS.

FANS															
UNIT NO	LOCATION	SYSTEM SERVED	TYPE	CFM	SP	MAX BHP	FAN RPM	TIP SPEED	SOUND SONES	ELECTRICAL				MAKE/MODEL	REMARKS
										HP	VOLTS	PH	RPM		
EF-1	ROOF	TOILET EXHAUST	CENTRIF.	200	0.25"	-	1045	-	2.9	1/6	115	1	1725	COOK ACED-EC	
EF-2	ROOF	GENERAL EXHAUST	CENTRIF.	740	0.5"	-	1117	-	6.2	1/4	115	1	1725	COOK ACE-D VF	
TEF-1	ROOF	TOILET EXHAUST	CENTRIF.	2000	0.5"	-	940	-	8.8	1/2	115	1	1725	COOK ACE-D VF	
EF-4	ROOF	JANITOR CLOSET EXHAUST	CENTRIF.	200	0.5"	-	1045	-	2.9	1/6	115	1	1725	COOK ACED-EC	
EF-5	ROOF	GENERAL EXHAUST	UPBLAST	625	0.5"	-	1555	-	9.1	1/4	115	1	1725	COOK ACRUD-EC	
EF-7	ROOF	JANITOR CLOSET EXHAUST	CENTRIF.	200	0.5"	-	1045	-	2.9	1/6	115	1	1725	COOK ACED-EC	
RF-1	ROOF	AC-1 RETURN FAN	INLINE	15,900	1.0"	4.18	880	-	-	7.5	460	3	1750	COOK 365QMXD08	
RF-2	ROOF	AC-2 RETURN FAN	INLINE	15,900	1.0"	4.18	880	-	-	7.5	460	3	1750	COOK 365QMXD08	
EF-8	CONNECTOR ROOF	EXHAUST	CENTRIF.	500	0.25"	-	1276	-	-	1/4	115	1	1725	COOK ACED-EC	REFER TO NOTE #5

- NOTES:
1. ALL FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
2. ALL DIRECT DRIVE FANS SHALL BE FURNISHED WITH VARIABLE SPEED CONTROLLERS FOR BALANCING.
3. PROVIDE BELT GUARDS, MOTOR GUARDS AND AUTOMATIC BELT TENSIONERS FOR ALL BELT DRIVE FANS.
4. RF-1 & RF-2 FAN MOTORS SHALL BE INVERTER DUTY RATED FOR USE WITH VARIABLE FREQUENCY DRIVES.
5. SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A AND E-101A

RADIANT PANELS										
UNIT NO	LOCATION	SERVES	BTUH	WIDTH	LENGTH	ELECTRIC			MAKE/MODEL	REMARKS
						VOLT	WATT	AMPS		
RP-1	REFER TO PLANS FOR QUANTITY	CONNECTOR	2,133	18"	6'-0"	277	625	2.3	QMARK QTL18-7	CUSTOM SIZE PANELS REFER TO NOTE #5 FOR SUPPLEMENTAL BID SCOPE


- NOTES:
1. COORDINATE RADIANT PANEL LOCATION WITH ARCHITECTURAL PLANS, ELEVATIONS, AND SECTIONS.
2. PROVIDE STANDARD COLOR CHART FOR COLOR SELECTION BY ARCHITECT.
3. MOUNTING STYLE SHALL BE COORDINATED WITH ARCHITECT.
4. REFER TO SEQUENCE OF OPERATIONS FOR CONTROL OF RADIANT PANELS.
5. PROVIDE ALL NECESSARY RELAYS, CONTROLS, WIRING TO ALLOW FOR SINGLE THERMOSTAT CONTROL OF MULTIPLE PIECES OF ELECTRIC RADIANT PANELS.
6. SUPPLEMENTAL BID #1:
NORTH CONNECTOR
BASE BID: NO WORK
SUPPLEMENTAL BID #1: ROOF REPLACEMENT AS DESCRIBED ON A-101A
INTERIOR FINISHES AS DESCRIBED ON A-101A

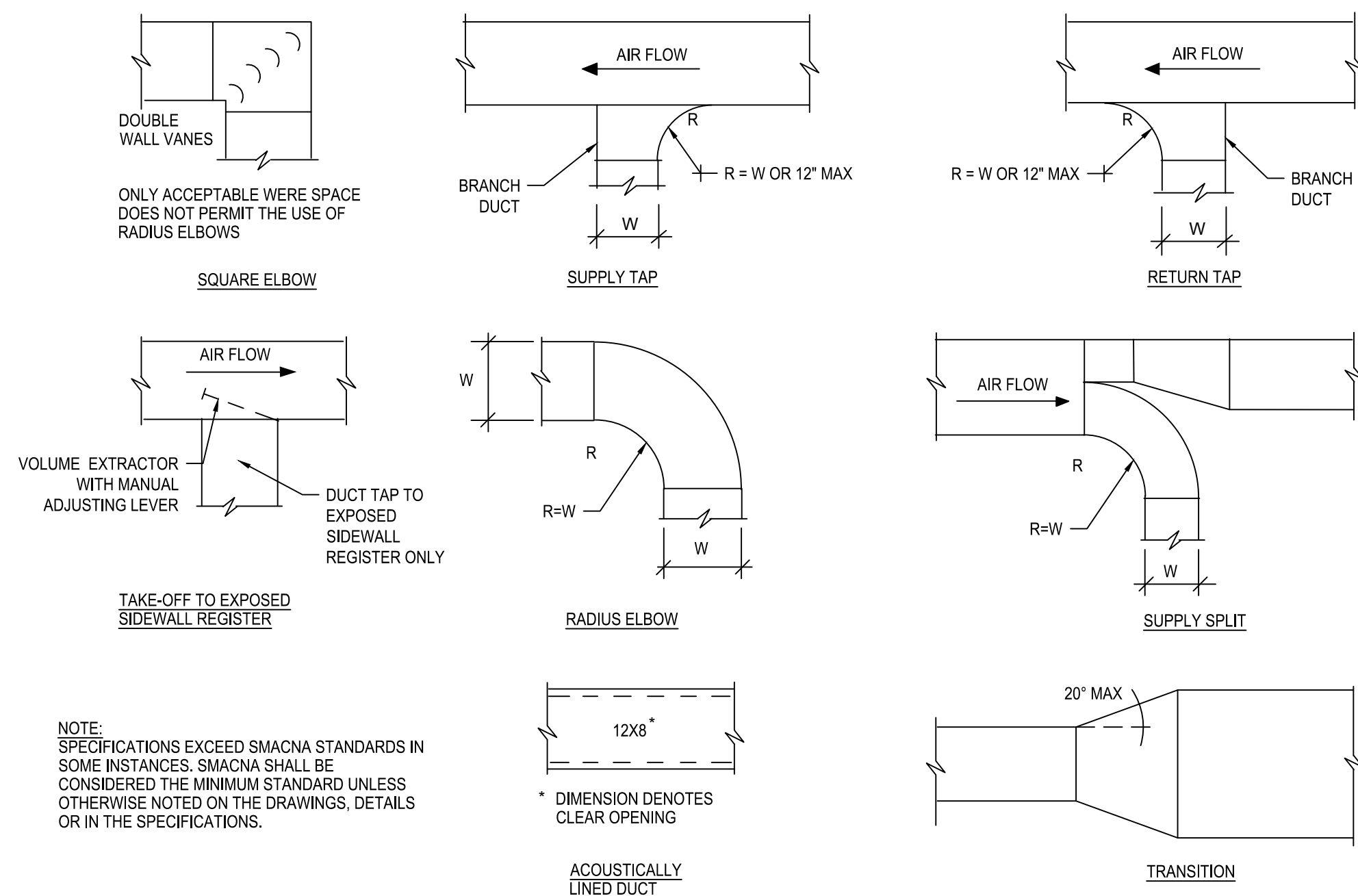
REGISTERS, GRILLES, & DIFFUSERS										
SYM	SERVICE	TYPE	MAKE	MODEL	MATERIAL FINISH	CFM	NECK SIZE	FACE SIZE	NC LEVEL	REMARKS
					ALUMINUM PER ARCHITECT					
(A)	EXHAUST	CG	PRICE	10	ALUMINUM PER ARCHITECT	0-1250	-	24" x 24"	SELECTION SHALL BE ≤ NC-25	

- NOTES:
1. COORDINATE AIR TERMINAL LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND SECTIONS.
2. PROVIDE STANDARD COLOR CHART FOR COLOR SELECTION BY ARCHITECT.
3. BORDER, FRAME, & MOUNTING STYLE SHALL BE COORDINATED WITH ARCHITECT.
4. PROVIDE CONCEALED MOUNTING FOR ALL REGISTERS, GRILLES AND DIFFUSERS.

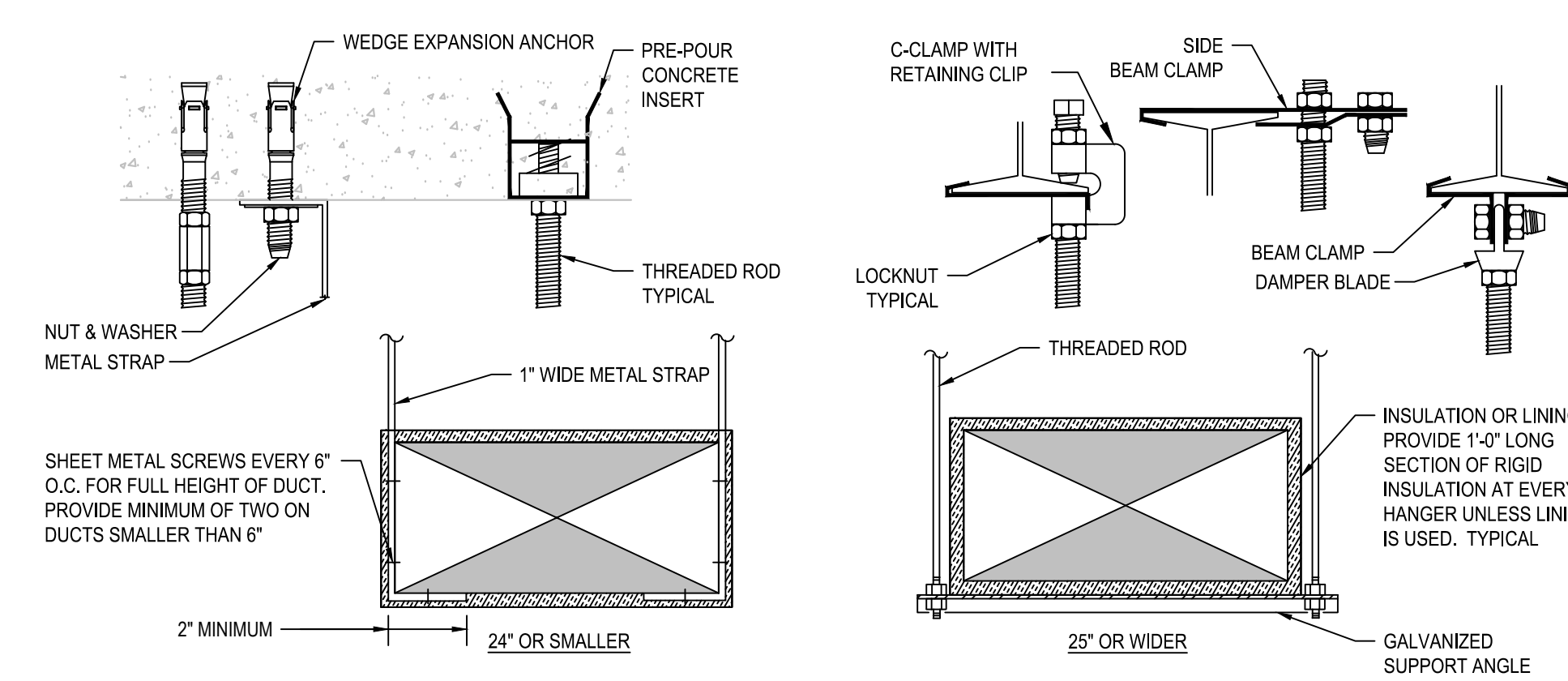
RETROFIT TERMINAL BOXES						
UNIT NO	DESIGN CFM	DESIGN SP	DUCT SIZE	DAMPER SIZE	MAKE/MODEL	REMARKS
SPC-1-2C	2,280	0.25" MAX 0.15" MIN	42"x12"	30"x7"	PRICE SRDV5000	
SPC-1-1B	5,340	0.25" MAX 0.15" MIN	54"x12"	50"x9"	PRICE SRDV5000	
SPC-1-2A	925	0.25" MAX 0.15" MIN	26"x10"	12"x7"	PRICE SRDV5000	
SPC-1-2B	1,160	0.25" MAX 0.15" MIN	22"x10"	16"x6"	PRICE SRDV5000	
SPC-1-1A	2,295	0.25" MAX 0.15" MIN	42"x12"	30"x7"	PRICE SRDV5000	
SPC-2-1A	1,640	0.25" MAX 0.15" MIN	34"x12"	22"x6"	PRICE SRDV5000	
SPC-2-1B	1,750	0.25" MAX 0.15" MIN	28"x14"	20"x7"	PRICE SRDV5000	
SPC-2-1C	4,210	0.25" MAX 0.15" MIN	44"x18"	35"x10"	PRICE SRDV5000	
SPC-2-1A	1,690	0.25" MAX 0.15" MIN	34"x12"	22"x7"	PRICE SRDV5000	
SPC-2-2B	1,720	0.25" MAX 0.15" MIN	34"x12"	22"x7"	PRICE SRDV5000	
SPC-2-2C	5,340	0.25" MAX 0.15" MIN	44"x14"	40"x11"	PRICE SRDV5000	
SPC-2-2A	1,720	0.25" MAX 0.15" MIN	34"x12"	22"x7"	PRICE SRDV5000	
SPC-3-1B	1,700	0.25" MAX 0.15" MIN	48"x10"	22"x7"	PRICE SRDV5000	
SPC-3-1A	1,810	0.25" MAX 0.15" MIN	34"x12"	24"x7"	PRICE SRDV5000	
SPC-3-2B	1,755	0.25" MAX 0.15" MIN	28"x10"	24"x6"	PRICE SRDV5000	
SPC-3-4A	2,265	0.25" MAX 0.15" MIN	50"x10"	30"x7"	PRICE SRDV5000	
SPC-3-4B	2,705	0.25" MAX 0.15" MIN	52"x10"	36"x7"	PRICE SRDV5000	
SPC-3-4D	2,180	0.25" MAX 0.15" MIN	46"x12"	30"x6"	PRICE SRDV5000	
SPC-3-4C	2,300	0.25" MAX 0.15" MIN	46"x12"	30"x7"	PRICE SRDV5000	

- NOTES:
1. PROVIDE CONTROLLERS IN ACCORDANCE WITH SEQUENCE OF OPERATION REQUIREMENTS, COORDINATE WITH ATC CONTRACTOR.
2. CONTRACTOR RESPONSIBLE FOR REVIEWING EXISTING DUCT SIZES IN FIELD. SIZES SHOW ARE INDICATED FOR REFERENCE ONLY.
3. CONTRACTOR RESPONSIBLE FOR COORDINATING CONTROL PANEL ARRANGEMENT (LEFT/RIGHT HAND).

drawing title SCHEDULES - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES			
professional seal	REVISIONS			drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
	mark	date	description		scale NONE
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT				drawn by JNR approved by CR drawing no.
CAD no.	project no. BI-2B-387			M-303	



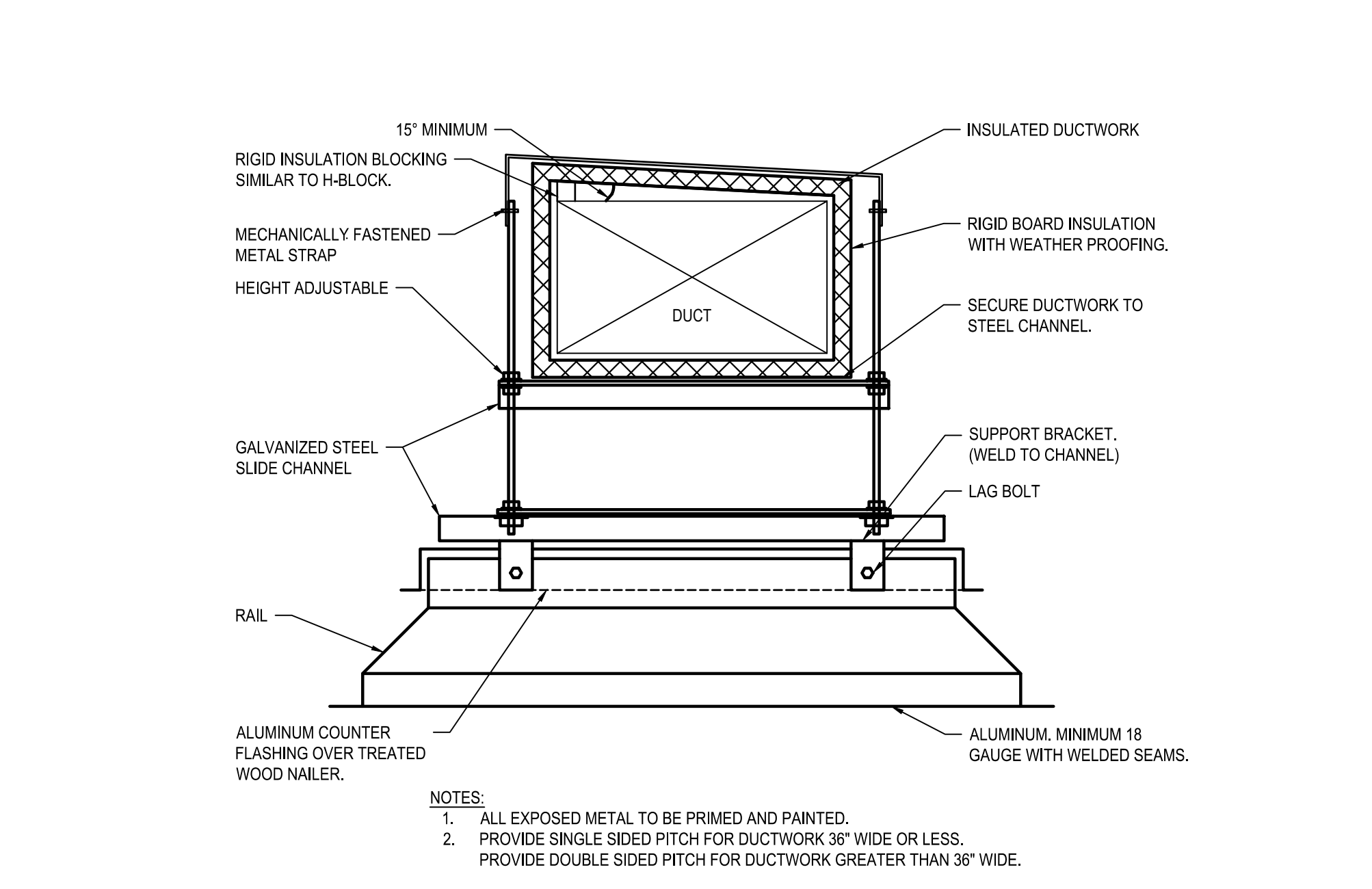
1 DUCT CONSTRUCTION DETAIL
M-401 NOT TO SCALE



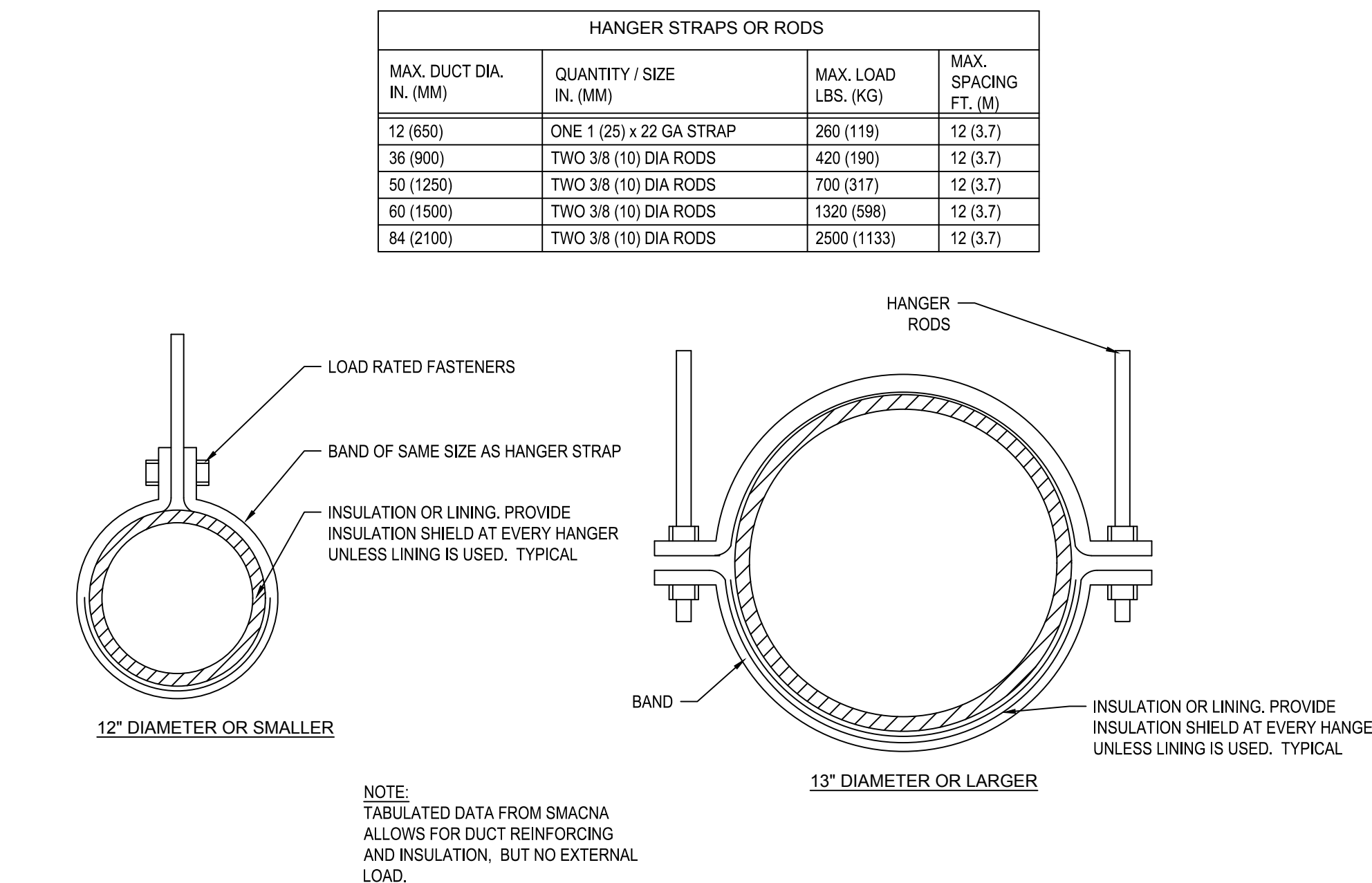
DUCT WIDTH	SUPPORT ANGLE OR EQUIV. CHANNEL	ROD DIA.	MAXIMUM SPACING	MAXIMUM AREA *
25" TO 30"	1 1/2" X 1 1/2" X 1/8"	3/8"	8'-0" O.C.	4 SQ. FT.
31" TO 42"	1 1/2" X 1 1/2" X 1/8"	3/8"	6'-0" O.C.	10 SQ. FT.
43" TO 60"	1 1/2" X 1 1/2" X 1/8"	1/2"	6'-0" O.C.	10 SQ. FT.
61" TO 84"	2" X 2" X 1/4"	1/2"	4'-0" O.C.	-
85" AND UP	2" X 2" X 1/4"	1/2"	4'-0" O.C.	-

