Purchase College
STATE UNIVERSITY OF NEW YORK

MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

BID DOCUMENTS

03/03/2025

SUNY Purchase Project # : SU-031125

RMF Project # : 06240058.B0

DESIGN TEAM

JADE STONE ENGINEERING

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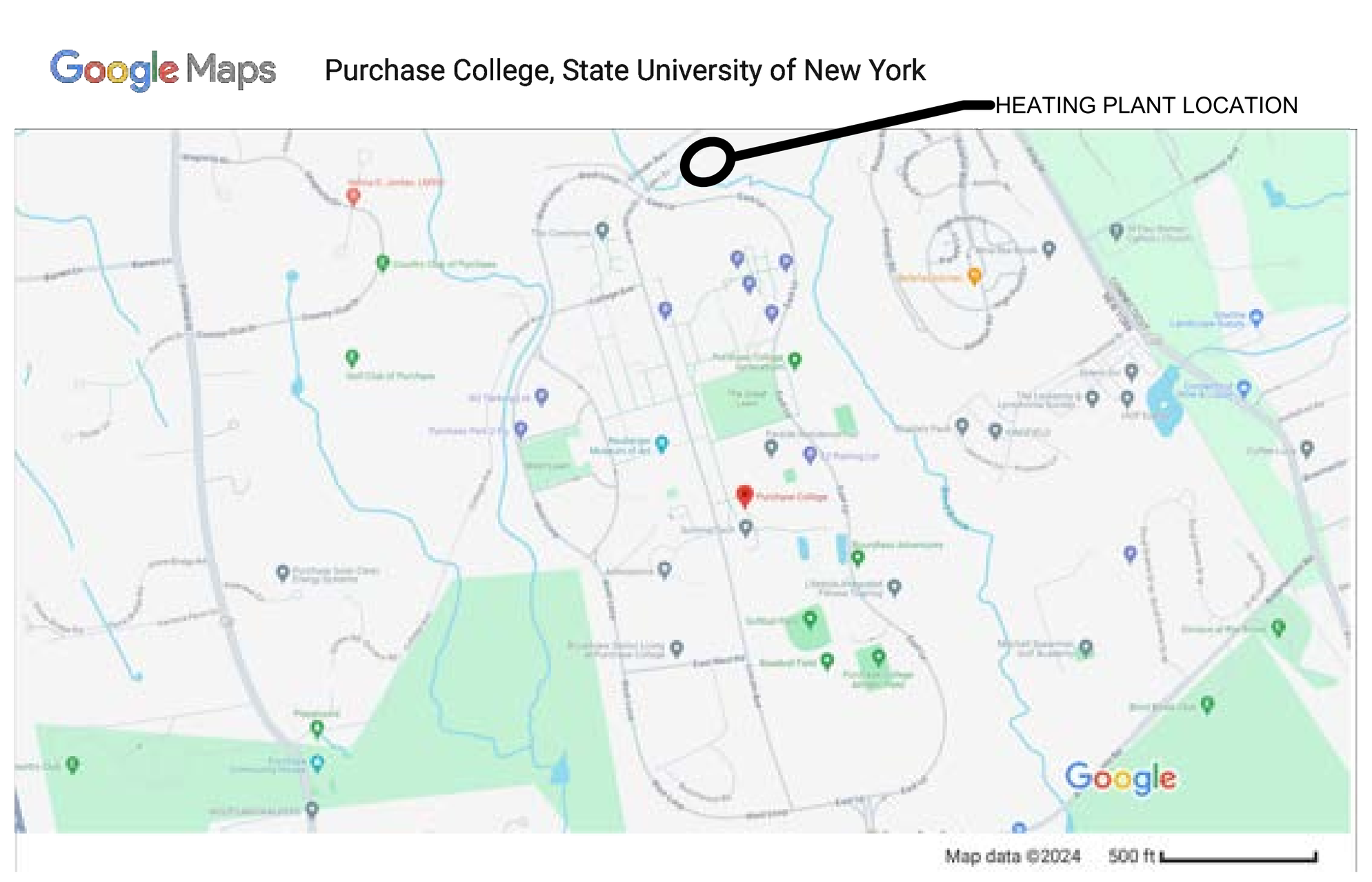
SITE MAP



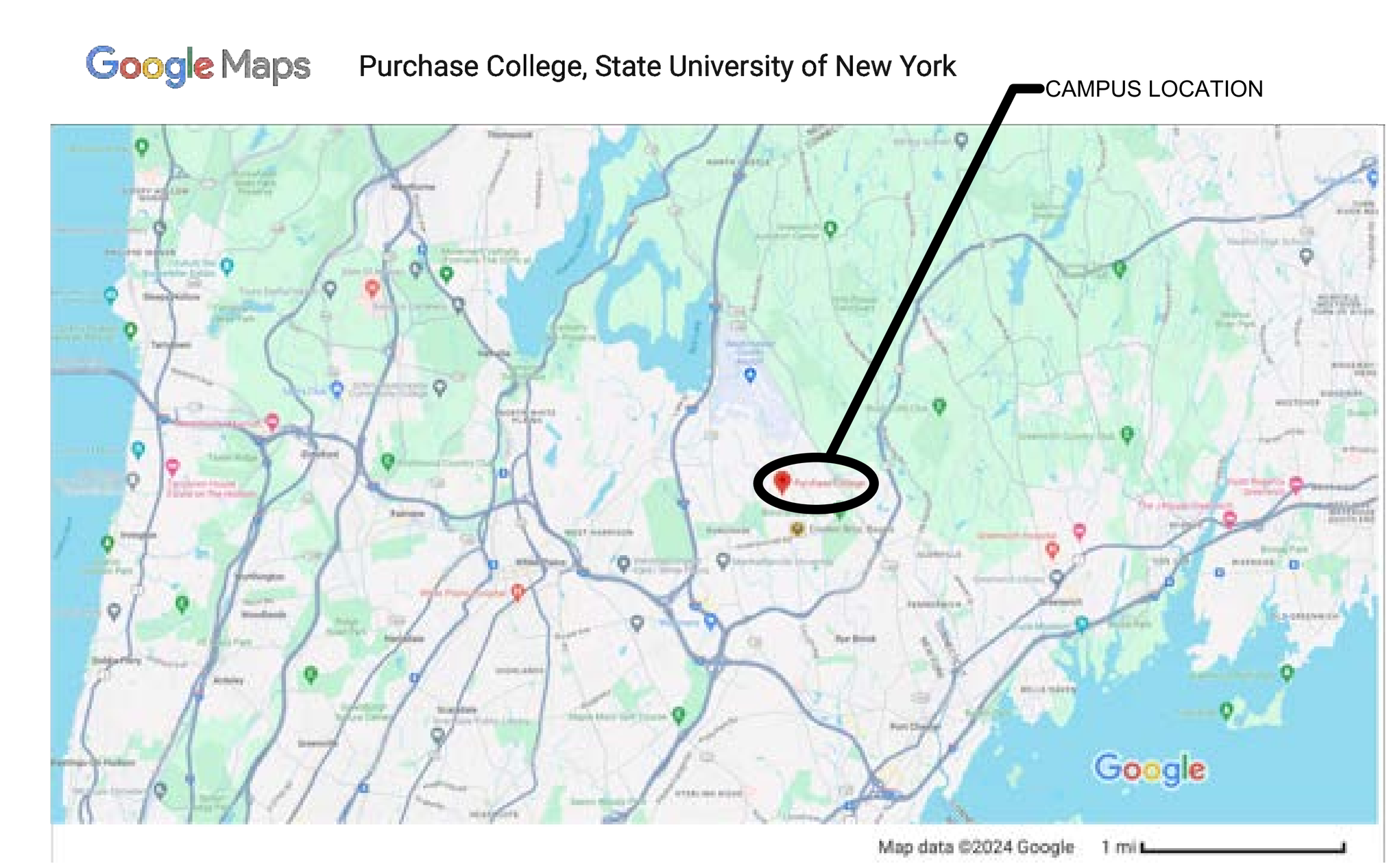
DRAWING INDEX

GENERAL	
T0.01	TITLE SHEET
G0.01	TEMPORARY HTHW GENERATOR CONNECTIONS AS-LEFT CONDITIONS
STRUCTURAL	
S0.00	GENERAL NOTES & DESIGN CRITERIA
SD1.02	PARTIAL ROOF STRUCTURAL DEMOLITION PLAN
S1.00	GROUND FLOOR STRUCTURAL PLAN
S1.02	STRUCTURAL ROOF PLAN
S2.00	TYPICAL DETAILS
S2.01	STRUCTURAL STACK & STACK SUPPORT DETAILS AT ROOF LEVEL
S2.02	STRUCTURAL STACK & STACK SUPPORT DETAILS AT ROOF LEVEL

MECHANICAL	
M0.00	MECHANICAL LEGEND AND ABBREVIATIONS
M0.01	MECHANICAL LEGEND AND ABBREVIATIONS
MD1.00	MECHANICAL - PLANT FLOOR 0' - 12' - DEMOLITION
MD1.01	MECHANICAL - PLANT FLOOR 12' - 30' - DEMOLITION
MD1.02	MECHANICAL - PLANT ROOF - DEMOLITION
MD6.01	HTHW SCHEMATIC - DEMOLITION
MD6.03	NATURAL GAS AND FUEL OIL SCHEMATIC - DEMOLITION
MD6.07	COMPRESSED AIR SCHEMATIC - DEMOLITION
MD7.00	MECHANICAL AXONOMETRICS - DEMOLITION
M1.00	MECHANICAL - PLANT FLOOR 0'-12' - NEW WORK
M1.01	MECHANICAL - PLANT FLOOR 12'-30' - NEW WORK
M1.02	MECHANICAL - PLANT ROOF - NEW WORK
M3.00	MECHANICAL - TEMP GEN SECTION
M5.01	MECHANICAL DETAILS
M5.02	MECHANICAL DETAILS
M6.01	HTHW SCHEMATIC - NEW WORK
M6.03	NATURAL GAS AND FUEL OIL SCHEMATIC - NEW WORK
M6.07	COMPRESSED AIR SCHEMATIC - NEW WORK
M6.09	TEMP GEN 1 AND 2 SCHEMATIC - NEW WORK
M7.01	MECHANICAL AXONOMETRICS - NEW WORK
M8.00	MECHANICAL SCHEDULES

ELECTRICAL	
E0.01	ELECTRICAL LEGENDS, ABBREVIATIONS & SCHEDULES
E0.02	ELECTRICAL DETAILS
E1.01	ELECTRICAL POWER & LIGHTING PLAN

AREA MAP



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STATE UNIVERSITY OF NEW YORK

EXPIRES 09/30/2027

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

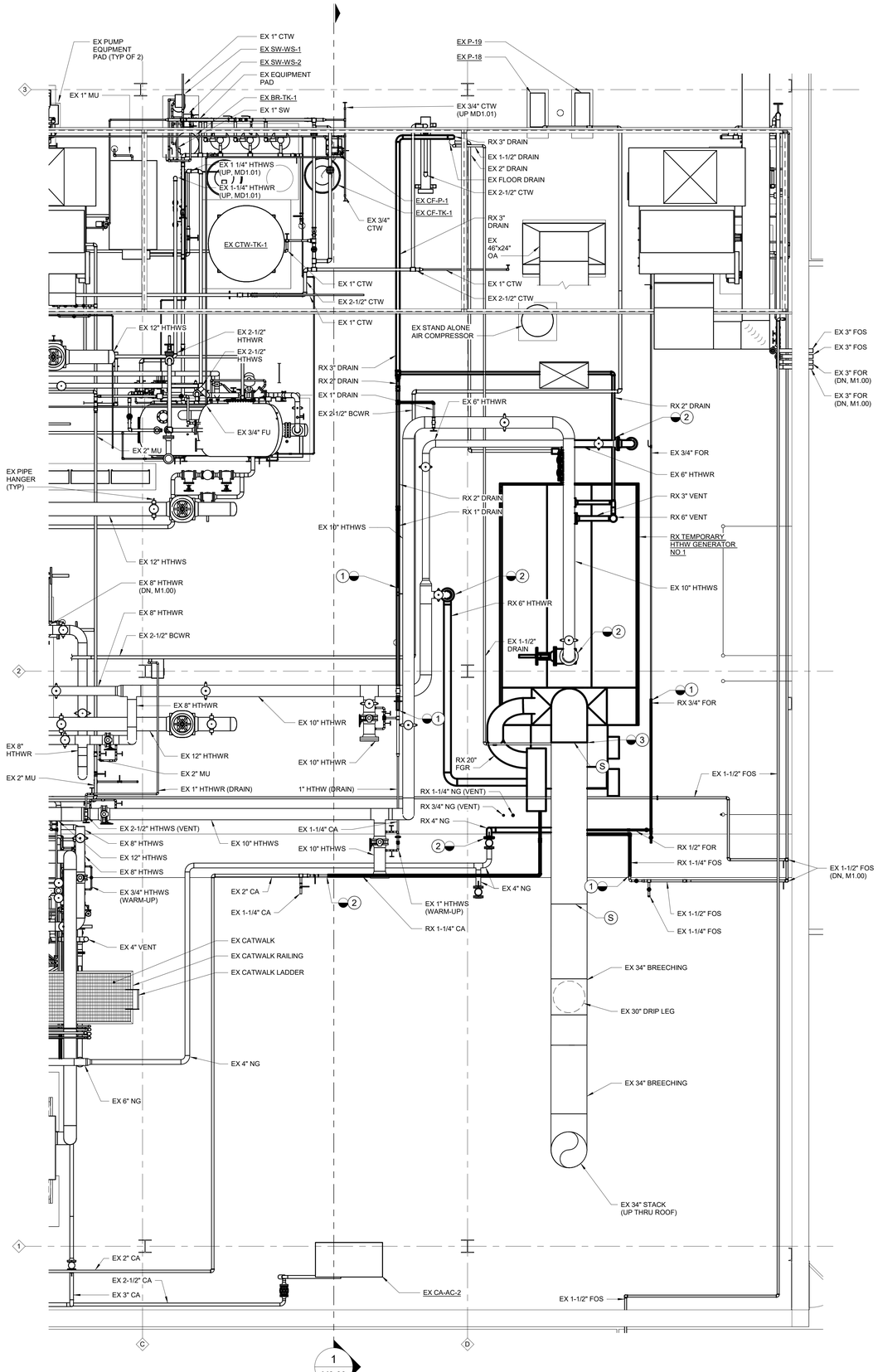
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

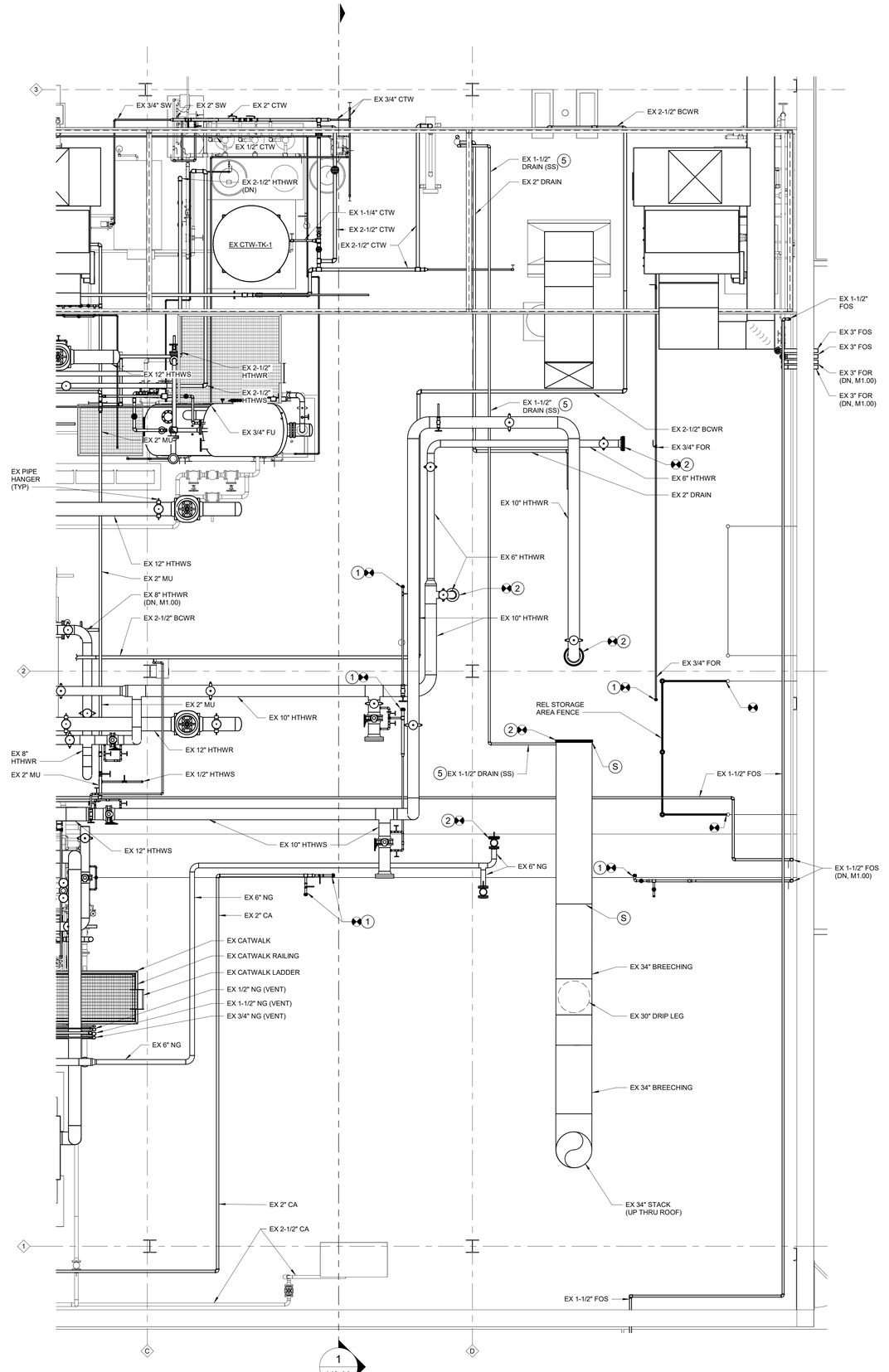
DRAWING TITLE :
TITLE SHEET

DRAWING NUMBER :
T0.01



PLANT FLOOR 0'-30' - TEMP CONNECTION DEMO

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



PLANT FLOOR 0'-30' - AS LEFT CONDITIONS

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

2' 0 2' 4'
SCALE: 1/4" = 1'-0

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GENERAL NOTES:

1. WORK DETAILED ON THIS DRAWING TO BE COMPLETED WHEN THE TEMPORARY GENERATOR IS REMOVED IN OCTOBER 2026.

DRAWING NOTES:

1. CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING BACK TO THIS POINT AND CAP PIPING.
2. CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING BACK TO THIS POINT AND ADD BLIND FLANGE.
3. CONTRACTOR TO REMOVE TEMPORARY GENERATOR STACK BACK TO THIS POINT AND CAP.
4. REMOVE VENT THROUGH ROOF. PATCH ANY OPENINGS IN ROOF WHERE VENT PIPES WERE REMOVED. CONTRACTOR TO GET APPROVAL FROM ROOFING MANUFACTURER BEFORE EXECUTING ROOF PATCH WORK IN ORDER TO MAINTAIN THE EXISTING WARRANTY.
5. HTHW GENERATOR BREECHING DRAIN PIPING TO BE SCH. 40 TYPE 304 STAINLESS STEEL. DRAIN TO BE ROUTED TO DRAIN FUNNEL AND PROVIDED WITH A P-TRAP.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WORK
No. 098645
LICENSED PROFESSIONAL ENGINEER
04/23/25

DRAWN BY:	Author	DATE:	03/03/2025
DESIGNED BY:	Designer	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
TEMPORARY HTHW GENERATOR CONNECTIONS AS-LEFT CONDITIONS

DRAWING NUMBER :
G0.01

GENERAL NOTES:

1. STRUCTURAL WORK, INCLUDING MATERIAL STRESSES AND METHODS OF CONSTRUCTION, SHALL COMPLY WITH THE 2020 BCNYS, 2020 EBCNYS, NYS BUILDING STANDARDS AND CODES 2017 UNIFORM CODE SUPPLEMENT, ASCE 7–16, OSHA AND ALL OTHER GOVERNING AGENCIES HAVING JURISDICTION.
2. EXISTING AND PROPOSED BUILDING LAYOUT AND DIMENSIONS SHOWN IS PER THE MATTERPORT FILE AND AUTOCAD FILES PROVIDED TO RE&LS, P.C. BY RMF ENGINEERING.
3. DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS SPECIFICALLY SHOWN OTHERWISE.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AND COORDINATE ALL FINAL MECHANICAL EQUIPMENT LOCATIONS RELATIVE TO THE EXISTING AND ADDED STRUCTURAL AND MECHANIC BUILDING ELEMENTS PRIOR TO ORDERING OR FABRICATING MATERIALS OR OTHERWISE PROCEEDING WITH THE WORK. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE ORDERING MATERIAL OR COMMENCING WORK.
5. CONTRACTOR SHALL USE CONSTRUCTION MEANS AND METHODS THAT STRICTLY ADHERE TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
6. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SUCH SHOP DRAWINGS WILL BE REJECTED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A PROFESSIONAL ENGINEER / GEOTECHNICAL ENGINEER FOR DETERMINING THE NEED, LOCATION, AND MAINTENANCE, OF ALL TEMPORARY SHORING AND BRACING. TEMPORARY SHORING AND BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT LOAD PATHS HAVE BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS AND CALCULATIONS FOR SHORING AND BRACING OF THE BUILDING STRUCTURE. SUBMITTALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER / GEOTECHNICAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK PRIOR TO STARTING CONSTRUCTION. MINIMUM DESIGN LOADS ARE AS SHOWN ON THE DRAWINGS OR AS DETERMINED BY THE CONTRACTOR FOR APPLICABLE BUILDING CODES AND/OR MATERIAL'S DEAD LOADS THAT ARE BEING SUPPORTED. REFERENCE SPECIFICATION 024119 FOR AMPLIFICATION OF REQUIREMENTS.
   7.1. THE CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION TO ALL EXISTING AND ADDED STRUCTURAL COMPONENTS DURING CONSTRUCTION ACTIVITIES SUCH THAT THOSE ITEMS SHALL NOT BE DAMAGED. IN THE EVENT THAT STRUCTURAL COMPONENTS ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING REPAIR SOLUTIONS AND REPAIRS WITH NO ADDITIONAL COST TO THE OWNER.REFERENCE SPECIFICATION 024119 FOR AMPLIFICATION OF REQUIREMENTS.
8. CENTERLINE OF FOOTINGS, PIERS, COLUMNS, WALLS, ETC. SHALL COINCIDE, UNLESS NOTED OTHERWISE.
9. CONTRACTOR SHALL COORDINATE STRUCTURAL WORK WITH THE MECHANICAL DRAWINGS AND SPECIFICATIONS, AND WITH THE WORK OF ALL OTHER TRADES.
10. CONTRACTOR SHALL BE RESPONSIBLE TO REFER TO APPROVED MECHANICAL SHOP DRAWINGS FOR SIZE, QUANTITY AND LOCATION OF MECHANICAL OPENINGS AND SUPPORTS REGARDLESS IF SHOWN OR NOT SHOWN IN STRUCTURAL DRAWINGS. ENGINEER SHALL BE NOTIFIED FOR RECOMMENDATIONS FOR ANY OPENING NOT IN COMPLIANCE WITH OPENINGS, SUPPORTS, AND SUPPORT LOADS AS SHOWN ON THE STRUCTURAL DRAWINGS, PRIOR TO STARTING CONSTRUCTION.
11. DEAD LOADS HAVE BEEN CALCULATED TO INCLUDE THE ACTUAL WEIGHT OF ALL WORK SHOWN ON THE STRUCTURAL DRAWINGS. NO EQUIPMENT SHALL BE PLACED ON OR HUNG FROM THE ROOF SYSTEM WITHOUT WRITTEN APPROVAL OF THE ENGINEER. ROOF MOUNTED UNITS SHALL BE PLACED ONLY AT DESIGNATED AREAS AS SHOWN ON THE ROOF FRAMING PLAN. IN THE EVENT THAT LOCATIONS ARE NOT SPECIFIED OR OTHER LOCATIONS ARE DESIRED, THE OWNER AND CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO LOCATING OR RELOCATING THE UNITS.
12. REFER TO STRUCTURAL DESIGN CRITERIA TABLE FOR BUILDING DATA AND LOADING CRITERIA, ON SHEET S000.
13. IN THE EVENT THAT THERE ARE DISCREPANCIES BETWEEN THE PROJECT'S DESIGN DRAWINGS AND THE SPECIFICATIONS OR THOSE DOCUMENTS OF OTHER DISCIPLINES OR TRADES, THE MOST STRINGENT SHALL APPLY.
14. CONTRACTOR SHALL SUBMIT MATERIAL SHOP DRAWINGS AND APPROPRIATELY RESPOND TO REVIEWERS' COMMENTS FOR SHOP DRAWING APPROVAL PRIOR TO STARTING FABRICATION AND CONSTRUCTION.
15. EQUIVALENCY OF ALTERNATE MATERIALS OR DESIGNS NOT PROVIDED IN THE ENGINEER'S DESIGN DOCUMENTS AND REQUESTED BY THE CONTRACTOR SHALL BE THE BURDEN OF THE CONTRACTOR. SUBMITTALS OF EQUIVALENCY SHALL INCLUDE DESIGN DOCUMENTS CERTIFIED BY A PROFESSIONAL ENGINEER OR GEOTECHNICAL ENGINEER REGISTERED IN THE STATE NEW YOUR AND ACCEPTED BY THE ENGINEER OF RECORD PRIOR TO STARTING OF CONSTRUCTION.
16. ALL ADDED/PROPOSED AND EXISTING MECHANICAL EQUIPMENT AND ITEMS SHOWN ON STRUCTURAL DRAWINGS IS SHOWN FOR INFORMATION AND CONVENIENCE ONLY. REFERENCE MECHANICAL DOCUMENTS FOR ALL MECHANICAL INFORMATION.
17. THE INTENT OF THESE STRUCTURAL DRAWINGS IS FOR PROVIDING STRUCTURAL BUILDING MODIFICATIONS REQUIRED FOR THE PROPOSED MECHANICAL SYSTEM MODIFICATIONS.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360–16), AS WELL AS REFERENCES AND STANDARDS OF THE "AISC STEEL CONSTRUCTION MANUAL – 15th EDITION".
2. SHOP CONNECTIONS SHALL BE WELDED AND FIELD CONNECTIONS ARE TO BE BOLTED WITH 3/4" DIA. BOLTS, UNLESS NOTED OTHERWISE.
3. UNLESS OTHERWISE DETAILED DOUBLE ANGLE CLIP CONNECTIONS ARE TO BE USED WHEREVER POSSIBLE.
4. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH ANSI/AWS "D1.1 STRUCTURAL WELDING CODE–STEEL"
5. ANCHOR WELDING SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF AWS C5.4, RECOMMENDED PRACTICE FOR STUD WELDING, AND SHALL BE SHOP WELDS. DEFORMED BAR ANCHORS SHALL BE LOW CARBON STEEL (ASTM A706) AND WELDED TO STEEL ANGLE LINTELS OR W–SECTIONS USING AUTOMATICALLY TIMED STUD WELDING EQUIPMENT CONNECTED TO A SUITABLE SOURCE OF DIRECT CURRENT ELECTRODE NEGATIVE POWER. WELDING VOLTAGE, CURRENT, TIME AND GUN SETTINGS FOR LIFT AND PLUNGE SHALL BE SET AT OPTIMUM SETTINGS, BASED ON PAST PRACTICE, RECOMMENDATIONS OF THE ANCHOR AND EQUIPMENT MANUFACTURER, OR BOTH. WELDING SHALL NOT BE DONE WHEN THE BASE METAL IS BELOW AMBIENT ATMOSPHERIC TEMPERATURE OR WHEN THE SURFACE IS WET OR EXPOSED TO FALLING RAIN OR SNOW.
6. ALL ADDED STRUCTURAL STEEL SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE HOT DIPPED GALVANIZED UNLESS NOTES OTHERWISE.
7. REFERENCE SPECIFICATION 09 91 23 – PAINTING FOR ROLLED STEEL STACK COATING INFORMATION.
8. STRUCTURAL STEEL SPECIFICALLY NOTED TO NOT RECEIVE HOT DIPPED GALVANIZING SHALL RECEIVE 2.0 MILS DRY FILM THICKNESS, RUST INHIBITING PRIMER, UNLESS NOTED OTHERWISE.
9. BEAM SHEAR CONNECTIONS SHALL BE DESIGNED FOR ONE HALF OF THE MAXIMUM TOTAL UNIFORM LOAD SHOWN IN THE AISC STEEL CONSTRUCTION MANUAL TABLES FOR THE RESPECTIVE SPAN, UNLESS NOTED OTHERWISE ON THE DRAWINGS. MINIMUM CONNECTION SHALL BE TWO BOLTS AND CLIP LENGTH SHALL BE 1/2 BEAM "T" DIMENSION. MAXIMUM BOLT SPACING SHALL BE 3".
10. CONTRACTOR TO BE RESPONSIBLE FOR ALL CONNECTION DESIGNS AND SUBMIT CERTIFIED SHOP DRAWINGS, CONNECTION DETAILS, AND CONNECTION CALCULATIONS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. CERTIFICATION SHALL BE PROVIDED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK.
    10.1. PRIOR TO TEMPORARY REMOVAL OF EXISTING CATWALK CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AS–BUILD CATWALK INFORMATION INCLUDING BUT NOT LIMITED TO MEMBER SIZES, CONFIGURATIONS, DIMENSIONS, AND CONNECTIONS AND SUBMIT SHOP DRAWINGS INDICATING ALL EXISTING CATWALK INFORMATION AND REQUIRED MODIFICATIONS AND PHASING.
        10.1.1. PRIOR TO TEMPORARY REMOVAL OF THE EXISTING CATWALK ALL EXISTING CATWALK STRUCTURAL ELEMENTS SHALL BE LABELED/PIECE MARKED AND PIECE MARKS SHALL BE REFLECTED IN THE SHOP DRAWINGS
11. ALL GUSSET, KNIFE, THROUGH, BENT EDGE, AND STIFFENER PLATES SHALL BE 3/8" MINIMUM THICKNESS.
12. ALL CONNECTORS SHALL DEVELOP THE MAXIMUM CAPACITY OF THE LEAST OR LESSER STRONG COMPONENT OF STRUCTURAL STEEL MEMBERS BEING CONNECTED.
13. FABRICATOR SHALL HAVE AISC CERTIFICATION FOR TYPE AND COMPLEXITY OF BUILDING INDICATED, OR EQUIVALENT. REFERENCE BCNYS SECTION 1704.2.5.

REQUIRED SPECIAL INSPECTIONS AND TESTS

SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THIS PROJECT. OWNER WILL ENGAGE THE SERVICES OF A QUALIFIED SPECIAL INSPECTOR. THE SPECIAL INSPECTOR WILL PROVIDE AND/OR COORDINATE INSPECTION AND TESTING REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE AND THE STATEMENT OF SPECIAL INSPECTIONS. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE OWNER.

STEEL CONSTRUCTION:

SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURES AND POTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.

1. OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN–PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. FOR STRUCTURAL STEEL, ALL PROVISIONS OF AWS D1.1 STRUCTURAL WELDING CODE – STEEL FOR STATICALLY LOADED STRUCTURES SHALL APPLY. AT A MINIMUM, WELDING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES N5.4–1, N5.4–2 AND N5.4–2 OF AISC 360. ALL NON–DESTRUCTIVE TESTING (NDT) METHODS SHALL BE PROVIDED AS DIRECTED BY THE CERTIFIED WELDING INSPECTORS (CWI) AS DIRECTED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. THE CONTRACTOR SHALL GIVE THE OWNER A CREDIT FOR ALL COSTS FOR PROVIDING ALL WELD NDT PROCEDURES AND ADDED INSPECTOR COSTS REQUIRED TO COMPLETE ADDITIONAL TESTING OF WELDS.
2. OBSERVATIONS OF BOLTING PROCEDURES SHALL BE THE PRIMARY METHOD USED TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP INCORPORATED IN CONSTRUCTION ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND THE PROVISIONS OF RCSC SPECIFICATIONS.
   a. FOR SNUG–TIGHT JOINTS, PRE–INSTALLATION VERIFICATION TESTING AS SPECIFIED IN TABLE N5.6–1 AND MONITORING OF THE INSTALLATION PROCEDURES AS SPECIFIED IN TABLE N5.6–2 OF AISC 360 ARE NOT APPLICABLE. QUALITY CONTROL/ASSURANCE INSPECTOR NEED NOT BE PRESENT DURING THE INSTALLATION OF FASTENERS IN SNUG–TIGHT JOINTS.
3. ALL SPLINE TYPE BOLTS SHALL BE INSTALLED SUCH THAT THE CONNECTORS FAYING SURFACES ARE IN FULL CONTACT AND THE BOLT'S SPLINES HAVE BEEN TWISTED OFF.

STRUCTURAL DESIGN CRITERIA

DESIGN LOADS HAVE BEEN DETERMINED IN ACCORDANCE WITH THE 2020 BUILDING CODE OF NEW YORK STATE AND ASCE 7-16

TYPE	CODE REFERENCE	DESCRIPTION	DESIGN CRITERIA MARK	VALUE	UNITS
BUILDING DATA		LOCATION	PURCHASE, NY		
	BCNYS TABLE 1604.5	BUILDING RISK CATEGORY	III		
	BCNYS SECTION CHAPTER 3	BUILDING USE GROUP	U		
FLOOR LIVE LOAD	BCNYS TABLE 1607.1	STAIRS & EXIT WAYS	LL	100	psf
	BCNYS TABLE 1607.1	OFFICES	LL	50	psf
	BCNYS TABLE 1607.1	STORAGE	LL	125	psf
	BCNYS TABLE 1607.1	MECHANICAL EQUIPMENT	LL	150 MIN / ACTUAL UNIT LOADS	psf
ROOF LIVE LOAD	BCNYS TABLE 1607.1	ROOF CONSTRUCTION LOAD	LL	20	psf
SNOW LOAD	NYS FIGURE 1608.2	GROUND SNOW LOAD	P_g	30	psf
	ASCE 7-16 TABLE 7.3-1	SNOW EXPOSURE FACTOR	C_e	1.0	
	ASCE 7-16 TABLE 1.5-2	SNOW LOAD IMPORTANCE FACTOR	I_s	1.1	
	ASCE 7-16 TABLE 7.3-1	THERMAL FACTOR	C_t	1.0	
	ASCE 7-16 SECTION 7.3	FLAT ROOF SNOW	p_f	23.1	psf
	ASCE 7-16 SECTION 7.7	DRIFT SURCHARGE LOADS & WIDTHS	AS REQUIRED PER ASCE 7-10		
WIND LOAD (MAIN WIND FORCE RESISTING SYSTEM)	ASCE 7-16 SECTION 26.1.2.1	ANALYSIS PROCEDURE	SECTION 27 - DIRECTIONAL PROCEDURE		
	ASCE 7-16 FIGURE 26.5-1B	BASIC WIND SPEED	V_{3s}	126	mph
	ASCE 7-16 SECTION 26.7	EXPOSURE CATEGORY	C		
	ASCE 7-16 TABLE 26.13.1	INTERNAL PRESSURE COEFFICIENT	GC_{pi}	+0.18 / -0.18	
	ASCE 7-16 SECTION 27.4	MAXIMUM DESIGN WIND PRESSURE	P	44.3	psf
SEISMIC LOAD	ASCE 7-16 TABLE 1.5-2	SEISMIC IMPORTANCE FACTOR	I_E	1.25	
	ASCE 7-16 SECTION 11.4.2	MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER (SHORT PERIODS)	S_S	0.284	
	ASCE 7-16 SECTION 11.4.2	MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER (1s PERIODS)	S_1	0.06	
	ASCE 7-16 SECTION 11.4.3	SITE CLASSIFICATION	D		
	ASCE 7-16 SECTION 11.4.5	DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER (SHORT PERIODS)	S_{DS}	0.297	
	ASCE 7-16 SECTION 11.4.5	DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER (1s PERIODS)	S_{D1}	0.097	
	ASCE 7-16 SECTION 11.6	SEISMIC DESIGN CATEGORY	B		

NO LATERAL ANALYSIS COMPLETED. PER SECTION 808.3 OF THE 2020 EBCNYS: ANY LATERAL LOAD-CARRYING STRUCTURAL ELEMENT WHOSE DEMAND CAPACITY RATIO WITH THE ALTERATION IS NOT MORE THAN 10 PERCENT GREATER THAN ITS DEMAND-CAPACITY RATIO WITHOUT THE ALTERATION SHALL BE PERMITTED TO BE UNALTERED

LEGEND

(±)	:	VERIFY IN FIELD	GAL	:	GALVANIZED
±	:	VERIFY IN FIELD	GT	:	GIRDER TRUSS
ARCH	:	ARCHITECTURAL/ARCHITECT	HORIZ	:	HORIZONTAL
B/	:	BOTTOM OF	ISO JT	:	ISOLATION JOINT
BB	:	BOND BEAM	JB	:	JOIST BEARING
BP	:	BEARING PLATE	KB	:	KNEE BRACE
CONT	:	CONTINUED	KFT	:	KIP–FOOT
CL	:	CENTER LINE	Ld	:	DEVELOPMENT LENGTH
CFMF	:	COLD FORMED METAL FRAMING	LL	:	LOOSE LINTEL
COB	:	COLUMN OVER BEAM	LLV	:	LONG LEG VERTICAL
COL	:	COLUMN	LLH	:	LONG LEG HORIZONTAL
CJ	:	CONSTRUCTION JOINT/CONTRACTION JOINT	LBW	:	LOAD BEARING WALL
CLSM	:	CONTROLLED LOW STRENGTH MATERIAL	MIN	:	MINIMUM
CMU	:	CONCRETE MASONRY UNITS	MAX	:	MAXIMUM
CONC	:	CONCRETE	MFR	:	MANUFACTURER
DWLS	:	DOWELS	M.O.	:	MASONRY OPENING
DWG	:	DRAWING	O.C.	:	ON CENTER
DIR	:	DIRECTION	OWJ	:	OPEN WEB JOIST
ELEV	:	ELEVATION	P	:	PIER
EL	:	ELEVATION	PJF	:	PRE–FORMED JOINT FILLER
EXIST	:	EXISTING	PL OR ℙ	:	PLATE
EXP JT	:	EXPANSION JOINT	REINF	:	REINFORCEMENT
EMBED	:	EMBEDMENT	RD	:	ROOF DRAIN
EJ	:	EXPANSION JOINT	SCHD	:	SCHEDULE
EW	:	EACH WAY	SOG	:	SLAB ON GRADE
EA	:	EACH	STRUCT	:	STRUCTURAL
EF	:	EACH FACE	STL	:	STEEL
EQ	:	EQUAL	T/	:	TOP OF
EQUIP	:	EQUIPMENT	T&B	:	TOP AND BOTTOM
F	:	FOOTING	TOC	:	TOP OF CONCRETE
FTG	:	FOOTING	VIF	:	VERIFY IN FIELD
FD	:	FLOOR DRAIN	UNO	:	UNLESS NOTED OTHERWISE
FDN	:	FOUNDATION	WJ	:	WALL JOINT
FIN	:	FINISH	WP	:	WORK POINT
FLR	:	FLOOR	WWF	:	WELDED WIRE FABRIC
FF	:	FLOOR FINISH	W/	:	WITH
FP	:	FALL PROTECTION			
GA	:	GAUGE			

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SUNY State University Construction Fund

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REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK · DOUGLAS SCOTT WARD · 110518 · LICENSED PROFESSIONAL ENGINEER
EXPIRES 09/30/2027

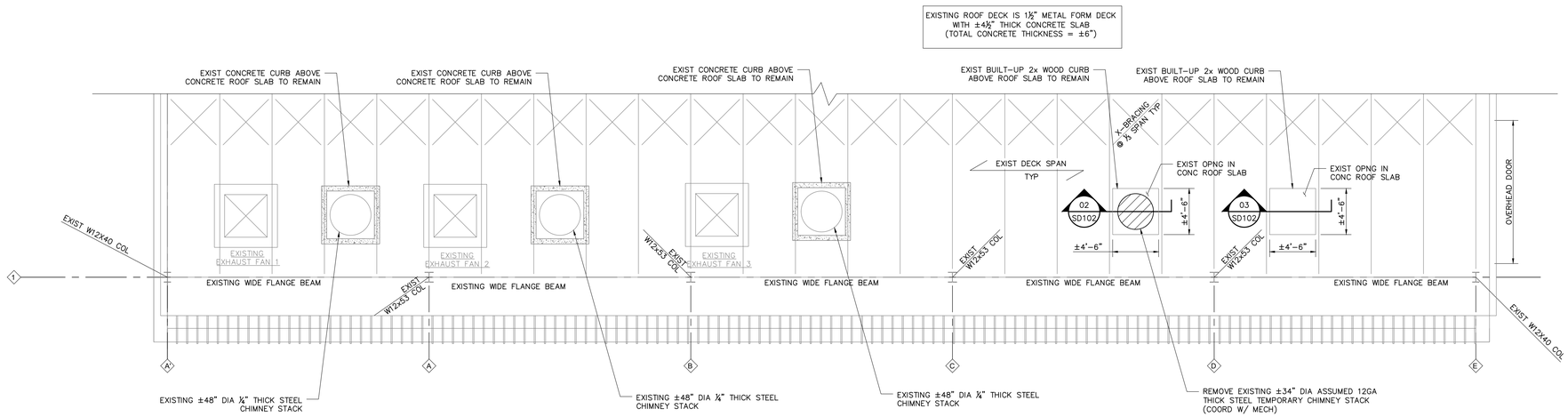
DRAWN BY:	DSW	DATE:	03/03/2025
DESIGNED BY:	DSW	SCALE:	AS NOTED
CHECKED BY:	TFW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	TFW	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
GENERAL NOTES & DESIGN CRITERIA

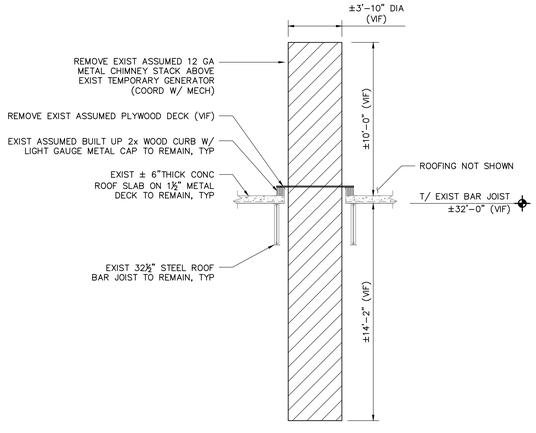
DRAWING NUMBER :
S000



01 SD102 PARTIAL ROOF STRUCTURAL DEMOLITION PLAN AT ELEVATION ±32'-0" ABOVE TOP OF GROUND FLOOR SLAB-ON-GRADE

SCALE: 3/16" = 1'-0"

DATUM: ±0'-0" = TOP OF EXISTING CONCRETE SLAB ON GRADE

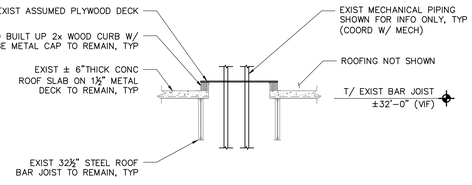


02 SD102 TEMPORARY STEEL CHIMNEY STACK ABOVE EXISTING TEMPORARY GENERATOR REMOVAL DETAIL

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

NOTES:

1. THE EXISTING TEMPORARY GENERATOR CHIMNEY STACK IS ASSUMED TO BE, BUT NOT CONFIRMED TO BE, SUPPORTED BY THE EXISTING TEMPORARY GENERATOR BELOW. CONTRACTOR SHALL FIELD VERIFY THE EXISTING TEMPORARY CHIMNEY STACK'S SUPPORT SYSTEM PRIOR TO STARTING REMOVAL OF EXISTING TEMPORARY CHIMNEY STACK, MOVING TEMPORARY GENERATOR, OR COMPLETING ANY WORK THAT MAY COMPROMISE THE EXISTING TEMPORARY CHIMNEY STACK'S CURRENTLY UNCONFIRMED SUPPORT SYSTEM.
2. CHIMNEY STACK REMOVAL WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.



03 SD102 ROOF DECK REMOVAL DETAIL AT PROPOSED TEMPORARY GENERATOR STACK LOCATION

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

NOTES:

1. THIS REMOVAL WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.

2' 0 2' 4' 6'

SCALE: 3/16" = 1'-0

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SUBMISSION TITLE :
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DESIGNED BY:	DSW	SCALE:	AS NOTED
CHECKED BY:	TFW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	TFW	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
PARTIAL ROOF STRUCTURAL DEMOLITION PLAN

DRAWING NUMBER :
SD102

01 S100 GROUND FLOOR STRUCTURAL - LOCATION PLAN

SCALE: 3/16" = 1'-0"

DATUM: ±0'-0" = TOP OF EXISTING CONCRETE SLAB ON GRADE

NOTES:

1. PLAN PROVIDED FOR GENERAL STRUCTURAL LOCATION INFORMATION ONLY. REFERENCE MECHANICAL DRAWINGS FOR ALL MECHANICAL INFORMATION.
2. GROUND FLOOR IS ±5" THICK CONCRETE SLAB-ON-GARDE WITH STEEL WELDED WIRE REINFORCEMENT, EXCEPT WHERE NOTED OTHERWISE. VERIFY IN FIELD.

SCALE: 3/16" = 1'-0

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PROJECT NAME :

MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :

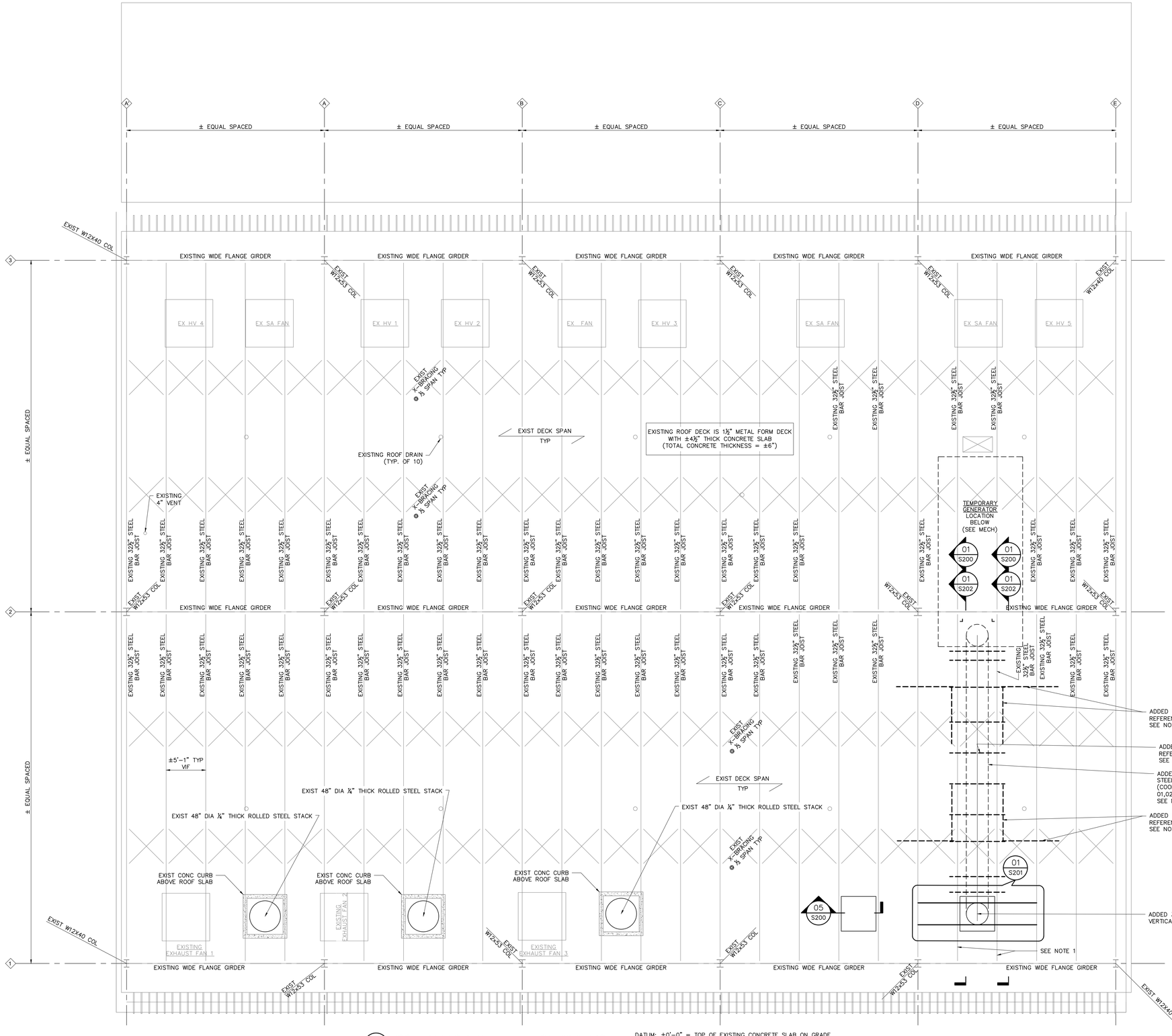
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :

GROUND FLOOR STRUCTURAL PLAN

DRAWING NUMBER :

S100



01 S102 ROOF FRAMING PLAN AT ELEVATION ±32'-0" ABOVE TOP OF GROUND FLOOR SLAB-ON-GRADE

SCALE: 3/16" = 1'-0"

DATUM: ±0'-0" = TOP OF EXISTING CONCRETE SLAB ON GRADE

NOTES:
1. PROVIDE ADDED STEEL REINFORCEMENT OF EXISTING ROOF JOIST WEB MEMBERS AS PER 01 & 02/S200.
2. TEMPORARY BOILER STACK'S HANGER AND BRACE LOCATIONS SHOWN ON PLAN FOR GENERAL INFORMATION ONLY. FINAL HANGER AND BRACE QUANTITIES AND LOCATIONS SHALL BE AS REQUIRED BASED UPON EXPANSION JOINT LOCATIONS AND QUANTITIES. COORDINATE WITH MECHANICAL.

2' 0 2' 4' 6'
SCALE: 3/16" = 1'-0

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CHECKED BY:	TFW	RMF JOB NO.:	06240058.A0
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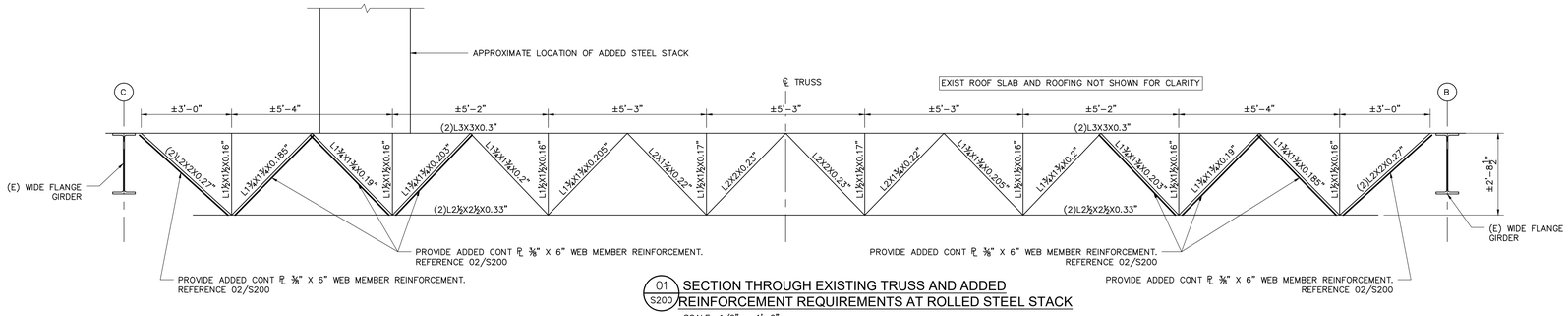
PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
STRUCTURAL ROOF PLAN

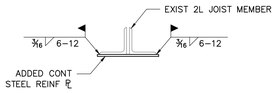
DRAWING NUMBER :
S102



01 S200 SECTION THROUGH EXISTING TRUSS AND ADDED REINFORCEMENT REQUIREMENTS AT ROLLED STEEL STACK

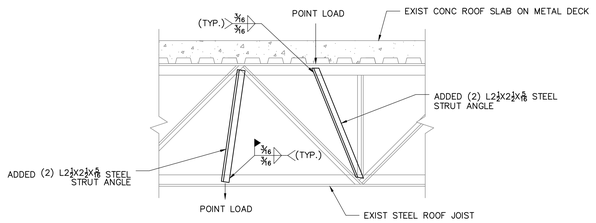
SCALE: 1/2" = 1'–0"

NOTES:
1. ALL MEMBERS ARE EXISTING UNLESS NOTED OTHERWISE.
2. REFERENCE 01/S202 FOR ADDITIONAL INFORMATION.



02 S200 TYPICAL JOIST WEB MEMBER REINFORCEMENT DETAIL

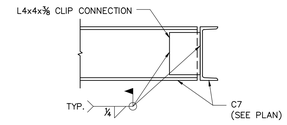
SCALE: 1–1/2 = 1'–0"



NOTES:
1. WHEN POINT LOADS OCCUR AWAY FROM A PANEL POINT, A STEEL STRUT ANGLE SHALL BE INSTALLED IN THE FIELD TO CARRY THE LOAD TO AN OPPOSITE PANEL POINT AT ALL POINT LOADS EXCEEDING 200 POUNDS.