* REDUCE SPACING TO NEXT SMALLER INTERVAL IF DUCT AREA EXCEEDS MAXIMUM

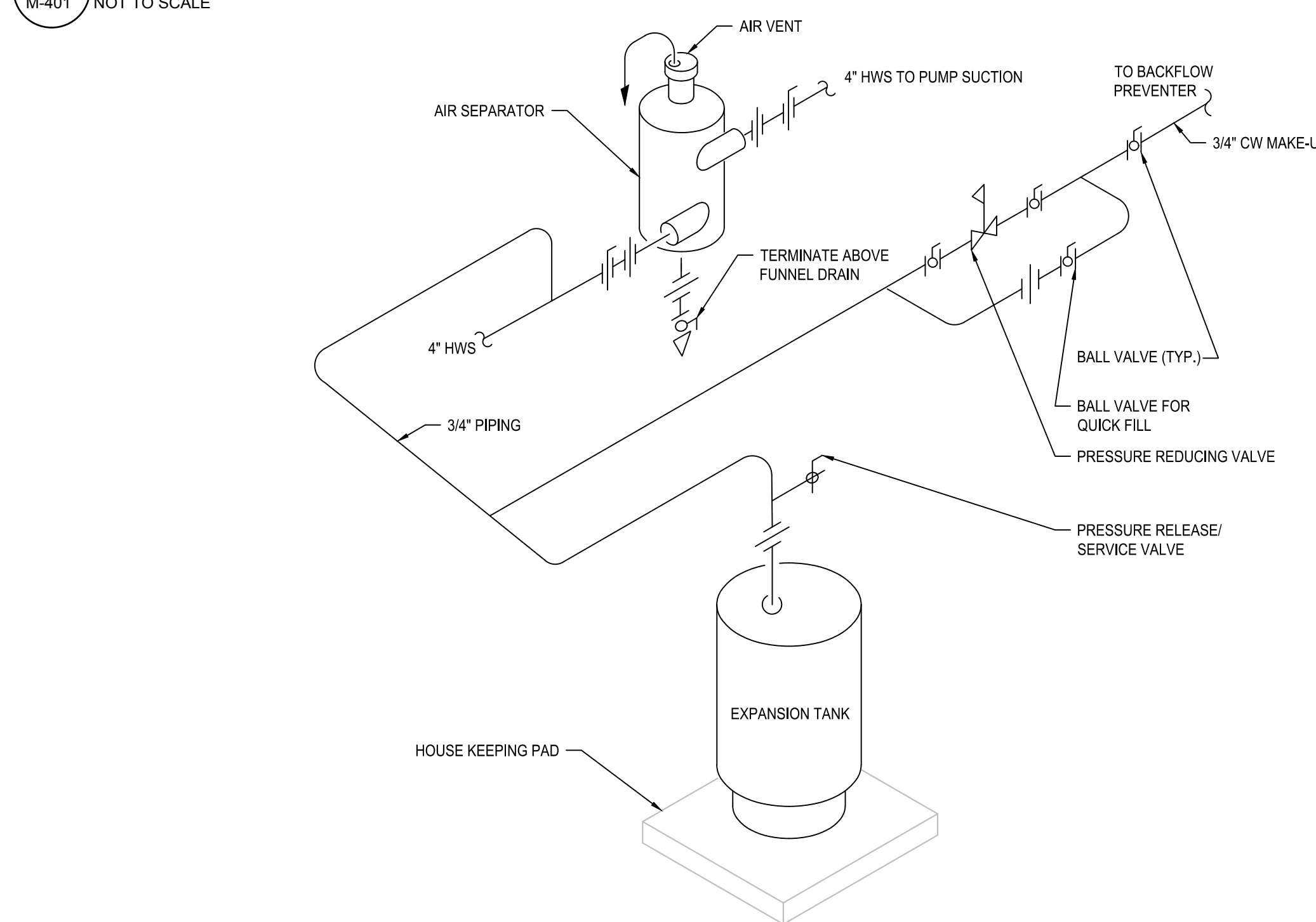
2 DUCT SUPPORT DETAIL
M-401 NOT TO SCALE



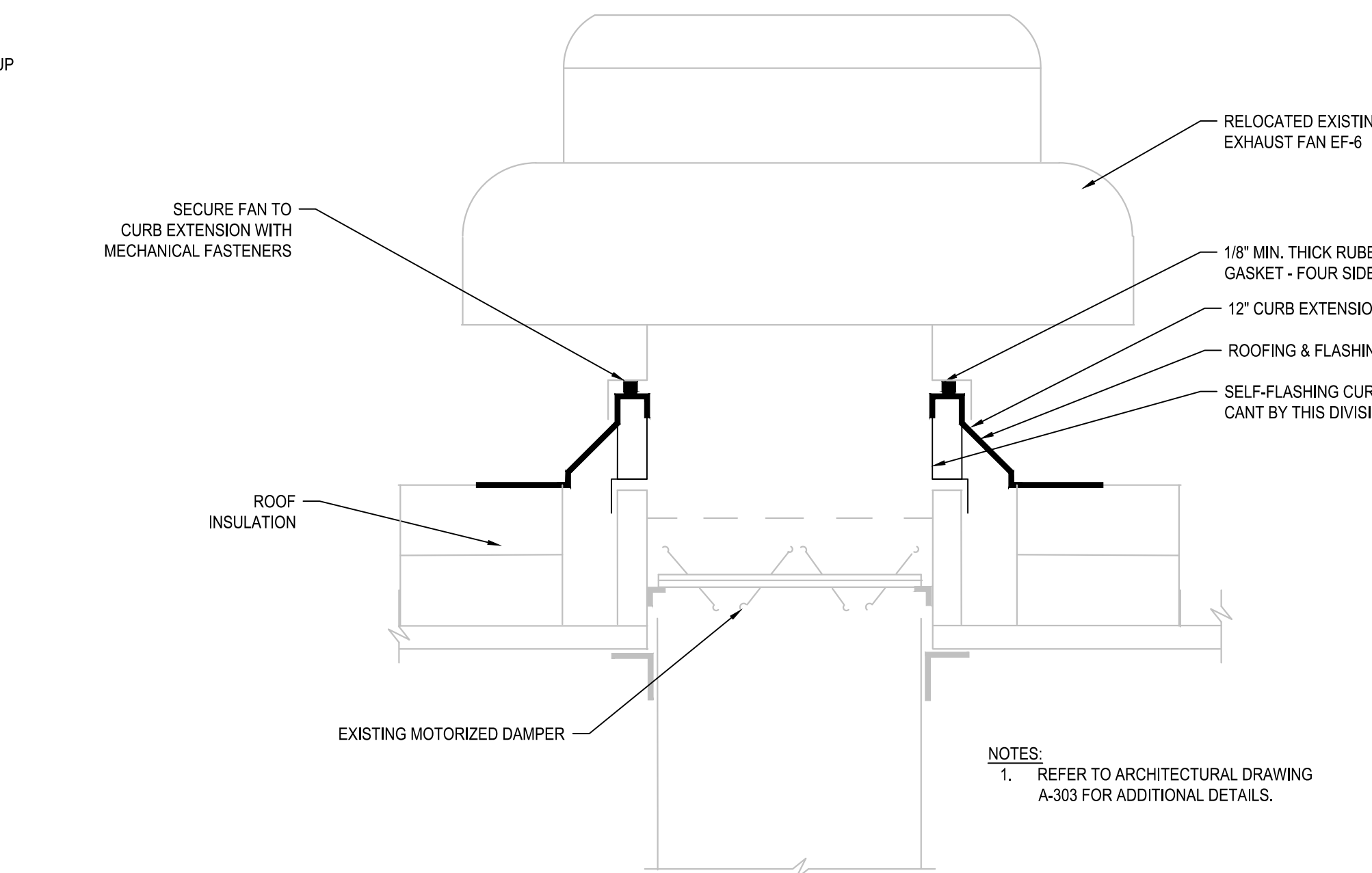
3 ROOF MOUNTED DUCTWORK DETAIL
M-401 NOT TO SCALE



4 ROUND DUCTWORK HANGER DETAILS
M-401 NOT TO SCALE

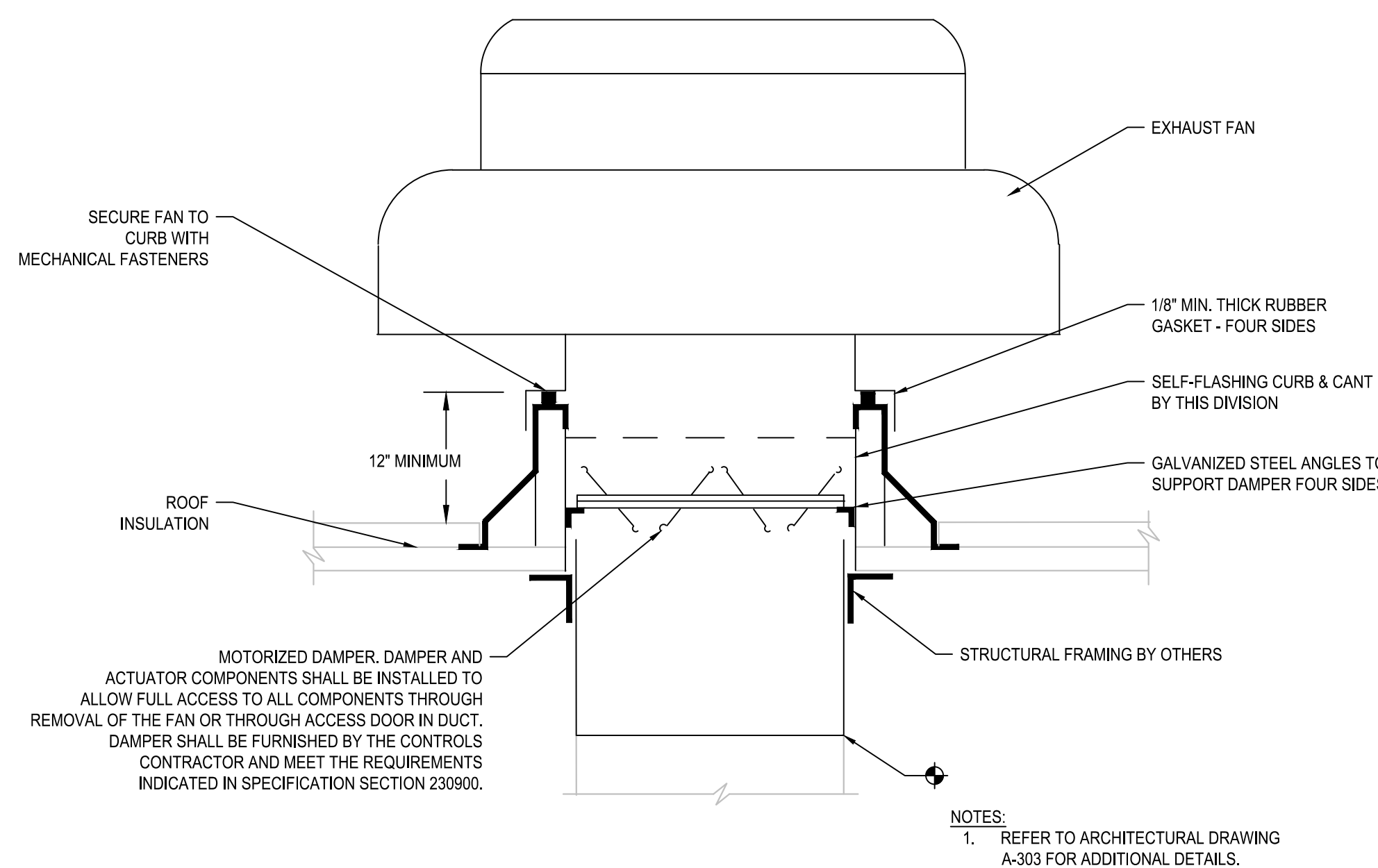


5 EXPANSION TANK DETAIL
M-401 NOT TO SCALE

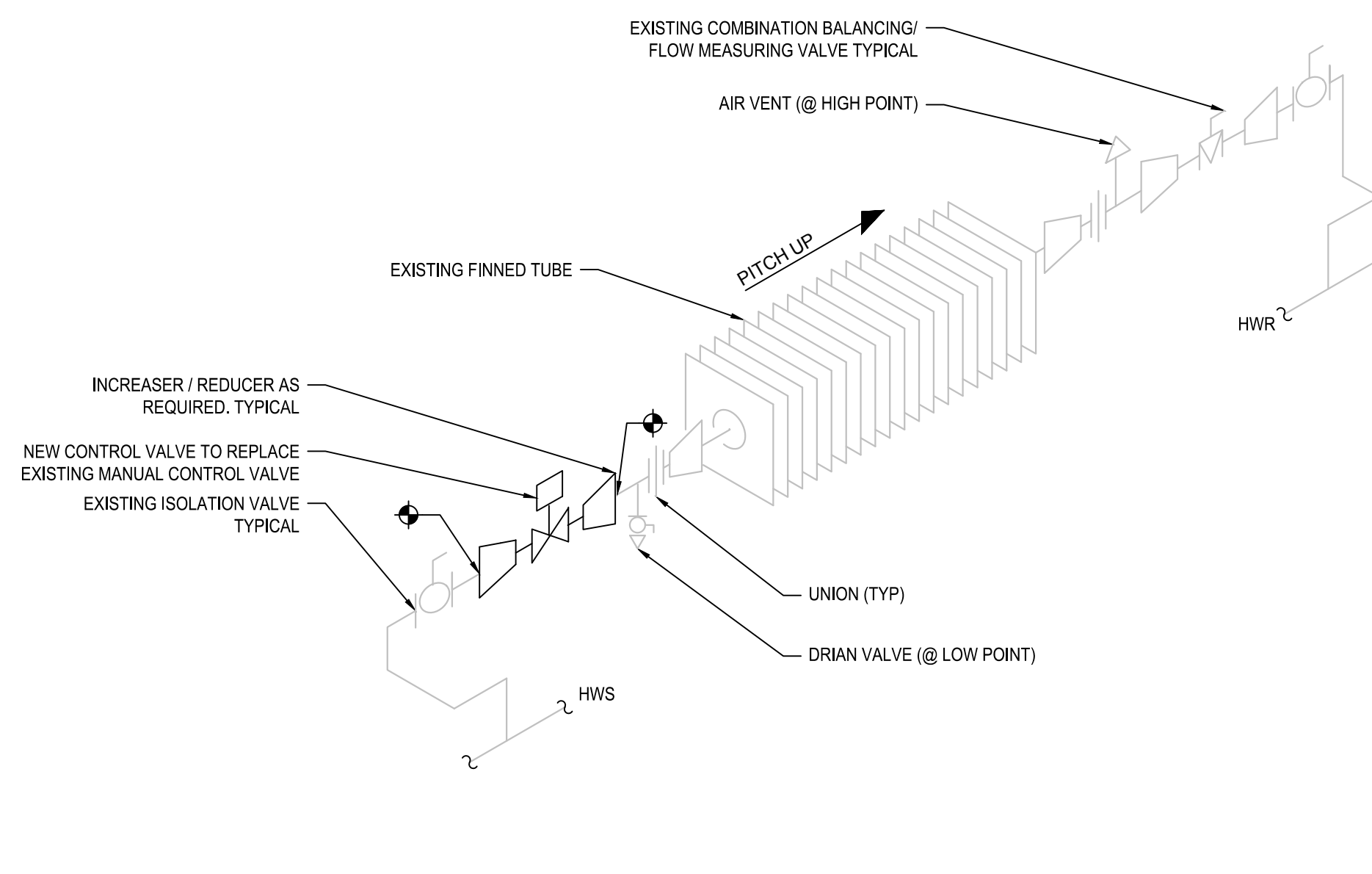


6 ROOF CURB EXTENSION DETAIL
M-401 NOT TO SCALE

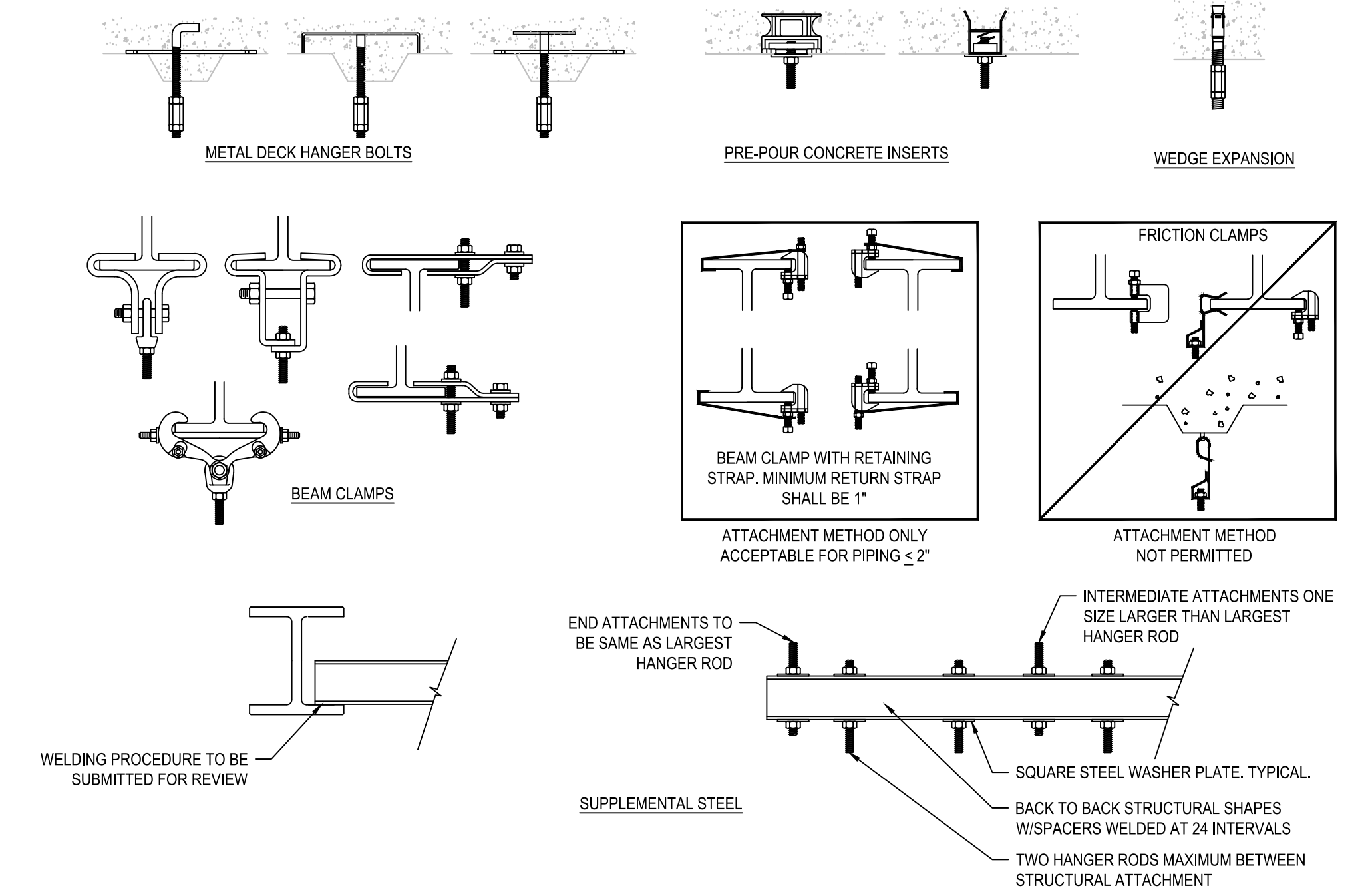
drawing title DETAILS - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019 scale NONE
CAD no.	project no. BI-2B-387	drawn by JNR approved by CR drawing no.	M-401



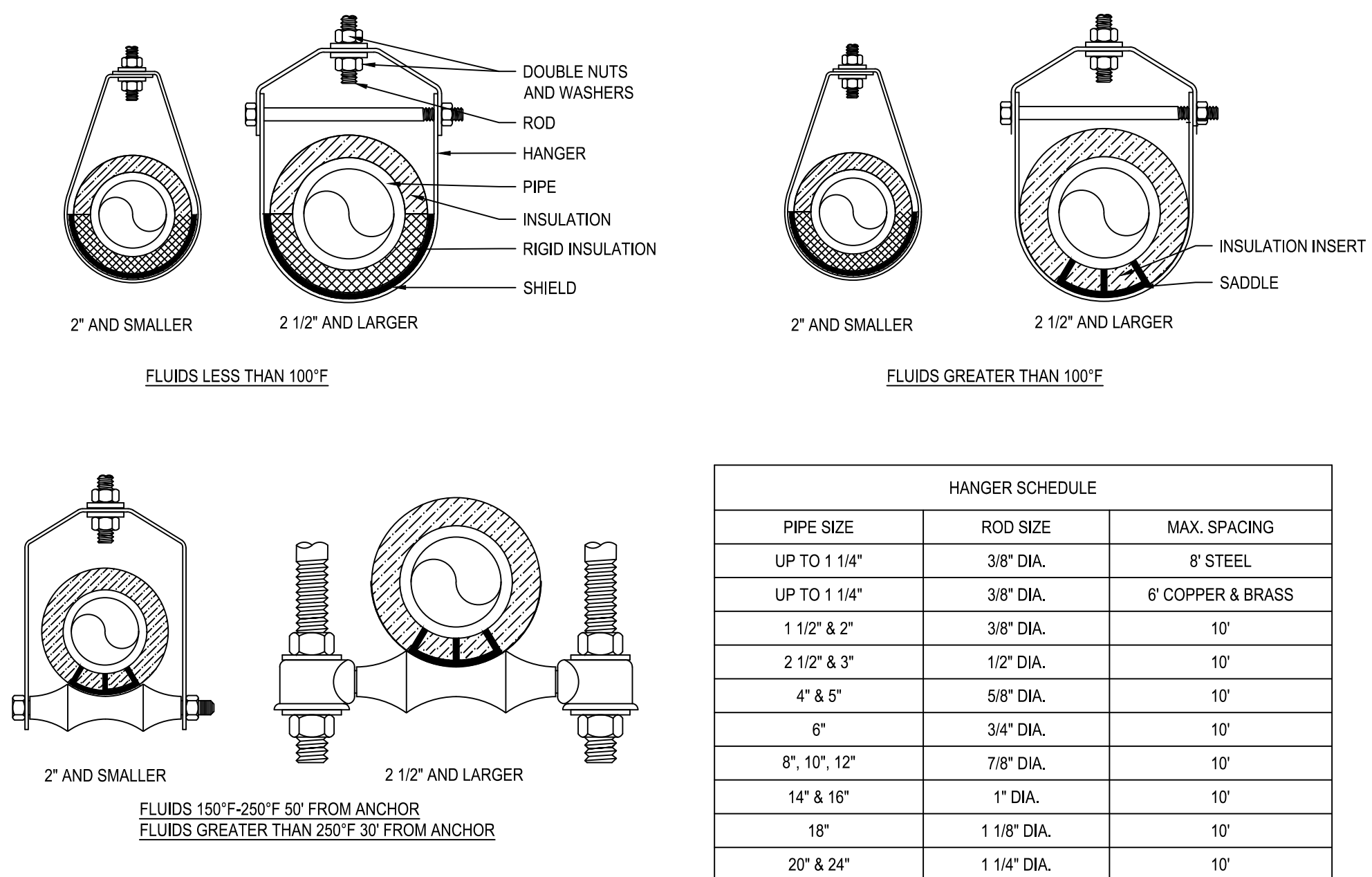
1 ROOF MOUNTED EXHAUST/RELIEF FAN DETAIL
M-402 NOT TO SCALE



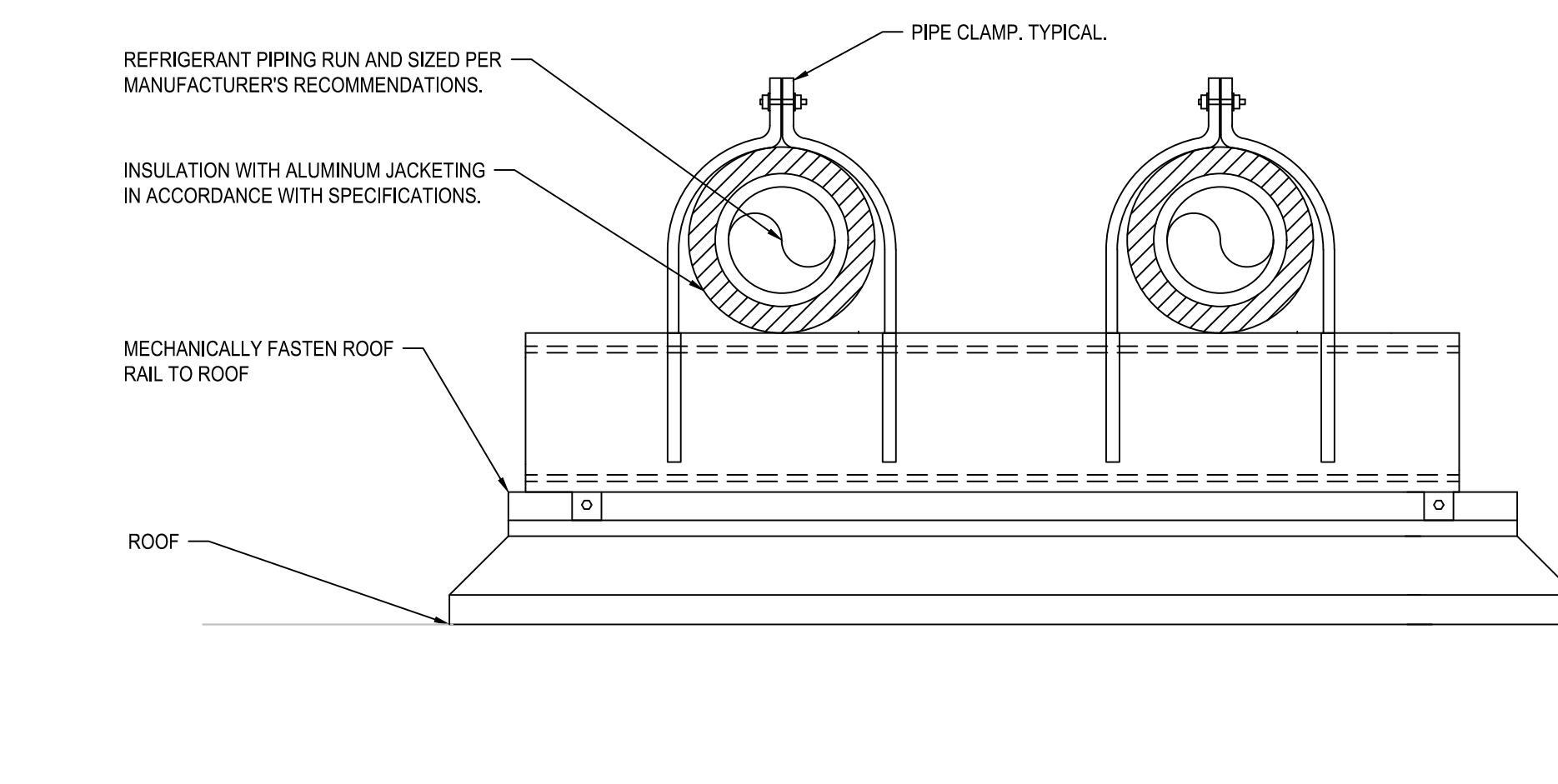
2 FINNED TUBE RADIATION DETAIL
M-402 NOT TO SCALE