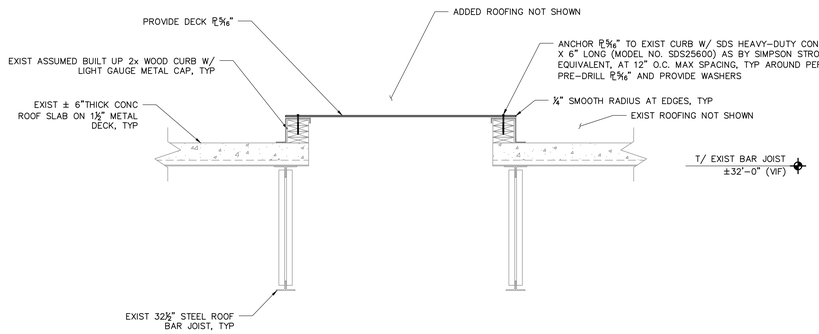
03 S200 ROOF JOIST REINFORCEMENT AT POINT LOADS

SCALE: 3/4"=1'–0"



04 S200 TYPICAL C7 TO C7 SHEAR CONNECTION DETAIL

SCALE: 1 1/2" = 1'–0"



05 S200 ADDED ROOF DECK PLATE DETAIL

SCALE: 3/4" = 1'–0"

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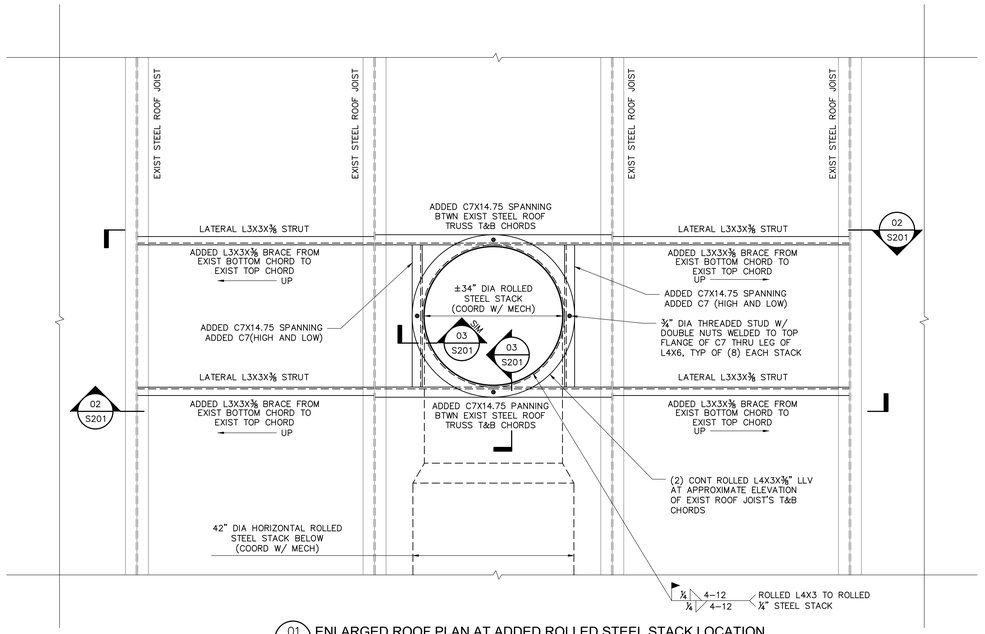
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

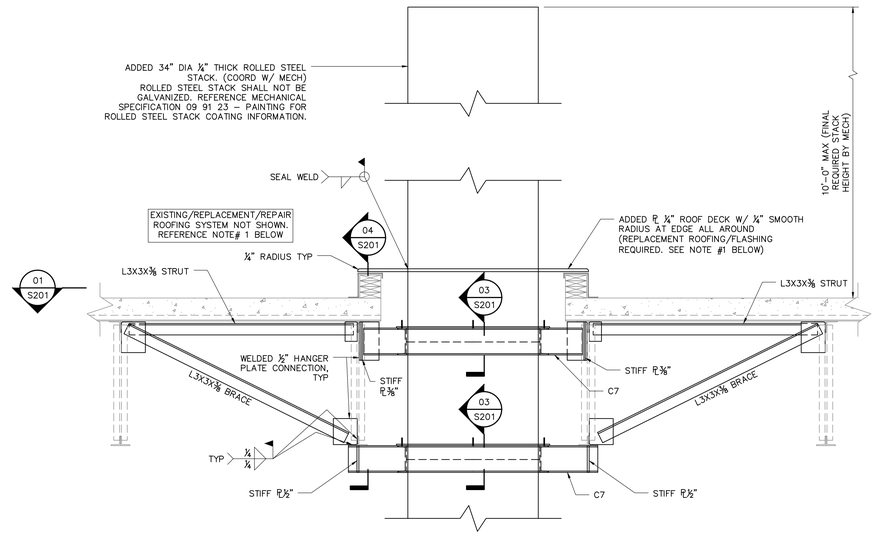
PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
TYPICAL DETAILS

DRAWING NUMBER :
S200

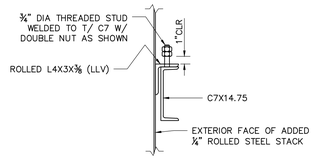


01 S201 ENLARGED ROOF PLAN AT ADDED ROLLED STEEL STACK LOCATION
SCALE: 3/4" = 1'-0"

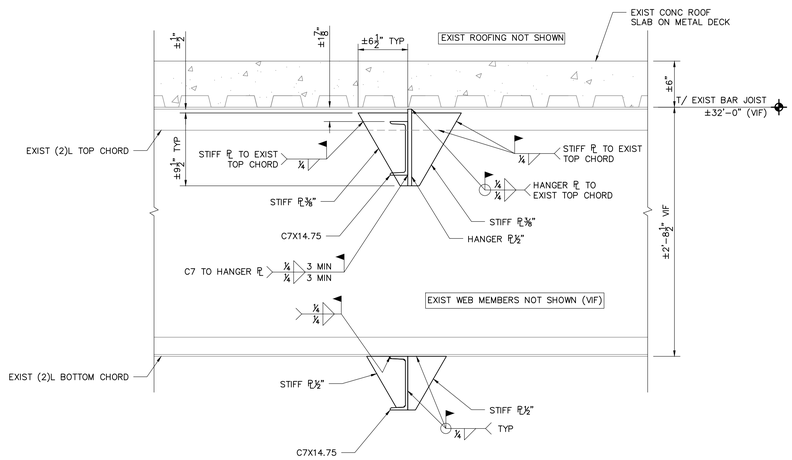


02 S201 SECTION AT ADDED 34" DIAMETER STEEL STACK
SCALE: 3/4" = 1'-0"

NOTES:
1. THE CHIMNEY STACK STACK WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED/REPLACED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.



03 S201 SECTION AT STEEL STACK SUPPORT
SCALE: 1 1/2" = 1'-0"



04 S201 TYPICAL STEEL STACK SUPPORT CHANNEL CONNECTION TO EXISTING ROOF JOIST
SCALE: 1-1/2" = 1'-0"

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STATE OF NEW YORK
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LICENSED PROFESSIONAL ENGINEER
EXPIRES 09/30/2027

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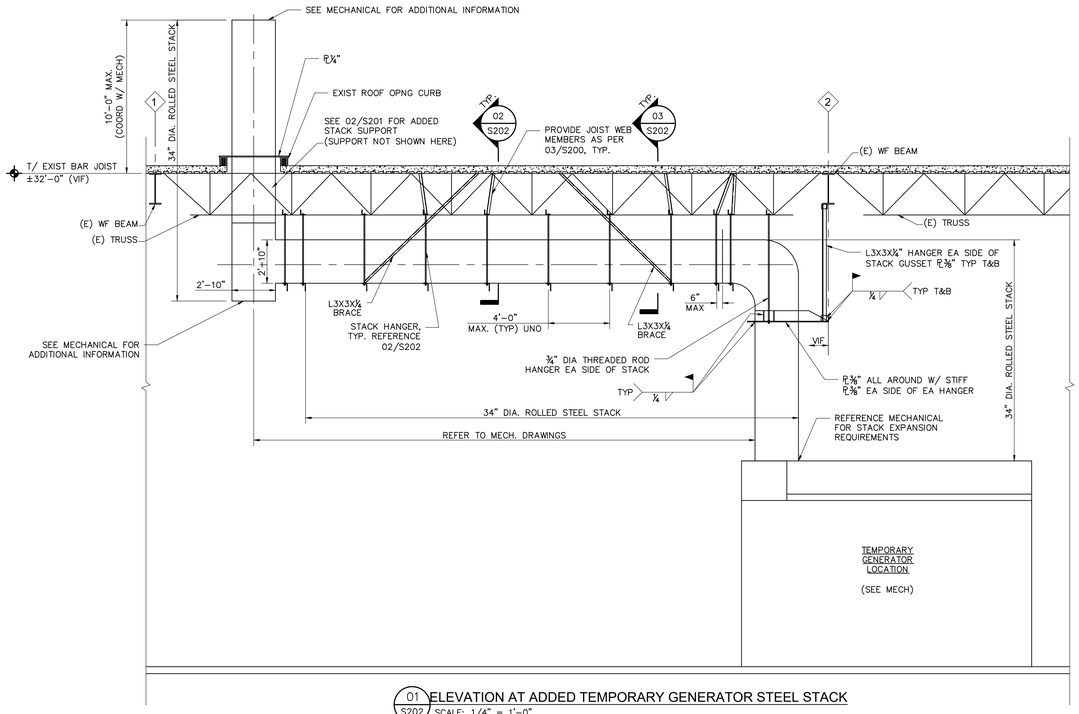
CHECKED BY:	TFW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	TFW	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
STRUCTURAL STACK & STACK SUPPORT DETAILS AT ROOF LEVEL

DRAWING NUMBER :
S201

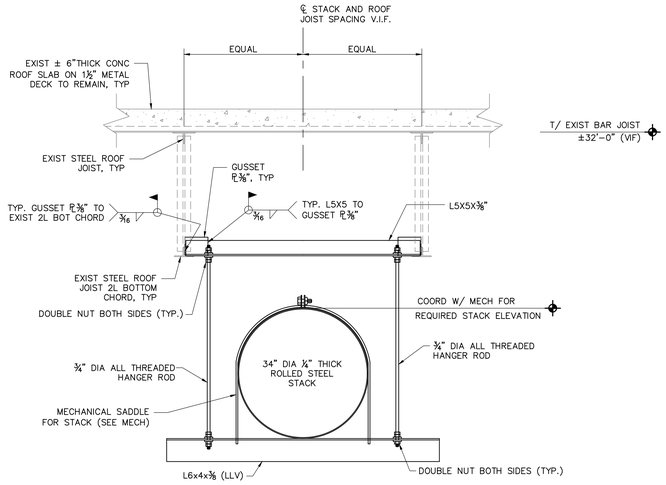


01 S202 ELEVATION AT ADDED TEMPORARY GENERATOR STEEL STACK

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

NOTES:

1. THE CHIMNEY STACK STACK WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED/REPLACED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.
2. ENTIRETY OF ROLLED STEEL STACK SHALL NOT BE GALVANIZED. REFERENCE MECHANICAL SPECIFICATION 09 91 23 – PAINTING FOR ROLLED STEEL STACK COATING INFORMATION.
3. REFERENCE 04/S202 FOR HANGER REQUIREMENTS AT EXPANSION JOINTS. COORDINATE EXPANSION JOINT LOCATIONS WITH MECHANICAL.
4. REFERENCE 01/S200 FOR ADDITIONAL INFORMATION.

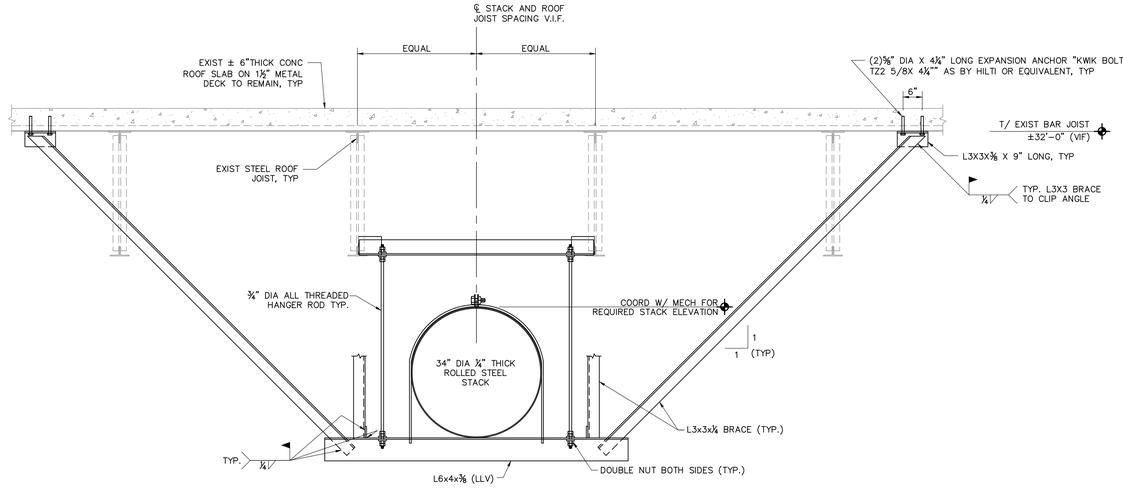


02 S202 SECTION AT ADDED 34" DIAMETER STACK TRAPEZE SUPPORT

SCALE: 3/4" = 1'-0"

NOTES:

1. REFERENCE 03/S202 SIMILAR FOR LATERAL BRACING
2. THE CHIMNEY STACK STACK WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED/REPLACED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.

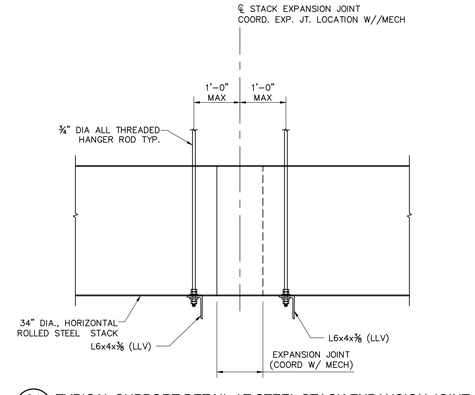


03 S202 SECTION AT ADDED 34" DIAMETER STACK LATERAL BRACING

SCALE: 3/4" = 1'-0"

NOTES:

1. REFERENCE 02/S202 FOR 34" DIAMETER STACK SUPPORT INFORMATION NOT GIVEN HERE.
2. THE CHIMNEY STACK STACK WORK WILL IMPACT THE EXISTING ROOFING SYSTEM. THE EXISTING ROOFING SYSTEM IS REQUIRED TO BE REPAIRED/REPLACED TO MEET OR EXCEED THE ROOF WARRANTY REQUIREMENTS PER THE ROOFING SYSTEM MANUFACTURER. THE EXISTING ROOFING SYSTEM IS NOT SHOWN FOR CLARITY. REFERENCE THE CONTRACT DOCUMENTS FOR ADDITIONAL ROOFING SYSTEM AND WARRANTY INFORMATION.



04 S202 TYPICAL SUPPORT DETAIL AT STEEL STACK EXPANSION JOINT

SCALE: 3/4" = 1'-0"

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PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
STRUCTURAL STACK & STACK SUPPORT DETAILS AT ROOF LEVEL

DRAWING NUMBER :
S202

MECHANICAL SYSTEM ABBREVIATIONS

AA	ATOMIZING AIR	IA	INSTRUMENT AIR
BD	BLOWDOWN	LTHW	LOW TEMPERATURE HEATING WATER
BO	BLOWOFF	LTHWR	LOW TEMPERATURE HEATING WATER RETURN
BR	BRINE	LTHWS	LOW TEMPERATURE HEATING WATER SUPPLY
BCW	BEARING COOLING WATER	MU	MAKEUP WATER
CA	COMPRESSED AIR	MUS	MAKEUP WATER SUCTION
CF	CHEMICAL FEED	N	NITROGEN
COMB	COMBUSTION AIR	NG	NATURAL GAS
CTW	CITY WATER	OA	OUTSIDE AIR
COND	CONDENSATE	PC	PUMPED CONDENSATE
DHW	DOMESTIC HOT WATER	RA	RETURN AIR
DR	DRAIN	RF	REFRIGERANT
EA	EXHAUST AIR	SA	SUPPLY AIR
ED	EQUIPMENT DRAIN	SAN	SANITARY
FGR	FLUE GAS RECIRCULATION	SW	SOFTWATER
FO	FUEL OIL	VENT	VENT
FOR	FUEL OIL RETURN		
FOS	FUEL OIL SUPPLY		
FW	BOILER FEEDWATER		
GR	GLYCOL RETURN		
GS	GLYCOL SUPPLY		
HTHW	HIGH TEMPERATURE HEATING WATER		
HTHWR	HIGH TEMPERATURE HEATING WATER RETURN		
HTHWS	HIGH TEMPERATURE HEATING WATER SUPPLY		

MECHANICAL EQUIPMENT ABBREVIATIONS

AC	AIR COMPRESSOR	HUMID	HUMIDIFIER
AD	AIR DRYER	HTR	HEATER
AHU	AIR HANDLING UNIT	HV	HEATER VENTS
AR	AIR RECEIVER	HX	HEAT EXCHANGER
AS	AIR SEPARATOR	M	MOTOR
BLR	BOILER	MCC	MOTOR CONTROL CENTER
BR	BRINE	MXR	MIXER
BU	BURNER	P	PUMP
BFP	BACKFLOW PREVENTER	RAD	RADIATOR
CBDT	CONTINUOUS BLOWDOWN TANK	RF	RELIEF FAN
CFP	CHEMICAL FEED PUMP	RHC	REHEAT COIL
CFT	CHEMICAL FEED TANK	RTU	ROOFTOP UNIT
CHLR	CHILLER	SA	SOUND ATTENUATOR
CR	CONDENSATE RECEIVER	SC	SAMPLE COOLER
DA	DEAERATOR	SEP	SEPARATOR
DWH	DOMESTIC WATER HEATER	STP	STEAM TRAP STATION
EF	FAN/EXHAUSTER/BLOWER	TK	TANK
ET	EXPANSION TANK	UH	UNIT HEATER
F	FILTER	VFD	VARIABLE FREQUENCY DRIVE
FCU	FAN COIL UNIT	WS	WATER SOFTENER
FT	FLASH TANK		
FWP	FEEDWATER PUMP		
G	GENERATOR		

MECHANICAL ABBREVIATIONS

@	AT	MAX	MAXIMUM
Ø	DIAMETER	MECH	MECHANICAL
%	PERCENT	MEZZ	MEZZANINE
#	POUND (PSIG) OR NUMBER	MFR	MANUFACTURER
AAV	AUTOMATIC AIR VENT	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	MH	MANHOLE
APPROX	APPROXIMATELY	N/A	NOT APPLICABLE
BAS	BUILDING AUTOMATION SYSTEM	NC	NORMALLY CLOSED
BFP	BACK FLOW PREVENTER	NG	NATURAL GAS
BLDG	BUILDING	NIC	NOT IN CONTRACT
BMS	BUILDING MANAGEMENT SYSTEM	No	NUMBER
BOD	BOTTOM OF DUCT	NPD	NOMINAL PIPE DIAMETER
BOP	BOTTOM OF PIPE	NTS	NOT TO SCALE
BTU	BRITISH THERMAL UNIT	OC	ON CENTER
CBDT	CONTINUOUS BLOWDOWN TANK	OD	OUTSIDE DIAMETER
CD	CONDENSATE	OF	OVERFLOW
CFM	CUBIC FEET PER MINUTE	PCF	POUND PER CUBIC FOOT
CHEM	CHEMICAL	PPH	POUND PER HOUR
CIRC	CIRCULATING	PRESS	PRESSURE
CL	CENTERLINE	PRV	PRESSURE REDUCING VALVE
CLR	CLEARANCE	PSI	POUNDS PER SQUARE INCH
CONN	CONNECT, CONNECTION	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
CONT	CONTINUATION, CONTINUOUS	PSIG	POUNDS PER SQUARE INCH GAUGE
DN	DOWN	PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
DB	DRY BULB	RECT	RECTANGULAR
DDC	DIRECT DIGITAL CONTROL	RED	REDUCER
DEMO	DEMOLITION	REG	REGULATOR
DESIG	DESIGNATION	REL	RELOCATE
DIA	DIAMETER	REQD	REQUIRED
DWG	DRAWING	RET	RETURN
E	EAST	RM	ROOM
EA	EACH	RPM	REVOLUTIONS PER MINUTE
EFF	EFFICIENCY	RX	REMOVE EXISTING
EL	ELEVATION	SCHED	SCHEDULE
ELEC	ELECTRICAL	SCHEM	SCHEMATIC
ELEV	ELEVATION	SCRD	SCREWED
EQ	EQUIPMENT	SIM	SIMILAR
EX	EXISTING	SOL	SOC-O-LET
FD	FLOOR DRAIN	SPEC	SPECIFICATIONS
FFE	FINISH FLOOR ELEVATION	SQ	SQUARE
FIN GD	FINISHED GRADE	SR	SHORT RADIUS
FLR	FLOOR	STP	STEAM TRAP STATION
FLGS	FLANGES	STRUCT	STRUCTURAL
FM	FLOW METER	STM	STEAM
FPM	FEET PER MINUTE	STMP	STORM PUMP
FT	FOOT, FEET	SS	STAINLESS STEEL
°F	DEGREE(S) FARENHEIT	SST	STAINLESS STEEL TUBING
GA	GAUGE	SUSP	SUSPENDED
GAL	GALLON	SW	SOUTHWEST
GALV	GALVANIZED	SYM	SYMBOL
GEN	GENERATOR	SYN	SYNTHETIC
GPM	GALLONS PER MINUTE	TEMP	TEMPORARY
GRD	GROUND	THK	THICK
HB	HOSE BIB	TOL	THREAD-O-LET
HDR	HEADER	TYP	TYPICAL
HP	HORSEPOWER	V	VALVE
HR	HOUR	VER	VERTICAL
HT	HEIGHT	VTR	VENT THROUGH ROOF
HWR	HOT WATER RETURN	VTW	VENT THROUGH WALL
HWS	HOT WATER SUPPLY	W	WIDE, WIDTH
ID	INTERNAL DIAMETER	W/	WITH
IN	INCH, INCHES	WOL	WELD-O-LET
INSUL	INSULATION	WS	WATER SOFTENER
INV	INVERT		
L	LENGTH		
LB	POUND		
LBS/HR	POUNDS PER HOUR		

INSTRUMENTATION IDENTIFICATION TABLE

	FIRST LETTERS		SUCCEEDING LETTERS		
	MEASURED/INITIATING VARIABLE	VARIABLE MODIFIER	READOUT/PASSIVE FUNCTION	OUTPUT/ACTIVE FUNCTION	FUNCTION MODIFIER
A	OXYGEN, ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSE
D	USER'S CHOICE	DIFFERENCE, DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MANIFOLD				MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE (VACUUM)		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD		RUN
S	SPEED , FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL, PROBE		
X	UNCLASSIFIED	X-AXIS	ACCESSORY DEVICES	ACCESSORY DEVICES	UNCLASSIFIED
Y	EVENT, STATE, PRESENCE	Y-AXIS		RELAY, I/P	
Z	POSITION, DIMENSION	Z-AXIS		DRIVE, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

INSTRUMENTATION LEGEND

SYMBOL	DESCRIPTION
XXX / XXX	FUNCTIONAL INSTRUMENT DESCRIPTION (SEE INSTRUMENT DESCRIPTION TABLE)
	INSTRUMENT NUMBER
	INSTRUMENT SYMBOL - FIELD MOUNTED DEVICE
	INSTRUMENT SYMBOL - PANEL MOUNTED DEVICE
	INSTRUMENT SYMBOL - LOCAL PANEL MOUNTED
	PRIMARY CONTROL SYSTEM (PLC) - CONTROL AND DISPLAY POINT, FIELD MOUNTED / TERMINATED
	PRIMARY CONTROL SYSTEM (PLC) - CONTROL AND DISPLAY POINT, PANEL MOUNTED / TERMINATED
B	BURNER MANAGEMENT SYSTEM INTERFACE
C	COMBUSTION CONTROL SYSTEM INTERFACE
D	DRAFT CONTROL SYSTEM INTERFACE
F	FEEDWATER CONTROL SYSTEM INTERFACE
I	GENERAL INTERLOCK
R	HAND RESET

TAG LABEL CONVENTION

XXX	SYSTEM DESIGNATION
YYY	EQUIPMENT DESIGNATION
-Z	SEQUENTIAL IDENTIFIER

CONTROL LINE TYPE DESCRIPTION

LINE TYPE	DESCRIPTION
	UNDEFINED SIGNAL
	PNEUMATIC SIGNAL
	ELECTRONIC, ELECTRICAL SIGNAL
	CAPILLARY TUBE SIGNAL
	DCS, PLC, OR PC COMMUNICATION LINK
	DCS-TO-DCS, DCS-TO-PLC, PLC-TO-PC, ETC. COMMUNICATION LINK

MECHANICAL LEGEND

SYMBOL	ABBREV.	DESCRIPTION
A	A	ANCHOR
G	G	GUIDE
S	S	SUPPORT
LS	LS	LIMIT STOP
	--	GATE VALVE (NORMALLY OPEN)
	--	GATE VALVE (NORMALLY CLOSED)
	--	GLOBE VALVE (NORMALLY OPEN)
	--	GLOBE VALVE (NORMALLY CLOSED)
	--	PLUG VALVE (NORMALLY OPEN)
	--	PLUG VALVE (NORMALLY CLOSED)
	--	CHECK VALVE
	--	STOP CHECK VALVE
	--	BALL VALVE (NORMALLY OPEN)
	--	BALL VALVE (NORMALLY CLOSED)
	--	BUTTERFLY VALVE (NORMALLY OPEN)
	--	BUTTERFLY VALVE (NORMALLY CLOSED)
	--	NEEDLE VALVE (NORMALLY OPEN)
	--	NEEDLE VALVE (NORMALLY CLOSED)
	--	BALL JOINT
	EXJ	EXPANSION JOINT, BELLOW TYPE
	STP	STEAM TRAP STATION
	--	ANGLE VALVE
	--	THREE-WAY VALVE
	--	BLIND FLANGE
	--	CONCENTRIC REDUCER
	--	ECCENTRIC REDUCER (FLAT ON BOTTOM)
H	--	HOSE BIBB
	--	PIPE CAP
	--	FLEXIBLE HOSE
	--	FLANGED NOZZLE
	--	Y-TYPE STRAINER
	--	BASKET STRAINER
	--	DUPLEX STRAINER
	F	FILTER
AAV	--	AUTOMATIC AIR VENT
	--	CONTROL VALVE WITH DIAPHRAGM ACTUATOR
S	--	CONTROL VALVE WITH SOLENOID ACTUATOR
	--	SELF CONTAINED BACKPRESSURE REGULATING VALVE
M	--	CONTROL VALVE WITH MOTOR ACTUATOR
	--	PRESSURE SAFETY VALVE
	--	ULTRASONIC FLOW METER
M	--	MAGNETIC FLOW METER
	--	TURBINE FLOW METER
ΔT	--	THERMAL MASS FLOW METER
	--	CORIOLIS FLOW METER
	--	CONE FLOW METER (FLOW LEFT TO RIGHT)
	--	VORTEX FLOW METER (FLOW LEFT TO RIGHT)
	--	PITOT TUBE FLOW METER
	--	RESTRICTION ORIFICE FLOW METER
	--	UNION
FE	--	ROTAMETER FLOW METER
VTR	--	VENT THROUGH ROOF
VTW	--	VENT THROUGH WALL
MX.XX, X-# TO/FROM DESTINATION	--	OFF PAGE CONNECTOR
	--	FLOW ARROW
	--	GAP
XX / XX	--	ROOM # DESIGNATION, FLOOR CHANGE DESIGNATION, SYSTEM CHANGE DESIGNATION, CONSTRUCTION PHASE CHANGE
VFD	VFD	VARIABLE FREQUENCY DRIVE
M	M	MOTOR
	P	PUMP
SD	--	SUCTION DIFFUSER
	HX	SHELL AND TUBE HEAT EXCHANGER
	HX	PLATE AND FRAME HEAT EXCHANGER
	HX	SAMPLE COOLER

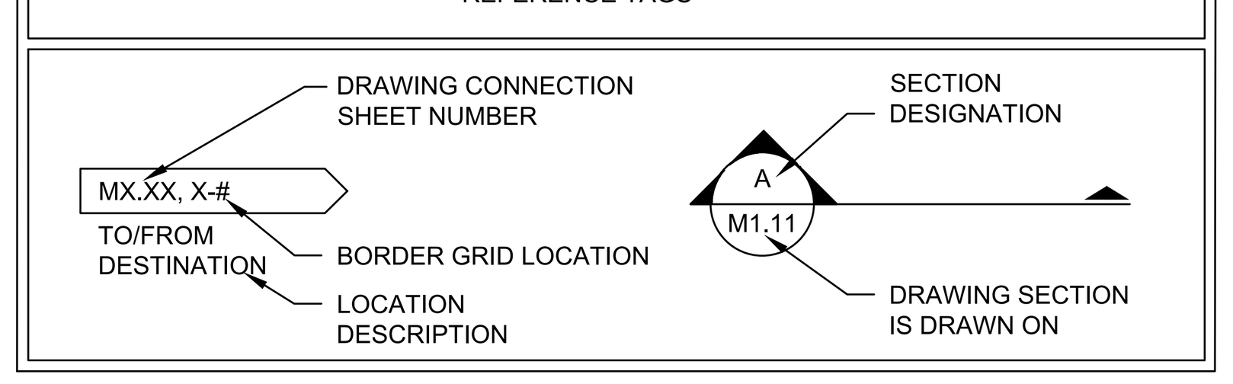
DUCTWORK LEGEND

SYMBOL	ABBREV.	DESCRIPTION
H	--	HUMIDISTAT
T	--	THERMOSTAT
	--	AIR FLOW
CFM	--	TRANSFER AIR FLOW (INDICATE CFM)
DL	--	DOOR LOUVER
UCD	--	UNDERCUT DOOR
	--	SUPPLY AIR DIFFUSER
	--	RETURN AIR GRILLE
	--	EXHAUST AIR GRILLE
	--	CIRCULAR AIR DIFFUSER
	--	AIRFLOW MONITORING DEVICE
	--	STATIC PRESSURE SENSING STATION
FD	--	FIRE DAMPER
FSD	--	COMBINATION FIRE/SMOKE DAMPER
VD	--	VOLUME DAMPER
BDD	--	BACK DRAFT DAMPER
	--	AUTOMATIC ISOLATION DAMPER
	--	AUTOMATIC GAS TIGHT ISOLATION DAMPER
	--	MANUAL GAS TIGHT ISOLATION DAMPER
SD	--	SMOKE DAMPER
SD	--	SMOKE DETECTOR
	RF/EF	AXIAL FAN
	--	DUCT TRANSITION
	--	SQUARE TO ROUND TRANSITION
	--	SUPPLY/OUTSIDE AIR DUCT RISER
	--	RETURN AIR DUCT RISER
	--	EXHAUST/RELIEF AIR DUCT RISER
	--	ROUND DUCT RISER (SMALLER THAN 12")
	--	ROUND DUCT RISER (12" AND LARGER)
X	--	SUPPLY AIR VOLUME TERMINAL UNIT IDENTIFIER
X	--	EXHAUST AIR TERMINAL UNIT IDENTIFIER
X — AIR DEVICE TYPE; XX — CFM	--	AIR DEVICE IDENTIFIER

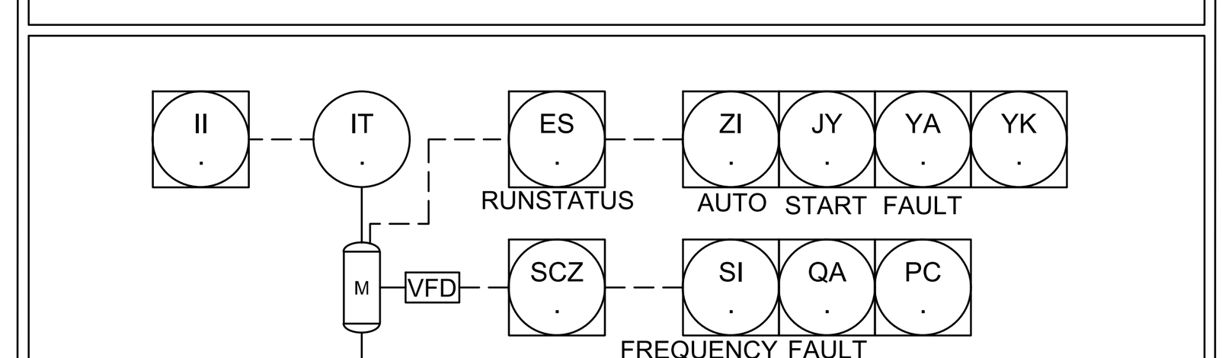
MECHANICAL LINE LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	EX	EXISTING
	RX	DEMOLITION (SHOWN BOLD AND HEAVY ON DEMO DRAWINGS)
	--	NEW WORK (SHOWN BOLD AND HEAVY ON NEW WORK DRAWINGS)
	--	DISCONNECT FROM EXISTING
	--	CONNECT TO EXISTING
	--	PIPE DROP TEE
	--	PIPE RISE TEE
	DN	PIPE DROP
	UP	PIPE RISE
	℄	CENTER LINE

REFERENCE TAGS



TYPICAL VFD ARRANGEMENT



MECHANICAL NOTES:

1. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURES AND MECHANICAL AND ELECTRICAL SERVICES WHICH SHALL REMAIN. REPAIR, REPLACE, OR RESTORE TO PRE-PROJECT CONDITIONS IN ALL RESPECTS, INCLUDING PERFORMANCE AND APPEARANCE, ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF THE DEMOLITION AND/OR NEW WORK SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
2. EXISTING CONDITIONS, I.E. PRESENCE, SIZE, AND LOCATION OF PIPING, EQUIPMENT, AND MATERIALS INDICATED, ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL PIPING, EQUIPMENT, AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.
3. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND SOLID" ON DEMOLITION DRAWINGS ARE EXISTING AND SHALL BE DEMOLISHED. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND SOLID" ON NEW WORK DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL REMOVE ALL ASSOCIATED ACCESSORIES, CONTROLS, CONTROL WIRING AND TUBING, ENCLOSURES, SUPPORTS, HANGERS, ETC. WITH ALL EQUIPMENT SHOWN TO BE DEMOLISHED. REFER TO SPECIFICATIONS.
5. THE CONTRACTOR SHALL FOLLOW OWNER AND FEDERAL OSHA REGULATION (29 CFR 1910.146) CONFINED SPACE ENTRY GUIDELINES FOR ENTERING ALL CONFINED SPACES. THE CONTRACTOR SHALL PROVE THAT ALL CONTRACTOR PERSONNEL HAVE BEEN TRAINED FOR CONFINED SPACE WORK WITH CERTIFICATES OF PROOF. THE CONTRACTOR SHALL PROVIDE HIS OWN EQUIPMENT NECESSARY FOR WORK TO BE DONE IN CONFINED SPACES. THE CONTRACTOR SHALL SUBMIT ALL RELATED DOCUMENTATION PRIOR TO ENTRY IN A CONFINED SPACE. AMONG OTHER THINGS, THE EXISTING PRESSURE VESSELS (BOILERS AND DEAERATORS) ARE CONSIDERED CONFINED SPACES.
6. THE CONTRACTOR SHALL VERIFY THAT THE OWNER HAS ISOLATED AND SECURED IN ACCORDANCE WITH OSHA COMPLIANT LOCK-OUT/TAG-OUT REQUIREMENTS (29 CFR 1910.147) FOR ASSOCIATED GAS, STEAM, FUEL OIL, BLOWDOWN, CONDENSATE, FEEDWATER PIPING, AND ALL OTHER ENERGY SOURCES BEFORE CUTTING. THE CONTRACTOR SHALL DRAIN, VENT, AND CLEAN ALL PIPING BEFORE CUTTING.
7. THE CONTRACTOR SHALL PERFORM ALL LOCKOUT/TAGOUT PROCEDURES ON EACH PIECE OF EQUIPMENT. LOCKOUT/TAGOUT PROCEDURES SHALL SATISFY BOTH OSHA (29 CFR 1910.147) AND OWNER'S REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER ON THE PHASING OF DEMOLITION AND NEW WORK.
8. EXISTING PIPING NO LONGER REQUIRED TO REMAIN IN SERVICE (SHOWN OR OTHERWISE) SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS UNLESS OTHERWISE INDICATED OR NOTED ON THE DRAWINGS. REMOVE ALL ASSOCIATED PIPE, HANGERS, SUPPORTS, VALVES, ETC. ALL POINTS OF DISCONNECTION AND WHERE EXISTING PIPE IS INDICATED TO REMAIN IN SERVICE SHALL BE CAPPED, PLUGGED, BLIND FLANGED, OR OTHERWISE SEALED. NO PIPING SHALL BE LEFT OPEN-ENDED UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL NOT ASSUME THAT ALL EXISTING VALVES WILL PROVIDE A POSITIVE SHUT-OFF TO PERFORM WORK. THE CONTRACTOR SHALL TEST EACH EXISTING VALVE REQUIRED TO PERFORM WORK IN ADVANCE SO THAT PROPER PLANNING CAN BE PERFORMED. COORDINATE TESTING WITH OWNER. IMMEDIATELY NOTIFY THE OWNER OF ALL VALVES TESTED THAT FAIL TO PROVIDE A POSITIVE SHUT-OFF.
10. ALL EXISTING INSULATION TO REMAIN THAT HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO PRE-PROJECT CONDITIONS AT NO EXPENSE TO THE OWNER.
11. WHERE PIPING ELEVATIONS ARE INDICATED ON THE CONTRACT DRAWING WITH 'A.F.F', THIS DESIGNATION INDICATES THAT THE CENTERLINE OF THE PIPE IS LOCATED AT THE STATED HEIGHT ABOVE THE FINISHED FLOOR.
12. ALL 2" NPS AND SMALLER PIPING SHALL BE FIELD ROUTED IN ACCORDANCE WITH APPROPRIATE ENGINEERING PRACTICES, INDUSTRY STANDARDS, GOVERNING CODES AND REGULATIONS AND OWNER APPROVAL. PROPOSED ROUTING IS SHOWN. ROUTE OF PIPE INCLUDING CLEARANCE IS THE RESPONSIBILITY OF THE CONTRACTOR.
13. PLANNING AND CHECKING HAS BEEN DONE BY THE ENGINEER TO MINIMIZE, AS FAR AS POSSIBLE, INTERFERENCES BETWEEN NEW PIPING AND NEW OR EXISTING CONSTRUCTIONS. HOWEVER, PRIOR TO BEGINNING THE ERECTION OF EACH LINE, THE CONTRACTOR SHALL ASCERTAIN THAT NO INTERFERENCE WILL BE ENCOUNTERED, THEREBY PRECLUDING THE DISASSEMBLING OF PARTIALLY OR COMPLETELY ERECTED SYSTEMS FOR REROUTING TO CLEAR OBSTRUCTIONS WHICH MAY EXIST. WHERE AN INTERFERENCE IS ENCOUNTERED THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR A ROUTING TO CLEAR THE INTERFERENCE. AFTER SUCH APPROVAL HAS BEEN OBTAINED, THE CONTRACTOR SHALL PROCEED WITH ERECTION. IN NO CASE SHALL THE CONTRACTOR BE ENTITLED TO EXTRA COMPENSATION FOR TAKING DOWN OR DISMANTLING WORK WHICH HAS BEEN ERECTED OR PREFABRICATED (EXCEPT SUCH PREFABRICATION THAT HAS BEEN CALLED FOR IN THE SPECIFICATIONS OR ON THE DRAWINGS, OR UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER.)
14. NOT ALL PIPING SUPPORTS ARE SHOWN ON DRAWINGS. CONTRACTOR TO SUPPORT PIPING PER ASME B31.1 WITH HANGERS OR SUPPORTED BY FLOOR. REFER TO MECHANICAL DETAIL DRAWINGS.

INSTRUMENTATION AND CONTROL NOTES:

1. EACH TYPE OF INSTRUMENT DEVICE IS SHOWN SCHEMATICALLY TO PROVIDE A TYPICAL INSTALLATION ASSEMBLY. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, VALVES, AND ACCESSORIES FOR A FULLY FUNCTIONAL SYSTEM.
2. SCHEMATICS DO NOT SHOW INSTRUMENT LINES, VALVES, MANIFOLD, ETC. REFER TO INSTRUMENT DETAILS FOR ALL COMPONENTS REQUIRED PER DEVICE.
3. ALL INSTRUMENT TUBING AND PIPING REQUIRED FOR EACH DEVICE SHALL BE FIELD RUN.
4. METERING LINES FROM POINT OF CONNECTION ON MAIN LINE TO LOCAL DEVICE SHALL HAVE SUFFICIENT FLEXIBILITY TO ALLOW FOR THERMAL EXPANSION OR RELATIVE MOVEMENT OF MAIN LINES. TUBING LOOPS, SIPHONS, OR BENDS SHALL BE ADDED AS REQUIRED.
5. LOCATION OF INSTRUMENTS SHALL BE PER THE SCHEMATICS AND SHALL MATCH LOCATION IN PLAN DRAWINGS. EXACT LOCATION TO BE DETERMINED IN FIELD WITH APPROVAL BY THE A/E PRIOR TO INSTALLATION.
6. SENSING LINES AND STOP VALVES FOR ALL INSTRUMENTATION POINTS SHALL BE NEW. REMOVE ALL ASSOCIATED EXISTING SENSING LINES.
7. CONDUIT AND WIRING FOR POWER AND FOR CONTROLS SIGNALS FOR INSTRUMENTATION (FLOW METERS, SWITCHES, TRANSMITTERS, OXYGEN ANALYZERS, CONTROLLERS, ETC.) INCLUDING FOR HVAC ARE NOT SHOWN ON THE MECHANICAL OR ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL RELATED WORK IN ACCORDANCE WITH THE SPECIFICATIONS TO PROVIDE A FULLY FUNCTIONING SYSTEM AS SPECIFIED.
8. REMOVE ALL POWER WIRING AND CONDUIT FOR ALL CONTROL PANELS BEING REMOVED. PROVIDE NEW POWER WIRING AND CONDUIT FOR ALL NEW CONTROL PANELS. REFER TO THE ELECTRIC DRAWINGS.

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Purchase College
STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE : BID DOCUMENTS

SEAL: STATE OF NEW YORK · BRIAN MICHAEL WOJKA · No. 098643 · LICENSED PROFESSIONAL ENGINEER · 03/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

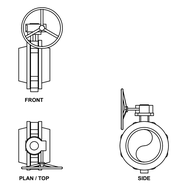
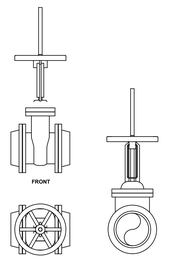
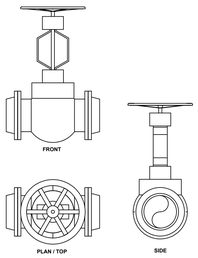
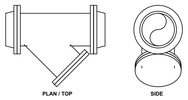
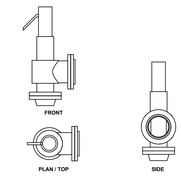
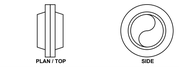
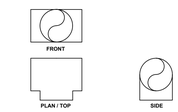
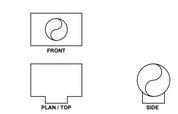
PROJECT NAME : MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS : 735 Anderson Hill Rd, Purchase, NY 10577

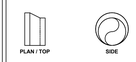
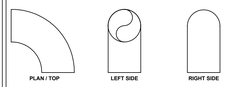
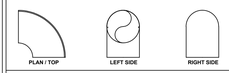
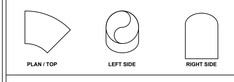
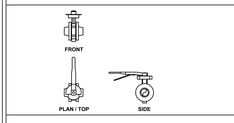
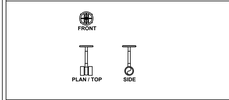
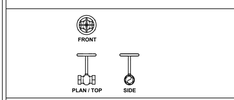
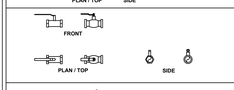
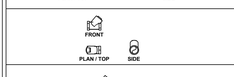
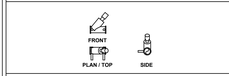
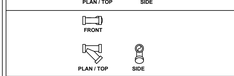
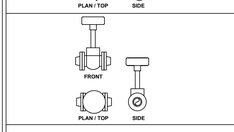
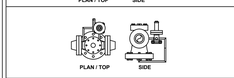
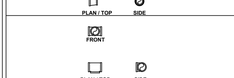
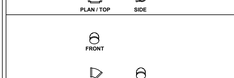
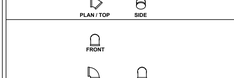
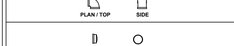
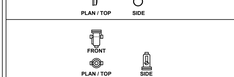
DRAWING TITLE : LEGEND AND ABBREVIATIONS

DRAWING NUMBER : M0.00

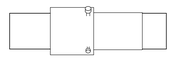
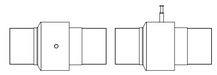
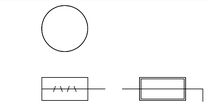
DOUBLE LINE PIPING LEGEND

SYMBOL	EXAMPLE SIZE	DESCRIPTION
	12"	BUTTERFLY VALVE - WELDNECK FLANGES
	12"	GATE VALVE - WELDNECK FLANGES
	12"	CHECK VALVE - WELDNECK FLANGES
	12"	GLOBE VALVE - WELDNECK FLANGES
	12"	Y-STRAINER - WELDNECK FLANGES
	12"	PRESSURE SAFETY VALVE
	12"	WELDNECK FLANGES
	12"	SLIP-ON FLANGES
	12"x12"x12"	TEE - FULL SIZE
	12"x12"x8"	TEE - REDUCING

DOUBLE LINE PIPING LEGEND

SYMBOL	EXAMPLE SIZE	DESCRIPTION
	12"x10"	CONCENTRIC REDUCER
	12"x10"	ECCENTRIC REDUCER
	12"	90 ELBOW - LONG RADIUS
	12"	90 ELBOW - SHORT RADIUS
	12"	90 ELBOW - SHORT RADIUS
	12"	CAP
	2-1/2"	BUTTERFLY VALVE - WELDNECK FLANGES
	2-1/2"	GATE VALVE - THREADED OR SOCKET WELDED
	2-1/2"	GLOBE VALVE - THREADED OR SOCKET WELDED
	2"	BALL VALVE - THREADED OR SOCKET WELDED
	2"	CHECK VALVE - THREADED OR SOCKET WELDED
	2"	CHECK VALVE - THREADED OR SOCKET WELDED
	2"	STRAINER - THREADED OR SOCKET WELDED
	2-1/2"	GLOBE CONTROL VALVE WITH DIAPHRAGM ACTUATOR - WELDNECK FLANGES
	2-1/2"	SELF CONTAINED BACKPRESSURE REGULATING VALVE - WELDNECK FLANGES
	2-1/2"x2"	REDUCER
	2"x2"x2"	TEE
	2-1/2"	45 ELBOW - LONG RADIUS
	2-1/2"	90 ELBOW - LONG RADIUS
	2-1/2"	CAP
	1"	STEAM TRAP

DOUBLE LINE PIPING LEGEND

SYMBOL	EXAMPLE SIZE	DESCRIPTION
	14"	EXPANSION JOINT, PACKED, SLIP-TYPE
	14"	BELLOW ELBOW EXPANSION JOINT
	14"	FLEXIBLE BALL JOINT
	24"	DAMPER (REFER TO SCHEMATIC FOR ACTUATOR TYPE)

RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

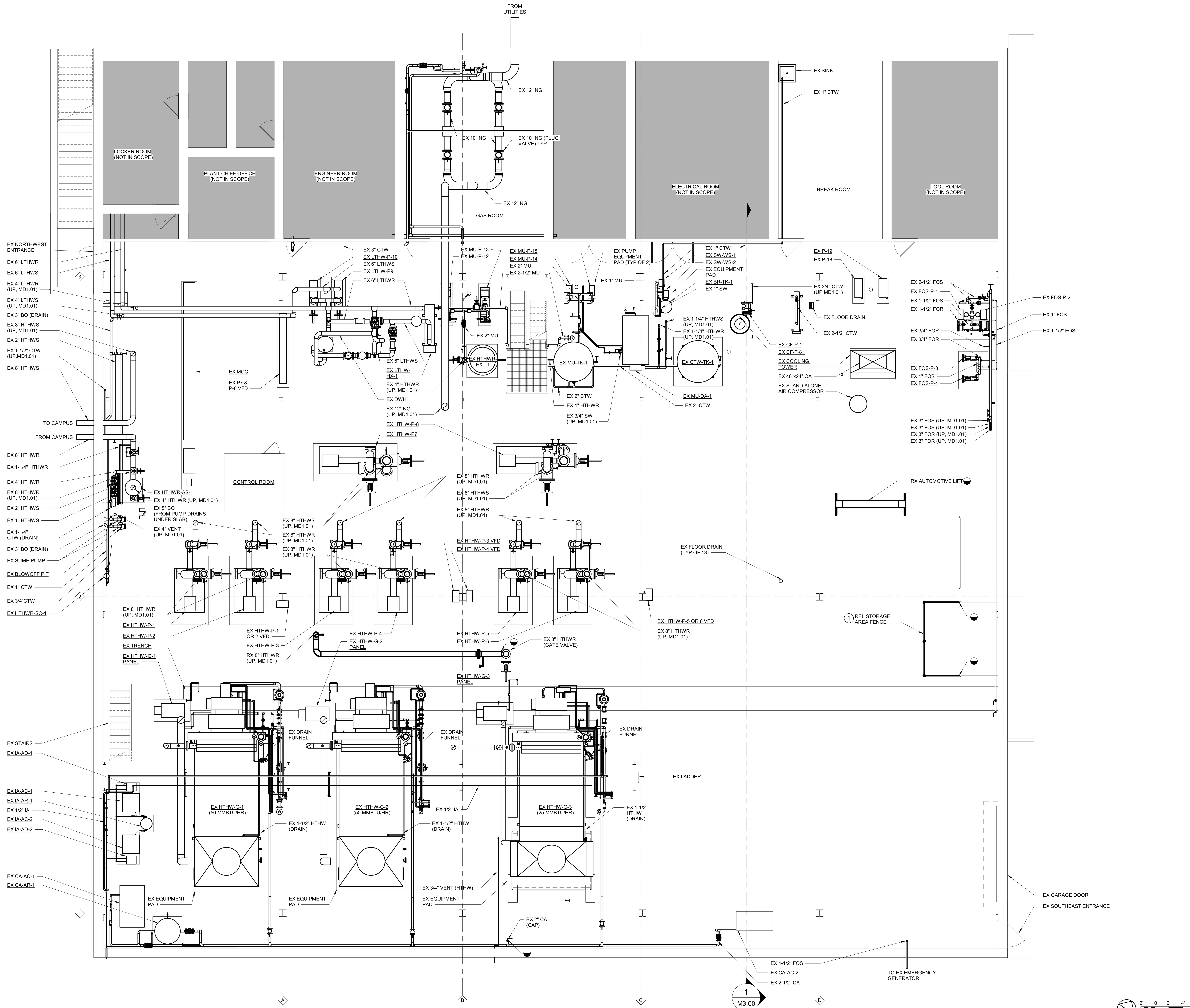
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058 B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
LEGEND AND ABBREVIATIONS

DRAWING NUMBER :
M0.01



RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

GENERAL NOTES:

1. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON DEMOLITION DRAWINGS ARE EXISTING AND SHALL BE DEMOLISHED.
2. REMOVE ALL ASSOCIATED COMPONENTS, PIPING, SUPPORTS, CONTROLS, AND ELECTRICAL EQUIPMENT AND CONDUITS ASSOCIATED WITH EQUIPMENT NOTED FOR REMOVAL.
3. DEMOLISH ALL PIPING SUPPORTS FOR THE PIPING DESIGNATED TO BE REMOVED.
4. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.

DRAWING NOTES:

1. CONTRACTOR TO TEMPORARILY REMOVE SECTION OF FENCED STORAGE AREA TO ALLOW FOR ACCESSIBILITY AROUND TEMPORARY HTHW GENERATOR

KEYPLAN

REV	DESCRIPTION	DATE
REVISIONS		

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK
BRIAN MICHAEL WOJICK
LICENSED PROFESSIONAL ENGINEER
NO. 098843
03/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT FLOOR 0'-12' - DEMOLITION

DRAWING NUMBER :
MD1.00

Autodesk Docs://06240058A0-SUNY Purchase Rehabilitate High Temperat/06240058A0_MECH_R22_B360_ECA Temp Gen.rvt
4/4/2025 2:35:45 PM

MATCHLINE - NO CONTINUATION

EX HV 4
EX HV 1
EX HV 2
EX HV 3
EX HV 5
EX HTHWR-EXT-1
EX CTW-TK-1
EX 2" CTW
EX 3" CTW
EX 2" SW
EX 2" SW
EX 1" CTW (DN, MD1.00)
EX BACKFLOW PREVENTER
EX 2" CTW
EX 1" SW
EX 3/4" SW
EX 1" SW (DN, MD1.00)
EX 3/4" CF
EX 2-1/2" HTHWS (DN, MD1.00)
EX 2-1/2" HTHWR (DN, MD1.00)
EX 3/4" CTW
EX 3/4" CF (DN, MD1.00)
EX 1-1/4" CTW
EX 2" CTW
EX 2-1/2" CTW
EX 2-1/2" CTW
EX 1" CTW
EX 2-1/2" CTW
EX 1-1/2" CTW
EX 4" HTHWR
EX 4" HTHWS
EX 8" HTHWS
EX 1-1/2" CTW (DN, MD1.00)
EX 4" HTHWR
EX 3/4" CF
EX 2-1/2" HTHWR (DN, MD1.00)
EX 8" HTHWR (DN, MD1.00)
EX 2-1/2" HTHWR (BOTTOM)
EX 12" HTHWS (TOP)
EX 2-1/2" HTHWS (BOTTOM)
EX 12" HTHWS (TOP)
EX 2-1/2" HTHWS
EX 2-1/2" CTW
EX 2-1/2" HTHWR
EX 4" HTHWR
EX 3/4" SW (DN, MD1.00)
EX 2" MU
EX 2-1/2" HTHWS
EX 2-1/2" HTHWR
EX 3/4" CF
2-1/2" HTHWS
EX 12" HTHWS
EX 2" MU
EX 2" MU
EX 3/4" CF
EX 2-1/2" HTHWS
EX 3/4" CF
EX 2-1/2" HTHWS
EX 4" HTHWR
EX 12" HTHWS
EX 12" HTHWS (DN, MD1.00)
EX 2" MU
EX 12" HTHWS (DN, MD1.00)
EX 46"x24" OA
EX 2-1/2" BCWR
EX 26"x30" SA
EX 1" FOS
EX 3" FOS
EX 3" FOR
EX 3" FOS (DN, MD1.00)
EX 3" FOR (DN, MD1.00)
EX 1-1/2" FOS
EX 3/4" FOR
EX 12" HTHWR
EX 12" HTHWS
EX 12" NG
EX 8" HTHWR (DN, MD1.00)
EX 4" VENT
EX 12" HTHWR
EX 12" HTHWS (DN, MD1.00)
EX 8" HTHWR (DN, MD1.00)
EX 2-1/2" BCWR
EX 8" HTHWR
EX 3/4" HTHWR (DN, MD1.00)
EX 8" HTHWR (BY-PASS)
EX 8" HTHWR
EX 8" HTHWR
EX 8" HTHWR
RX 8" HTHWR
RX 1/2" HTHW (VENT TO DRAIN)
EX 12" HTHWR
EX 2" MU
RX 8" HTHWR
EX 8" HTHWR
EX 8" HTHWR
EX 12" HTHWS
8" HTHWR
EX 8" HTHWR
EX 12" HTHWS
EX 12" HTHWS
EX 1-1/2" FOS
EX 1-1/2" FOS
EX 2" MU
EX 3/4" FOR
RX 3/4" FOR (CAP)
EX 1-1/2" FOS
EX 2" MU
EX 12" HTHWS
EX 12" FGR
EX 8" HTHWR
EX 12" NG
EX 1-1/2" FOS (DN, MD1.00, MD4.00)
EX HTHW-G-3 (25 MMBTU/HR)
RX 12" HTHWS
RX 1/2" HTHW (VENT TO DRAIN)
EX 1-1/2" FOS (DN, MD1.00, MD4.00)
EX HTHW-G-1 (50 MMBTU/HR)
EX 2" MU
EX HTHW-G-2 (50 MMBTU/HR)
EX 12" HTHWS
EX 1-1/2" FOS (DN, MD1.00, MD4.00)
EX 2" MU (DN, MD4.00)
EX STAIRS
EX 8" HTHWS
EX 4" VENT
EX 4" VENT
EX 1-1/4" HTHWS (DRAIN)
EX 1-1/4" HTHWS (DRAIN)
RX 1-1/2" FOS (CAP)
EX 1-1/4" HTHWS (DRAIN)
EX CATWALK
EX CATWALK RAILING
EX LADDER
EX 4" VENT
EX 8" HTHWR (DN, MD4.00)
EX 2" MU (DN, MD1.00, MD4.00)
EX 4" VENT
EX 8" HTHWR (DN, MD4.00)
EX 2" MU (DN, MD1.00, MD4.00)
EX 4" VENT
EX 12" FGR (DN, MD4.00)
EX 2" NG (VENT)
EX 1" NG (VENT)
EX 1-1/2" NG (VENT)
EX 8" HTHWR
EX 1" NG (VENT)
EX 1-1/2" NG (VENT)
EX 2" NG (VENT)
EX 1-1/2" NG (VENT)
EX 8" HTHWR (DN, MD4.00)
EX GENERATOR PLATFORM
EX GENERATOR PLATFORM RAILING
EX 48" STACK
EX 12" FGR (DN, MD4.00)
EX 1" NG (VENT)
EX 1-1/2" NG (VENT)
EX GENERATOR PLATFORM
EX GENERATOR PLATFORM RAILING
EX 4" NG
EX 4" NG (DN, MD1.00, MD4.00)
EX 1-1/2" NG (DN, MD1.00, MD4.00)
EX 1-1/2" HTHW (DRAIN)
EX 12" FGR (DN, MD4.00)
EX 48" STACK
EX 12" NG
EX 6" NG
EX 8" NG (PLUG VALVE, TYP OF 2)
EX 1-1/2" HTHW (DRAIN)
EX 12" FGR (DN, MD4.00)
EX 3/4" HTHW (VENT)
EX 48" STACK
RX 4" NG
RX 6" NG
EX GENERATOR PLATFORM
EX GENERATOR PLATFORM RAILING
EX HTHW-H-3 ECONOMIZER
EX 1-1/2" HTHW (DRAIN)
EX 1-1/2" FOS

1 M3.00

2' 0 2' 4'
SCALE: 1/4" = 1'-0

RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

GENERAL NOTES:

1. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON DEMOLITION DRAWINGS ARE EXISTING AND SHALL BE DEMOLISHED.
2. REMOVE ALL ASSOCIATED COMPONENTS, PIPING, SUPPORTS, CONTROLS, AND ELECTRICAL EQUIPMENT AND CONDUITS ASSOCIATED WITH EQUIPMENT NOTED FOR REMOVAL.
3. DEMOLISH ALL PIPING SUPPORTS FOR THE PIPING DESIGNATED TO BE REMOVED.
4. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.