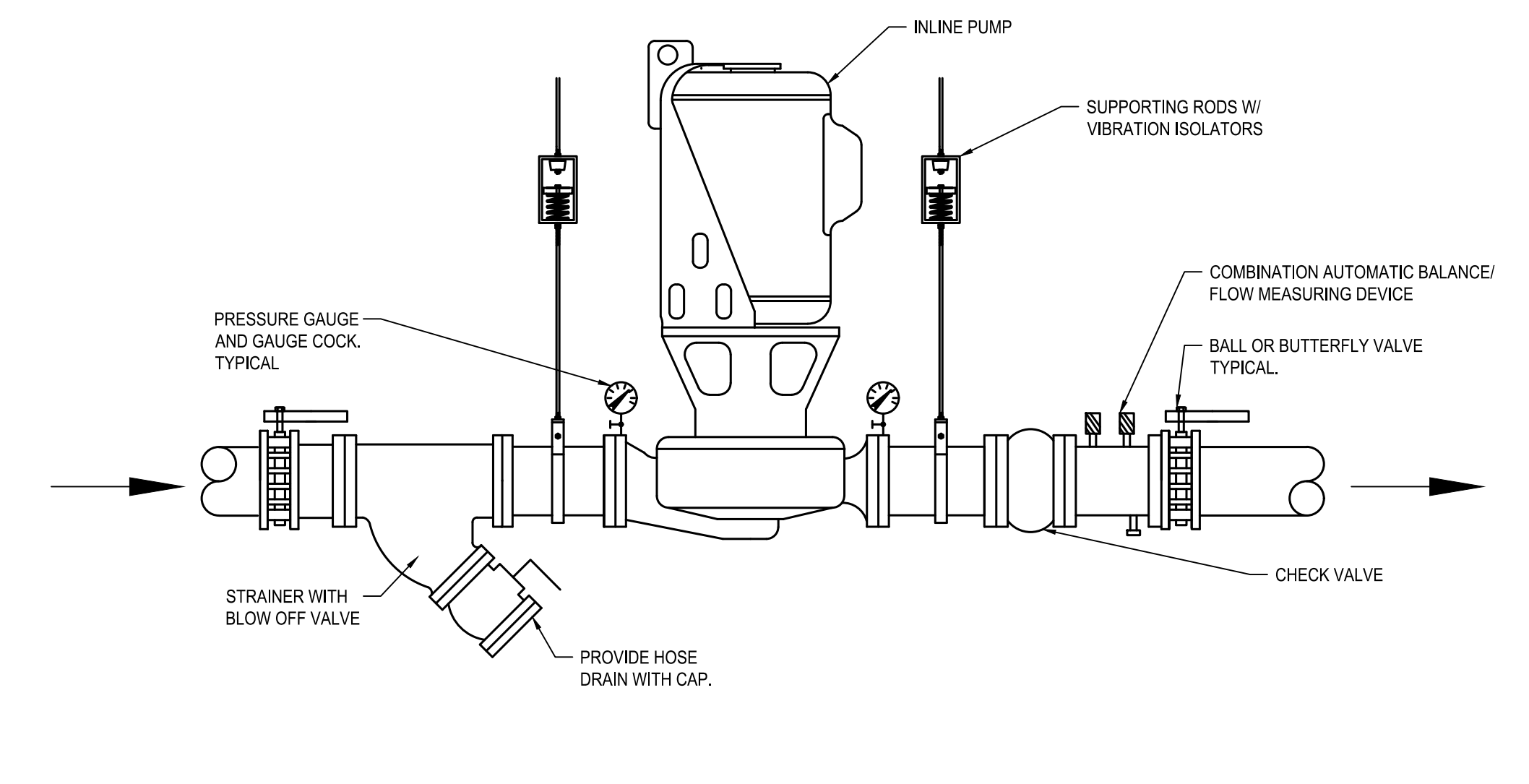
3 PIPE HANGER ATTACHMENT DETAIL
M-402 NOT TO SCALE



4 PIPE HANGER DETAIL
M-402 NOT TO SCALE

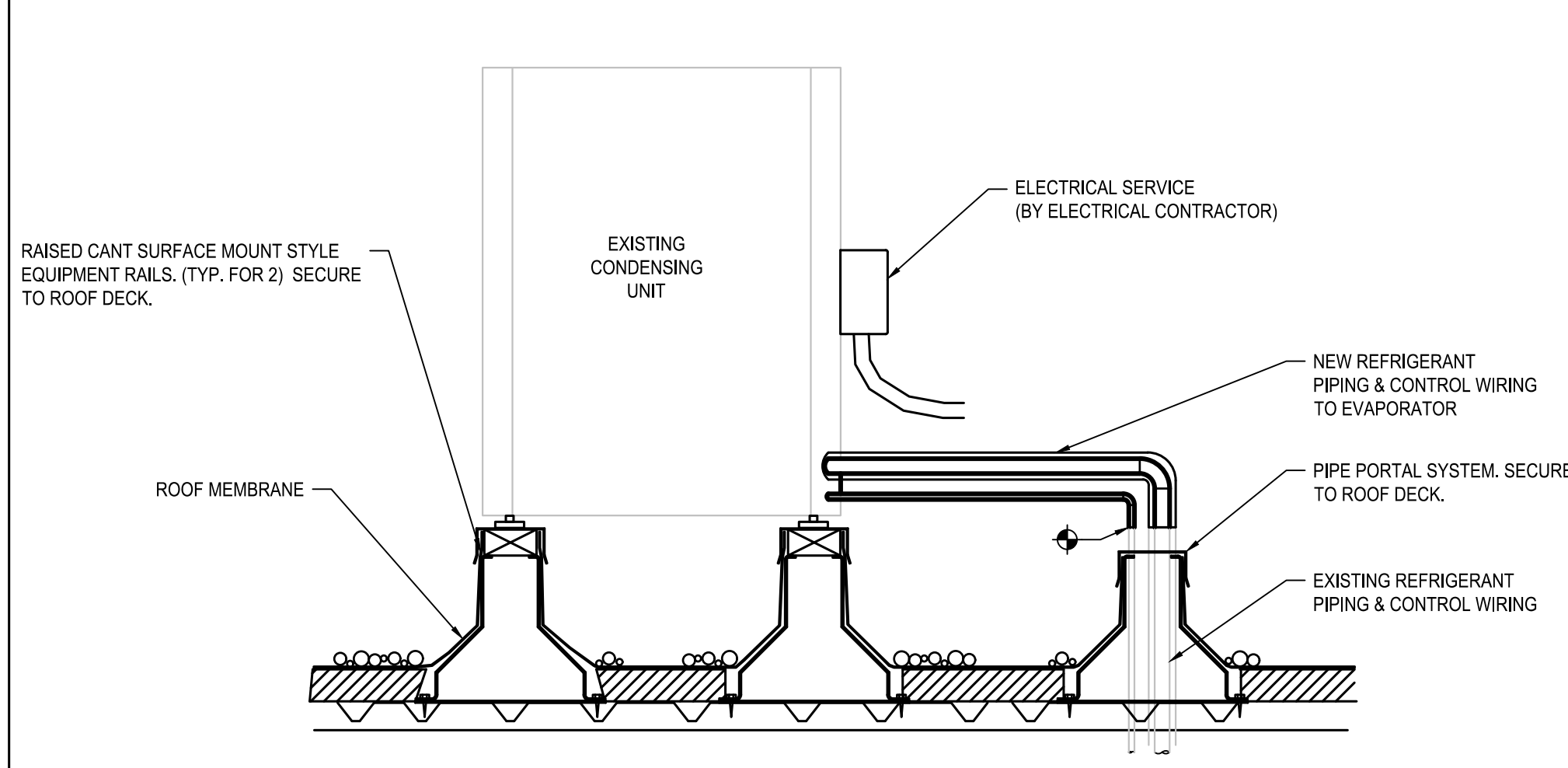


5 REFRIGERANT PIPING ROOF SUPPORT DETAIL
M-402 NOT TO SCALE



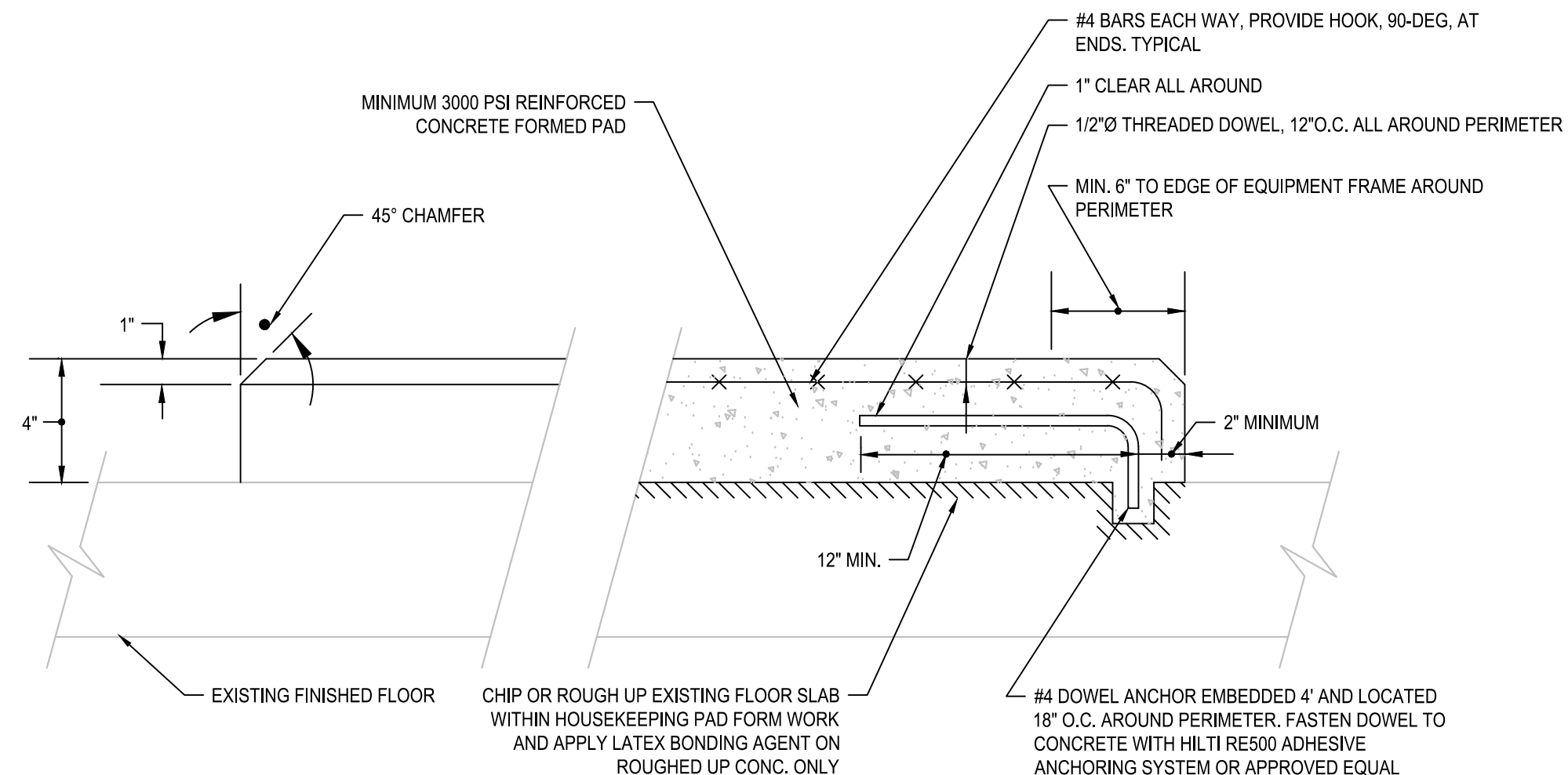
6 INLINE PUMP DETAIL
M-402 NOT TO SCALE

drawing title		DETAILS - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS			drawing prepared by	date
	mark	date	description	KOHLER RONAN, LLC	2/4/2019
				93 LAKE AVENUE DANBURY, CT 06810	scale NONE
				project	drawn by
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT	JNR
				300 CORPORATE PLACE ROCKY HILL, CT	approved by
					CR
				CAD no.	drawing no.
				project no. BI-2B-387	M-402



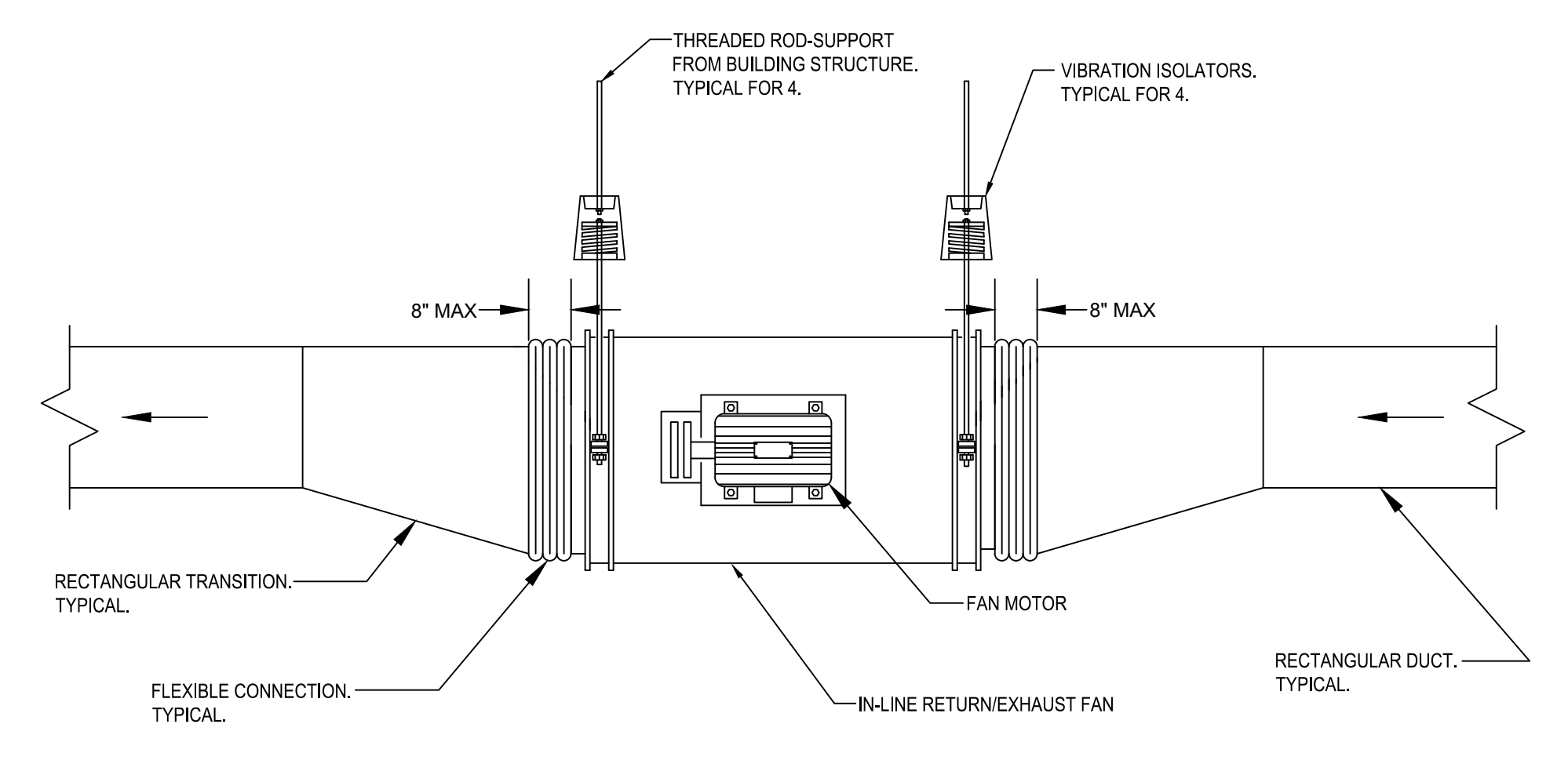
NOTE:
 1. SECURE CONDENSING UNIT TO EQUIPMENT SUPPORT NAILER W/ (4) 1/4" LAG BOLTS. SEAL ALL PENETRATIONS WATER TIGHT.
 2. ALL REFRIGERANT PIPING ROOF PENETRATIONS SHALL BE MADE WEATHER-TIGHT.

1 ROOF MOUNTED CONDENSING UNIT
 M-403 NOT TO SCALE

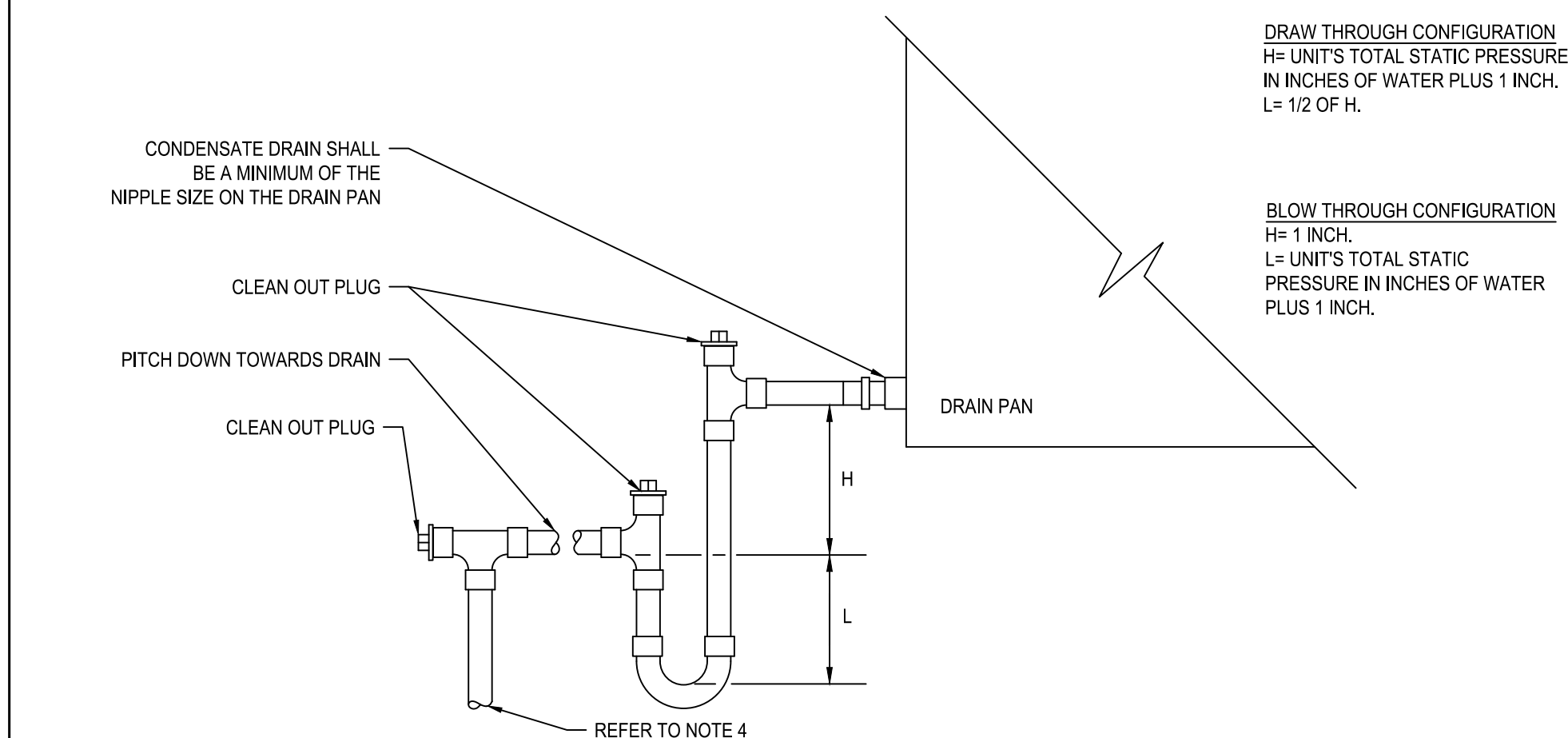


NOTE:
 1. CONCRETE PAD LENGTH, WIDTH AND LOCATION TO BE DETERMINED BY THE MECHANICAL CONTRACTOR BASED ON THE SUBMITTED EQUIPMENT.