KEYPLAN

REV	DESCRIPTION	DATE
1	Addendum 1 (TBD)	Date 1

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK
BRIAN MICHAEL HOOKS
No. 098643
REGISTERED PROFESSIONAL ENGINEER
6/13/25

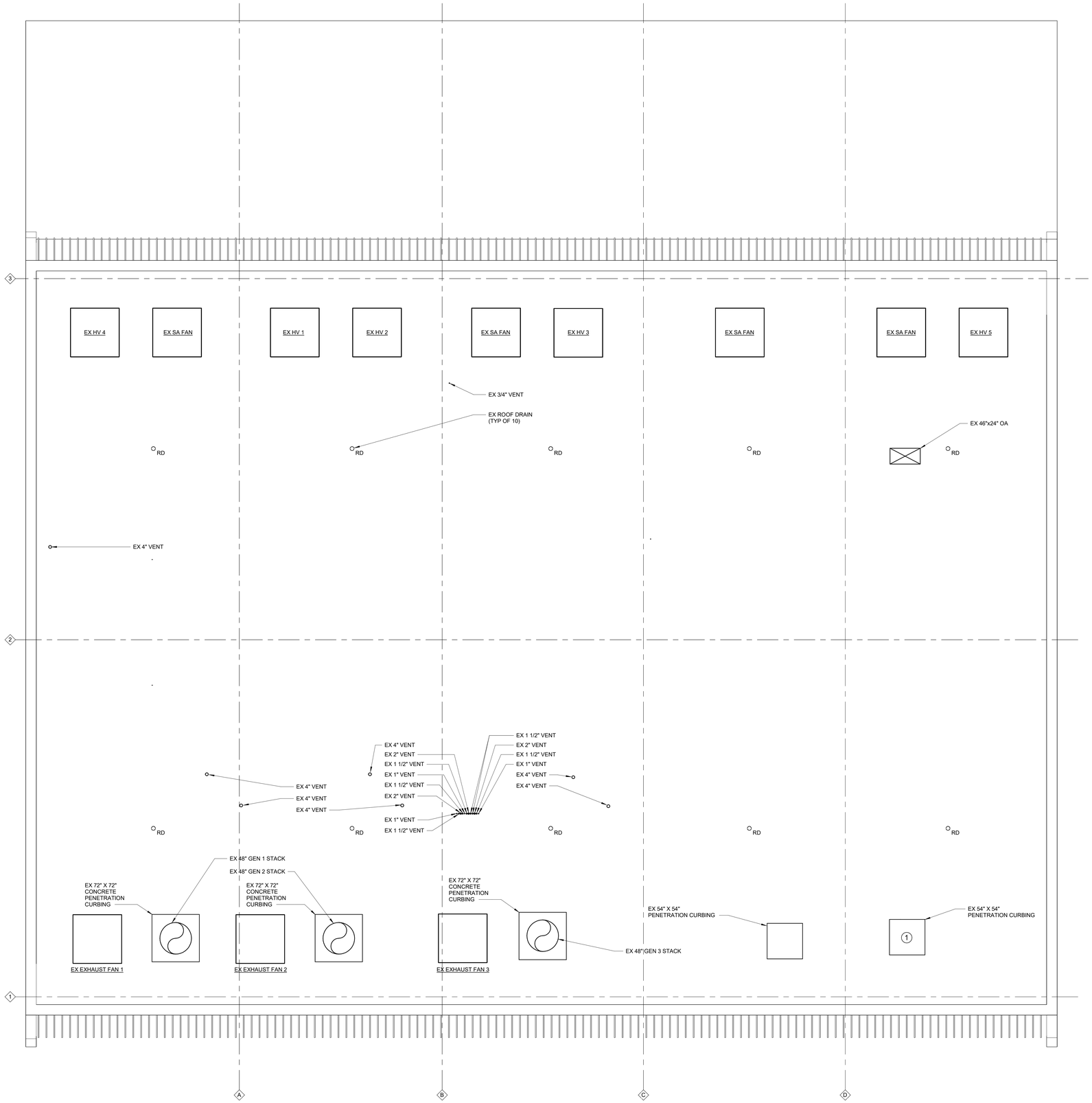
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT FLOOR 12'-30' - DEMOLITION

DRAWING NUMBER :
MD1.01



SCALE: 3/16" = 1'-0

RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

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GENERAL NOTES:

1. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON DEMOLITION DRAWINGS ARE EXISTING AND SHALL BE DEMOLISHED.
2. REMOVE ALL ASSOCIATED COMPONENTS, PIPING, SUPPORTS, CONTROLS, AND ELECTRICAL EQUIPMENT AND CONDUITS ASSOCIATED WITH EQUIPMENT NOTED FOR REMOVAL.
3. DEMOLISH ALL PIPING SUPPORTS FOR THE PIPING DESIGNATED TO BE REMOVED.
4. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.
5. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL WORK.

DRAWING NOTES:

1. IN PREPARATION FOR STACK AND SAFETY VENT INSTALLATION. CONTRACTOR TO GET APPROVAL FROM ROOF MANUFACTURER BEFORE PERFORMAING ANY ROOF WORK TO ENSURE EXISTING ROOF WARRANTY IS MAINTAINED.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WOOD
LICENSED PROFESSIONAL ENGINEER
LIC. NO. 098603
04/03/25

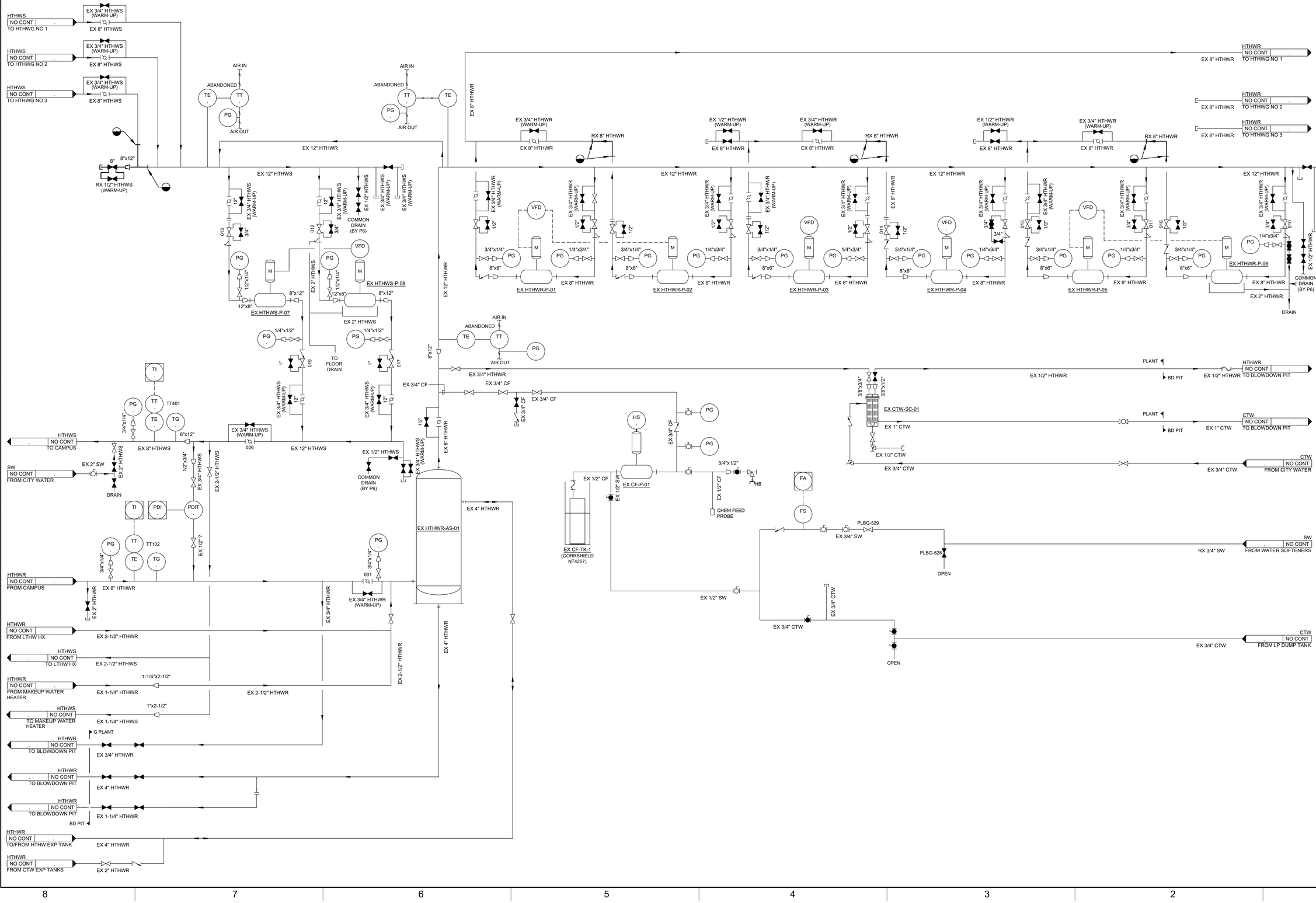
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT ROOF - DEMOLITION

DRAWING NUMBER :
MD1.02



RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :

BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WORK
No. 098643
LICENSED PROFESSIONAL ENGINEER
6/23/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :

MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :

735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :

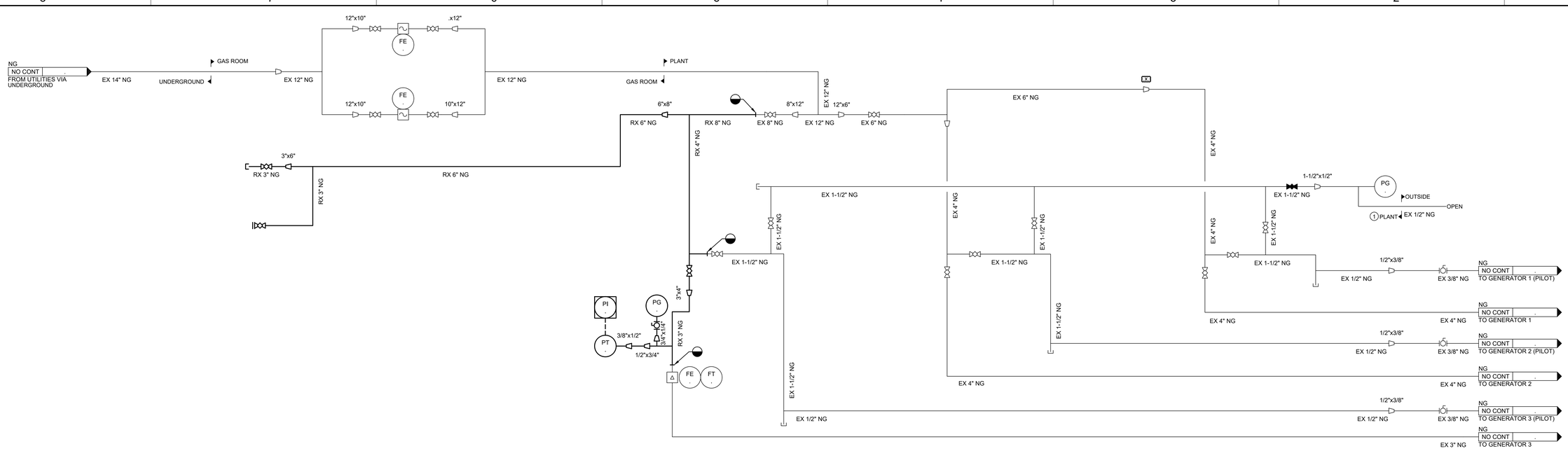
HTHW SCHEMATIC - DEMOLITION

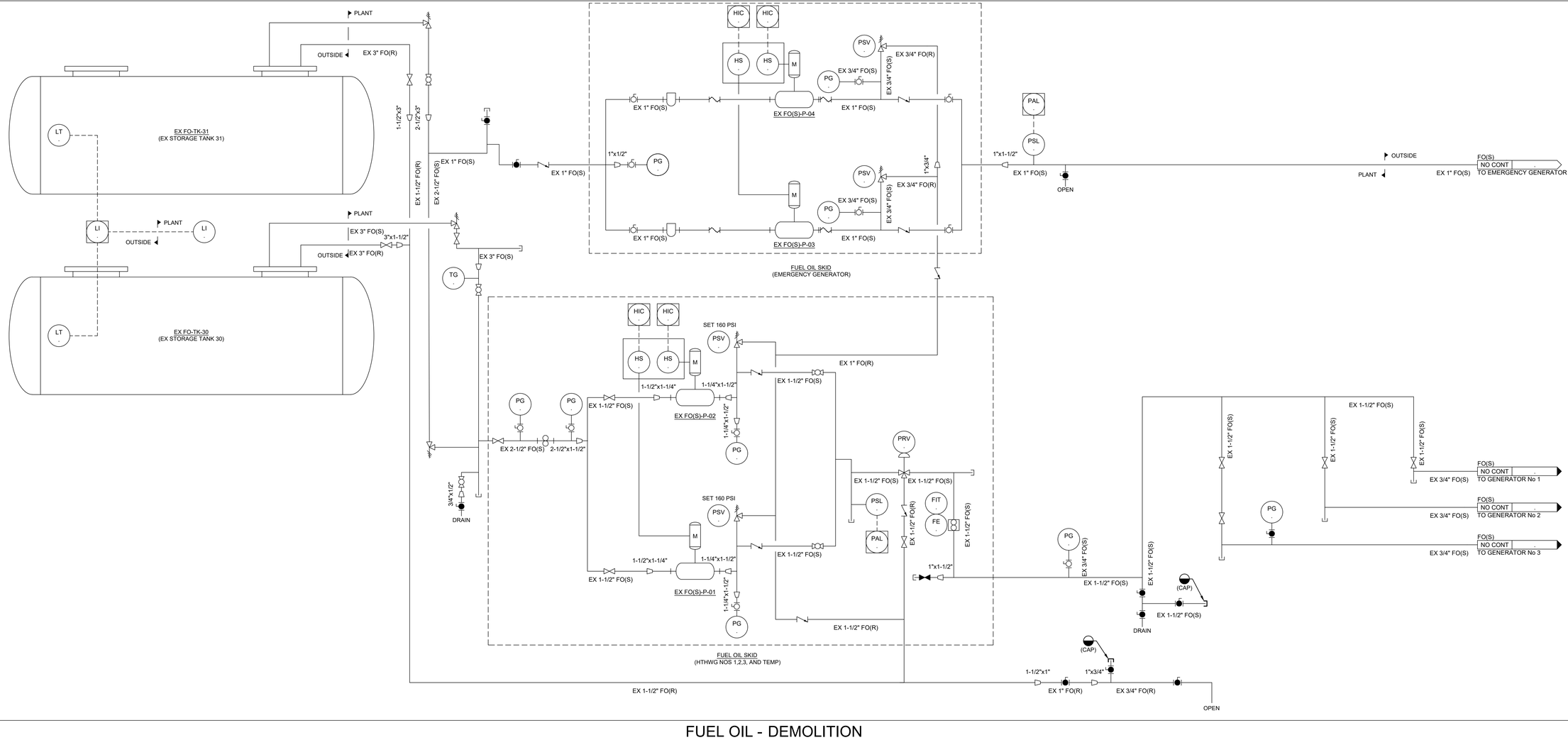
DRAWING NUMBER :

MD6.01

C:\Users\hodgestu\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\Cache\06240058A0 SUNY Purchase Temp Gen ECA\P\D DWG\MD601 HTHW SCHEMATIC - DEMOLITION.dwg

NATURAL GAS - DEMOLITION





FUEL OIL - DEMOLITION

RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WOLFE
LICENSED PROFESSIONAL ENGINEER
No. 098643
03/03/25

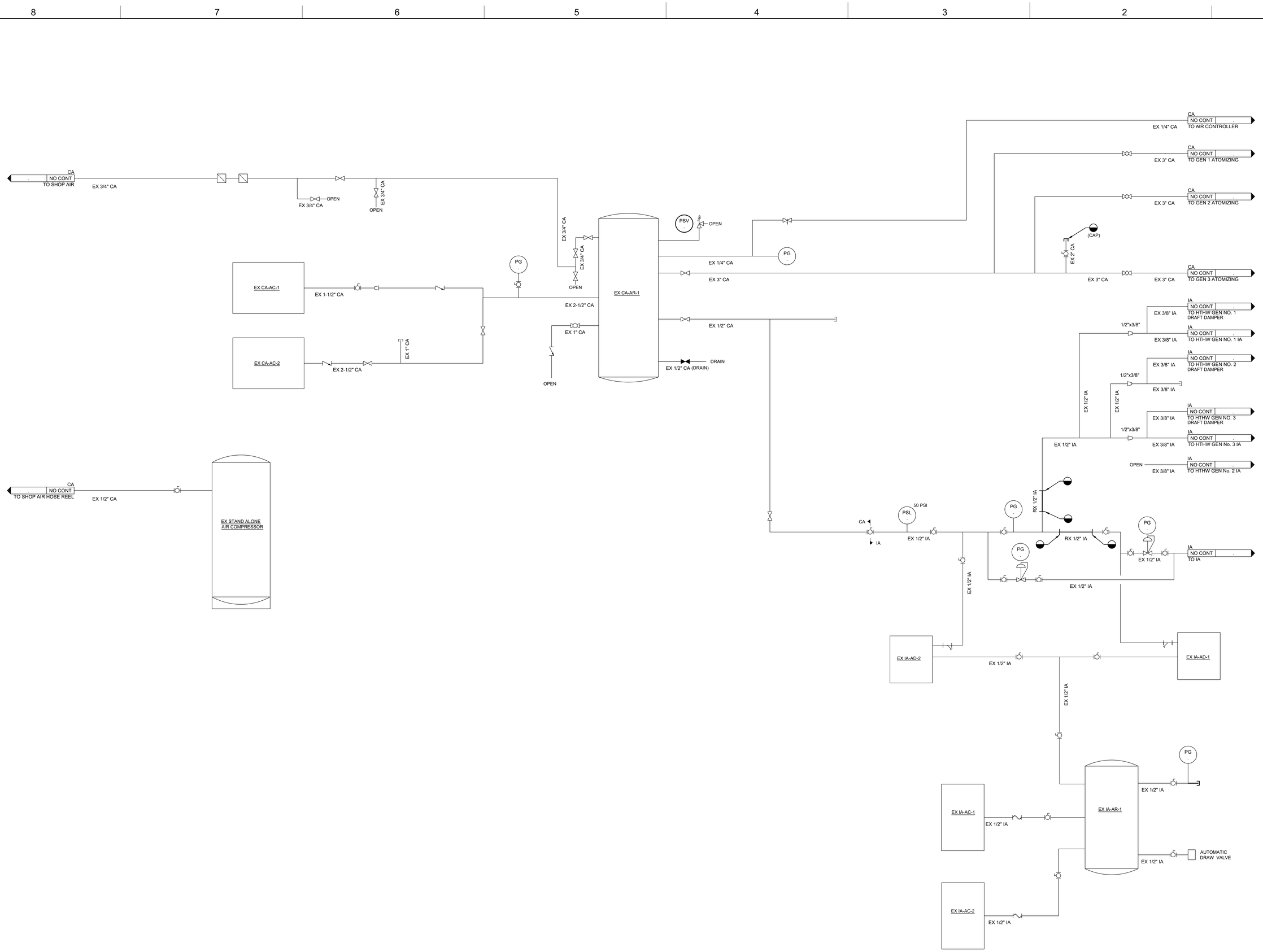
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
NATURAL GAS AND FUEL OIL SCHEMATIC - DEMOLITION

DRAWING NUMBER :
MD6.03



RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE:
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WOLFE
LICENSED PROFESSIONAL ENGINEER
No. 098643
5/23/25

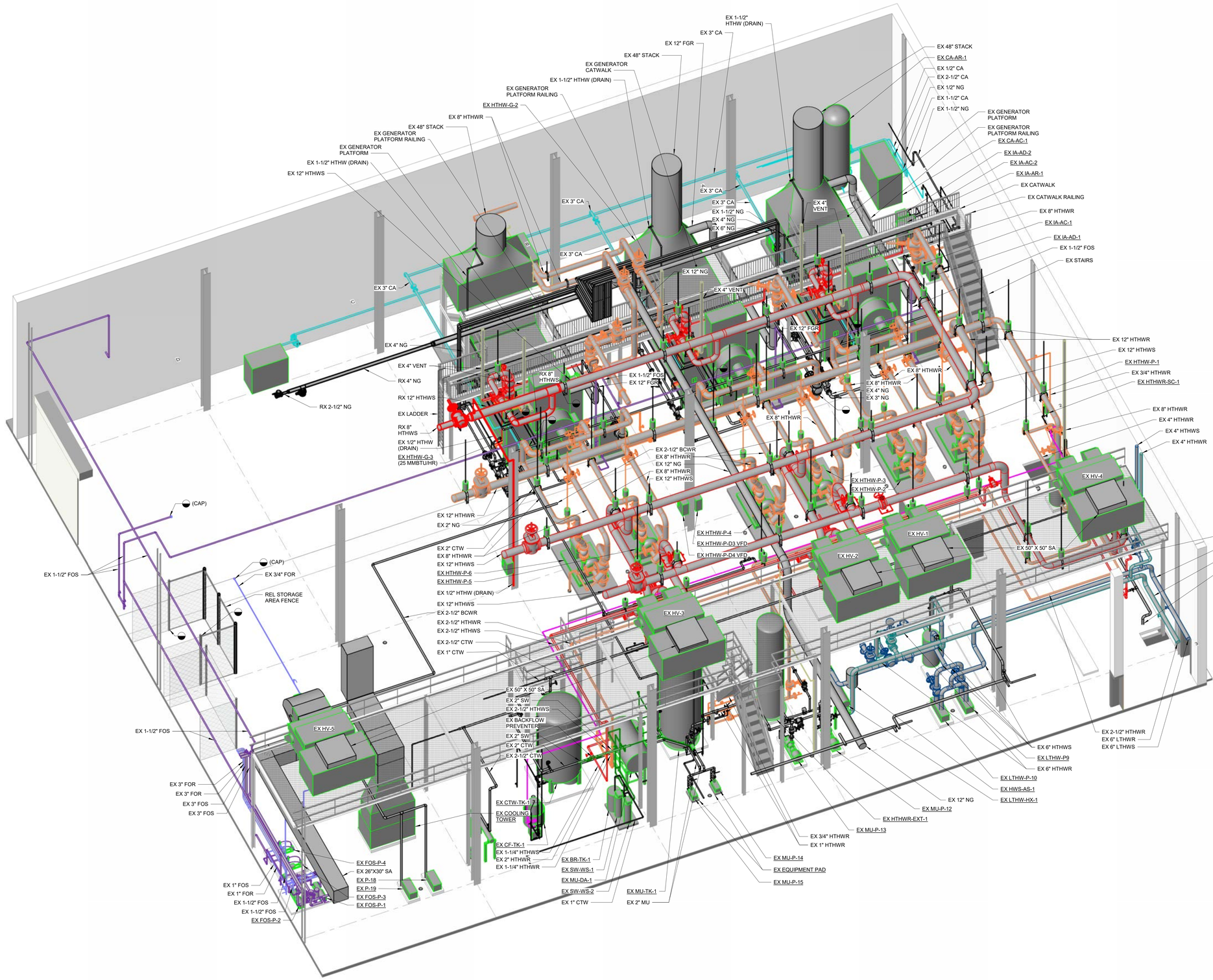
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME:
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS:
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE:
COMPRESSED AIR SCHEMATIC - DEMOLITION

DRAWING NUMBER:
MD6.07



PLAN AXONOMETRIC - DEMO

SCALE: N.T.S.

RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

GENERAL NOTES:

1. IN GENERAL, ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON DEMOLITION DRAWINGS ARE EXISTING AND SHALL BE DEMOLISHED.
2. REMOVE ALL ASSOCIATED COMPONENTS, PIPING, SUPPORTS, CONTROLS, AND ELECTRICAL EQUIPMENT AND CONDUITS ASSOCIATED WITH EQUIPMENT NOTED FOR REMOVAL.
3. DEMOLISH ALL PIPING SUPPORTS FOR THE PIPING DESIGNATED TO BE REMOVED.
4. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.