2 HOUSEKEEPING PAD DETAIL
 M-403 NOT TO SCALE

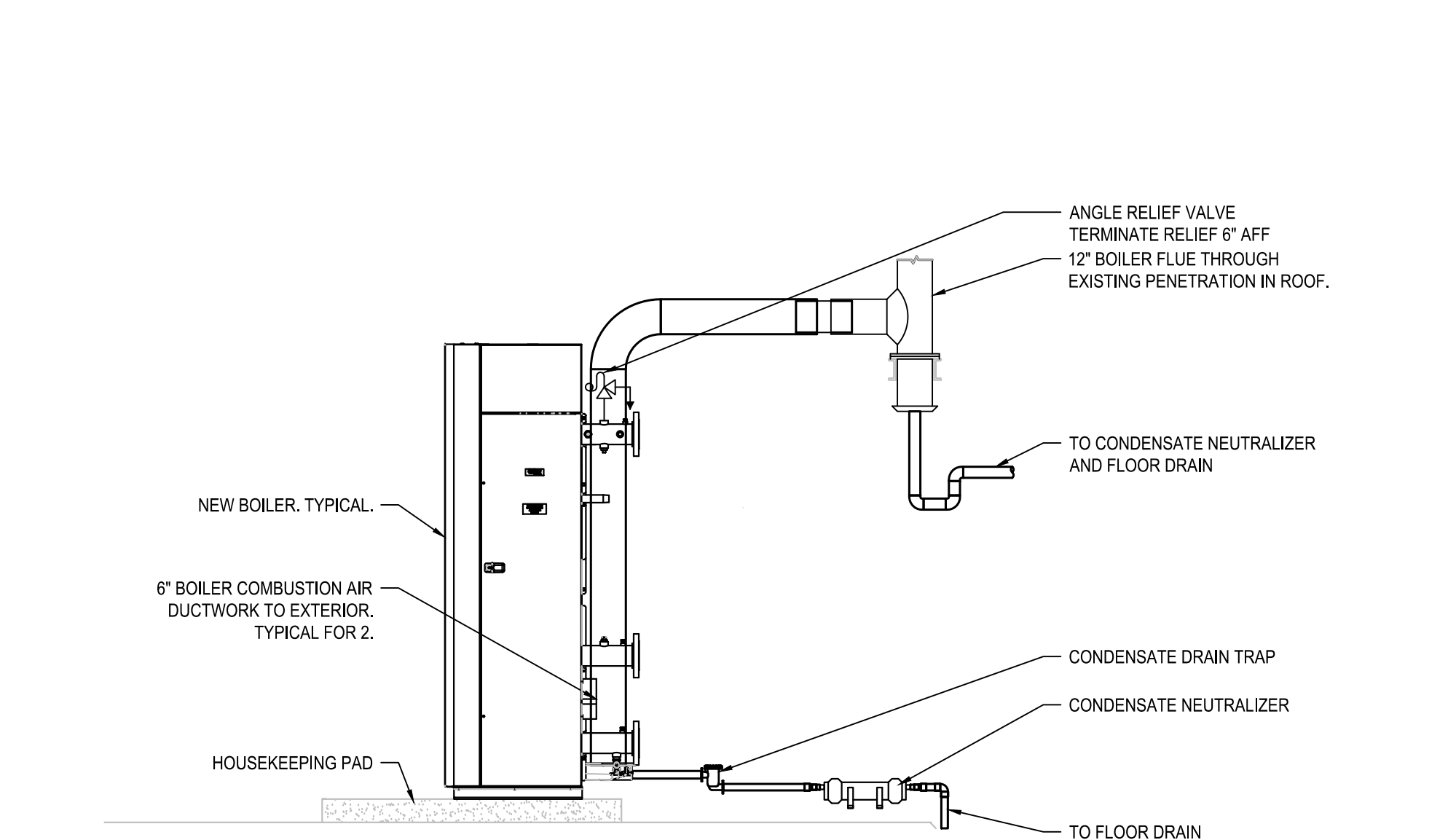


3 INLINE CENTRIFUGAL FAN INSTALLATION DETAIL
 M-403 NOT TO SCALE



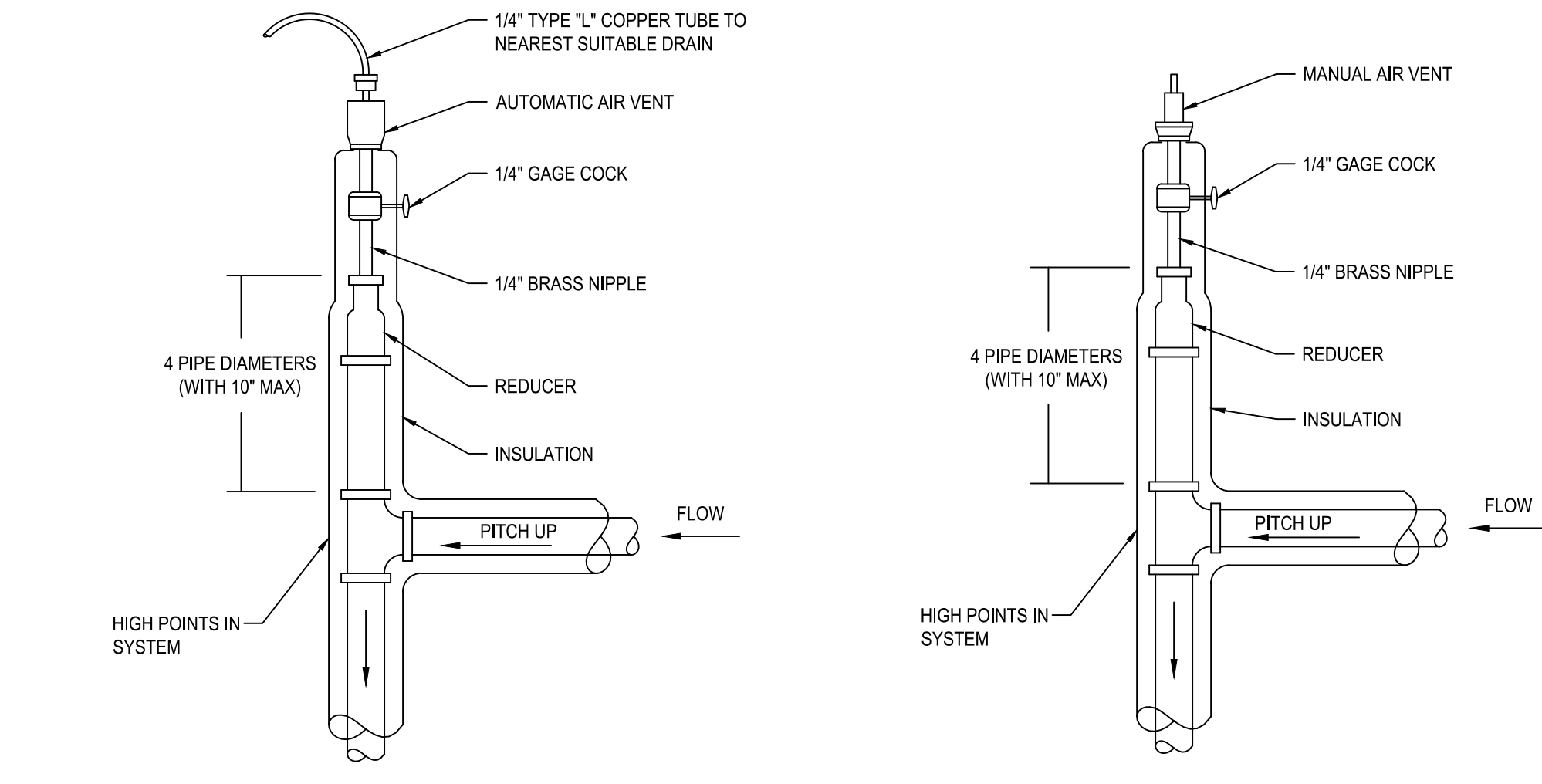
NOTES:
 1. REFER TO FLOOR PLANS AND SCHEDULES TO DETERMINE UNITS CONFIGURATION.
 2. REFER TO SCHEDULES FOR UNITS TOTAL STATIC PRESSURES.
 3. MANUALLY PRIME TRAP PRIOR TO START-UP OF UNIT.
 4. UNITS ABOVE CEILINGS: DRAIN PIPING SHALL BE INSULATED AND PIPED TO THE DISCHARGE POINT WITH AN AIR GAP OF 2 TIMES THE CONDENSATE DRAIN SIZE.
 5. UNITS ON ROOFS: DRAIN PIPING SHALL BE PIPED TO ROOF DRAIN, SPLASH BLOCK (BY THIS DIVISION) OR LOCATED INSIDE BUILDING.
 6. UNITS INSIDE BUILDING: DRAIN PIPING SHALL BE INSULATED AND PIPED TO THE DISCHARGE POINT WITH AN AIR GAP OF 2 TIMES THE CONDENSATE DRAIN SIZE.

4 COOLING COIL DRAIN TRAP DETAIL
 M-403 NOT TO SCALE



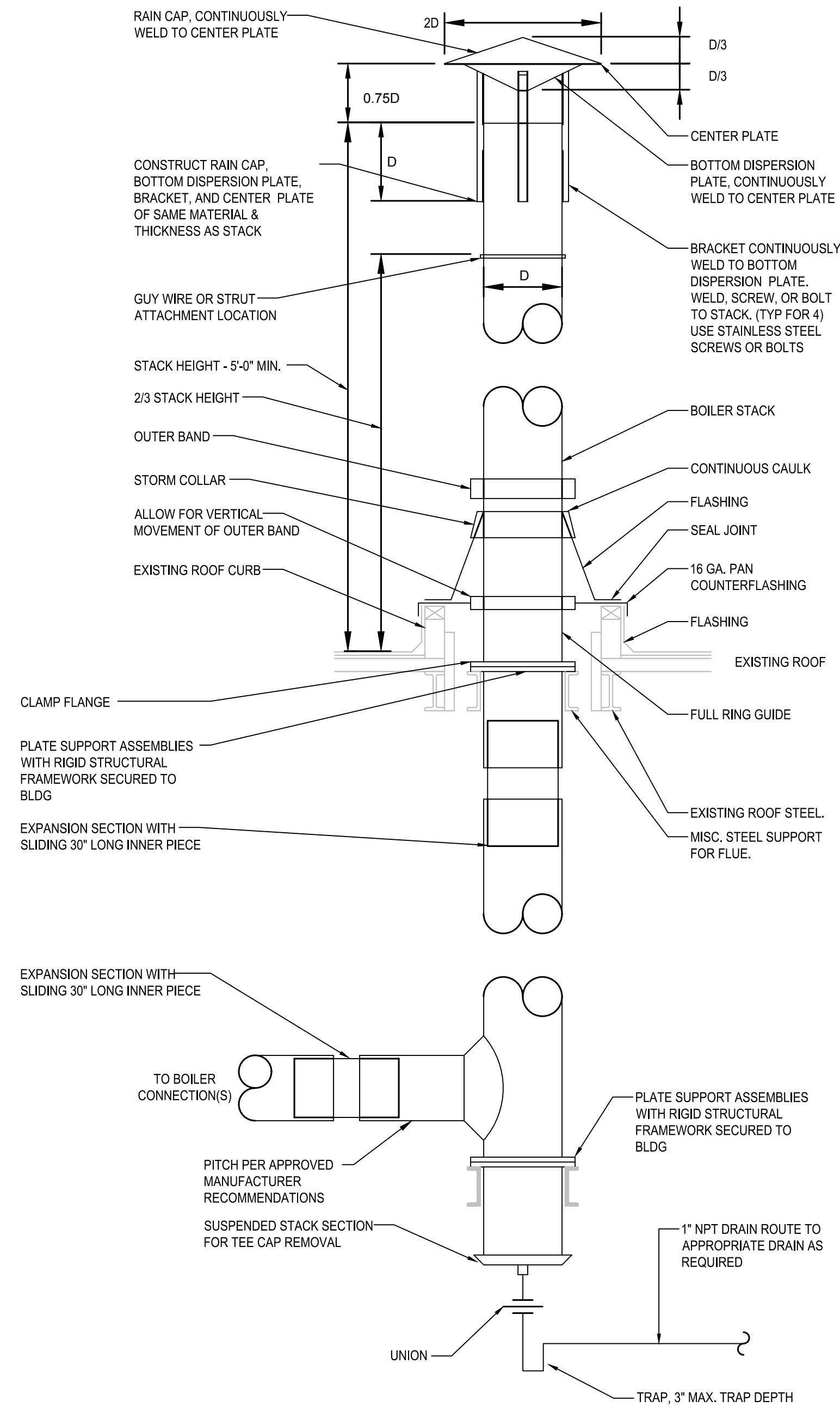
NOTE:
 1. REFER TO 1/M-404 FOR ADDITIONAL BOILER FLUE REQUIREMENTS.
 2. REFER TO 2/M-404 FOR ADDITIONAL BOILER PIPING REQUIREMENTS.

5 CONDENSING BOILER FLUE & COMBUSTION AIR DETAIL
 M-403 NOT TO SCALE



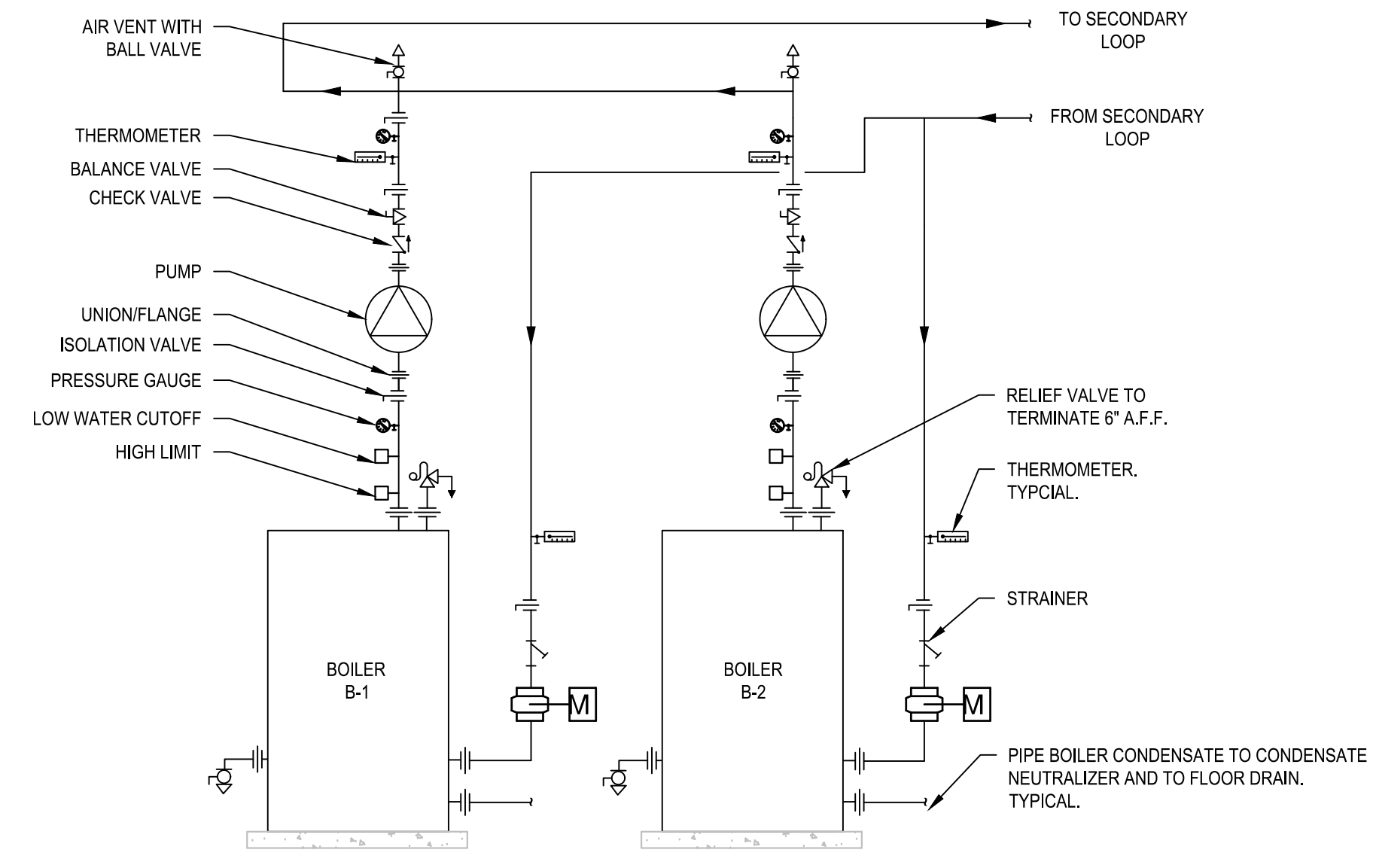
6 MANUAL AND AUTOMATIC AIR VENT DETAIL
 M-403 NOT TO SCALE

drawing title		DETAILS - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS			drawing prepared by	date
	mark	date	description	KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	2/4/2019
					NONE
				project	drawn by
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT	JNR
				300 CORPORATE PLACE ROCKY HILL, CT	approved by
					CR
					drawing no.
					M-403
CAD no.	project no.				
	BI-2B-387				

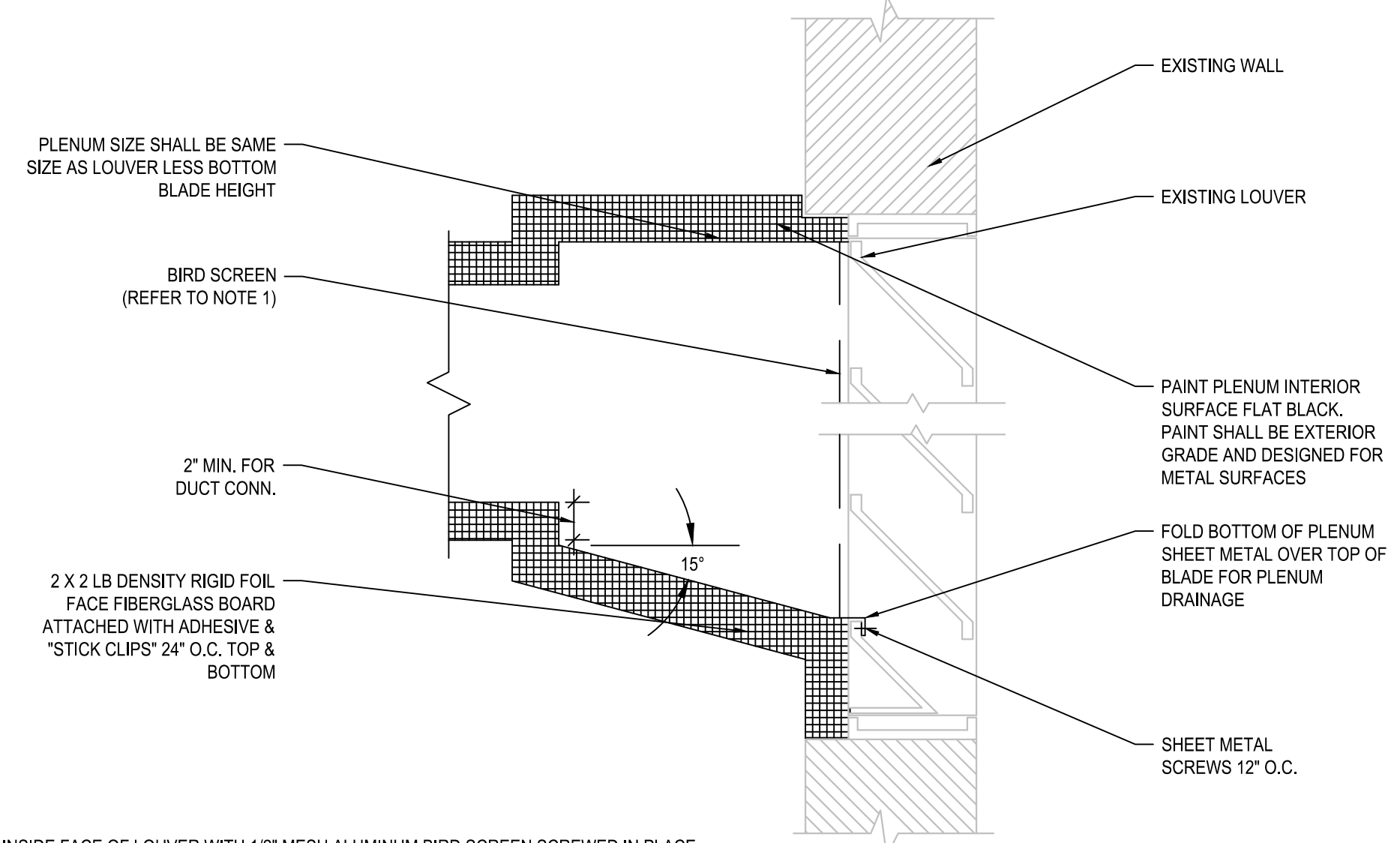


- NOTES:
1. REFER TO DRAWINGS FOR STACK SIZE.
 2. REFER TO DUCT CONSTRUCTION SCHEDULE FOR FLUE STACK CONSTRUCTION REQUIREMENTS.
 3. FLASH AND COUNTERFLASH AS REQUIRED TO PROVIDE A WEATHERPROOF AND WATERPROOF ENCLOSURE.
 4. BRACKETS SHALL BE 1"x2"x1"x12 GAUGE (MIN) FOR DUCTS SMALLER THAN 12" AND 2"x3"x2"x 10 GAUGE (MIN) FOR DUCTS 12" AND LARGER.

1 STACK TERMINATION DETAIL
M-404 NOT TO SCALE

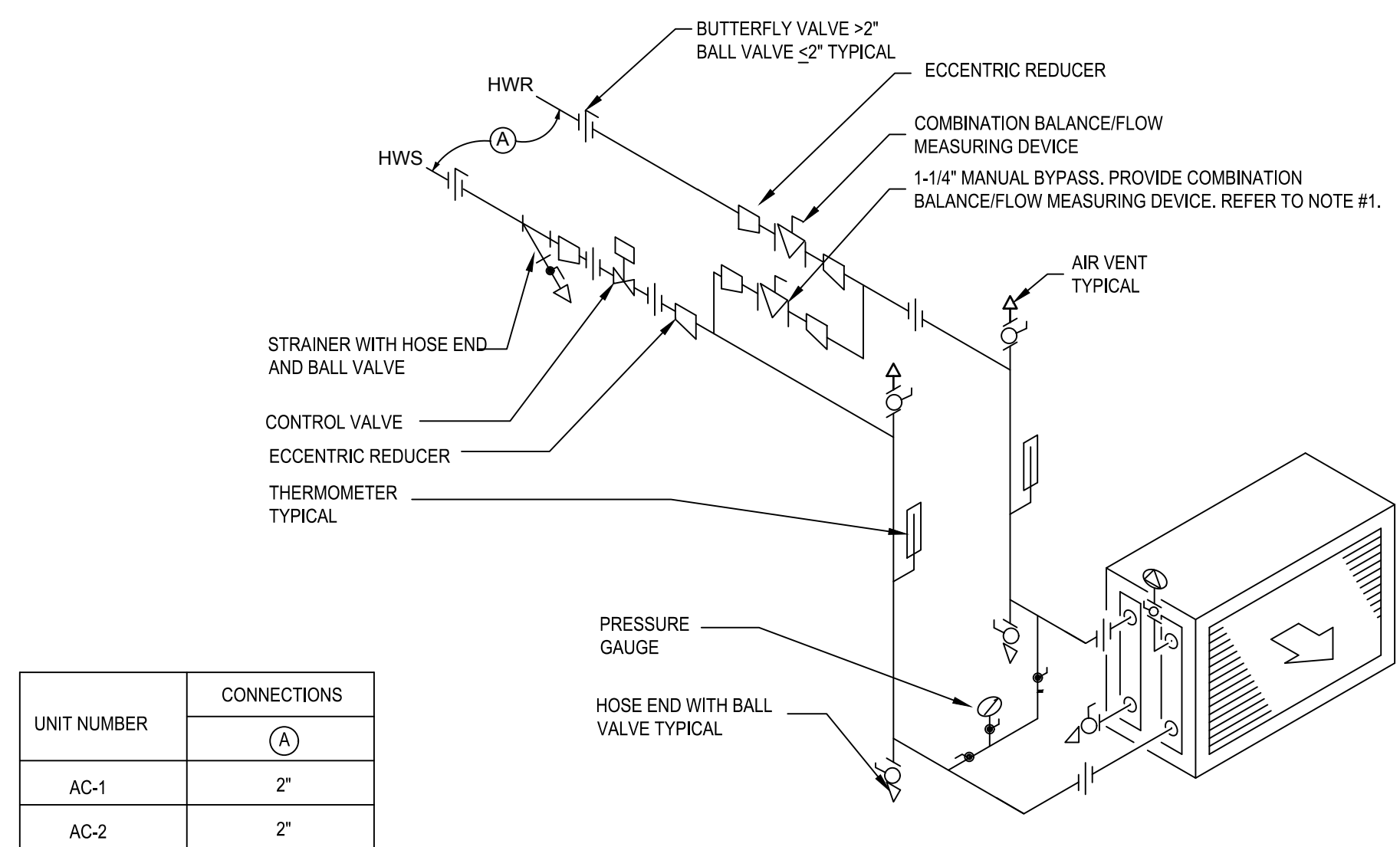


2 CONDENSING BOILER PIPING DETAIL
M-404 NOT TO SCALE



- NOTES:
1. COVER INSIDE FACE OF LOUVER WITH 1/2" MESH ALUMINUM BIRD SCREEN SCREWED IN PLACE.
 2. INSULATE UNUSED PORTION OF LOUVER WITH 2" DOUBLE WALL INSULATED PANELS.
 3. SEAL ALL PLENUM SEAMS WATERTIGHT WITH SILICONE SEALANT.
 4. TYPICAL FOR SUPPLY AND EXHAUST PLENUMS.
 5. PROVIDE ACCESS DOOR IN PLENUM. DOOR SHALL BE FIELD COORDINATED FOR ACCESS. DOOR SIZE SHALL BE 36" HIGH x 18" WIDE. REFER TO SPECIFICATION FOR DOOR CONSTRUCTION.

3 INTAKE AND EXHAUST LOUVER PLENUM DETAIL
M-404 NOT TO SCALE



UNIT NUMBER	CONNECTIONS
AC-1	2"
AC-2	2"

- NOTE:
1. 1-1/4" MANUAL BYPASS VALVE TO BE OPENED AND UTILIZED FOR PHASING PURPOSES ONLY UNTIL NEW BOILER PLANT AND ASSOCIATED PUMPS ARE INSTALLED. ONCE BOILER PLANT IS COMPLETED AND PUMPS ARE INSTALLED VALVE SHALL BE CLOSED.

4 HOT WATER COIL DETAIL
M-404 NOT TO SCALE

drawing title DETAILS - MECHANICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale NONE
CAD no.		project no. BI-2B-387	drawn by JNR approved by CR drawing no. M-404

DEMOLITION AND REMOVALS

1. THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING FEEDER OR BRANCH CIRCUIT SUPPLYING OCCUPIED FACILITIES, COORDINATE WITH THE OWNER, AND SCHEDULE A MUTUALLY AGREEABLE PERIOD OF INTERRUPTION.
3. WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY FEEDERS, CONNECTIONS, CIRCUIT PROTECTION, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
4. NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.
5. THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING ELECTRICAL AND MECHANICAL EQUIPMENT NOT INCLUDED IN THIS WORK, AND TO PERFORM ALL REQUIRED SERVICING AND REPAIRS TO SAME, AT ALL TIMES.
6. IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
7. REMOVE, ABANDON, REROUTE, OR RELOCATE ANY CONDUIT, WIRING, LIGHTING FIXTURES, OUTLETS, AND OTHER ELECTRICAL ITEMS, WHICH ARE LAID BARE IN THE COURSE OF, OR INTERFERE WITH, THE ALTERATIONS. REMOVE ALL EXPOSED OUTLETS, CONDUIT, AND BRANCH CIRCUIT WORK, WHICH INTERFERE WITH THE ALTERATIONS.
8. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR THE CONTINUANCE OF ALL ELECTRICAL SERVICES PRESENTLY INSTALLED IN THE UNALTERED AREAS. PROVIDE ALL CONDUIT, WIRING, AND DEVICES NECESSARY TO MAINTAIN SERVICES TO THESE AREAS.
9. COMPARE THE PLANS WITH THE EXISTING CONDITIONS TO DETERMINE THE AMOUNT OF WORK AFFECTED. REMOVE ALL UNUSED EXPOSED CIRCUIT WORK, OUTLETS, FIXTURES AND THE LIKE NOT REQUIRED BY THE ALTERATIONS. IMMEDIATELY NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES.
10. ALL MATERIALS REQUIRED TO BE REMOVED AND NOT REINSTALLED UNDER THIS DIVISION OF THE WORK, UNLESS OTHERWISE INDICATED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
11. WHERE FEEDERS AND BRANCH CIRCUITS OR DEVICES AND EQUIPMENT ARE INDICATED TO BE REMOVED, CONDUCTORS AND CABLES SHALL BE COMPLETELY REMOVED BACK TO THEIR SOURCE. EXPOSED OR ACCESSIBLE CONDUITS SHALL BE REMOVED COMPLETELY; CONDUITS EMBEDDED IN CONCRETE OR MASONRY SHALL BE CUT OFF FLUSH AND THE SURFACE PATCHED SMOOTH AND LEVEL.
12. REMOVED MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
13. HAZARDOUS MATERIALS - CONTAINING PCB'S (BALLASTS), AND THE LIKE SHALL BE DISPOSED OF BY AN EPA APPROVED, LICENSED DISPOSAL SERVICE. CONTRACTOR SHALL OBTAIN AND HAVE ON FILE, AFFIDAVIT, AND RECEIPTS STATING HOW AND WHERE THE WASTE WAS DISPOSED OF OR CONVERTED.
14. CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT IN OR ON WALLS THAT ARE TO BE REMOVED - MAINTAIN CONTINUITY OF ALL EXISTING BRANCH CIRCUITRY TO EXISTING ROOMS NOT BEING RENOVATED. REWIRE ALL EXISTING BRANCH CIRCUITS (THAT ARE TO REMAIN) AS REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR WALLS BEING REMOVED.
15. CONDUIT IN EXISTING OR NEW CEILINGS THAT IS NOT INTENDED FOR REUSE SHALL BE REMOVED BACK TO THE PANEL FROM WHICH IT ORIGINATES.
16. CONDUCTORS THAT ARE NOT DEEMED REUSABLE SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX. WHERE THE ENTIRE CIRCUIT IS TO BE REMOVED AND NOT SERVING EXISTING TO REMAIN LOADS, THE CONDUCTORS SHALL BE REMOVED BACK TO THE PANELBOARD FROM WHICH THEY ORIGINATE.
17. OUTAGES OF EXISTING ELECTRICAL (LIGHTING, POWER, AND SIGNAL) SYSTEMS NECESSITATED BY WORK OF ALL TRADES SHALL BE IN ACCORDANCE WITH FIELD SCHEDULES BY THE GENERAL CONTRACTOR AND OWNER - INCLUDE ALL ELECTRIC WORK OVERTIME AND SUPERVISION TO COMPLY - CONTRACTOR SHALL OBTAIN OWNER'S GENERAL CONTRACTOR'S APPROVAL PRIOR TO DISRUPTING EXISTING ELECTRICAL SYSTEM.
18. CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING SYSTEMS AND SYSTEM EQUIPMENT FEEDERS WHICH MAY BE DISRUPTED FOR WORK OF ANY TRADE.
19. CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING ELECTRICAL (POWER, LIGHTING, AND SIGNAL) SYSTEMS, EQUIPMENT FEEDERS AND BRANCH CIRCUITS ON FLOORS OR AREAS THAT ARE NOT AFFECTED BY DEMOLITION OR NEW CONSTRUCTION - REFER TO CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION.
20. ANY EXISTING ELECTRICAL WORK WHICH IS PULLED OUT OR CUT AWAY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE GENERAL CONTRACTOR AND THE OWNER.
21. EXISTING ELECTRICAL EQUIPMENTS WHICH IS NOT TO BE REUSED SHALL BE REMOVED FROM DRYWALL PARTITIONS. ANY OPENING IN EXISTING PARTITIONS LEFT BY REMOVAL OF EXISTING ELECTRICAL EQUIPMENT SHALL BE PATCHED BY THIS CONTRACTOR WITH MATERIALS TO MATCH EXISTING.
22. FOR PURPOSES OF THE CONTRACT, WHAT IS NOTED OR SHOWN ON DRAWINGS INDICATES THE SCOPE OF WORK REQUIRED AND QUALITY OF MATERIALS REQUIRED.
23. CONTRACTOR TO EXAMINE ALL CONTRACT DOCUMENTS AND PERFORM ALL DEMOLITION BOTH FOR AREAS BEING RENOVATED AND FOR AREAS WHICH MUST BE REWORKED TO PERMIT THE INSTALLATION OF WORK BY THE VARIOUS TRADES.
24. CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE EXTENT OF DEMOLITION AND REMOVALS PRIOR TO THE SUBMISSION OF BIDS. NO CONSIDERATION SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE.

GENERAL NOTES

GENERAL

1. WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.

WIRING & RACEWAY:

1. THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT, RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.
2. ENSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHAPES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
3. LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH "OFF" POSITION DOWN. INSTALL RECEPTACLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT RIGHT FOR HORIZONTAL MOUNTING.
4. LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.

RACEWAY INSTALLATION:

1. IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN HUNG OR FURRED CEILINGS, SLABS, MASONRY, AND PARTITIONS UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PATCHING SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.
2. UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.
3. PROVIDE SEPARATE RACEWAYS, JUNCTION BOXES, PULL BOXES AND WIREWAYS FOR ALL EMERGENCY SYSTEM WIRING.

WIRING INSTALLATION:

1. DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES, AND AS FOLLOWS:

30 AMPERE CIRCUIT: NO. 10
40 AMPERE CIRCUIT: NO. 8
50 AMPERE CIRCUIT: NO. 6
60 AMPERE CIRCUIT: NO. 4
- A. MINIMUM HOMERUN AND BRANCH CIRCUIT WIRING SIZES AND MAXIMUM HOMERUN CONDUIT FILL FOR 120 VOLT, 20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:

LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE	CONDUIT SIZE (8 WIRES/CONDUIT)
0' TO 50'	#12	#12	3/4"
51' TO 100'	#12	#10	3/4"
101' TO 200'	#10	#8	1"

GREATER THAN 200' - REQUEST DIRECTION FROM ARCHITECT.

NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.

- B. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 277 VOLT, 20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:

LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE	CONDUIT SIZE (8 WIRES/CONDUIT)
0' TO 100'	#12	#12	3/4"
100' TO 200'	#12	#10	3/4"

GREATER THAN 200' - REQUEST DIRECTION FROM ARCHITECT.

NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.

2. DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ARCHITECT.
3. WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATING AS REQUIRED BY NEC ARTICLE 310.
4. CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED. PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
5. UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.
6. THE CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE INTENDED AS A GUIDE FOR PROPER CONNECTION OF CIRCUITS AT PANELS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL CIRCUITING WORK FULFILLS THE FOLLOWING CONDITIONS:
 - A. LOADS ON PANEL BUSSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE. UPDATE PANEL DIRECTORIES TO REFLECT PHASE BALANCED LOADS.
 7. PROVIDE SEPARATE NEUTRALS FOR EACH CIRCUIT. WHERE MULTIPLE CIRCUITS ARE INSTALLED IN THE SAME RACEWAY OR ENCLOSURE, IDENTIFY NEUTRALS WITH CORRESPONDING BRANCH CIRCUIT PHASE CONDUCTOR NUMBERS.

GROUNDING INSTALLATION:

1. EQUIPMENT GROUNDING
 - A. INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING: PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.
 - B. INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.
 - C. INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL BRANCH CIRCUIT RACEWAYS OR CABLES UNLESS OTHERWISE NOTED.

MECHANICAL EQUIPMENT WIRING:

1. UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL MOTORS, MOTOR STARTERS, MOTOR CONTROLLERS, VARIABLE SPEED/FREQUENCY DRIVES, AND ASSOCIATED CONTROL DEVICES ARE FURNISHED UNDER OTHER DIVISIONS AND INSTALLED UNDER THIS DIVISION. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.
2. POWER WIRING FROM THE INDICATED SOURCE TO THE STARTER/CONTROLLER/DRIVE UNIT, AND FROM THE STARTER/CONTROLLER/DRIVE UNIT TO THE MOTOR, INCLUDING ANY LOCAL DISCONNECT SWITCHES PROVIDED AND INSTALLED BY THIS DIVISION, AND ALL ASSOCIATED LUGS, TERMINALS, AND CONNECTIONS, IS THE WORK OF THIS DIVISION.
3. CONTROL CIRCUIT WIRING IS GENERALLY FURNISHED AND INSTALLED UNDER OTHER DIVISIONS, EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.
4. PROVIDE 120 VOLT POWER TO ALL TEMPERATURE CONTROL PANELS (TCP'S) SUPPLIED AND INSTALLED BY DIVISION 23. USE EMERGENCY POWER SOURCES WHEN AVAILABLE. COORDINATE ALL POWER REQUIREMENTS AND PANEL LOCATIONS WITH DIVISION 23 TEMPERATURE CONTROLS CONTRACTOR.
5. COOPERATE AND COORDINATE WITH THE OTHER TRADES IN THE INSTALLATION, CONNECTION, AND TESTING OF MECHANICAL EQUIPMENT. PERFORM WORK OF THIS SECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS' INSTRUCTIONS.

COORDINATION DRAWINGS:

1. DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED AND REQUIRED BY THE CONTRACT DOCUMENTS.
 - A. SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.
 - B. AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:
 - MECHANICAL SHEET METAL
 - PLUMBING PIPING
 - MECHANICAL PIPING
 - SPRINKLER PIPING
 - ELECTRICAL WORK
2. AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.
3. THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
4. SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.
5. ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.
6. EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.
7. THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

AS BUILT DRAWINGS

1. PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.
 2. PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:
 - A. INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.
 - B. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.
 - C. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - D. CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
 - E. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.
 - F. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

ELECTRICAL ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
EM	EMERGENCY
ER	EXISTING RELOCATED
ETR	EXISTING TO REMAIN
ETBR	EXISTING TO BE RELOCATED
FBO	FURNISHED BY OTHERS
G	GROUND
JB	JUNCTION BOX
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
MTD	MOUNTED
PNL	PANEL
TCP	TEMPERATURE CONTROL PANEL
TX	TRANSFORMER
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPERES
WP	WEATHER PROOF

EXISTING CONDUIT AND WIRE NOTES

1. WHERE EXISTING CONDUIT AND WIRE IS TO BE REUSED TO ENERGIZE NEW EQUIPMENT, CONTRACTOR SHALL FIELD VERIFY CONDUIT AND WIRE SIZE WITH ELECTRICAL REQUIREMENTS OF NEW EQUIPMENT PRIOR TO INSTALLATION OF EQUIPMENT. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT/ENGINEER ANY DISCREPANCIES SUCH THAT THEY CAN BE CORRECTED PRIOR.

TERMINAL BOX NOTES

1. EACH ELECTRICAL BRANCH CIRCUIT IDENTIFIED FOR TERMINAL BOXES ON DRAWINGS SHALL BE USED TO ENERGIZE UP TO 12 TERMINAL BOXES. SUPPLEMENT WITH ADDITIONAL BRANCH CIRCUITS AS REQUIRED. REFER TO M SERIES DRAWINGS FOR ALL TERMINAL BOX LOCATIONS AND DETAILS.

ELECTRICAL SYMBOLS

A		LIGHTING FIXTURE. UPPERCASE LETTER INDICATES TYPE, # INDICATES CIRCUIT. LOWERCASE LETTER INDICATES LIGHTING ZONE (TYP)
A		EMERGENCY LIGHTING FIXTURE WITH INTEGRAL EMERGENCY BATTERY
S		SINGLE POLE SWITCH
S _M		DISCONNECT SWITCH - TOGGLE TYPE, MOTOR RATED WITH THERMAL OVERLOAD, 1HP, 20A, 1P, U.O.N.
		CEILING MOUNTED DUAL TECHNOLOGY 360° OCCUPANCY SENSOR
		CEILING MOUNTED DAYLIGHT SENSOR
		WALL MOUNTED JUNCTION BOX
		CEILING MOUNTED JUNCTION BOX
		CEILING MOUNTED JUNCTION BOX FOR TERMINAL BOXES
		DUPLEX CONVENIENCE RECEPTACLE - 18" AFF U.O.N.
		QUAD CONVENIENCE RECEPTACLE - 18" AFF U.O.N.
		DUPLEX CONVENIENCE RECEPTACLE - GROUND FAULT INTERRUPTING - 18" AFF U.O.N.
		NON-FUSED DISCONNECT SWITCH, REFER TO NOTES
		FUSED DISCONNECT SWITCH, REFER TO NOTES
		MOTOR, # INDICATES HORSEPOWER
		FIRE ALARM HORN/STROBE - 80" AFF U.O.N.
		SMOKE DETECTOR
		DUCT MOUNTED SMOKE DETECTOR
		SMOKE DAMPER
		FIRE ALARM CONTROL PANEL
		SURFACE MTD PANELBOARD AND CLEARANCE
X/#		BRANCH CIRCUIT HOMERUN (X = PANELBOARD, # = CIRCUIT NO.)

DISCONNECT SWITCH NOTES

1. WHERE LOCAL DISCONNECT SWITCHES ARE SHOWN ON DRAWINGS, DISCONNECT SWITCHES SHALL BE PROVIDED WITH RATINGS EQUAL TO OR GREATER THAN OVERCURRENT PROTECTION DEVICE AHEAD OF DISCONNECTING MEANS. REFER TO PANELBOARD SCHEDULES FOR OVERCURRENT PROTECTION DEVICE RATINGS.

GENERAL PHASING NOTES

1. COORDINATE ALL WORK IN A PHASED MANNER TO ENSURE SERVICE IS RESTORED BY NEXT BUSINESS DAY FOR ALL SYSTEMS.
2. PROJECT WILL REQUIRE THE WORK SEQUENCE TO BE PHASED FOR SEASONAL WORK. REFER TO DIVISION 01 SPECIFICATIONS FOR PHASING PLAN.

drawing title		REVISIONS		drawing prepared by		date	
COVER SHEET - ELECTRICAL				KOHLER RONAN, LLC		2/4/2019	
professional seal	mark	date	description	93 LAKE AVENUE DANBURY, CT 06810		scale	NONE
				project		drawn by	RM
				ROOF TOP A/C UNIT AND ROOF REPLACEMENT		approved by	JOC
				300 CORPORATE PLACE ROCKY HILL, CT		drawing no.	E-001
CAD no.		project no.					
		BI-2B-387					

LIGHTING FIXTURE NOTES	
1.	CONTRACTOR SHALL FURNISH AND INSTALL ALL LIGHTING FIXTURES COMPLETE WITH MOUNTING HARDWARE, LAMPS, DRIVERS, TRANSFORMERS, ETC.
2.	REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT FIXTURES.
3.	CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND/OR COORDINATE ALL FIXTURE TRIMS PRIOR TO PURCHASE OF LIGHT FIXTURES.

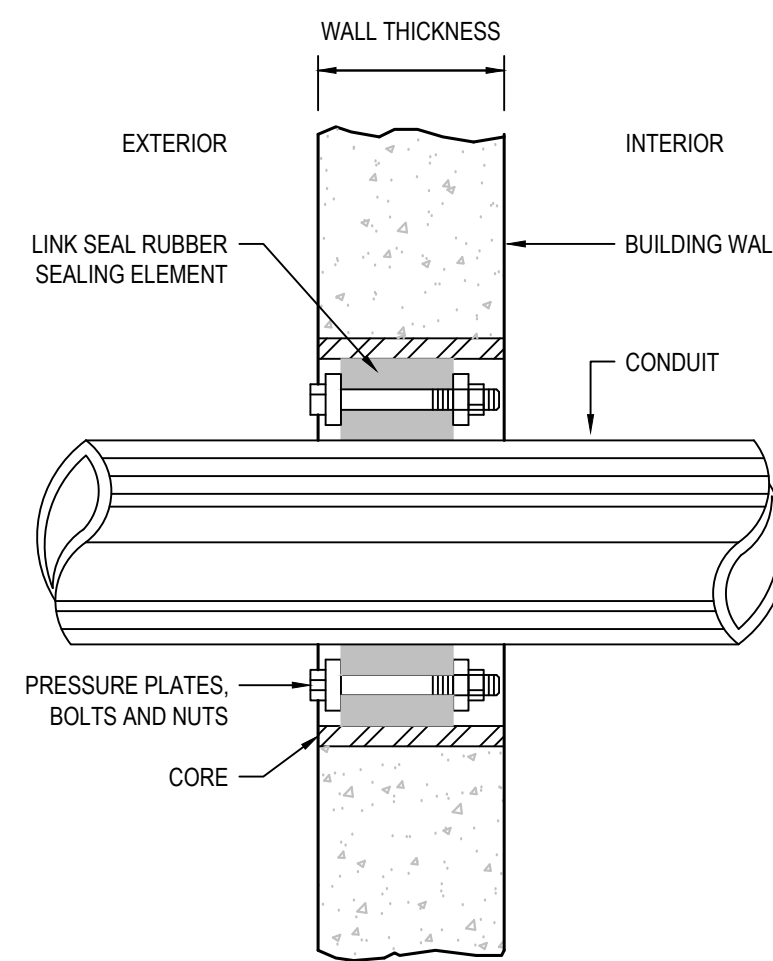
LIGHTING CONTROL NOTES	
1.	IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ALL LIGHTING FIXTURES, LIGHTING CONTROL DEVICES, LOW-VOLTAGE & 277V WIRING, RACEWAYS, TRANSFORMERS, ETC. REFER TO LIGHTING FIXTURE SCHEDULE AND LIGHTING CONTROL DIAGRAMS FOR ALL REQUIREMENTS AND SPECIFICATIONS ON LIGHT FIXTURES, EQUIPMENT, DEVICES AND WIRING TO BE PROVIDED.
2.	FIXTURES DESIGNATED FOR USE AS EMERGENCY LIGHTING SHALL BE PROVIDED WITH ALL CONTROLS AND WIRING NECESSARY FOR AUTOMATIC ACTIVATION UPON LOSS OF POWER TO LIGHTING SERVING THE AREA. THE CONTROL MECHANISMS FOR ALL EMERGENCY LIGHTING FIXTURES SHALL BE ACCESSIBLE FROM FLOOR FOR MAINTENANCE, TESTING, AND VISUAL INDICATION OF STATUS OF EMERGENCY SYSTEM OPERATION. THE LOCATION OF SUCH DEVICES SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. SUBMIT LAYOUT DRAWING FOR REVIEW.

SUPPLEMENTAL BID #1: LIGHTING CONTROL SEQUENCE OF OPERATIONS		
SPACE TYPE	LIGHTING CONTROL STRATEGY	DETAIL / DRAWING
CONNECTOR LIGHTING	CONNECTOR LIGHTING SHALL BE CONTROLLED BY AN OCCUPANCY SENSOR(S) (AUTOMATIC ON / AUTOMATIC OFF AFTER 30 MINUTES) AND A DAYLIGHT SENSOR(S) TO AUTOMATICALLY DIM SELECT LIGHTING FIXTURES IN RESPONSE TO DAYLIGHT.	3 / E-002

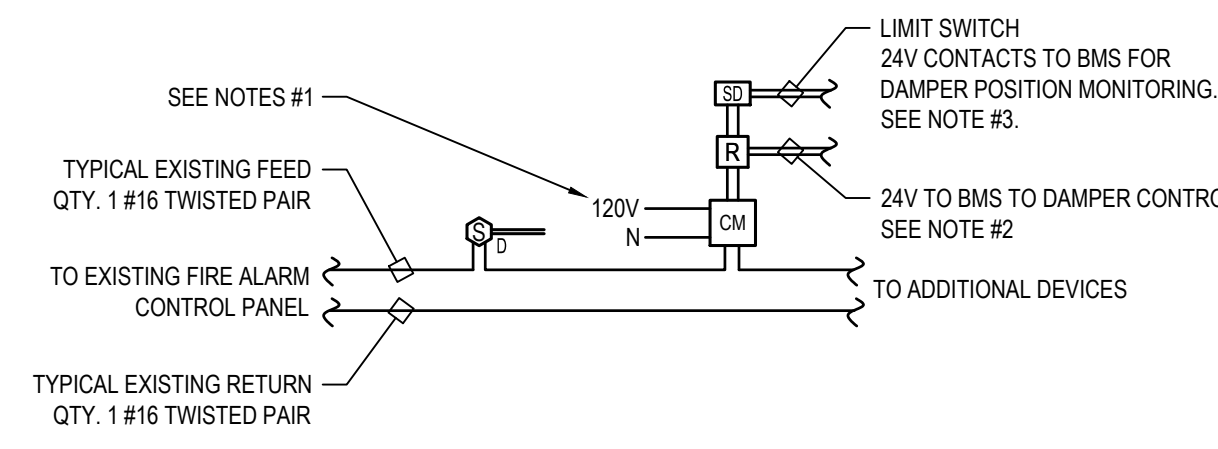
SUPPLEMENTAL BID #1	
NORTH CONNECTOR BASE BID: NO WORK SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A, AND E-101A	

LIGHTING FIXTURE SCHEDULE					
TYPE	LAMP	VOLTAGE	LUMENS	MOUNTING	DESCRIPTION
⊗	LED	120/277V	-	CEILING SURFACE	EDGE LIT LED EXIT SIGN, ALUMINUM HOUSING, RED STANDARD LETTER COLOR, MIRROR BACKGROUND, PROVIDE CHEVRONS AND SINGLE OR DOUBLE FACE AS INDICATED ON RCP. BATTERY BACKUP EVENLITE SOVEREIGN #SOV
A	29W LED	120/277V	3,000 LM	CEILING RECESSED	2' X 2' FIXTURE, STATIC AIR FUNCTION, 80CRI, 3500K, DIFFUSE RIBBED CENTER, 0-10V DIMMING, PROVIDE EMERGENCY BATTERY #EMLED WHERE NOTED PHILIPS DAY-BRITE #2-FG-G
A1	29W LED	120/277V	3,800 LM	CEILING RECESSED	2' X 2' FIXTURE, STATIC AIR FUNCTION, 80CRI, 3500K, DIFFUSE RIBBED CENTER, 0-10V DIMMING, PROVIDE EMERGENCY BATTERY #EMLED WHERE NOTED PHILIPS DAY-BRITE #2-FG-G
A2	29W LED	120/277V	4,500 LM	CEILING RECESSED	2' X 2' FIXTURE, STATIC AIR FUNCTION, 80CRI, 3500K, DIFFUSE RIBBED CENTER, 0-10V DIMMING, PROVIDE EMERGENCY BATTERY #EMLED WHERE NOTED PHILIPS DAY-BRITE #2-FG-G
B	4.6W / FT LED	120/277V	253 LM / FT	EXTERIOR SURFACE	FIXTURE: 52" LED TAPE, 3500K, 80 CRI, BLACK PROFILE COLOR, ADJUSTABLE, FRONT SIDE CABLE FEED, IP 67 RATED; DRIVER: 100W, 24V OUTPUT, IP 67 RATED XOOLUM HYDRA #XOOLUM HYD; MEAN WELL #HLG-100H-24A