KEYPLAN

REV	DESCRIPTION	DATE
1	Addendum 1 (TBD)	Date 1

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL KNOBEL
LIC. 098653
MECHANICAL ENGINEER
04/04/25

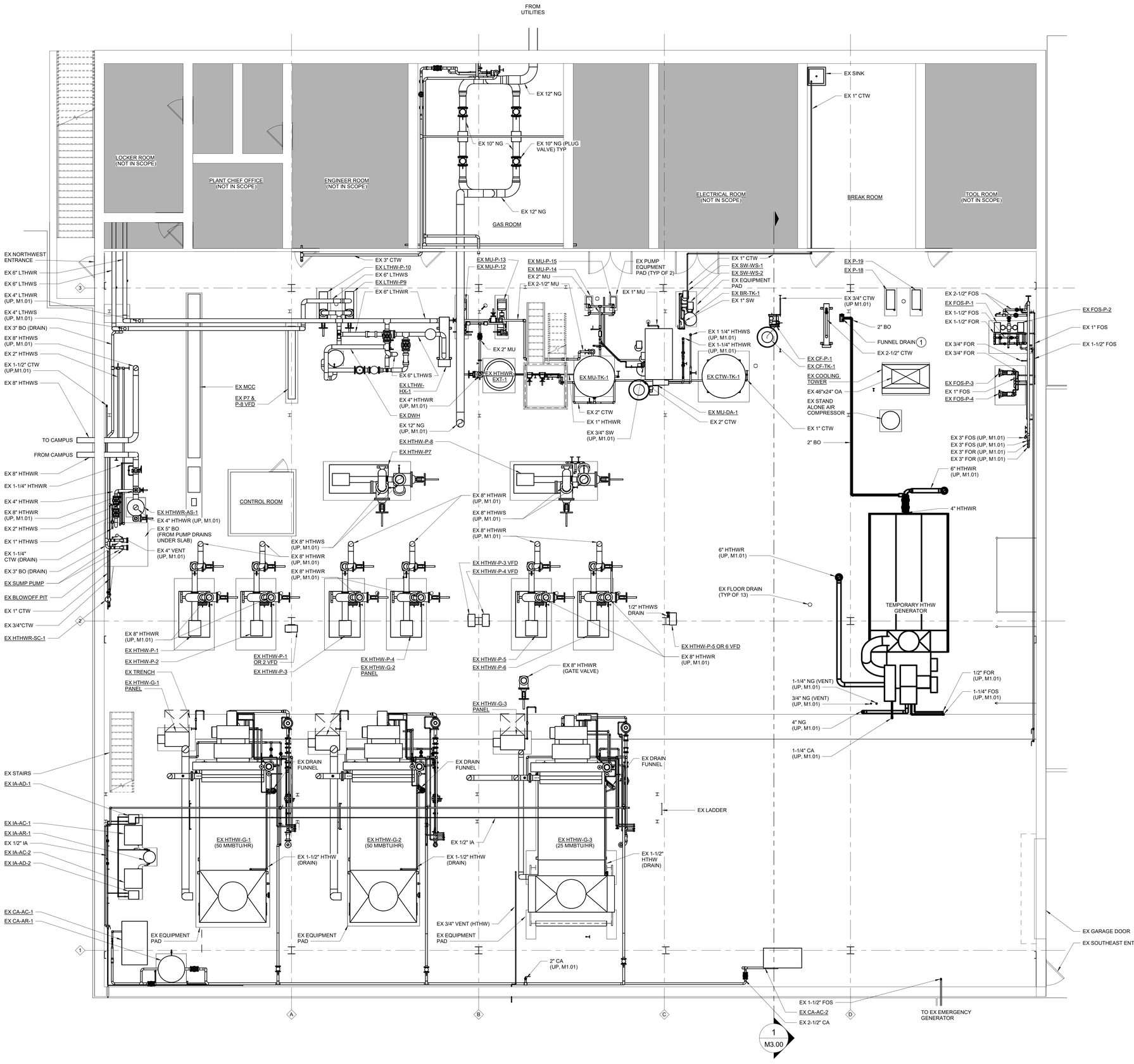
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL AXONOMETRICS - DEMOLITION

DRAWING NUMBER :
MD7.00



RMF ENGINEERING, INC.
3 PINE WEST PLAZA
SUITE 308
ALBANY, NY 12205
P: 518-465-3620 F: 518-465-3088

Purchase College
STATE UNIVERSITY OF NEW YORK

GENERAL NOTES:

1. ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON NEW WORK DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR.
2. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.
3. CONTRACTOR TO USE STEEL PLATES WHEN ROLLING/RIGGING EQUIPMENT OVER EXISTING FILLED-IN-TRENCH.
4. CONTRACTOR TO RESTORE FENCED STORAGE AREA TO ORIGINAL CONDITION ONCE TEMPORARY HTHW GENERATOR IS REMOVED

DRAWING NOTES:

(1) REFER TO BOILER FUNNEL DRAIN DETAIL ON M5.02 FOR DETAILS.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL HOWES
No. 098643
REGISTERED PROFESSIONAL ENGINEER
6/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	08240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT FLOOR 0'-12' - NEW WORK

DRAWING NUMBER :
M1.00

MATCHLINE - NO CONTINUATION

EX HV 4
EX HV 1
EX HV 2
EX HV 3
EX HV 5
EX HTHWR-EXT-1
EX CTW-TK-1
EX HTHW-G-1 (50 MMBTU/HR)
EX HTHW-G-2 (50 MMBTU/HR)
EX HTHW-G-3 (25 MMBTU/HR)
EX HTHW-H-3 ECONOMIZER

EX 2" CTW
EX 3" CTW
EX 4" HTHWR
EX 4" HTHWS
EX 8" HTHWS
EX 1-1/2" CTW (DN, MD1.00)
EX 2-1/2" CTW
EX 1-1/2" CTW
EX 2-1/2" HTHWR (BOTTOM)
EX 12" HTHWS (TOP)
EX 2-1/2" HTHWS (BOTTOM)
EX 3/4" CF
EX 2-1/2" HTHWR (DN, MD1.00)
EX 8" HTHWR (DN, MD1.00)
EX 4" VENT
EX 12" HTHWR
EX 8" HTHWR
EX 3/4" HTHWR (DN, MD1.00)
EX 8" HTHWR (BY-PASS)
EX 12" HTHWS
EX 1-1/2" FOS
EX STAIRS
EX 2" MU (DN, MD4.00)
EX 1-1/2" FOS (DN, MD1.00, MD4.00)
EX 1-1/4" HTHWS (DRAIN)
EX 4" VENT
EX 8" HTHWR (DN, MD4.00)
EX 2" MU (DN, MD1.00, MD4.00)
EX 1" NG (VENT)
EX 1-1/2" NG (VENT)
EX 2" NG (VENT)
EX GENERATOR PLATFORM
EX GENERATOR PLATFORM RAILING
EX 48" STACK
EX 12" FGR (DN, MD4.00)
EX 2-1/2" HTHWS
EX 12" HTHWS
EX 2-1/2" HTHWR
EX 4" HTHWR
EX 12" HTHWS (DN, MD1.00)
EX 2" MU
EX 3/4" CF
EX 12" NG
EX 8" HTHWR (DN, MD1.00)
EX 4" NG (DN, MD1.00, MD4.00)
EX 1-1/2" NG (DN, MD1.00, MD4.00)
EX 1-1/2" HTHW (DRAIN)
EX 12" FGR (DN, MD4.00)
EX 48" STACK
EX 6" NG
EX 8" NG (PLUG VALVE, TYP OF 2)
EX 3/4" HTHW (VENT)
EX 2" SW
EX 1" CTW (DN, MD1.00)
EX BACKFLOW PREVENTER
EX 1" SW
EX 3/4" SW
EX 3/4" CTW
EX 3/4" CTW (DN, MD1.00)
EX 1-1/4" CTW
EX 2" CTW
EX 1" CTW
EX 3" VENT
EX 2" VENT
EX 1" VENT
EX 46"x24" OA
EX 2-1/2" BCWR
1-1/2" DRAIN (SS)
EX 26"x30" SA
EX 1" FOS
EX 3" FOS
EX 3" FOR
EX 3/4" FOR
EX 1-1/2" FOS
6" HTHWR (DN, M1.00)
6" VENT (UP, M1.02)
10" HTHWS (DN, M1.00)
34" BREECHING (1)
1/2" FOR (DN, M1.00)
1/2" FOR
1-1/4" FOS (DN, M1.00)
1-1/2" FOS
1-1/4" FOS
30" DRAIN DRIP LEG
34" STACK (UP, M1.02)
SH-1
SH-2
SH-3
SH-4
SH-5
SH-6
SH-7
SH-8
SH-9
SH-10
SH-11
SH-12
1/2" HTHW (VENT TO DRAIN)
1" HTHWR (VENT, TOP)
1" HTHWR (DRAIN, BOTTOM)
2-1/2" HTHWR (VENT)
1" HTHWR (WARM-UP)
2-1/2" HTHWS (VENT)
1/2" HTHW (VENT TO DRAIN)
10" HTHWR
4" NG (DN, M1.00)
10" HTHWS
1" HTHWS (DRAIN)
4" NG
1-1/4" CA
2" CA
EX CATWALK
EX CATWALK RAILING
EX LADDER
EX 1" NG (VENT)
EX 1-1/2" NG (VENT)
EX 2" NG (VENT)
EX 1-1/2" NG (VENT)
EX 1-1/2" HTHW (DRAIN)
2" CA (DN, M1.00)
EX 1-1/2" FOS

1 M3.00

2' 0 2' 4'
SCALE: 1/4" = 1'-0

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STATE UNIVERSITY OF NEW YORK

GENERAL NOTES:

1. ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON NEW WORK DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR.
2. REFER TO M8.00 FOR SPRING HANGER SCHEDULE.
3. REFER TO STRUCTURAL DRAWINGS FOR STACK SUPPORT DETAILS.
4. CONTRACTOR TO USE STEEL PLATES WHEN ROLLING/RIGGING EQUIPMENT OVER EXISTING FILLED-IN-TRENCH.
5. IT IS ANTICIPATED SCAFFOLDING WILL BE REQUIRED FOR WORK AT HIGH ELEVATIONS ABOVE PLANT FLOOR. CONTRACTOR TO LEAVE OSHA COMPLIANT SCAFFOLDING IN PLACE UNTIL RT TESTING IS COMPLETE.

DRAWING NOTES:

1. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT REQUIREMENTS.
2. EXPANSION JOINT TO BE PROVIDED ON TEMPORARY GENERATOR FLUE GAS OUTLET. EXPANSION OF STACK ANTICIPATED TO BE APPROXIMATELY 2" IN THE AXIAL AND 2" IN THE LATERAL DIRECTIONS.
3. HTHW GENERATOR BREECHING DRAIN PIPING TO BE SCH. 40 TYPE 316 STAINLESS STEEL. DRAIN TO BE ROUTED TO DRAIN FUNNEL AND PROVIDED WITH A P-TRAP.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK
BRIAN MICHAEL WORTH
LIC. NO. 098643
REGISTERED PROFESSIONAL ENGINEER
4/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT FLOOR 12'-30' - NEW WORK

DRAWING NUMBER :
M1.01

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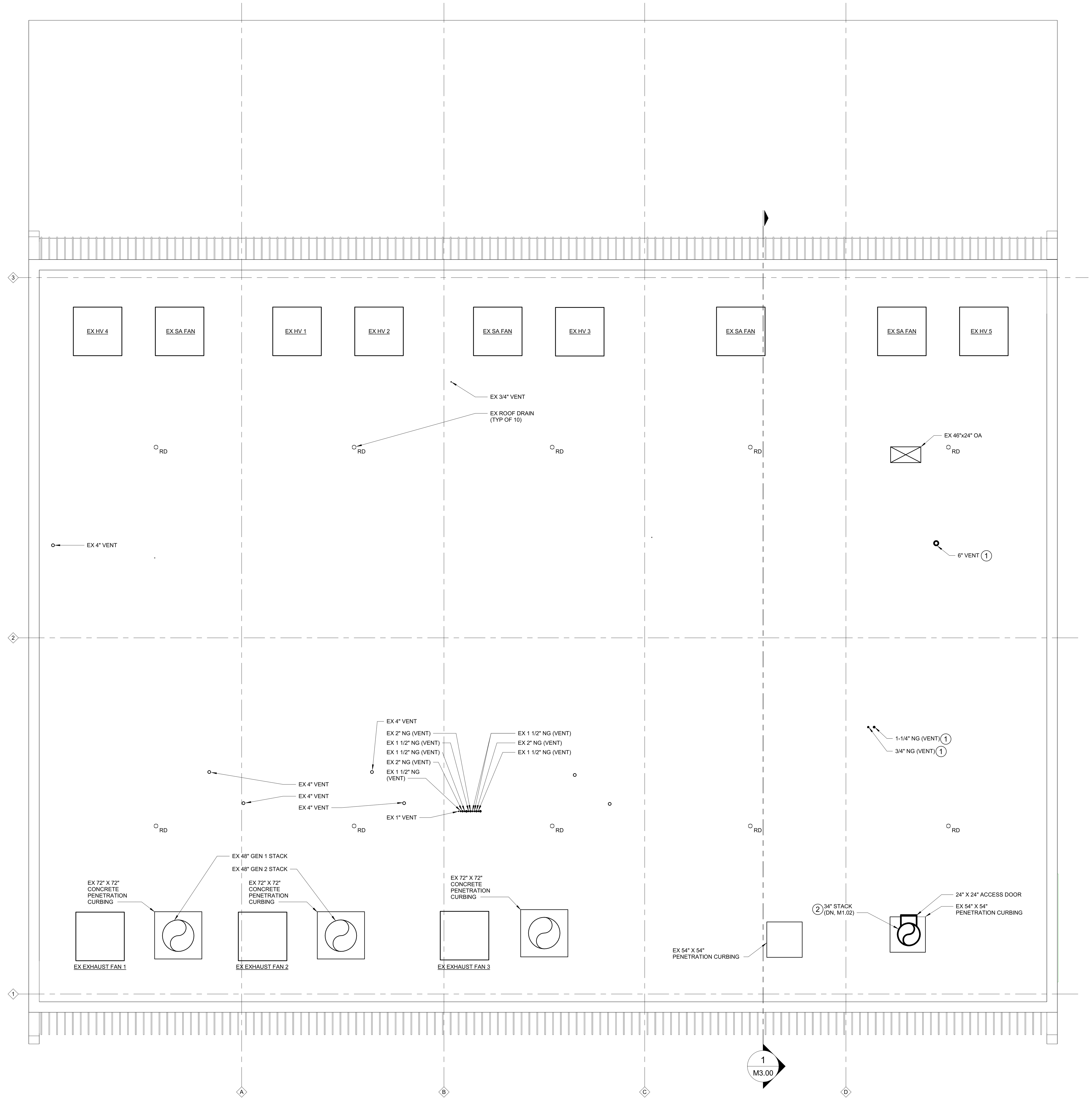

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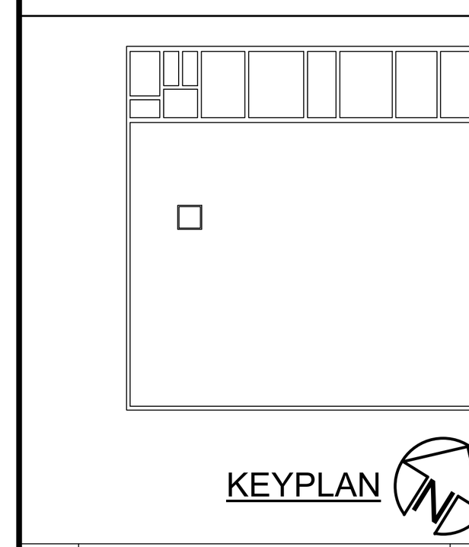
GENERAL NOTES:

1. REFER TO STRUCTURAL DRAWINGS FOR STACK SUPPORT DETAILS.
2. PATCH ANY OPENINGS IN ROOF WHERE PIPES WERE REMOVED. CONTRACTOR TO GET APPROVAL FROM ROOFING MANUFACTURER BEFORE EXECUTING ROOF PATCH WORK IN ORDER TO MAINTAIN THE EXISTING WARRANTY.

DRAWING NOTES:

(1) REFER TO HOT AND COLD PIPE PENETRATION DETAIL ON M5.02 FOR DETAILS.

(2) REFER TO STRUCTURAL DRAWING FOR NEW STACK PENETRATIONS AND SUPPORT DETAILS.



REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL: STATE OF NEW YORK · BRIAN MICHAEL WODKA · No. 098643 · LICENSED PROFESSIONAL ENGINEER · 03/03/25

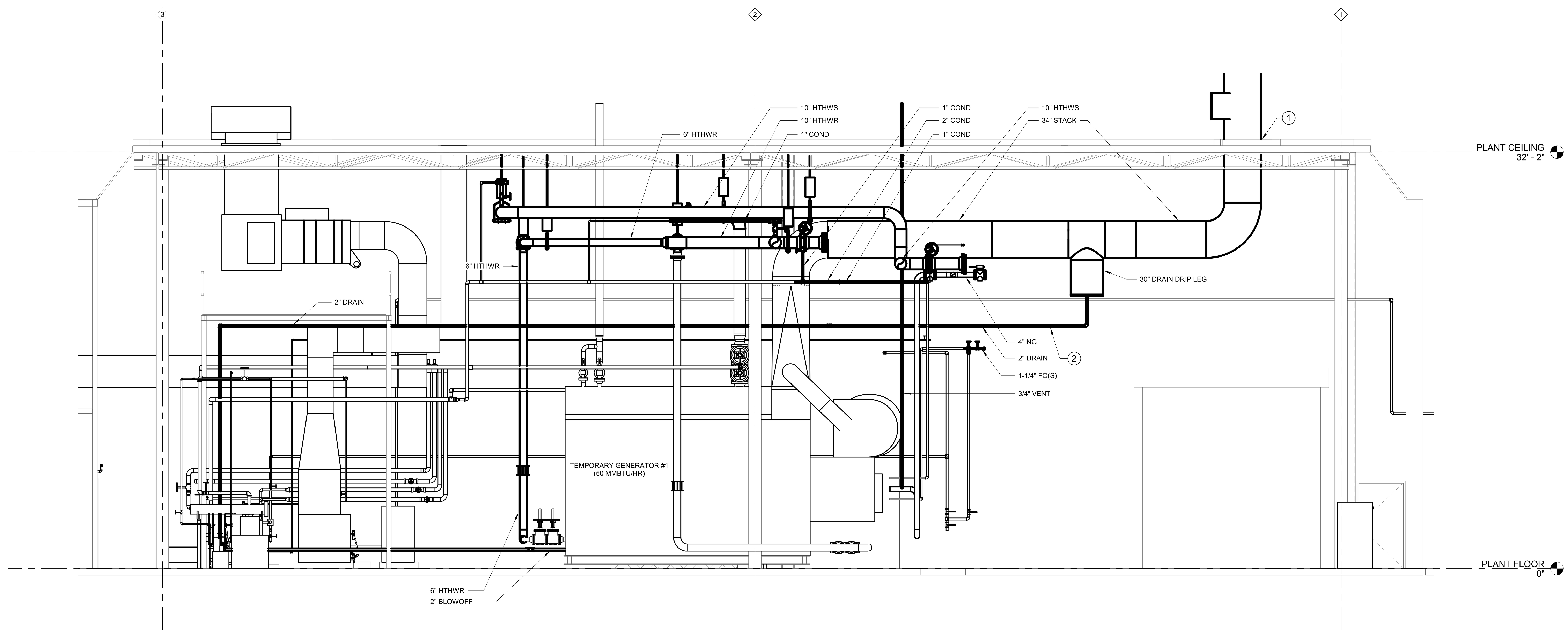
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	________

PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - PLANT ROOF - NEW WORK

DRAWING NUMBER :
M1.02



1 ER_M1.00 **TEMPORARY GENERATOR EAST SECTION**
SCALE: 1/4" = 1'-0"

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DRAWING NOTES:

1. REFER TO STRUCTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.
2. HTHW GENERATOR BREECHING DRAIN PIPING TO BE SCH. 40 TYPE 316 STAINLESS STEEL. DRAIN TO BE ROUTED TO DRAIN FUNNEL AND PROVIDED WITH A P-TRAP.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL: STATE OF NEW YORK — BRIAN MICHAEL WODKA — LICENSED PROFESSIONAL ENGINEER — 03/03/25

DRAWN BY:	Author	DATE:	03/03/2025
DESIGNED BY:	Designer	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

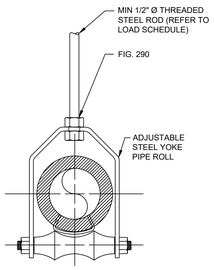
PROJECT NAME :
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL - TEMP GEN SECTION

DRAWING NUMBER :
M3.00

Autodesk Docs://06240058A0-SUNY Purchase Rehabilitate High Temperat/06240058A0_MECH_R22_B360_ECA Temp Gen.rvt
4/4/2025 2:35:24 PM

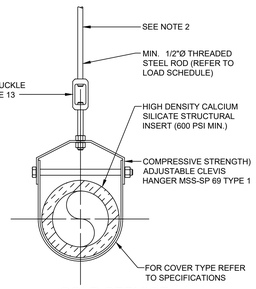


HOT SERVICE

LOAD SCHEDULE PIPE ROLL		
LOAD SCHEDULE PIPE ROLL		
PIPE SIZE	MAX. SPACING	ROD SIZE
1/2" Ø - 2" Ø	8'	1/2" Ø
2 1/2" Ø	10'	1/2" Ø
3" Ø	10'	1/2" Ø
4" Ø	14'	5/8" Ø
5" Ø	14'	5/8" Ø
6" Ø	17'	3/4" Ø
8" Ø	19'	3/4" Ø
10" Ø	22'	7/8" Ø
12" Ø	23'	7/8" Ø

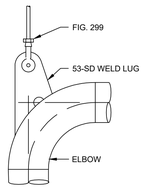
NOTES:

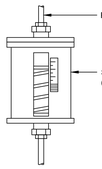
1. THIS DETAIL SHALL BE USED AS A GUIDE. ALL HANGERS SHALL MEET THE REQUIREMENTS OF SPECIFICATION SECTION.
2. SEE ATTACHMENT METHODS ON DETAILS
3. FIGURE NOS BASED ON ANVIL INTERNATIONAL
4. REFER TO SPRINKLER HANGER SCHEDULES FOR SITES.

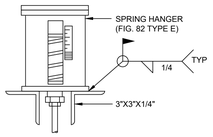


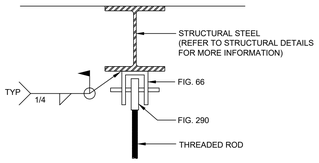
COLD SERVICE

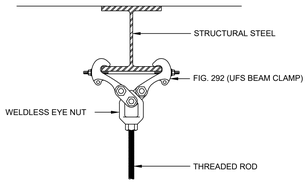
LOAD SCHEDULE CLEVIS HANGER		
LOAD SCHEDULE CLEVIS HANGER		
PIPE SIZE	MAX. SPACING	ROD SIZE
1/2" Ø - 2" Ø	8'	1/2" Ø
2 1/2" Ø	10'	1/2" Ø
3" Ø	10'	1/2" Ø
4" Ø	14'	5/8" Ø
5" Ø	14'	5/8" Ø
6" Ø	17'	3/4" Ø
8" Ø	19'	3/4" Ø
10" Ø	22'	7/8" Ø
12" Ø	23'	7/8" Ø





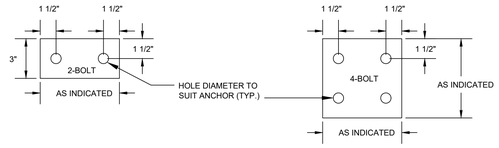


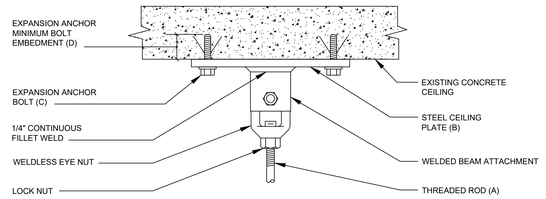




NOTES:

1. FIGURE Nos BASED ON ANVIL INTERNATIONAL.
2. REPAIR FIREPROOFING ON STRUCTURAL STEEL AFTER INSTALLATION OF HANGERS AND SUPPORTS.





ROD SIZE (A)	MAX. LOAD	CEILING PLATE SIZE (B)	ANCHOR BOLTS (C)	EMBEDMENT (D)
3/8" Ø	610 LBS	3"x8"x3/8"	(2) 1/2"	2 1/4"
1/2" Ø	1130 LBS	3"x8"x3/8"	(2) 1/2"	2 1/4"
5/8" Ø	1810 LBS	5"x8"x1/2"	(4) 1/2"	2 1/4"
3/4" Ø	2710 LBS	10"x10"x1/2"	(4) 1/2"	3"
7/8" Ø	3770 LBS	13"x13"x3/4"	(4) 3/4"	5"

NOTE:

CONTRACTOR SHALL VERIFY MAXIMUM LOADING ON PIPE SUPPORT ASSEMBLIES.

DETAIL - PIPE HANGERS (1/2" - 12")

SCALE: NONE — 1

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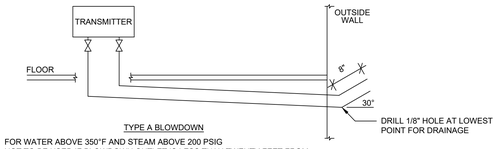
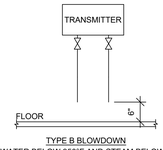


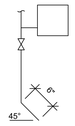
TYPE A BLOWDOWN

FOR WATER ABOVE 350°F AND STEAM ABOVE 200 PSIG
NOT TO BE USED IF BLOWDOWN OUTLET IS LESS THAN TWENTY FEET FROM AN AREA OF PERSONNEL ACCESS (GROUND, PLATFORM, WALKWAY, ETC.)

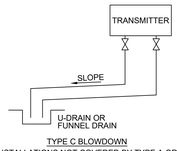


TYPE B BLOWDOWN

FOR WATER BELOW 350°F AND STEAM BELOW 200 PSIG



SIDE VIEW



TYPE C BLOWDOWN

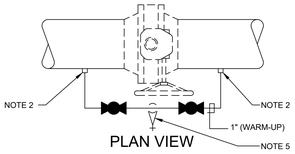
FOR INSTALLATIONS NOT COVERED BY TYPE A OR TYPE B

NOTES:

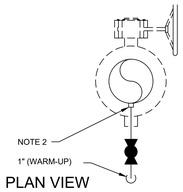
1. BLOWDOWN PIPE OR TUBE SPECIFICATION WILL BE SAME AS THAT OF THE IMPULSE LINES.

DETAIL - BLOWDOWN PIPING FOR PRESSURE & DIFFERENTIAL PRESSURE INSTRUMENTS

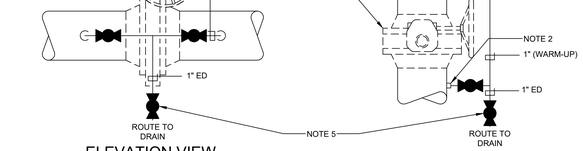
SCALE: NONE — 2



PLAN VIEW



PLAN VIEW



ELEVATION VIEW
HORIZONTAL INSTALLATION

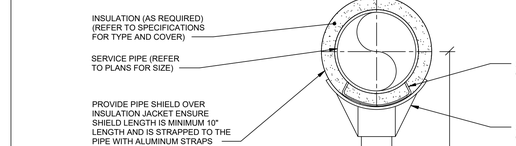
ELEVATION VIEW
VERTICAL INSTALLATION

NOTES:

1. INSTALL CHAIN ACTUATORS ON ALL VALVES ABOVE 6' ELEVATION.
2. WELD-O-LET. REFER TO SPECS.
3. REFER TO SCHEMATICS FOR VALVE TYPES AND SINGLE OR DOUBLE ISOLATION.
4. PROVIDE WARM-UP LINE FOR STEAM VALVES LARGER THAN 4".
5. VALVE TO BE LOCATED ACCESSIBLE FROM THE OPERATING FLOOR.

DETAIL - SINGLE VALVE WARM-UP

SCALE: NONE — 3



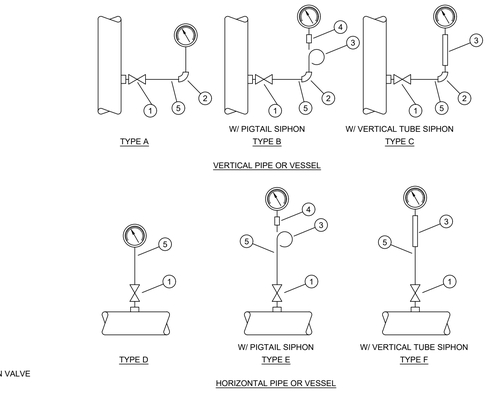
PIPE SIZE	SADDLE LEG SUPPORT	BASE PLATE	ANCHOR BOLTS
6"Ø	2-1/2"Ø	8"x8"x3/8"	1/2"Ø

NOTES:

1. FOR NON-INSULATED PIPES OUTSIDE PIPE WALL SHALL REST DIRECTLY ON INNER WALL OF SADDLE.

DETAIL - SADDLE TYPE PIPE SUPPORT

SCALE: NONE — 4

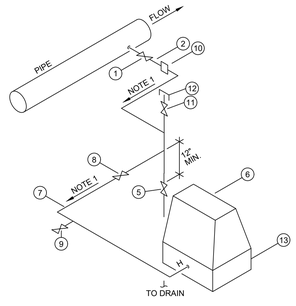


NOTES:

1. ISOLATION VALVE
2. ELBOW
3. SIPHON
4. PIPE COUPLING
5. 1/2" PIPE

DETAIL - PRESSURE GAUGE INSTALLATION

SCALE: NONE — 5



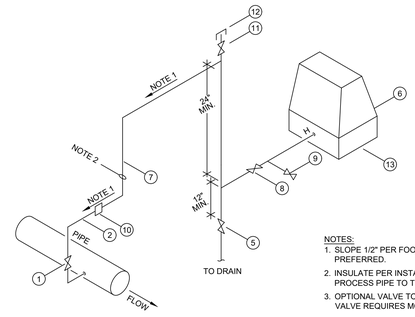
NOTES:

1. SLOPE 1" PER FOOT MINIMUM.
2. USE DOUBLE ISOLATION VALVES WHERE REQUIRED BY CODE.

TAG	DESCRIPTION	MATERIAL	PIPE SCHEDULE	SIZE	COUNT
1	ROOT VALVE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	2
2	PIPE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
3	NOT USED	NOT USED	NOT USED	1/2"	1
4	NOT USED	NOT USED	NOT USED	1/2"	1
5	BLOWDOWN VALVE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
6	TRANSMITTER	MATCH SYSTEM SPECIFICATION	N/A	N/A	1
7	TUBING	REFER TO CONTROL AIR PIPING/TUBING SPECIFICATION	REFER TO CONTROL AIR PIPING/TUBING SPECIFICATION	1/2"	1
8	TUBING ISOLATION VALVE	COMPRESSION VALVES,ASTM A213 TYPE 316	STD	1/2"	1
9	TEST VALVE	COMPRESSION VALVES,ASTM A213 TYPE 316	STD	1/2"	1
10	PIPE MATERIAL TRANSITION	AS REQUIRED	STD	1/2"	1
11	VENT	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
12	CAP	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
13	2 VALVE MANIFOLD	MATCH SYSTEM SPECIFICATION	N/A	N/A	1

DETAIL - PRESSURE TRANSMITTER OR SWITCH MOUNTED BELOW PRESSURE TAP

SCALE: NONE — 6



NOTES:

1. SLOPE 1/2" PER FOOT MINIMUM. ONE INCH PER FOOT PREFERRED.
2. INSULATE PER INSTALLATION SPECIFICATION FROM PROCESS PIPE TO TEE (ITEM 3).
3. OPTIONAL VALVE TO BE INSTALLED IF ACCESS ITEM 1 VALVE REQUIRES MORE THAN A SIX FOOT STEP LADDER.