* SUPPLEMENTAL BID #1

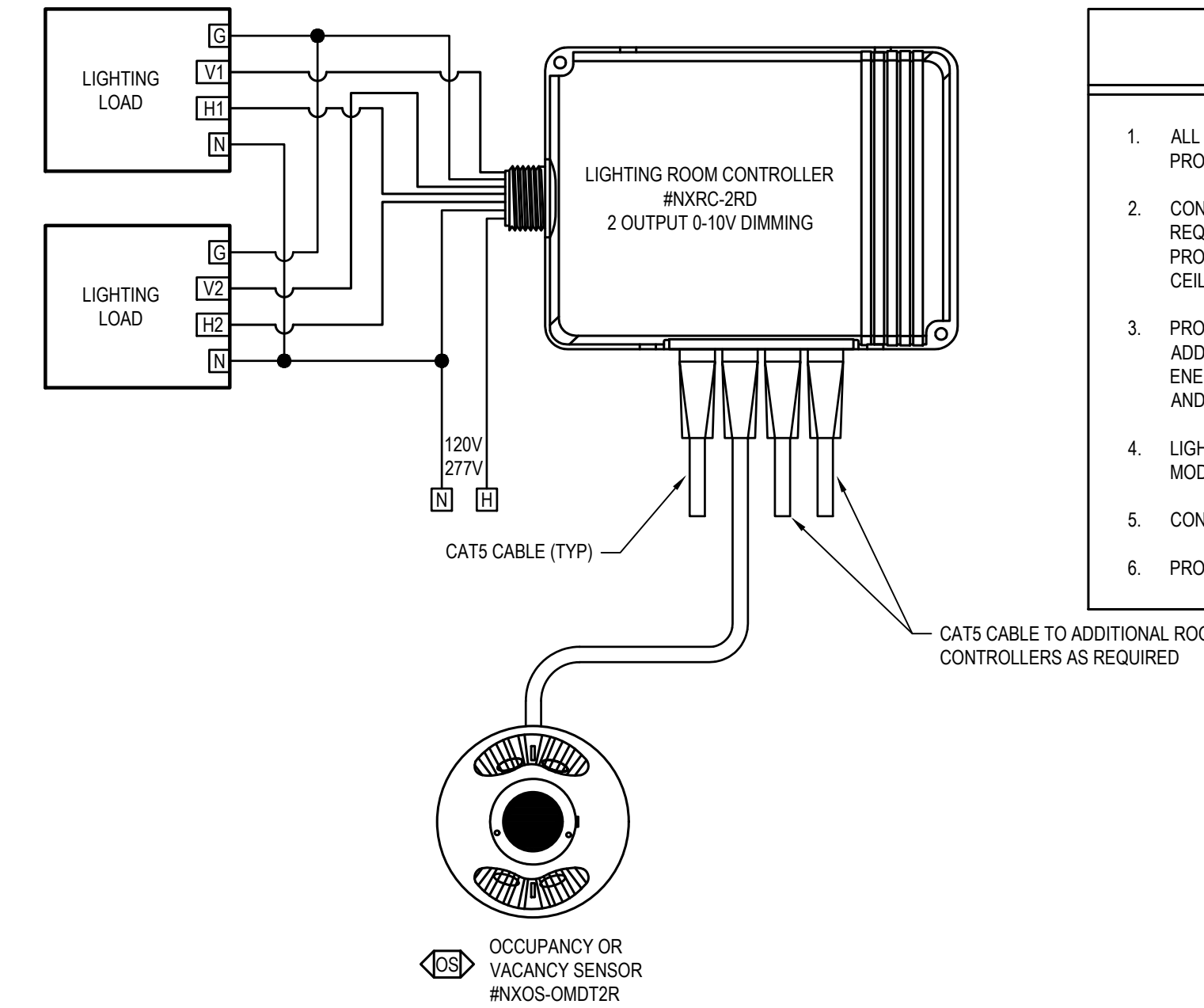


1 WATER-TIGHT WALL SLEEVE - EXISTING SOLID WALL
E-002 SCALE: NONE



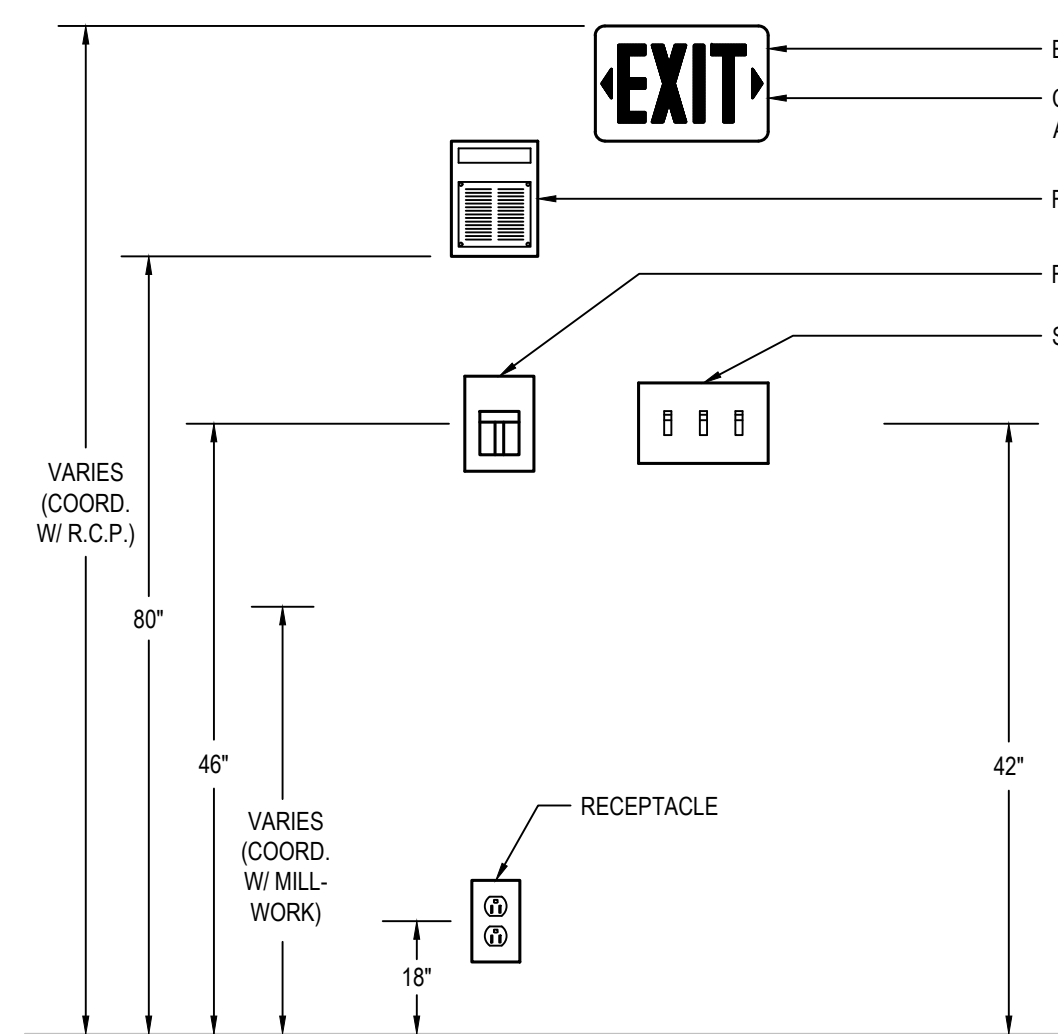
- NOTES:
1. LINE VOLTAGE CONNECTIONS TO EQUIPMENT SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.
 2. LOW VOLTAGE CONNECTIONS TO BMS SHALL BE BY THE CONTROLS CONTRACTOR.
 3. SMOKE DAMPER SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

2 SMOKE DAMPER AND DETECTION
E-002 SCALE: NONE



3 SUPPLEMENTAL BID #1: CONNECTOR LIGHTING CONTROL DIAGRAM
E-002 SCALE: NONE

- NOTES
1. ALL LIGHTING CONTROL DEVICES ARE MANUFACTURED BY HUBBELL CONTROL SOLUTIONS. PROVIDE DEVICES SPECIFIED.
 2. CONTRACTOR SHALL VERIFY QUANTITIES OF ALL DEVICES. NOT ALL DEVICES SHOWN ARE REQUIRED PER ROOM. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL DEVICES AND PROVIDE ACCORDINGLY. ALL ROOM CONTROLLERS SHALL BE LOCATED ABOVE ACCESSIBLE CEILINGS, DIRECTLY ABOVE SWITCHES.
 3. PROVIDE ADDITIONAL 2 OUTPUT, 0-10V DIMMING ROOM CONTROLLERS AS REQUIRED TO SUPPORT ADDITIONAL LIGHTING ZONES OR DEVICES WITHIN A ROOM. A MAXIMUM OF 7 DEVICES SHALL BE ENERGIZED PER ROOM CONTROLLER. REFER TO REFLECTED CEILING PLANS FOR LIGHTING ZONES AND DEVICES.
 4. LIGHTING ROOM CONTROLLER MAY BE PROGRAMMED FOR EITHER OCCUPANCY OR VACANCY MODE. REFER TO REFLECTED CEILING PLANS FOR CONTROL TYPE AND PROGRAM ACCORDINGLY.
 5. CONTRACTOR SHALL PROVIDE ALL CATS CABLE WITH TERMINATION AS REQUIRED.
 6. PROVIDE BLUETOOTH MODULE #NBTR FOR PROGRAMMING.



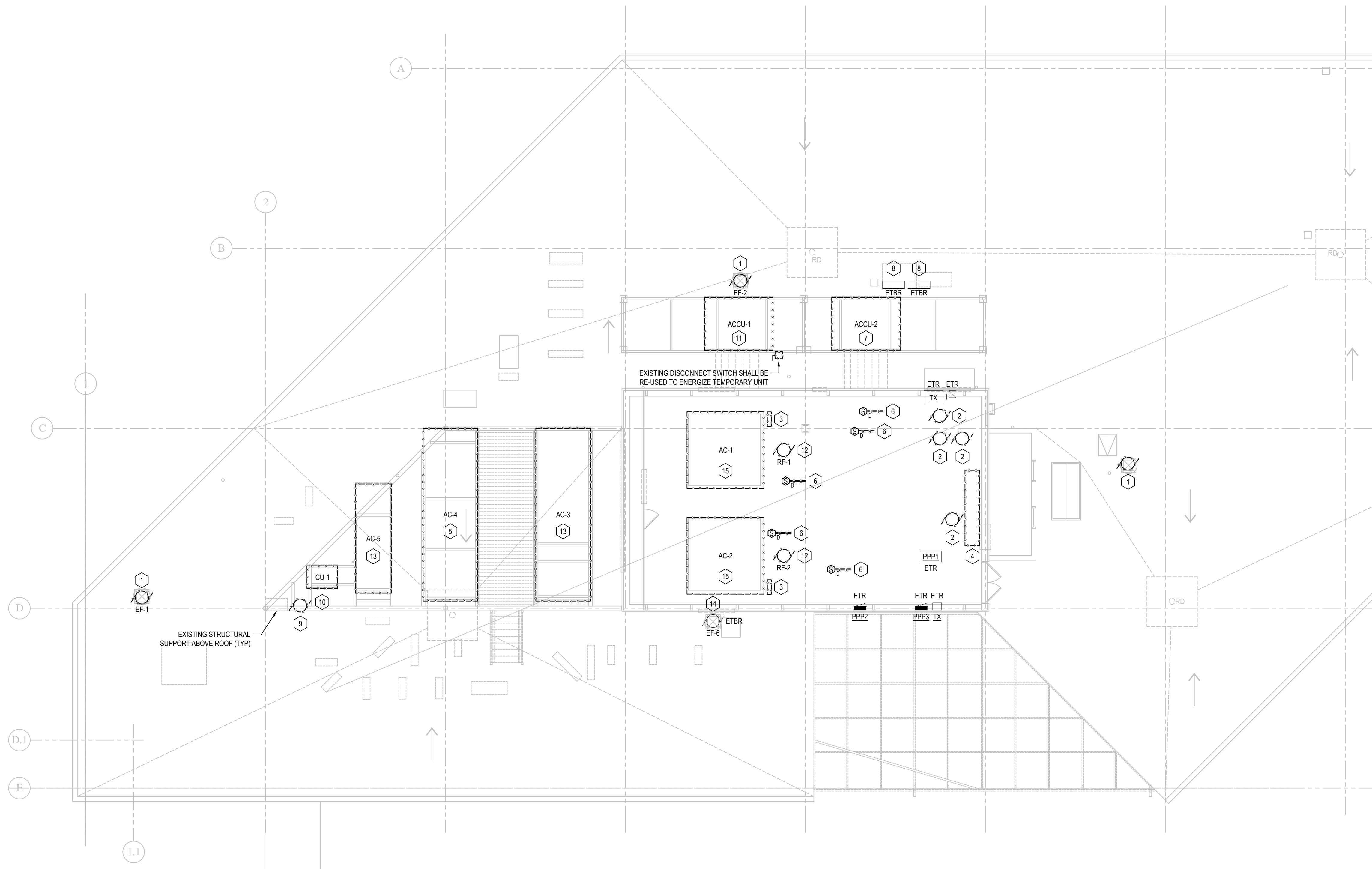
4 TYPICAL DEVICE MOUNTING HEIGHT DETAIL
E-002 SCALE: NONE

- NOTES:
1. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES.
 2. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FIN. FLOOR TO CENTERLINE OF DEVICE (EXCEPT FOR EXIT SIGNS AND FIRE ALARM AUDIOVISUAL DEVICES).
 3. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
 4. ALL DEVICES SHALL BE INSTALLED AT THE MOUNTING HEIGHTS INDICATED ON THIS DETAIL, UNLESS OTHERWISE NOTED. VERIFY ADA REQUIREMENTS PRIOR TO INSTALLATION OF ALL DEVICES.
 5. ALL WALL AND CEILING MOUNTED DEVICES SHALL BE LOCATED ACCORDING TO THE MANUFACTURERS INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. THE OWNER AND THE ARCHITECT SHALL REVIEW THE FINAL ROOM LAYOUT FOR APPROVAL.

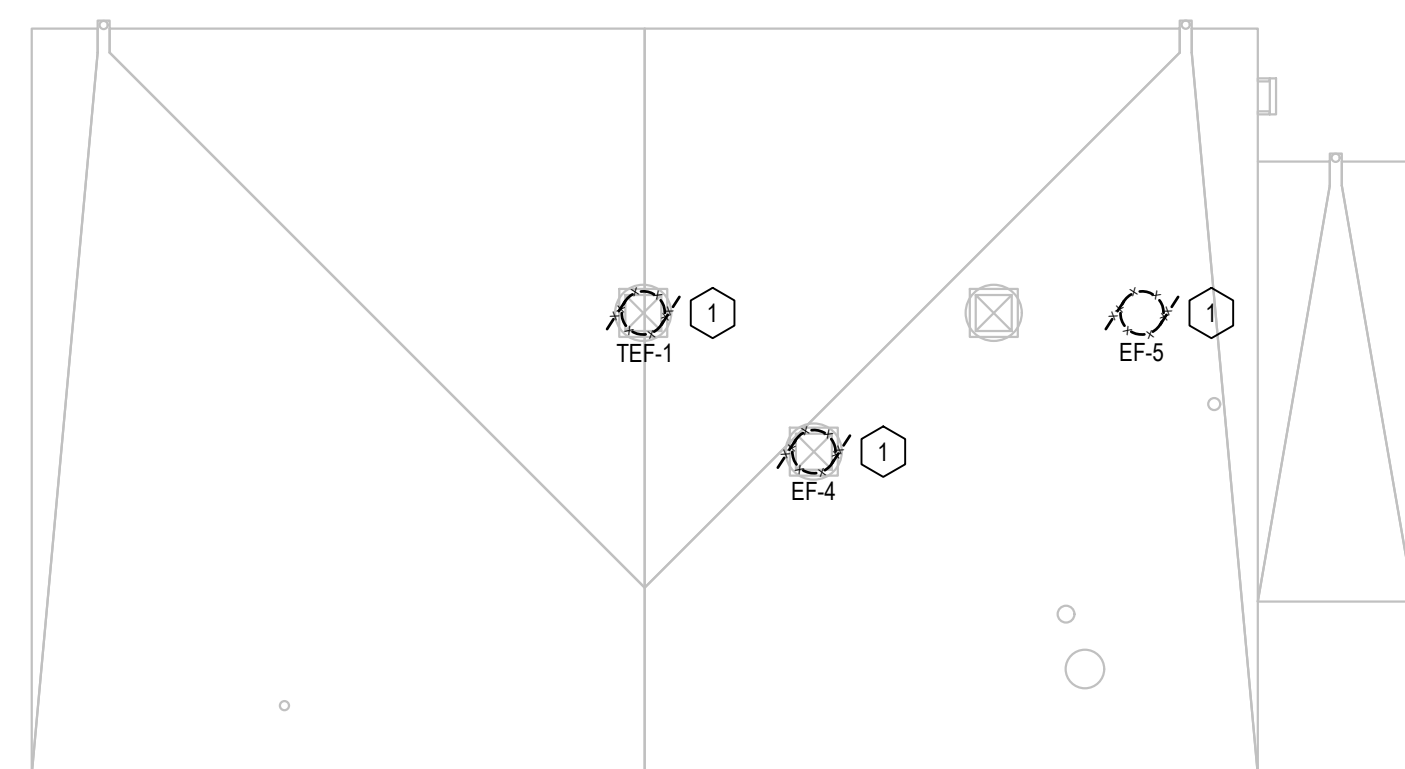
drawing title		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
LIGHTING FIXTURE SCHEDULE - ELECTRICAL		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	
professional seal	REVISIONS	date	2/4/2019
	mark date description	scale	NONE
		project	ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT
		drawn by	RM
		approved by	JQ'C
		drawing no.	E-002
CAD no.	project no.	BI-2B-387	

DEMOLITION KEY NOTES

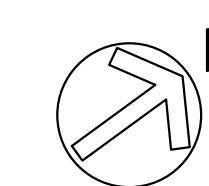
- 1 DISCONNECT AND REMOVE ALL EXISTING FAN FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY.
- 2 DISCONNECT AND REMOVE ALL EXISTING PUMP FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY.
- 3 DISCONNECT AND REMOVE ALL EXISTING STEAM HUMIDIFIER FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY.
- 4 DISCONNECT AND REMOVE ALL EXISTING BOILER FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY (TYP FOR ALL).
- 5 DISCONNECT AND REMOVE ALL EXISTING AIR HANDLING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES AND OUTLETS. EXISTING CONDUIT AND WIRE SHALL BE RECONNECTED TO NEW AIR HANDLING UNIT. REFER TO DRAWINGS E-104 AND E-301.
- 6 DISCONNECT AND REMOVE EXISTING DUCT MOUNTED SMOKE DETECTOR. EXISTING CONDUIT AND WIRE SHALL BE RECONNECTED TO NEW DUCT SMOKE DETECTOR. REFER TO DRAWINGS E-104 AND E-301.
- 7 DISCONNECT AND REMOVE ALL EXISTING CONDENSING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES AND OUTLETS. EXISTING CONDUIT AND WIRE SHALL BE RECONNECTED TO NEW CONDENSING UNIT. REFER TO DRAWINGS E-104 AND E-301.
- 8 DISCONNECT ALL EXISTING CONDENSING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE FOR RECONNECTION UPON ROOF WORK COMPLETION. REFER TO DRAWINGS E-104 AND E-301. NOTE: ONLY ONE CONDENSING UNIT CAN BE DE-ENERGIZED AT A TIME.
- 9 DISCONNECT AND REMOVE ALL EXISTING RETURN FAN FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY.
- 10 DISCONNECT AND REMOVE ALL EXISTING CONDENSING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD. UPDATE PANELBOARD DIRECTORY (TYP FOR ALL).
- 11 DISCONNECT ALL EXISTING CONDENSING UNIT FINAL CONNECTIONS AND RECONNECT TO TEMPORARY UNIT. REFER TO DRAWINGS ED-105. UPON REMOVAL OF TEMPORARY UNIT, DISCONNECT AND REMOVE ALL FINAL CONNECTIONS, DISCONNECT SWITCHES, AND OUTLETS. EXISTING CONDUIT AND WIRE SHALL BE RECONNECTED TO NEW CONDENSING UNIT. REFER TO DRAWINGS E-104 AND E-301.
- 12 DISCONNECT AND REMOVE ALL EXISTING RETURN FAN FINAL CONNECTIONS, DISCONNECT SWITCHES, AND OUTLETS. EXISTING CONDUIT AND WIRE SHALL BE RECONNECTED TO NEW RETURN FAN. UPDATE PANELBOARD DIRECTORY AND REFER TO DRAWINGS E-104 AND E-301.
- 13 DISCONNECT AND REMOVE ALL EXISTING AIR HANDLING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, AND WIRE BACK TO PANELBOARD. EXISTING CONDUIT SHALL BE RECONNECTED TO NEW AIR HANDLING UNIT. REFER TO DRAWINGS E-104 AND E-301.
- 14 DISCONNECT ALL EXISTING FAN FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE FOR RECONNECTION UPON ROOF WORK COMPLETION. REFER TO DRAWINGS E-104 AND E-301.
- 15 DISCONNECT AND REMOVE ALL EXISTING AIR HANDLING UNIT FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE BACK TO PANELBOARD.



1 ROOF DEMOLITION PLAN
ED-104 SCALE: 1/8"=1'-0"



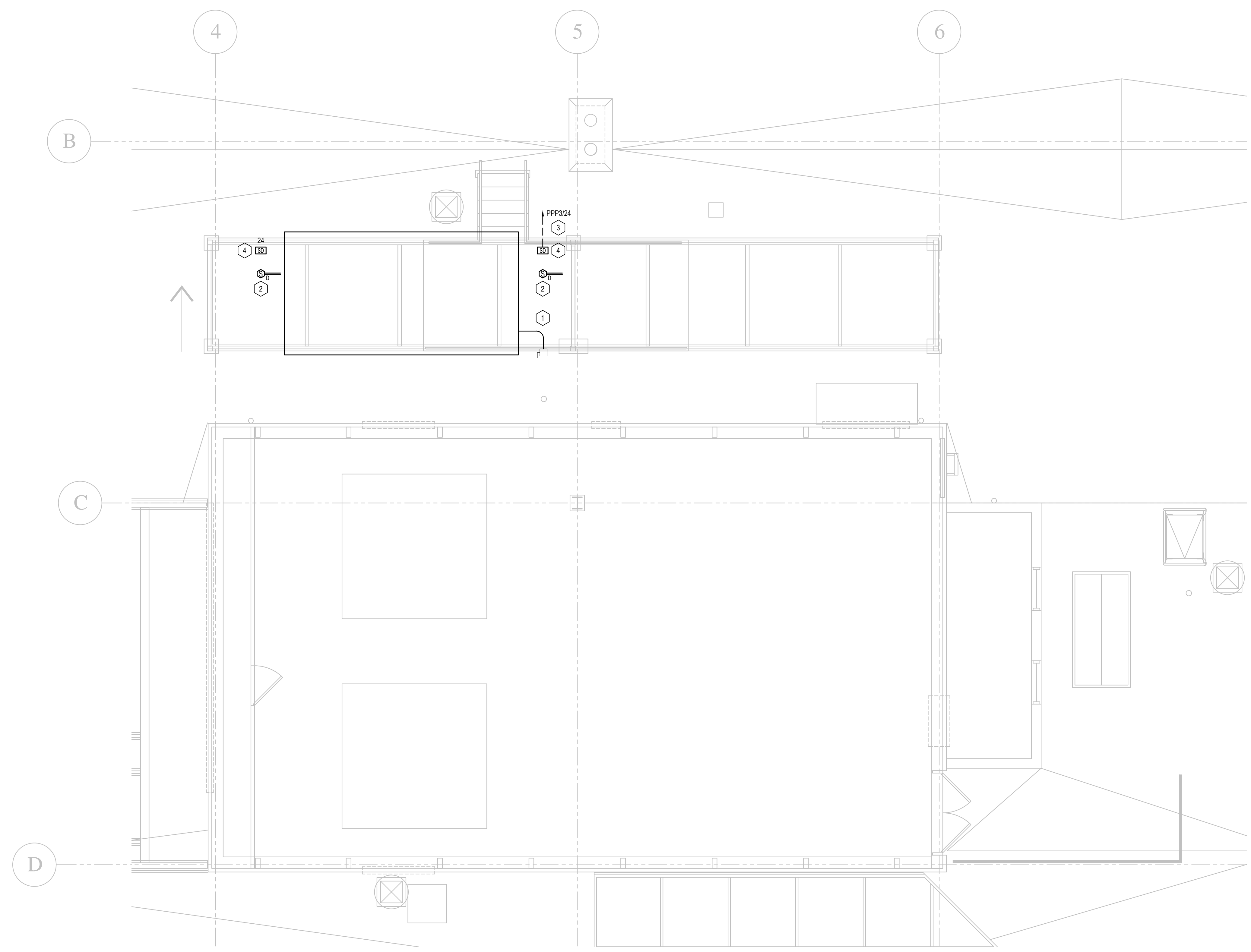
2 PENTHOUSE ROOF DEMOLITION PLAN
ED-104 SCALE: 1/8"=1'-0"



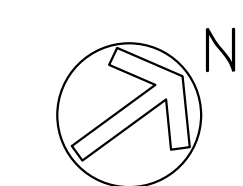
drawing title ROOF DEMOLITION PLAN - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale 1/8"=1'-0"
CAD no.	project no. BI-2B-387	drawn by RM	approved by JQC
		drawing no. ED-104	

KEY NOTES

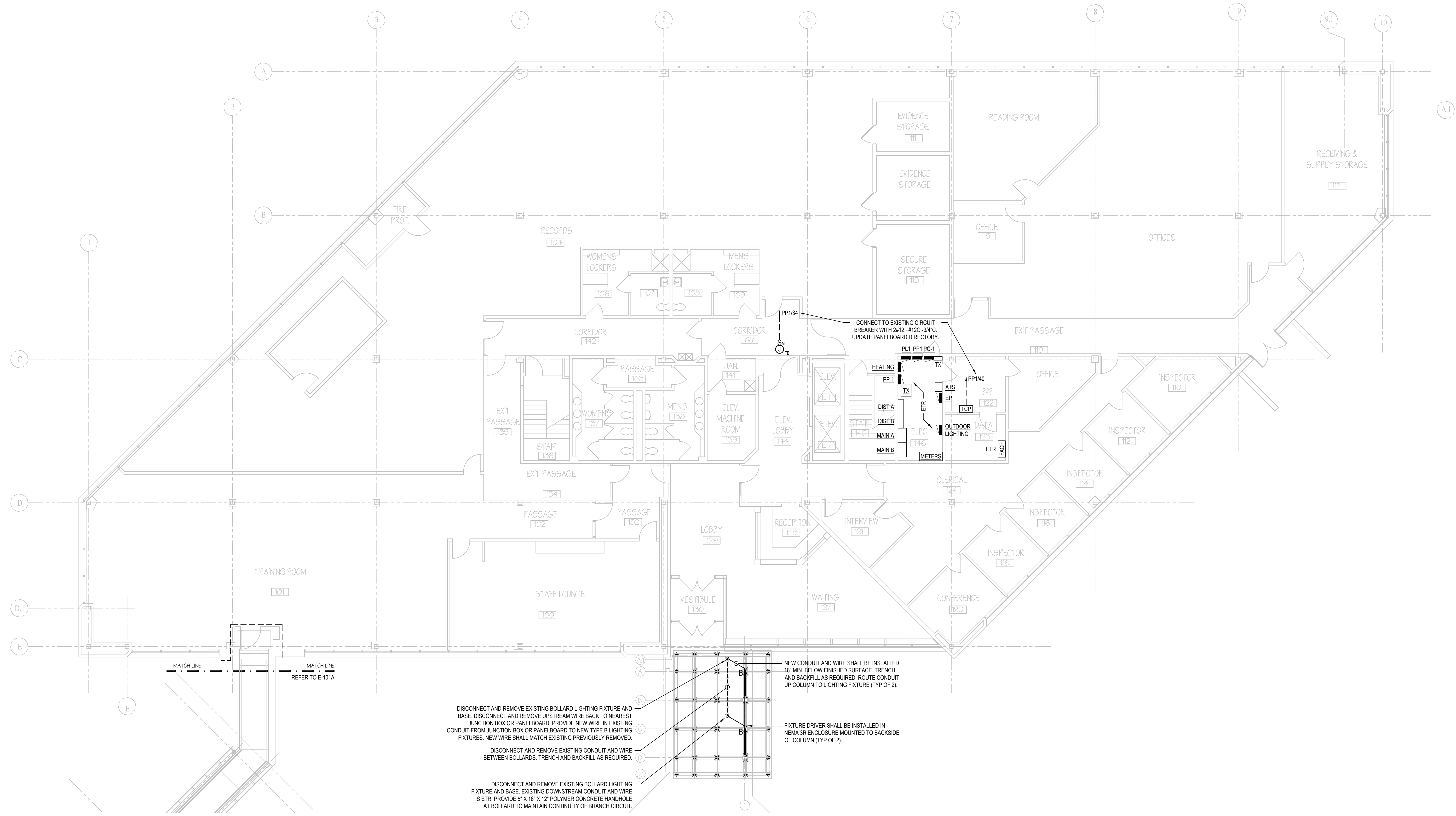
- 1 RECONNECT EXISTING CONDUIT AND WIRE TO TEMPORARY UNIT VIA EXISTING DISCONNECT SWITCH. EXTEND CONDUIT AND WIRE AS NECESSARY. REPLACE EXISTING 200A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING OLD UNIT WITH NEW 70A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP1.
- 2 CONNECT TEMPORARY DUCT SMOKE DETECTORS TO EXISTING NEARBY INTERIOR FIRE ALARM BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS NECESSARY. MODIFY EXISTING FIRE ALARM SYSTEM TO ACCEPT ADDITIONAL FIRE ALARM DEVICES. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING.
- 3 PROVIDE 20A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 2#12 +#12G -3/4". UPDATE PANELBOARD DIRECTORY.
- 4 CONNECT TEMPORARY SMOKE DAMPER TO EXISTING NEARBY INTERIOR FIRE ALARM BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS NECESSARY. MODIFY EXISTING FIRE ALARM SYSTEM TO ACCEPT ADDITIONAL FIRE ALARM DEVICES. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING.



1 TEMPORARY ROOF PART PLAN
ED-105 SCALE: 1/4"=1'-0"

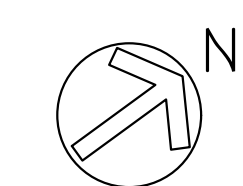


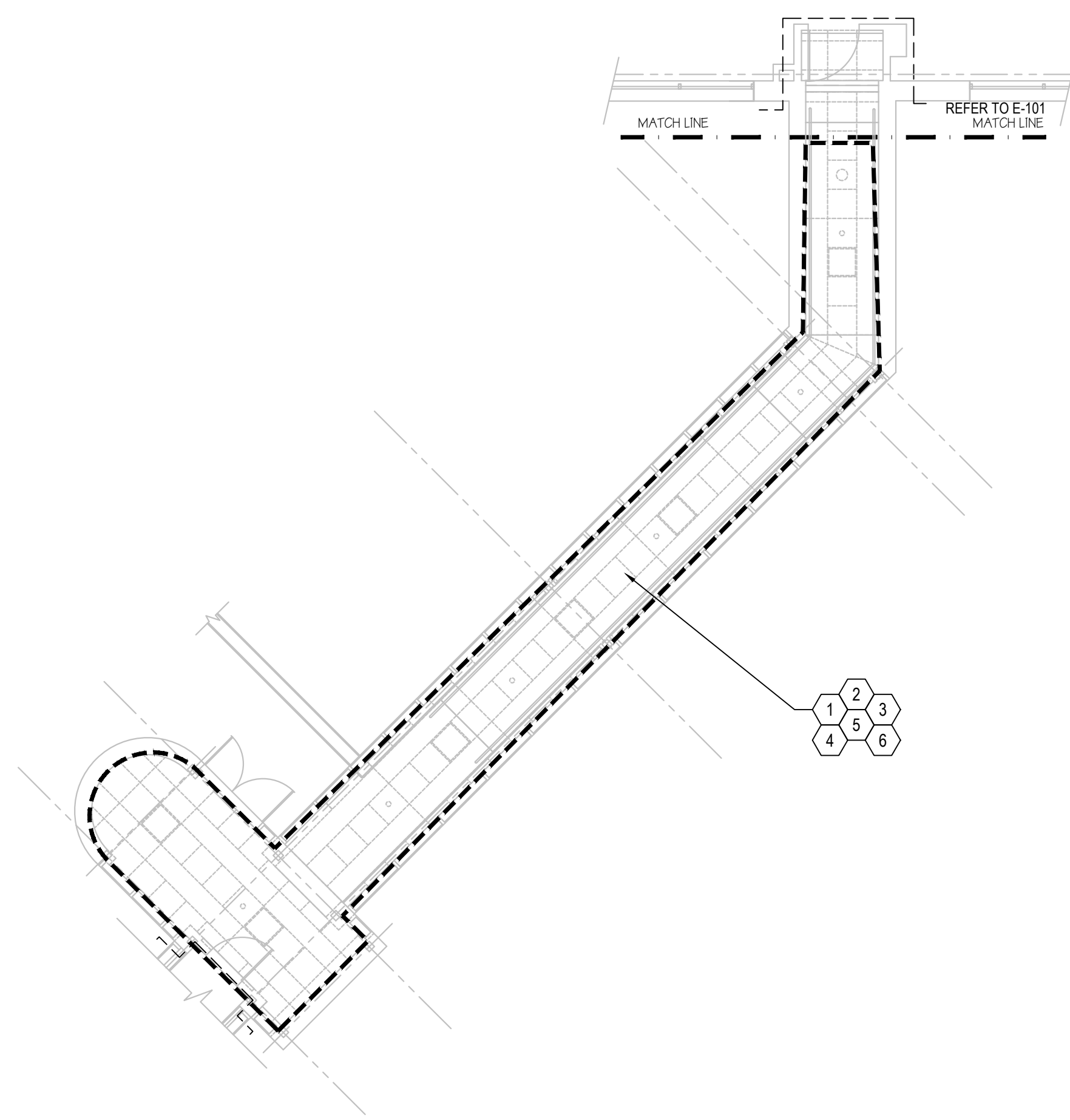
drawing title TEMPORARY ROOF PART PLAN - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/4"=1'-0"
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		drawn by RM	approved by JQ'C
CAD no.	project no. BI-2B-387	drawing no. ED-105	



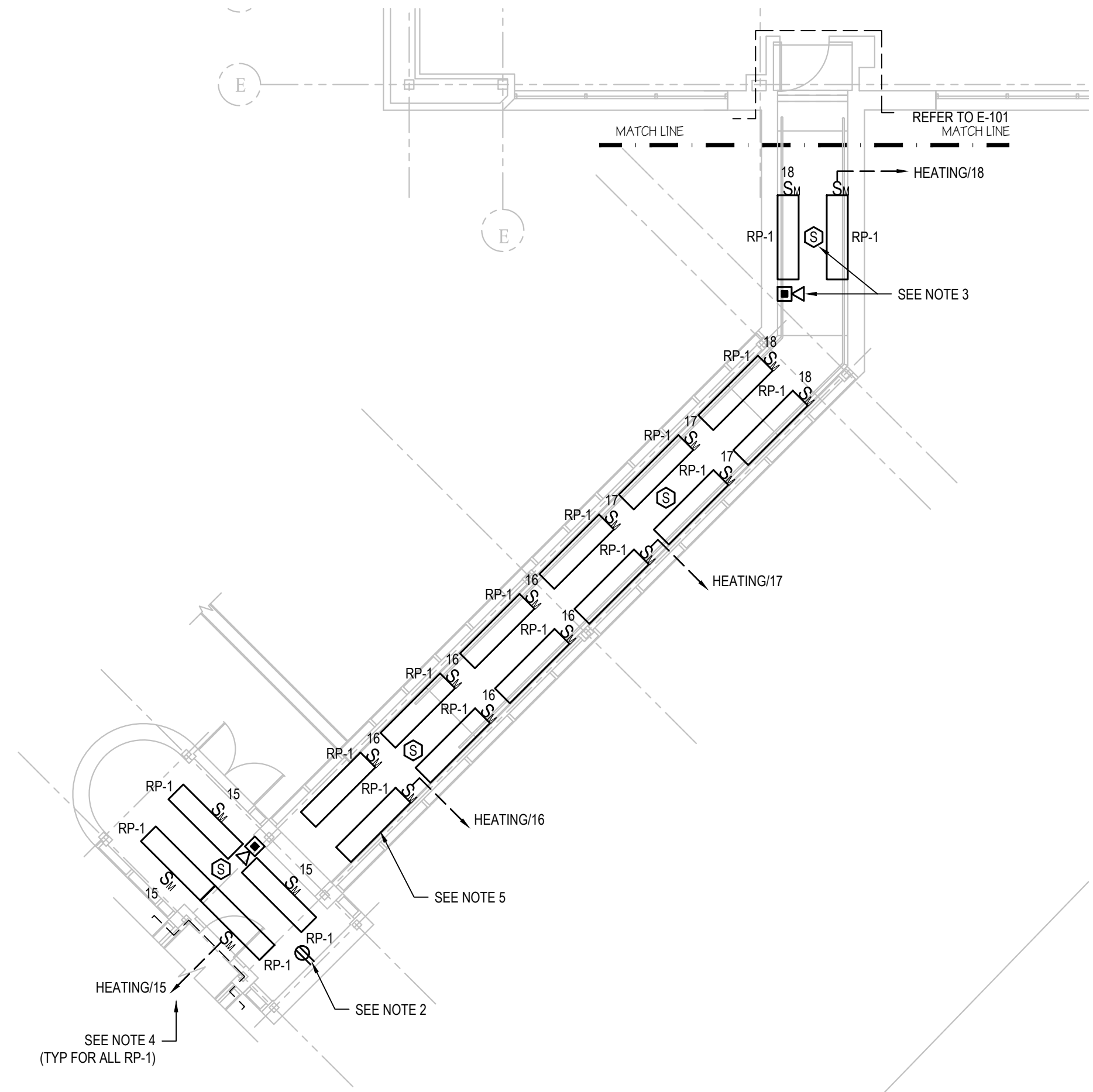
1 FIRST FLOOR PLAN
E-101 SCALE: 1/8"=1'-0"

drawing title FIRST FLOOR PLAN - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	date 2/4/2019
			scale 1/8"=1'-0"
			drawn by RM
			approved by JQ'C
			drawing no. E-101
CAD no.	project no. BI-2B-387		

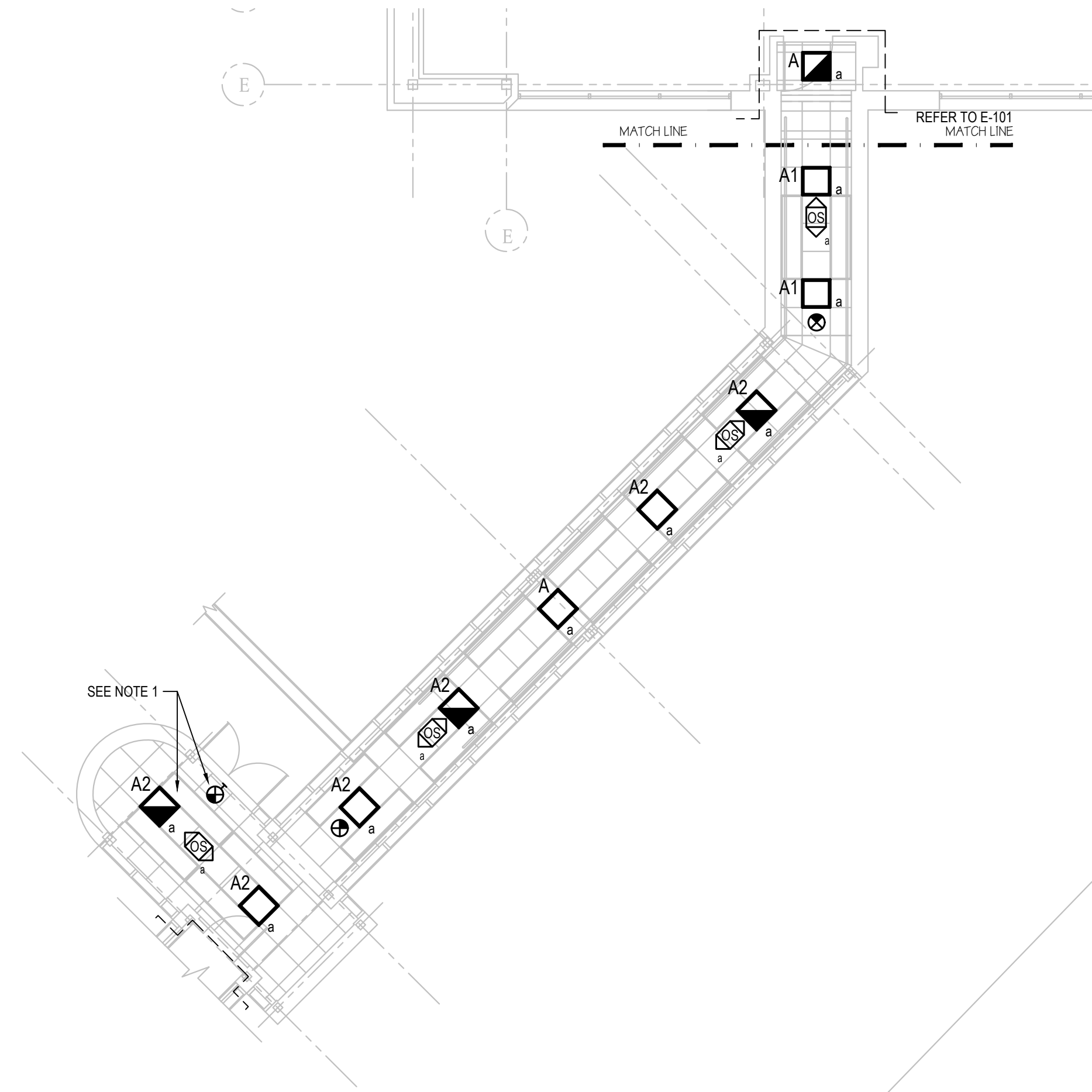




1 CONNECTOR DEMO FLOOR PLAN
E-101A SCALE: 1/8"=1'-0"



2 CONNECTOR FLOOR PLAN
E-101A SCALE: 1/8"=1'-0"

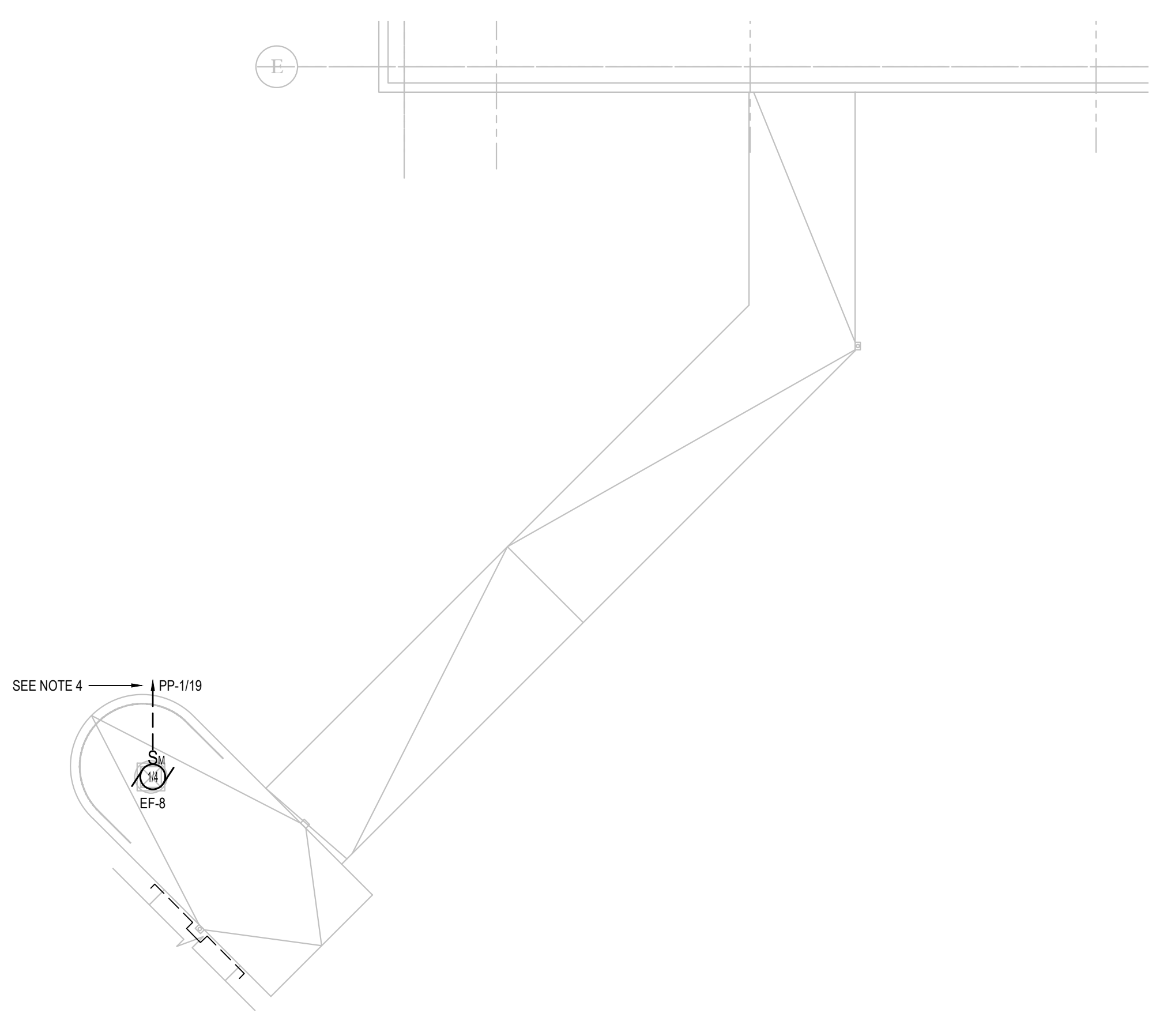


3 CONNECTOR REFLECTED CEILING PLAN
E-101A SCALE: 1/8"=1'-0"

DEMOLITION KEY NOTES	
1	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF DEMOLITION WORK.
2	DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, EXIT SIGNS, AND BACKBOXES. DISCONNECT CONDUIT AND WIRING AND COIL IN CEILING FOR FUTURE REUSE. EXISTING CONDUIT AND WIRING SHALL BE RECONNECTED TO NEW LIGHTING FIXTURES AND EXIT SIGNS (TYPICAL FOR ALL AREAS).
3	DISCONNECT AND REMOVE ALL EXISTING RECEPTACLES. DISCONNECT WIRING AND RECONNECT TO NEW RECEPTACLES (TYPICAL FOR ALL AREAS).
4	DISCONNECT AND REMOVE ALL EXISTING HARDWIRED FIRE ALARM DEVICES. DISCONNECT WIRING AND RECONNECT TO NEW FIRE ALARM DEVICES (TYPICAL FOR ALL AREAS).
5	DISCONNECT AND REMOVE ALL FINAL CONNECTIONS, DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRING BACK TO PANELBOARD, FOR FOR HVAC EQUIPMENT IN SPACE AND ROOF. REFER TO MECHANICAL DRAWINGS (TYPICAL FOR ALL EQUIPMENT TO BE REMOVED).
6	CONTRACTOR SHALL MAINTAIN/RECONNECT ALL EXISTING BRANCH CIRCUIT WIRING DISTURBED DURING CONSTRUCTION BUT OUTSIDE OF NEW CONSTRUCTION AREA.

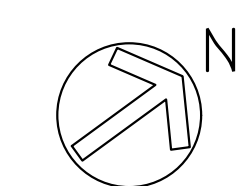
NOTES
1. EXTEND EXISTING COILED LIGHTING BRANCH CIRCUITS TO NEW LIGHTING FIXTURES AND EXIT SIGNS (TYP FOR ALL, U.O.N.).
2. EXTEND EXISTING BRANCH CIRCUIT TO NEW RECEPTACLE.
3. EXTEND EXISTING FIRE ALARM WIRING TO NEW DEVICE.
4. CONNECT WITH 2#12 + #12G -3/4".
5. REFER TO DRAWING M-303 FOR RADIANT PANEL INFORMATION (TYP).