TAG	DESCRIPTION	MATERIAL	PIPE SCHEDULE	SIZE	COUNT
1	ROOT VALVE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	2
2	PIPE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
3	NOT USED	NOT USED	NOT USED	1/2"	1
4	NOT USED	NOT USED	NOT USED	1/2"	1
5	BLOWDOWN VALVE	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
6	TRANSMITTER	MATCH SYSTEM SPECIFICATION	N/A	N/A	1
7	TUBING	REFER TO CONTROL AIR PIPING/TUBING SPECIFICATION	REFER TO CONTROL AIR PIPING/TUBING SPECIFICATION	1/2"	1
8	TUBING ISOLATION VALVE	COMPRESSION VALVES,ASTM A213 TYPE 316	STD	1/2"	1
9	TEST VALVE	COMPRESSION VALVES,ASTM A213 TYPE 316	STD	1/2"	1
10	PIPE MATERIAL TRANSITION	AS REQUIRED	STD	1/2"	1
11	VENT	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
12	CAP	MATCH SYSTEM SPECIFICATION	MATCH SYSTEM SPECIFICATION	1/2"	1
13	2 VALVE MANIFOLD	MATCH SYSTEM SPECIFICATION	N/A	N/A	1

DETAIL - PRESSURE TRANSMITTER OR SWITCH MOUNTED ABOVE PRESSURE TAP

SCALE: NONE — 7

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

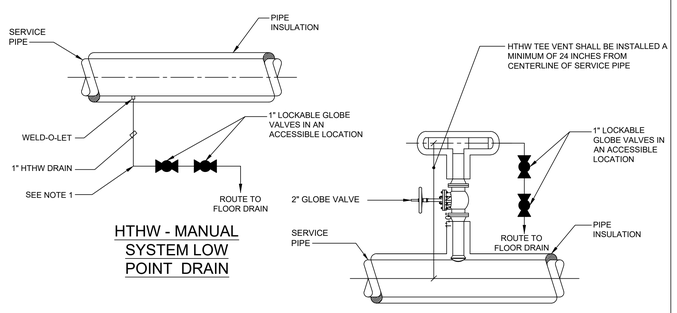
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL DETAILS

DRAWING NUMBER :
M5.01

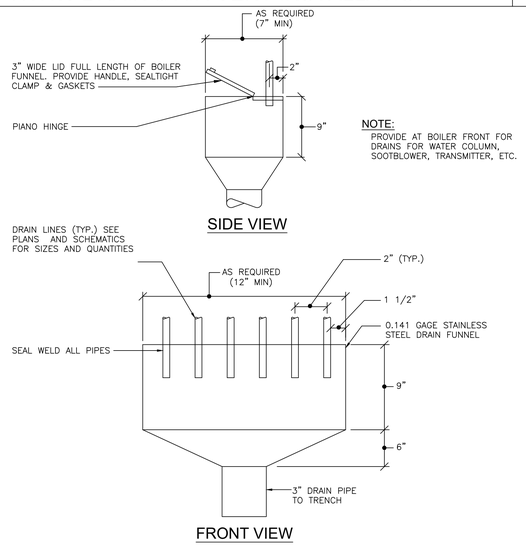


NOTES:

1. ALL HTHW DRAIN PIPING SHALL BE WELDED FROM THE POINT OF CONNECTION TO THE HTHW SERVICE MAIN UP TO AND INCLUDING THE DRAIN VALVE.
2. INSTALL DRAIN, VENT, GUAGE, AND GENERAL VALVES SO THAT THEY ARE CLEAR OF ALL PIPING INSULATION AND FREE FROM INTERFERENCE DURING OPERATION.
3. DRAIN DISCHARGE LINES SHALL BE PIPED TO THE NEAREST FLOOR OR SITE DRAIN AND SHALL NOT BE PIPED TO A LOCATION WHERE PERSONAL INJURY CAN OCCUR.
4. ALL VENT PIPE TO BE SOCKET WELDED.

HTHW DRAIN & AIR VENT INSTALLATION

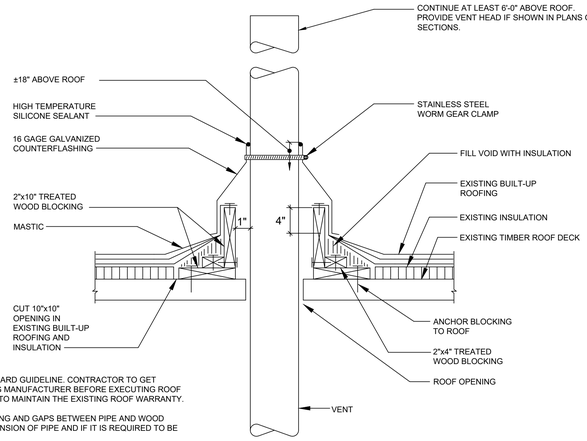
SCALE: NONE | 8



NOTE:
PROVIDE AT BOILER FRONT FOR DRAINS FOR WATER COLUMN, SOOTBLOWER, TRANSMITTER, ETC.

DETAIL - BOILER FUNNEL DRAIN

SCALE: NONE | 11



NOTES:

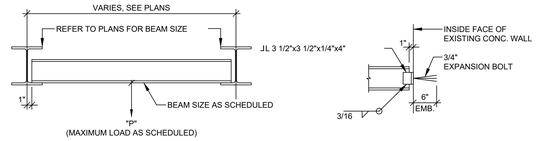
1. SHOWN DETAIL IS A STANDARD GUIDELINE. CONTRACTOR TO GET APPROVAL FROM ROOFING MANUFACTURER BEFORE EXECUTING ROOF PENETRATIONS IN ORDER TO MAINTAIN THE EXISTING ROOF WARRANTY.
2. COORDINATE CORE OPENING AND GAPS BETWEEN PIPE AND WOOD BLOCKING BASED ON DIMENSION OF PIPE AND IF IT IS REQUIRED TO BE INSULATED.

HOT AND COLD PIPE PENETRATION

SCALE: NONE | 9

MAXIMUM LOAD "P" (POUNDS) (1)					
SPAN RANGE	W6x9	W8x10	W6x12	W4x13	W8x15
0' > L ≤ 4'	11,000	15,500	14,600	10,800	23,500
4' > L ≤ 6'	6,800	8,300	8,900	6,600	14,300
6' > L ≤ 8'	4,100	5,200	6,600	5,000	9,600
8' > L ≤10'	2,600	3,000	4,500	4,000	6,100
10' > L ≤ 12'	1,800	--	3,100	--	4,200
12' > L ≤ 14'	--	--	2,200	--	3,100

(1) LOAD VALUE IS FOR SINGLE LOAD AT BEAM MIDPOINT.

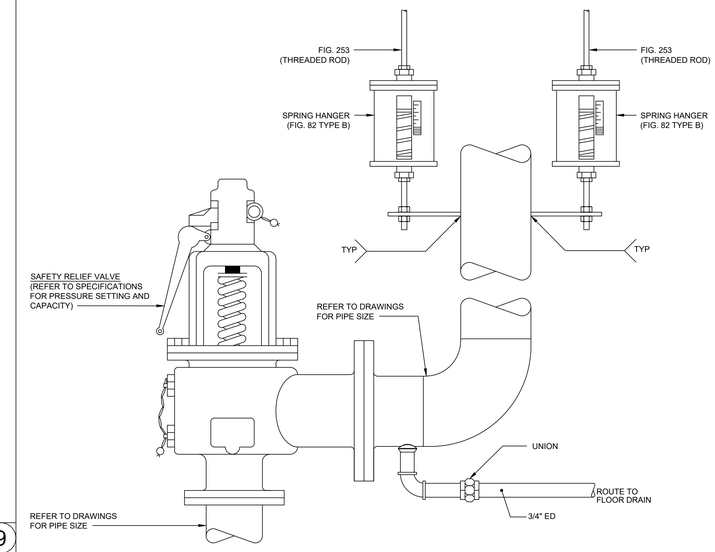


NOTES:

1. THIS INFORMATION IS PROVIDED TO GIVE THE MINIMUM BEAM SIZE REQUIRED TO SUPPORT A LOAD FOR PIPE SUPPORTS.
2. MAXIMUM LOAD "P" SHALL BE THE HIGHEST OF THE HYDROSTATIC AND OPERATING LOADS.

DETAIL - ADDED SUPPORT BEAM

SCALE: NONE | 12



NOTES:

1. CONTRACTOR SHALL VERIFY THAT ALL VENT PIPE SIZES ARE AT LEAST ONE NOMINAL PIPE SIZE LARGER THAN OUTLET OF ACTUAL SAFETY VALVE PROVIDED.
2. TERMINATE ALL VENT PIPES THROUGH ROOF PENETRATIONS A MINIMUM OF SIX FEET ABOVE ROOF ELEVATION AND GRADING.

DETAIL - HTHW PRESSURE SAFETY VALVE

SCALE: NONE | 10

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STATE UNIVERSITY OF NEW YORK

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

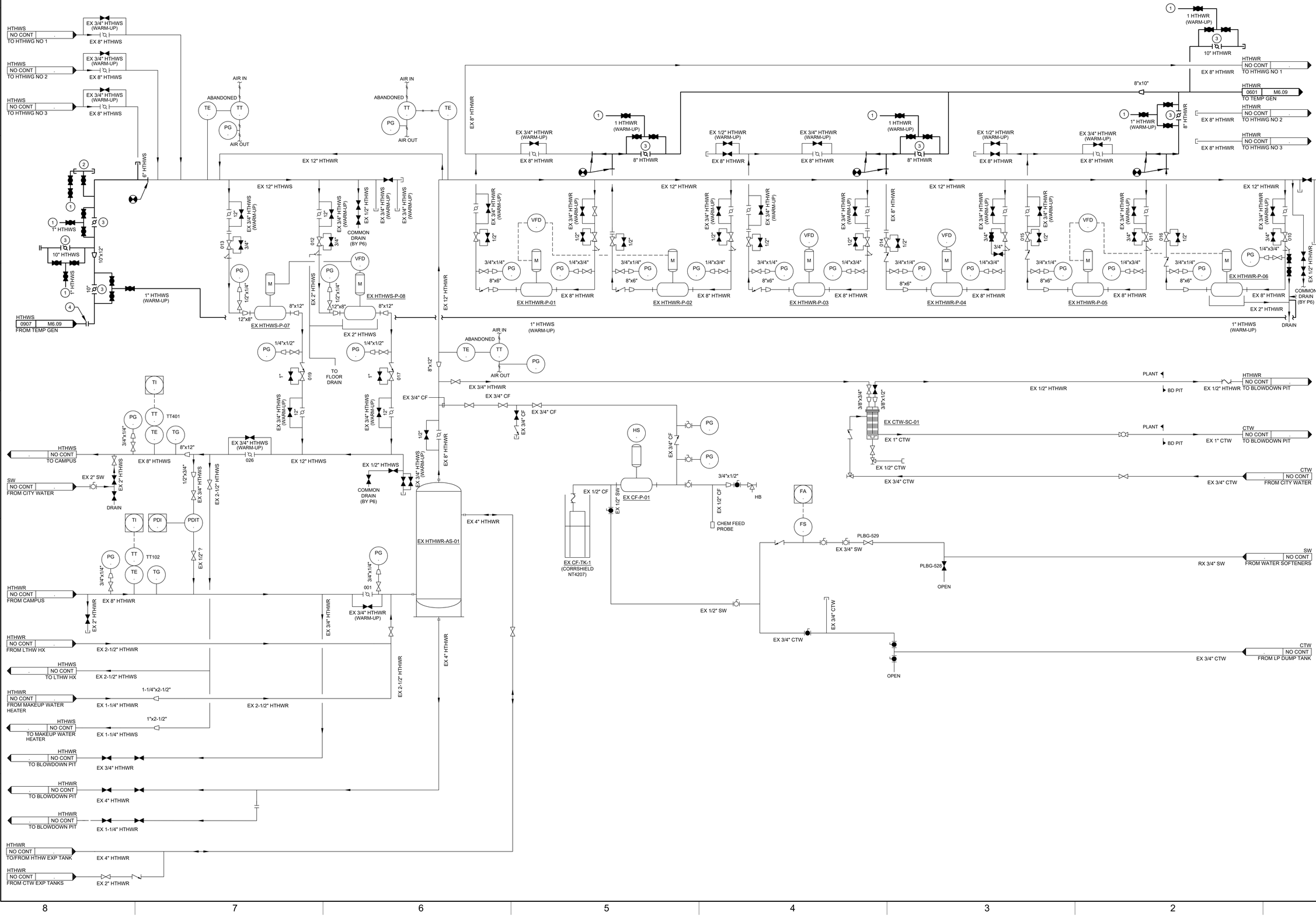
DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
MECHANICAL DETAILS

DRAWING NUMBER :
M5.02



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DRAWING NOTES:

1. FIELD ROUTE TO NEAREST FUNNEL DRAIN.
2. REFER TO HTHW DRAIN AND AIR VENT INSTALLATION DETAIL ON M5.02.
3. REFER TO SINGLE VALVE WARM-UP DETAIL ON M5.01.
4. WHEN TEMPORARY GENERATOR IS BEING REMOVED, CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING BACK TO THIS POINT AND ADD A BLIND FLANGE. REFER TO G0.01

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK
BRIAN MICHAEL WOLF
No. 098643
LICENSED PROFESSIONAL ENGINEER
03/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
HTHW SCHEMATIC - NEW WORK

DRAWING NUMBER :
M6.01

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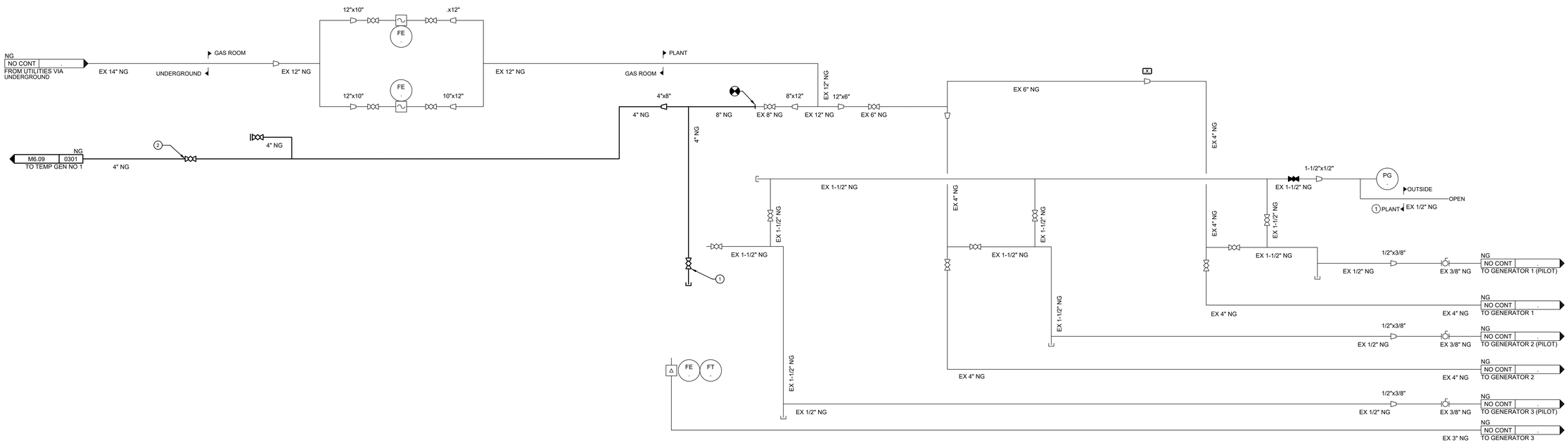
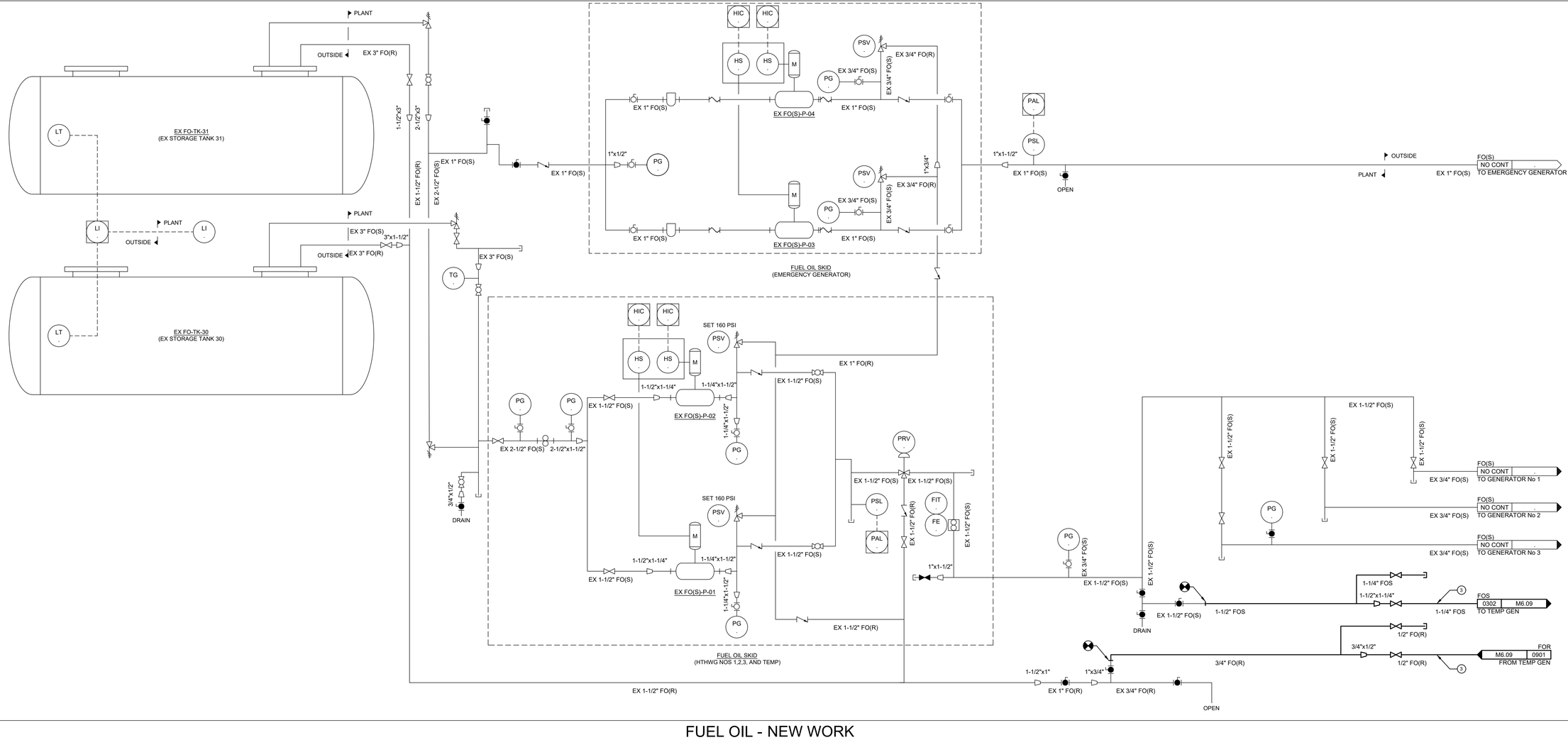


NATURAL GAS - NEW WORK



FUEL OIL - NEW WORK

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DRAWING NOTES:

1. CONTRACTOR TO INSTALL TEE AND VALVE FOR BRANCH CONNECTION TO HTHW-G-3 AND CAP.
2. WHEN TEMPORARY GENERATOR IS BEING REMOVED, CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING FROM TEMPORARY GENERATORS TO POINT INDICATED ON SCHEMATIC. BLIND FLANGE TO BE INSTALLED ON DOWNSTREAM SIDE OF VALVE. REFER TO G0.01.
3. WHEN TEMPORARY GENERATOR IS BEING REMOVED, CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING FROM TEMPORARY GENERATOR TO POINT INDICATED ON SCHEMATIC. PIPING TO BE CUT AND CAPPED ON DOWNSTREAM SIDE OF VALVE. REFER TO G0.01.

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :

BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WOLFE
No. 098643
LICENSED PROFESSIONAL ENGINEER
03/03/25

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PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :

MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :

735 Anderson Hill Rd,
Purchase, NY 10577

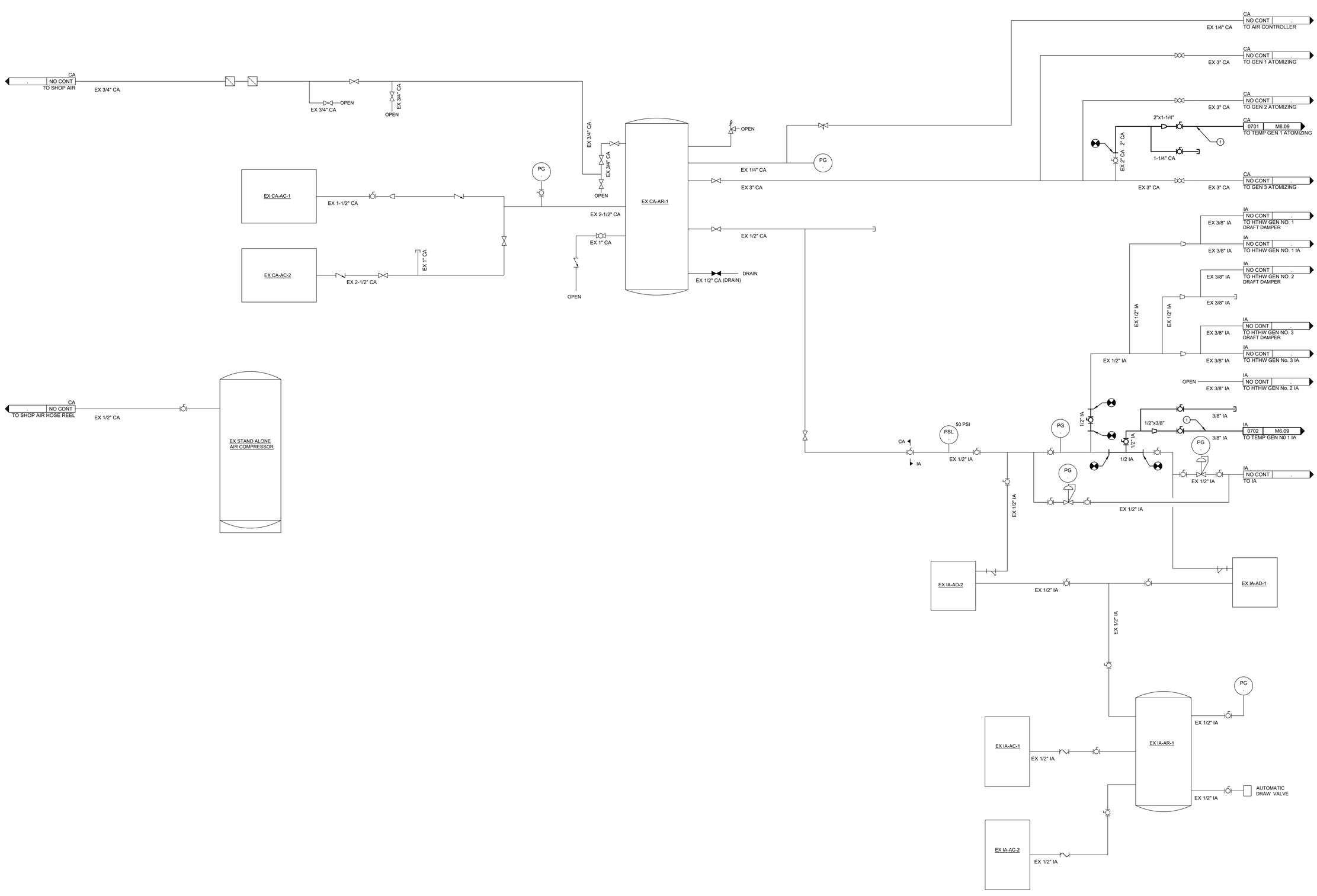
DRAWING TITLE :

NATURAL GAS AND FUEL OIL SCHEMATIC - NEW WORK

DRAWING NUMBER :

M6.03

C:\Users\hodgeslu\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\06240058A0 SUNY Purchase Temp Gen ECA\P3 DWG\M003 NATURAL GAS & FUEL OIL SCHEMATIC - NEW WORK.dwg



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DRAWING NOTES:

1. WHEN TEMPORARY GENERATOR IS BEING REMOVED, CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING FROM TEMPORARY GENERATOR TO POINT INDICATED ON SCHEMATIC. PIPING TO BE CUT AND CAPPED ON DOWNSTREAM SIDE OF VALVE. REFER TO G0.01.