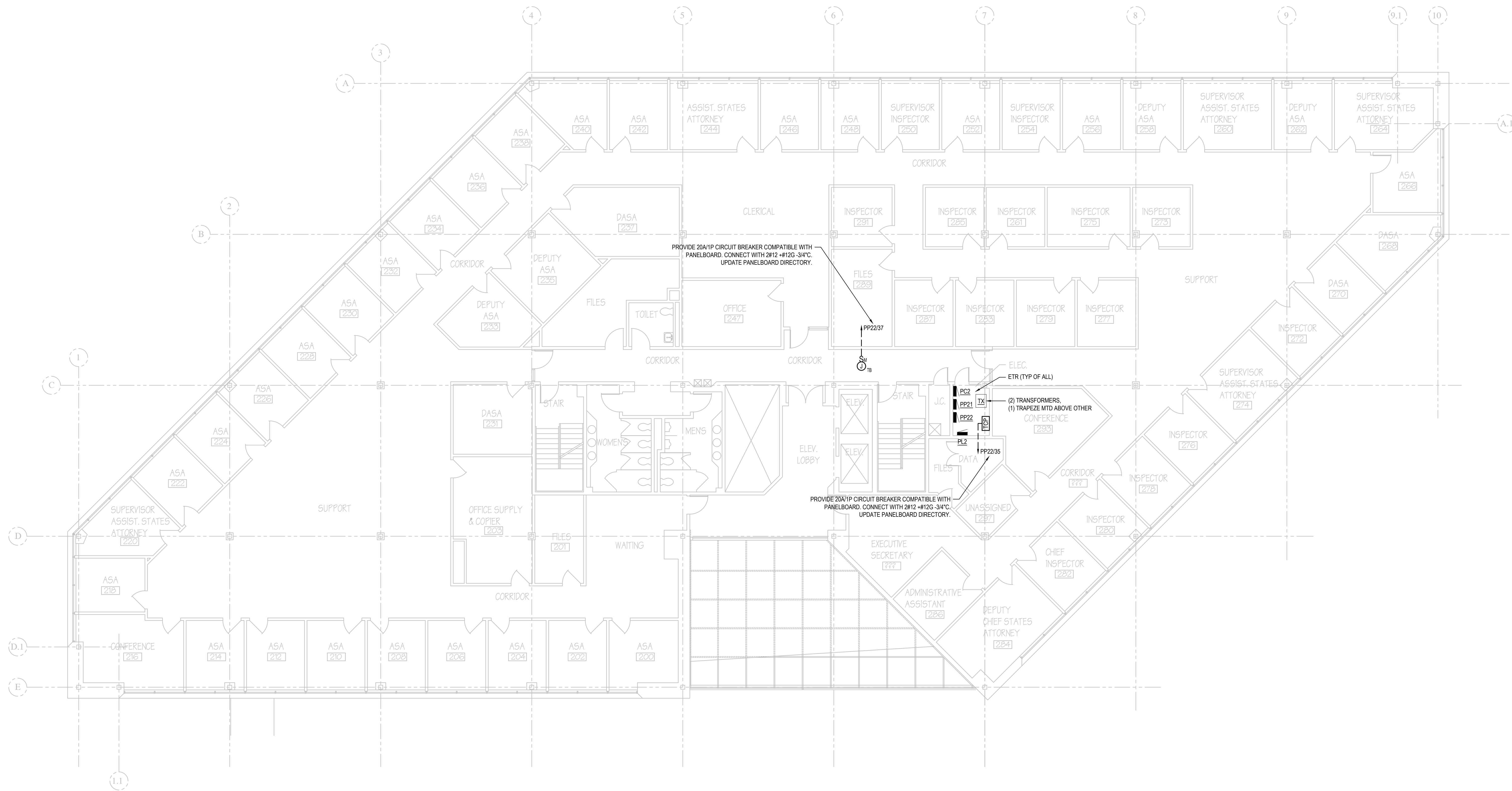
SUPPLEMENTAL BID #1
NORTH CONNECTOR BASE BID: NO WORK SUPPLEMENTAL BID #1: ROOF REPLACEMENT AND INTERIOR FINISHES, MECHANICAL AND ELECTRICAL AS DESCRIBED ON A-101A, M-101A, AND E-101A




4 CONNECTOR ROOF PLAN
E-101A SCALE: 1/8"=1'-0"

drawing title CONNECTOR DEMO, FLOOR & LIGHTING PLANS - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019 scale 1/8"=1'-0"
	mark	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	drawn by RM
	date		approved by JQ'C
	description	CAD no.	drawing no. E-101A
		project no. BI-2B-387	



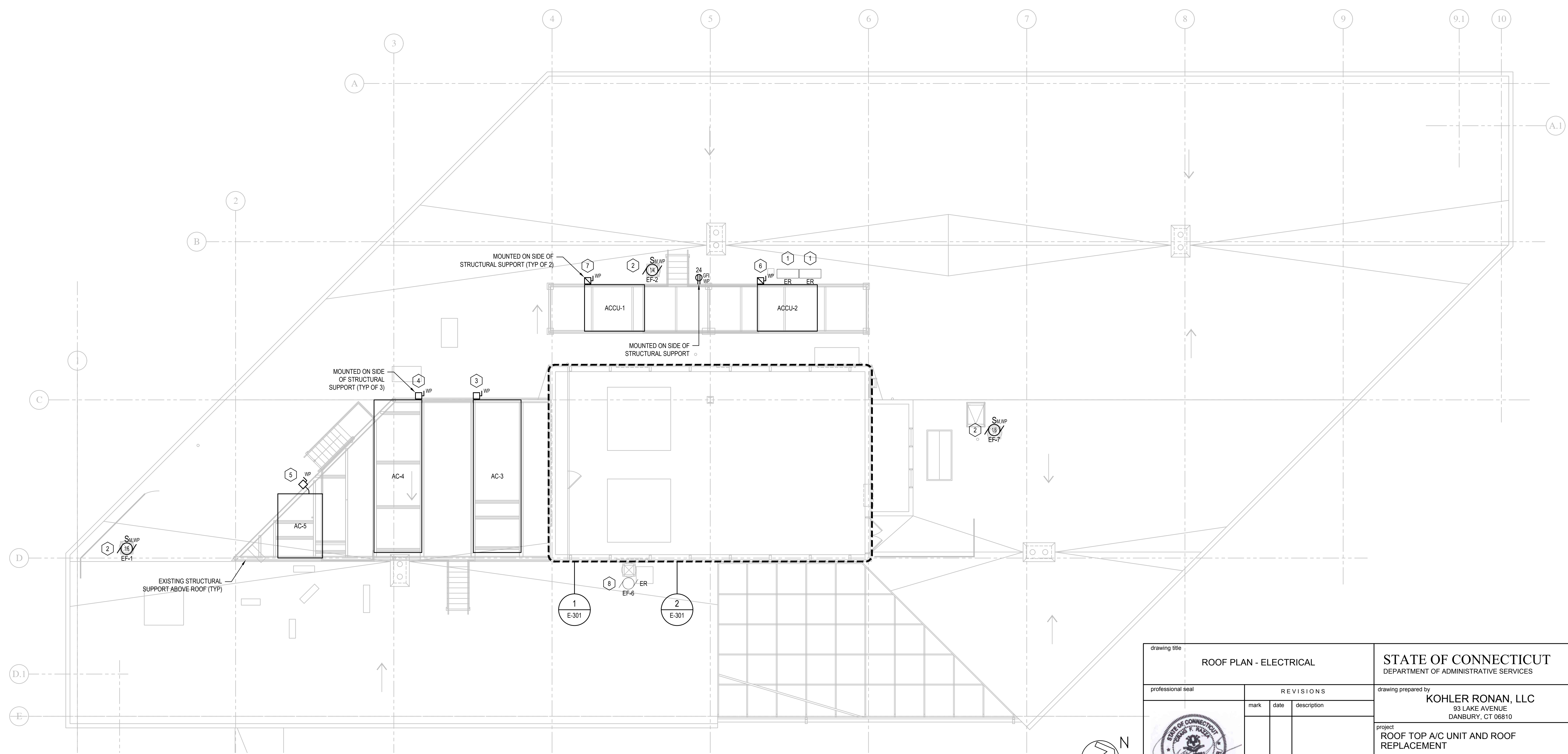


1 SECOND FLOOR PLAN
E-102 SCALE: 1/8"=1'-0"

drawing title SECOND FLOOR PLAN - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	date 2/4/2019
			scale 1/8"=1'-0"
			project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT
			drawn by RM approved by JQ'C drawing no. E-102
CAD no.		project no. BI-2B-387	

KEY NOTES

- 1 RECONNECT EXISTING DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE SERVING CONDENSING UNIT AFTER ROOF WORK IS COMPLETED. EXTEND CONDUIT AND WIRE AS NECESSARY. NOTE: ONLY ONE CONDENSING UNIT CAN BE DE-ENERGIZED AT A TIME.
- 2 RECONNECT EXISTING CONDUIT AND WIRE TO NEW EXHAUST FAN AND NEW DISCONNECT SWITCH. EXTEND CONDUIT AND WIRE AS NECESSARY.
- 3 PROVIDE 3#3 + #8G IN EXISTING CONDUIT TO NEW UNIT AND NEW DISCONNECT SWITCH. EXTEND CONDUIT AS NECESSARY. REPLACE EXISTING 70A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING OLD UNIT WITH NEW 80A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP2.
- 4 RECONNECT EXISTING CONDUIT AND WIRE TO NEW UNIT AND NEW DISCONNECT SWITCH. EXTEND CONDUIT AND WIRE AS NECESSARY. REPLACE EXISTING 110A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING OLD UNIT WITH NEW 100A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP2.
- 5 PROVIDE 3#10 + #10G IN EXISTING CONDUIT TO NEW UNIT AND NEW DISCONNECT SWITCH. EXTEND CONDUIT AS NECESSARY.
- 6 RECONNECT EXISTING CONDUIT AND WIRE TO NEW UNIT AND NEW FUSED DISCONNECT SWITCH. PROVIDE CURRENT LIMITING FUSES TO REDUCE LET-THROUGH CURRENT TO 10KA OR LESS. EXTEND CONDUIT AND WIRE AS NECESSARY. REPLACE EXISTING 200A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING OLD UNIT WITH NEW 125A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP1.
- 7 RECONNECT EXISTING CONDUIT AND WIRE TO NEW UNIT AND NEW FUSED DISCONNECT SWITCH. PROVIDE CURRENT LIMITING FUSES TO REDUCE LET-THROUGH CURRENT TO 10KA OR LESS. EXTEND CONDUIT AND WIRE AS NECESSARY. REPLACE EXISTING 70A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING TEMPORARY UNIT WITH NEW 125A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP1.
- 8 RECONNECT EXISTING DISCONNECT SWITCHES, OUTLETS, CONDUIT AND WIRE SERVING FAN AFTER ROOF WORK IS COMPLETED. EXTEND CONDUIT AND WIRE AS NECESSARY.

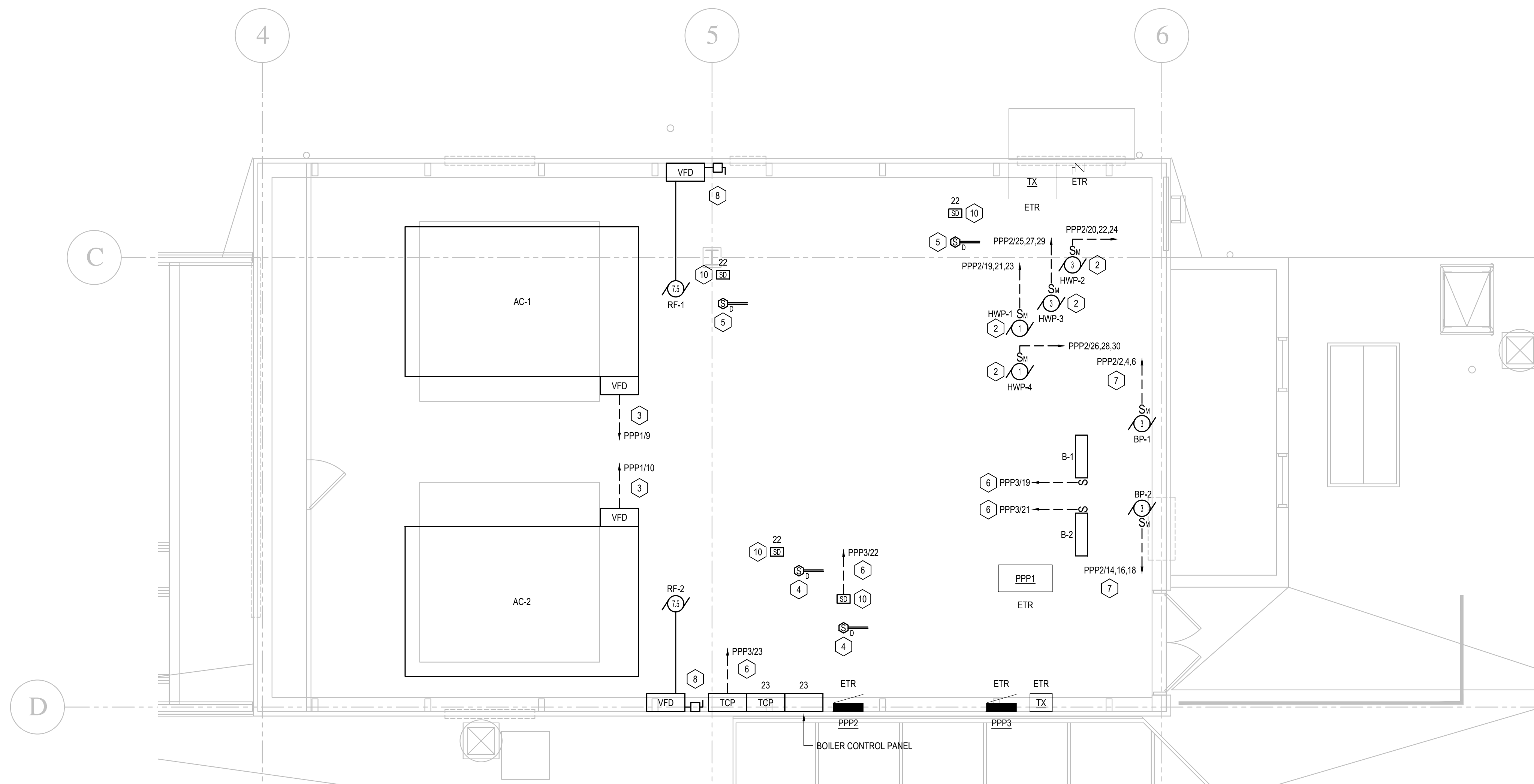


1 ROOF PLAN
E-104 SCALE: 1/8"=1'-0"

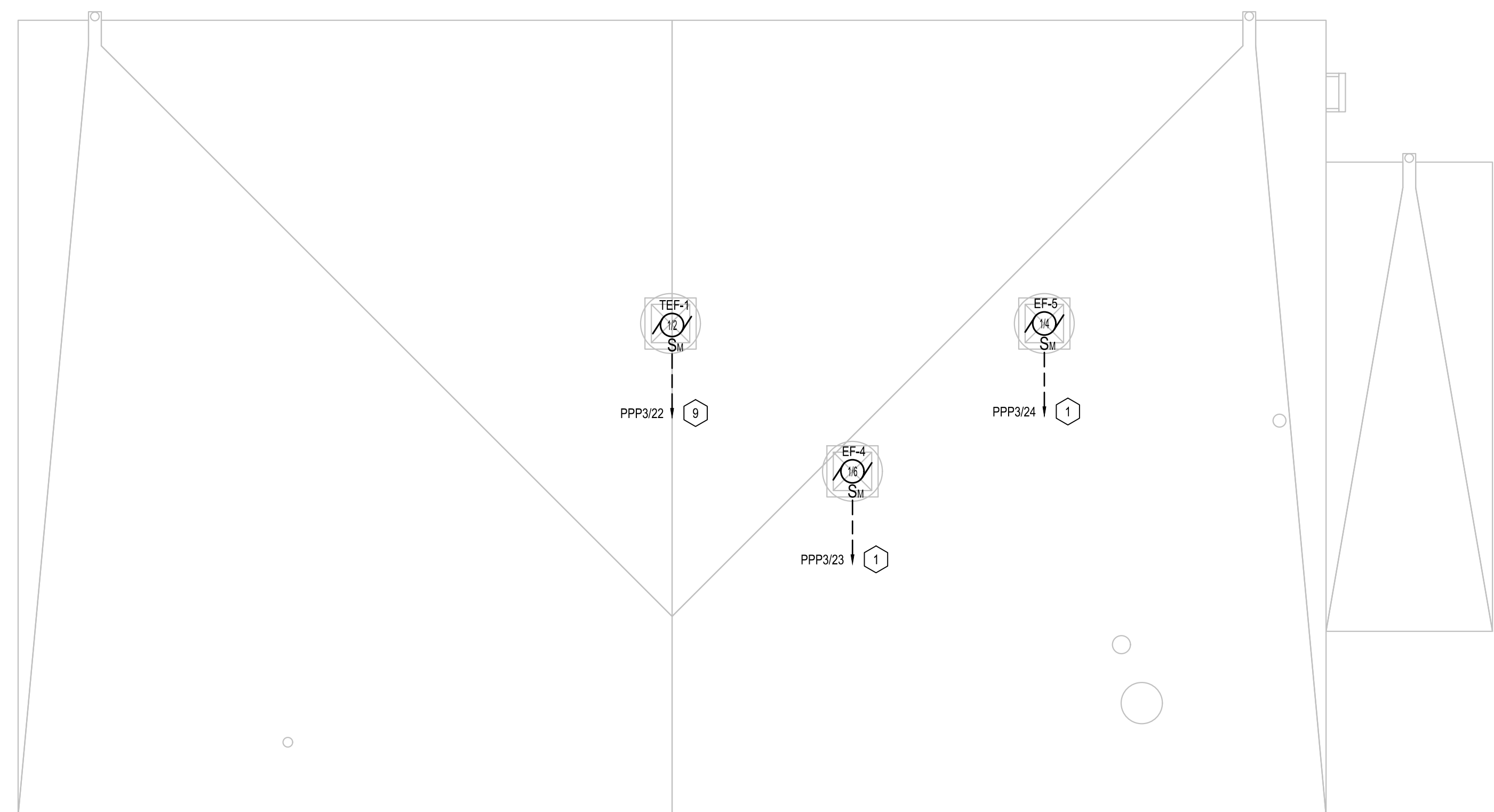
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professional seal	REVISIONS	drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810	date 2/4/2019
	mark	project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT	scale 1/8"=1'-0"
	date		description
		approved by JQC	drawing no. E-104
CAD no.	project no. BI-2B-387		

KEY NOTES

- 1 PROVIDE 15A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 2#12 +#12G -3/4". UPDATE PANELBOARD DIRECTORY.
- 2 PROVIDE 15A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 3#12 +#12G -3/4". UPDATE PANELBOARD DIRECTORY.
- 3 ENERGIZE FROM EXISTING 90A/3P CIRCUIT BREAKER PREVIOUSLY SERVING REMOVED UNIT. CONNECT WITH 3#2 +#8G -1-1/4".
- 4 RECONNECT EXISTING FIRE ALARM CONDUIT AND WIRE TO NEW DUCT SMOKE DETECTOR. EXTEND CONDUIT AND WIRE AS NECESSARY.
- 5 CONNECT NEW DUCT SMOKE DETECTORS TO EXISTING NEARBY FIRE ALARM BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS NECESSARY. MODIFY EXISTING SIMPLEX FIRE ALARM SYSTEM TO ACCEPT ADDITIONAL FIRE ALARM DEVICES. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING.
- 6 PROVIDE 20A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 2#12 +#12G -3/4" VIA BOILER CONTROL PANEL. COORDINATE WITH MECHANICAL CONTRACTOR. UPDATE PANELBOARD DIRECTORY.
- 7 PROVIDE 15A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 3#12 +#12G -3/4". UPDATE PANELBOARD DIRECTORY.
- 8 RECONNECT EXISTING CONDUIT AND WIRE TO NEW RETURN FAN. EXTEND CONDUIT AND WIRE AS NECESSARY. UPDATE PANELBOARD DIRECTORY. REPLACE EXISTING 30A/3P CIRCUIT BREAKER PREVIOUSLY ENERGIZING OLD RETURN FAN WITH NEW 20A/3P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD PPP1.
- 9 PROVIDE 20A/1P CIRCUIT BREAKER COMPATIBLE WITH EXISTING PANELBOARD. CONNECT WITH 2#12 +#12G -3/4". UPDATE PANELBOARD DIRECTORY.
- 10 CONNECT NEW SMOKE DAMPER TO EXISTING NEARBY FIRE ALARM BRANCH CIRCUIT. EXTEND CONDUIT AND WIRE AS NECESSARY. MODIFY EXISTING FIRE ALARM SYSTEM TO ACCEPT ADDITIONAL FIRE ALARM DEVICES. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING.

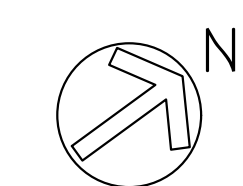


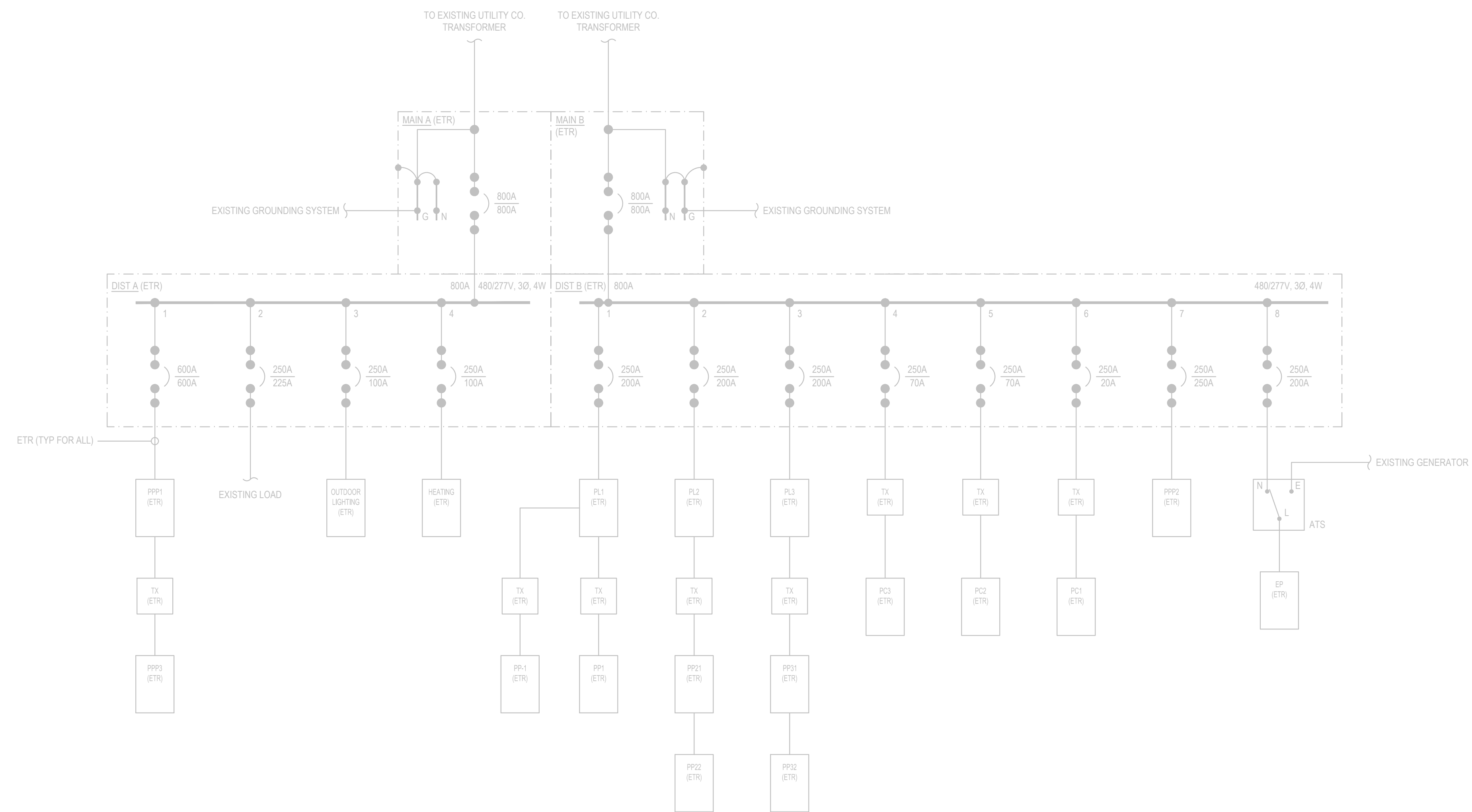
1 ROOF PART PLAN
E-301 SCALE: 1/4"=1'-0"



2 PENTHOUSE ROOF PART PLAN
E-301 SCALE: 1/4"=1'-0"

drawing title ROOF PART PLAN - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT		date 2/4/2019	scale 1/4"=1'-0"
300 CORPORATE PLACE ROCKY HILL, CT		drawn by RM	approved by JQ'C
CAD no.	project no. BI-2B-387	drawing no. E-301	





1 EXISTING SINGLE LINE DIAGRAM
E-401 SCALE: NONE

drawing title EXISTING SINGLE LINE DIAGRAM - ELECTRICAL		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
professional seal	REVISIONS		drawing prepared by KOHLER RONAN, LLC 93 LAKE AVENUE DANBURY, CT 06810
	mark	date	description
project ROOF TOP A/C UNIT AND ROOF REPLACEMENT 300 CORPORATE PLACE ROCKY HILL, CT		date 2/4/2019	scale NONE
CAD no.		project no. BI-2B-387	drawn by RM approved by JQ'C drawing no. E-401