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :

BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WORK
No. 098545
LICENSED PROFESSIONAL ENGINEER
8/25/25

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DESIGNED BY:	MCP	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :

MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :

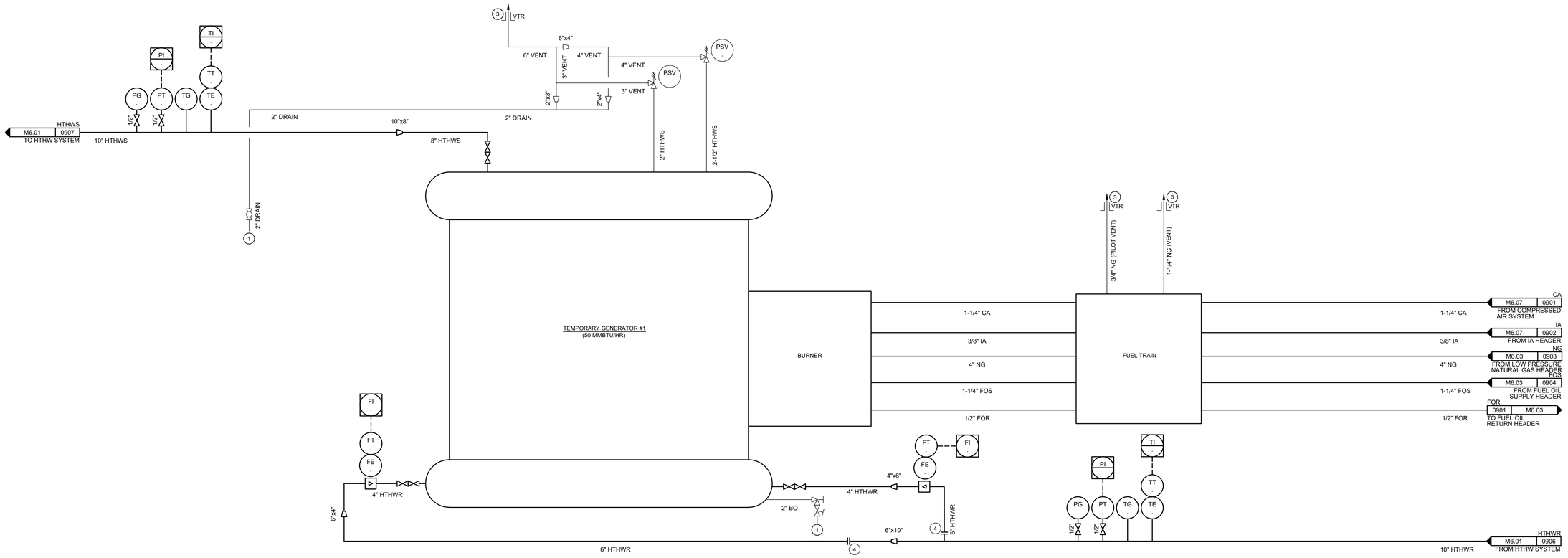
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :

COMPRESSED AIR SCHEMATIC - NEW WORK

DRAWING NUMBER :

M6.07



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GENERAL NOTES:

1. TEMPORARY GENERATOR VENDOR TO PROVIDE GAUGES AND FIELD DEVICES INDICATED ON SCHEMATIC.

DRAWING NOTES:

1. ROUTE TO NEAREST FUNNEL DRAIN. REFER TO PLAN VIEW DRAWINGS FOR DETAILS.
2. REFER TO HTHW DRAIN & AIR VENT INSTALLATION DETAIL ON M5.02.
3. REFER TO HOT AND COLD PIPE ROOF PENETRATION DETAIL ON M5.02.
4. WHEN TEMPORARY GENERATOR IS BEING REMOVED, CONTRACTOR TO REMOVE TEMPORARY GENERATOR PIPING BACK TO THIS POINT AND ADD A BLIND FLANGE. REFER TO G0.01

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WORK
No. 098543
LICENSED PROFESSIONAL ENGINEER
03/03/25

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DESIGNED BY:	MCP	SCALE:	
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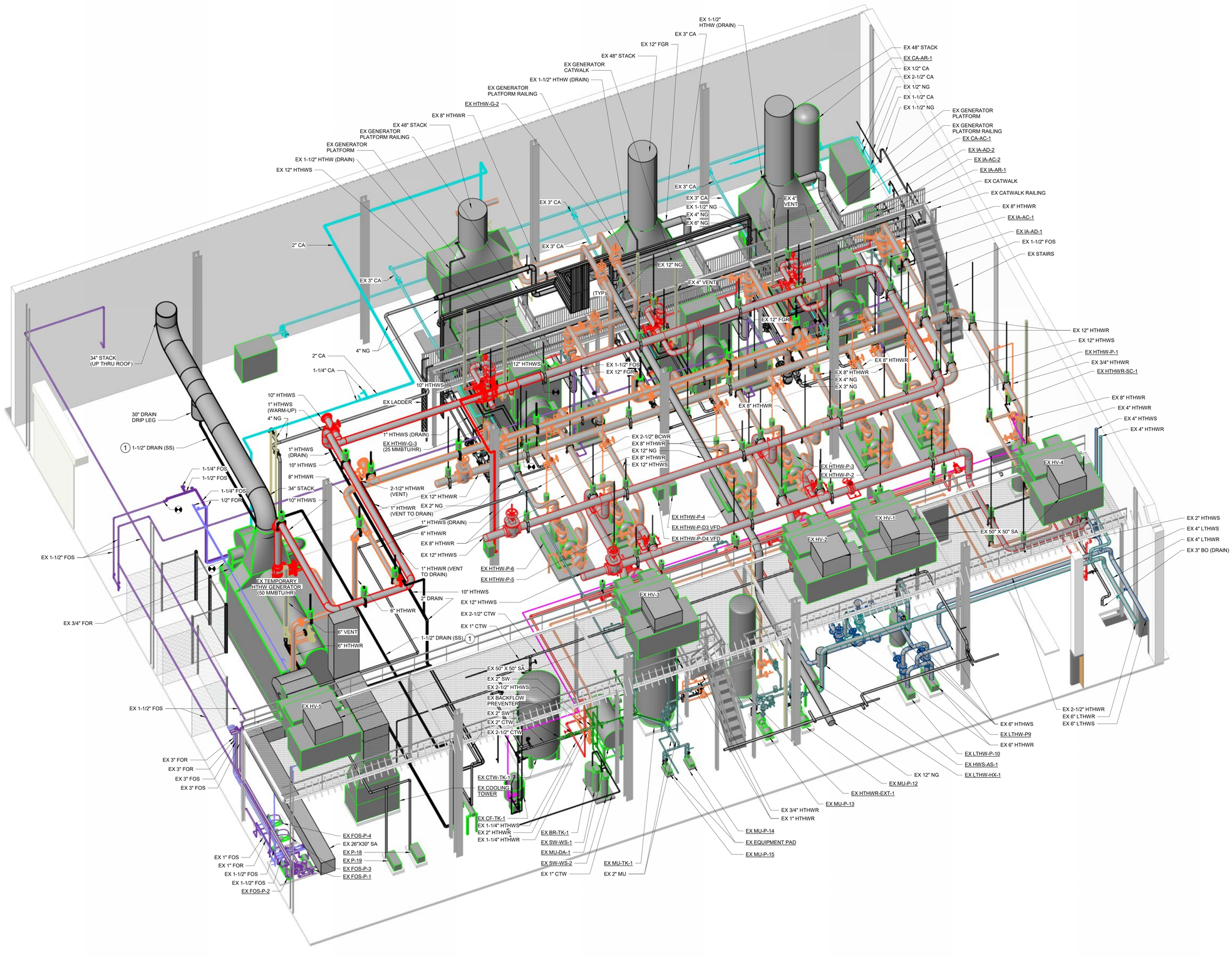
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
TEMP GEN 1 SCHEMATIC - NEW WORK

DRAWING NUMBER :
M6.09



PLAN AXONOMETRIC - NEW WORK

SCALE: N.T.S.

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GENERAL NOTES:

1. ALL PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND BOLD" ON NEW WORK DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR.
2. REMOVE ALL ASSOCIATED COMPONENTS, PIPING, SUPPORTS, CONTROLS, AND ELECTRICAL EQUIPMENT AND CONDUITS ASSOCIATED WITH EQUIPMENT NOTED FOR REMOVAL.
3. DEMOLISH ALL PIPING SUPPORTS FOR THE PIPING DESIGNATED TO BE REMOVED.
4. NOT ALL CONTROLS AND PIPING UNDER 2-1/2" ARE SHOWN ON PLAN VIEW DRAWINGS. REFER TO SCHEMATICS FOR DETAILS.

DRAWING NOTES:

1. HTHW GENERATOR BREECHING DRAIN PIPING TO BE SCH. 40 TYPE 304 STAINLESS STEEL. DRAIN TO BE ROUTED TO DRAIN FUNNEL AND PROVIDED WITH A P-TRAP.

KEYPLAN

REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE:
BID DOCUMENTS

SEAL:

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	MCP	SCALE:	AS NOTED
CHECKED BY:	BMW	RMF JOB NO.:	06240058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	

PROJECT NAME:
TEMPORARY HTHW GENERATOR CONNECTIONS

PROJECT ADDRESS:
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE:
MECHANICAL AXONOMETRICS - NEW WORK

DRAWING NUMBER:
M7.01

TEMPORARY HIGH TEMPERATURE HOT WATER GENERATOR SCHEDULE

DESIGNATION	SERVICE	BOILER HP	CAPACITY (LBS/HR)	DESIGN PRESS (PSIG)	OPERATING PRESS (PSIG)	MAIN FUEL	ALTERNATE FUEL	VOLT	AMP	PH	HZ	FIRING RATE CONTROL	BASIS OF DESIGN	NOTES
TEMPORARY GENERATOR #1	TEMPORARY HIGH TEMPERATURE HOT WATER	1,449	50,000	399	300	NATURAL GAS	NO.2 FUEL OIL	460	125	3	60	FULLY MODULATING	CLEAVERBROOKS WT-50 FROM POWERHOUSE	

SPRING HANGER SCHEDULE

DESIGNATION	DRAWING NUMBER	LOCATION ON DRAWING	SIZE AND SERVICE	ANVIL FIGURE NO	ANVIL SPRING SIZE	SPRING RATE (LBS/IN)	LOAD HOT (LBF)	LOAD COLD (LBF)	DEFLECTION (IN)	REMARKS
SH-1	M1.01	D-6	8" HTHWR	B-268	7	112	501.9	596.5	0.844	
SH-2	M1.01	D-6	8" HTHWR	B-268	8	150	639.1	770.7	0.877	
SH-3	M1.01	D-5	8" HTHWR	B-268	10	260	1225.6	1445.2	0.845	
SH-4	M1.01	D-4	8" HTHWR	B-268	8	150	737.7	853.1	0.770	
SH-5	M1.01	D-4	10" HTHWR	B-268	11	340	1498.5	1714.5	0.635	
SH-6	M1.01	D-3	10" HTHWR	82	9	400	982.4	1197.3	0.537	
SH-7	M1.01	E-3	6" HTHWR	B-268	13	600	2646.0	3064.8	0.698	
SH-8	M1.01	F-3	6" HTHWR	B-268	3	35	165.3	197.1	0.908	
SH-9	M1.01	F-2	6" HTHWR	B-268	11	340	1652.8	1873.8	0.650	
SH-10	M1.01	D-3	10" HTHWS	82	13	1200	2709.4	3192.3	0.402	
SH-11	M1.01	E-3	10" HTHWS	B-268	12	450	2110.4	2494.9	0.855	
SH-12	M1.01	E-2	10" HTHWS	B-268	13	600	2719.3	3206.4	0.812	

NOTES:
1. REFER TO SPECIFICATIONS FOR CONTRACTOR HANGER DESIGN SERVICE REQUIREMENTS.
2. REFER TO DETAILS FOR SPRING HANGER INSTALLATION.
3. CONTRACTOR IS REQUIRED TO MODIFY SPRING HANGER DESIGNS FOR ANY AND ALL PIPE ROUTE AND LAYOUT MODIFICATIONS.

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REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:

STATE OF NEW YORK
BRIAN MICHAEL WORK
No. 098643
LICENSED PROFESSIONAL ENGINEER
04/03/25

DRAWN BY:	SMS	DATE:	03/03/2025
DESIGNED BY:	PKG	SCALE:	NONE
CHECKED BY:	BMW	RMF JOB NO.:	06240058.B0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
MECHANICAL SCHEDULES

DRAWING NUMBER :
M8.00

GENERAL ABBREVIATIONS

A	AMPERES
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
AXL	ACROSS-THE-LINE MOTOR STARTER
BFG	BELOW FINISH GRADE
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CENTERLINE
CLF	CURRENT LIMITING FUSE
CT	CURRENT TRANSFORMER
CU	COPPER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
F	FUSE
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
FT	FEET
GFCI,GFI	GROUND-FAULT CIRCUIT INTERRUPTER
GND,G	GROUND OR GROUNDING
HOA	HAND, OFF, AUTOMATIC SWITCH
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LTG	LIGHTING
LFMC	LIQUID-TIGHT FMC
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MECS	MECHANICAL EQUIP. CONNECTION SCHEDULE
MFR	MANUFACTURER
MLO	MAIN LUGS ONLY
MSD	MAIN SERVICE DISCONNECT
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NAT'L ELECTRICAL MFR'S ASSOC.
NF	NON FUSED
NTS	NOT TO SCALE
P	POLE
PH	PHASE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
REQ'D	REQUIRED
RMC	RIGID METAL CONDUIT
RTU	ROOF TOP UNIT
SP	SPARE
TYP	TYPICAL
UG	UNDERGROUND OR UNDERGRADE
UON,UNO	UNLESS OTHERWISE NOTED
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
WAP	WIRELESS ACCESS POINT
WP	WEATHER PROOF RATED DEVICE
XFMR	TRANSFORMER
Δ	DELTA
Y	WYE
ϕ	PHASE

GENERAL SCHEDULES

DRAWING NOTATION

HEAVY & DASHED AND/OR HATCHED INDICATES EXISTING EQUIPMENT TO BE DEMOLISHED/REMOVED BY CONTRACTOR

LIGHT & SOLID INDICATES EXISTING EQUIPMENT TO REMAIN.

HEAVY & SOLID INDICATES EQUIPMENT TO BE PROVIDED BY CONTRACTOR.

TEXT ADJACENT TO EQUIPMENT IS SOMETIMES ADDED FOR EXTRA CLARIFICATION ON DEMO/EXISTING TO REMAIN ITEMS. REFER TO LIST BELOW FOR DEFINITIONS.

TBR EXISTING EQUIPMENT TO BE REMOVED BY CONTRACTOR

ETR EXISTING EQUIPMENT TO REMAIN. CONTRACTOR SHALL MAINTAIN IN OPERATION.

OR 1 E-100 — SYMBOL INDICATING GENERAL LOCATION FROM WHICH REFERENCE PHOTOGRAPH WAS TAKEN.

PNL-# — CIRCUIT HOMERUN INDICATOR.

POWER EQUIPMENT

SINGLE LINE DIAGRAM

PT — POTENTIAL TRANSFORMER

CT — CURRENT TRANSFORMER

FUSE

**AF **AT — MODED CASE CIRCUIT BREAKER
"AF" INDICATES AMPERE FRAME SIZE
"AT" INDICATES AMPERE TRIP SETTINGS

400AF 300AT 3 — FUSED DISCONNECT
"400AF" INDICATES AMPERE SWITCH SIZE
"300AT" INDICATES AMPERE FUSE SIZE

200A — DISCONNECT SWITCH (NON-FUSED)
"200A" INDICATES AMPERE SWITCH SIZE

SYSTEM GROUND OR EQIPMENT GROUND

— PANELBOARD
= 3-PHASE VOLTAGE

ENCLOSED VFD WITH DISCONNECT

FLOOR PLAN

SURFACE MTD BRANCH CIRCUIT PANELBOARD.

J — JUNCTION AND/OR PULL BOX

AF/P — 240 VAC HEAVY DUTY NON-FUSED DISCONNECT SWITCH.
"AF" - INDICATES FRAME SIZE
"P" - INDICATES # OF POLES

AF/AT/P — 240 VAC HEAVY DUTY FUSED DISCONNECT SWITCH.
"AF" - INDICATES FRAME SIZE
"AT" - INDICATES FUSE TRIP SIZE
"P" - INDICATES # OF POLES

M — ELECTRICAL CONNECTION AS DEFINED IN MECHANICAL EQUIPMENT CONNECTION SCHEDULE.

V — ENCLOSED VFD WITH BREAKER/MCP DISCONNECT

COMBINATION FVNR MOTOR STARTER & DISCONNECT

BRANCH CIRCUIT SCHEDULE

CIRCUIT BREAKER	PHASE CONDUCTORS AND/OR NEUTRAL CONDUCTORS	GROUND CONDUCTOR	CONDUIT
3-POLE CIRCUITS			
50/3	(3)#6	#10	1"C
40/3	(3)#8	#10	1"C
30/3	(3)#10	#10	3/4"C
20/3	(3)#12	#12	3/4"C
15/3	(3)#12	#12	3/4"C
2-POLE CIRCUITS			
50/2	(2)#6	#10	1"C
40/2	(2)#8	#10	3/4"C
30/2	(2)#10	#10	3/4"C
20/2	(2)#12	#12	3/4"C
15/2	(2)#12	#12	3/4"C
1-POLE CIRCUITS			
40/1	(2)#8	#10	3/4"C
30/1	(2)#10	#10	3/4"C
20/1	(2)#12	#12	3/4"C
15/1	(2)#12	#12	3/4"C

NOTES REGARDING USE OF THIS SCHEDULE:

1. USE THIS SCHEDULE AS FOLLOWS:
   - FOR ALL RECEPTACLE AND LIGHTING CIRCUITS.
   - WHERE SPECIFIC CONDUCTOR/CONDUIT SIZING IS NOT INDICATED ELSEWHERE ON THE DRAWING SET.
   - FOR ANY BRANCH CIRCUITS THAT ARE REQUIRED TO BE RELOCATED/EXTENDED, ETC.
2. DO NOT USE THIS SCHEDULE AS FOLLOWS:
   - FOR LARGE MECHANICAL LOADS (REFER TO MECHANICAL EQUIPMENT SCHEDULE, THIS SHEET).
   - FOR SERVICE ENTRANCE CONDUCTORS.
   - WHERE SPECIFIC CONDUCTOR/CIRCUIT IS CALLED FOR ON THE DRAWINGS.
3. WHERE CIRCUIT LENGTH EXCEEDS 100', CONTRACTOR SHALL USE NEXT HIGHER PHASE/NEUTRAL CONDUCTOR SIZE TO COMPENSATE FOR VOLTAGE DROP.

RACEWAY SCHEDULE

AREA	CABLING/RACEWAY METHOD	REMARKS
TEMP CIRCUITS	EMT	SEE NOTES BELOW
INTERIOR EXPOSED CONDUIT	RIGID GALVANIZED	SEE NOTES BELOW
FINAL CONNECTIONS TO EQUIPMENT	FLEXIBLE METALLIC CONDUIT (FMC) - DRY LTFMC - WET	SEE NOTES BELOW

GENERAL CONDUIT SCHEDULE NOTES:

1. FITTINGS:
   - RIGID GALVANIZED: THREADED
   - FLEXIBLE CONDUIT: LISTED FITTINGS FOR USE WHEN FLEXIBLE RACEWAY USED.
2. ALL CIRCUITS SHALL CONTAIN DEDICATED NEUTRALS (NO MULTI-WIRE CIRCUITS PERMITTED)
3. CONDUIT SHALL NOT BE UTILIZED FOR EFFECTIVE GROUND FAULT RETURN PATH. ALL CIRCUITS SHALL CONTAIN DEDICATED GREEN INSULATED CONDUCTOR SIZED PER DRAWINGS OR IN ACCORDANCE WITH NEC CRITERIA.
4. ALL RACEWAY TYPES ARE AS DESCRIBED HERE UNLESS OTHERWISE NOTED ON DRAWINGS.

GENERAL NOTES

SYMBOLS AND ABBREVIATIONS

1. THIS SHEET CONTAINS SYMBOLS AND ABBREVIATIONS TYPICALLY SHOWN ON ELECTRICAL DRAWINGS AND SCHEMATICS. THIS CONTRACT DRAWING SET MAY NOT CONTAIN ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET.

PERMITS AND INSPECTIONS

1. PERMITS SHALL BE PROVIDED BY SUCF. CONTRACTOR SHALL ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2017 NEC, AND STATE AND LOCAL GOVERNING REGULATIONS.
3. PERFORM WORK AS REQUIRED BY CODES, REGULATIONS, LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES WITH LAWFUL JURISDICTION. ALL MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, IEEE, ADA & CBM

SCOPE

1. UNLESS OTHERWISE INDICATED, PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM INCLUDING ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT.
2. CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS AND OVERCURRENT PROTECTIVE DEVICES. ALL EXISTING DISCONNECTS MAY NOT BE SHOWN ON THESE DRAWINGS.
3. ALL EQUIPMENT AND MATERIAL SHALL BE LABELED AND LISTED, AND INSTALLED IN ACCORDANCE WITH THEIR LISTING.
4. PROVIDE ELECTRICAL CONNECTION FOR EVERY FIXTURE, OR ITEM OF EQUIPMENT REQUIRING SAME, WHICH IS SHOWN OR LISTED ON ANY CONTRACT DRAWING
5. CONTRACTOR SHALL PROVIDE NECESSARY SUPPORT FRAMING, STIFFENERS, BRACING, AND HANGERS WHETHER SHOWN OR NOT TO ENSURE A COMPLETE AND DURABLE SYSTEM. SUPPORT FRAMING CONNECTIONS SHALL BE WELDED UNLESS SPECIFICALLY SHOWN OTHERWISE. ACTUAL SUPPORTS MAY VARY FROM THOSE SHOWN IN DETAILS TO ACCOMMODATE EXISTING FIELD CONDITIONS.
6. THE WORK INCLUDED IN THIS CONTRACT ENCOMPASSES THE DRAWINGS AND SPECIFICATIONS. WORK INCLUDED ON THE DRAWINGS ONLY, OR IN THE SPECIFICATIONS ONLY, SHALL BE INCORPORATED AS IF INCLUDED IN BOTH. ALL SYSTEMS SHOWN ARE INTENDED TO BE COMPLETE AND FULLY FUNCTIONING. THE CONTRACTOR SHALL PROVIDE SUCH COMPONENTS AS NECESSARY FOR A FULLY FUNCTIONING SYSTEM.
7. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE.
8. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK OR SHOP FABRICATION. REQUIRED CHANGES TO WORK SHOWN ON CONSTRUCTION DRAWINGS SHALL BE APPROVED BY THE ENGINEER IN WRITING, OTHER TRADES, AND OWNER AS REQUIRED PRIOR TO ANY CONSTRUCTION.

PLANS

1. ELECTRICAL PLANS, DETAILS, AND ONE LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE ELECTRICAL SYSTEM. THEY ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONDUIT BODIES, CONNECTORS, BENDS, FITTINGS, HANGERS, AND ADDITIONAL PULL BOXES WHICH THE CONTRACTOR MUST PROVIDE TO COMPLETE THE ELECTRICAL SYSTEM.
2. ELECTRICAL PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCES AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST. CONTRACTOR MUST INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK.
3. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT A COMPLETED PROJECT. MINOR MODIFICATIONS OF WORK SHALL BE PROVIDED BY THE CONTRACTOR TO COMPLY WITH PROJECT REQUIREMENTS, LOCATIONS OF DEVICES AND EQUIPMENT SHOW A GENERAL ARRANGEMENT AND INTENDED FUNCTION. ALL COMPONENTS SHOWN ON THE RISER DIAGRAMS, BUT NOT ON THE PLAN OR VICE VERSA, SHALL BE INCLUDED AS IF SHOWN ON BOTH. EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL DRAWINGS. BEFORE INSTALLATION OF WORK, CHECK FOR SWINGS AND ALL REQUIRED CLEARANCES, TO AVOID INTERFERENCE WITH OTHER TRADES. COORDINATE WITH ALL CONTRACT DOCUMENTS, SHOP DRAWINGS AND EQUIPMENT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED CONTRACT DRAWINGS.

SALVAGE

1. CONTRACTOR SHALL ASSUME OWNERSHIP FOR APPROPRIATE DISPOSAL OR RECYLING OF ALL EQUIPMENT SCHEDULED FOR REMOVAL.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

INDICATED BY ⌀ ON PLAN SHEETS

EQUIPMENT — SPECIFIC NOTES:

1. WHEN LOCATION IS NOT REFERENCED ON 'E' SHEETS, REFER TO 'M' SHEETS.
2. LOCATIONS SHOWN ARE GENERAL IN NATURE. COORDINATE WITH DIV. 23 PRIOR TO ROUGH-IN.

DISCONNECT/SAFETY SWITCH — TYPES:

A: NON-FUSED
B: FUSED
M: MOTOR RATED SWITCH
MCC: WITHIN MCC
R: DUPLEX RECEPTACLE
C: CKT BREAKER WITHIN SIGHT
S: COMBINATION W/ STARTER

STARTER — TYPES:

VFD: ENCLOSED FREQUENCY DRIVE W/ INTEGRAL DISC.
CMS: COMBINATION MOTOR STARTER
ATL: ACROSS THE LINE STARTER, FVNR
M: MOTOR RATED SWITCH - MANUAL STARTER
ECM: ELECTRONICALLY COMMUTATED CONTROL
N: NOT REQUIRED
P: PACKAGED CONTROLLER BY MANUFACTURER

EQUIPMENT			ELECTRICAL LOAD				POWER CONNECTION				DISCONNECT/SAFETY SWITCH		STARTER		REMARKS
EQUIPMENT TAG	EQUIPMENT TYPE	LOCATION ON PLAN	EXISTING LOAD	NEW LOAD	LOAD CHANGE	VOLT/PHASE	HOMERUN TO	CKT BKR	CONDUCTORS & CONDUIT	CONNECTION BY DIVISION:	DISCONNECT TYPE/SIZE	NEMA ENCLOSURE TYPE	STARTER TYPE	NEMA ENCLOSURE TYPE	
TEMP GEN1	TEMPORARY HTHW GENERATOR #1	MECH. RM.	-	150A	(1)	480V/3P	REFER TO SINGLE LINE DIAGRAM			26	200AF/150AT/3P	12	BOILER PACKAGED CONTROLS PROVIDED WITH UNIT		
TEMP GEN2	TEMPORARY HTHW GENERATOR #2	MECH. RM.	-	125A	(1)	480V/3P				26	200AF/125AT/3P	12			

GENERAL SCHEDULE NOTES:

1. ENCLOSED STARTERS/VFD'S AND ENCLOSED LOCAL DISCONNECTS SHALL BE INSTALLED ON STRUT ADJACENT TO UNIT. INSTALLATION TO COMPLY WITH NEC ARTICLE 110.26.
2. CONFIRM HP, VOLTAGE AND PHASE CONNECTIONS PRIOR TO ROUGH-IN OF EQUIPMENT. COORDINATION REQUIRED BETWEEN TRADES.
3. STARTERS SHALL BE NEMA STYLE AND SIZED BASED ON ELECTRICAL LOAD DATA LISTED ON SCHEDULE.
4. MOTOR RATED SWITCHES SHALL BE EQUIPPED WITH HEATERS, WHICH SHALL BE SIZED BASED ON NAMEPLATE DATA (TO BE OBTAINED IN FIELD), NOT ON ELECTRICAL LOAD DATA ON SCHEDULE
5. CIRCUIT BREAKERS INDICATED ON SCHEDULE ABOVE SHALL BE PROVIDED BY THE CONTRACTOR IN THE PROPOSED PANEL (THEY ARE NOT EXISTING BREAKERS, UNLESS INDICATED ON THE PANELBOARD SCHEDULE).

REMARKS:

(1) TEMPORARY LOAD IS EXPECTED TO EQUALLY OFFSET EXISTING BOILER LOAD. NET NEUTRAL INCREASE EXPECTED.

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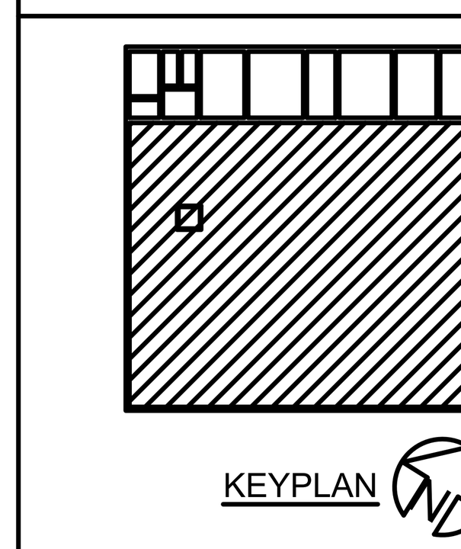
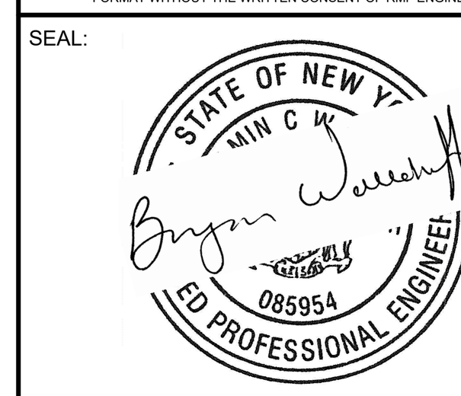


REV	DESCRIPTION	DATE

REVISIONS

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:



DRAWN BY:	KJM	DATE:	03/03/2025
DESIGNED BY:	BCW	SCALE:	AS NOTED
CHECKED BY:	BCW	RMF JOB NO.:	062470058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
ELECTRICAL LEGENDS, ABBREVIATIONS & SCHEDULES

DRAWING NUMBER :
E0.01

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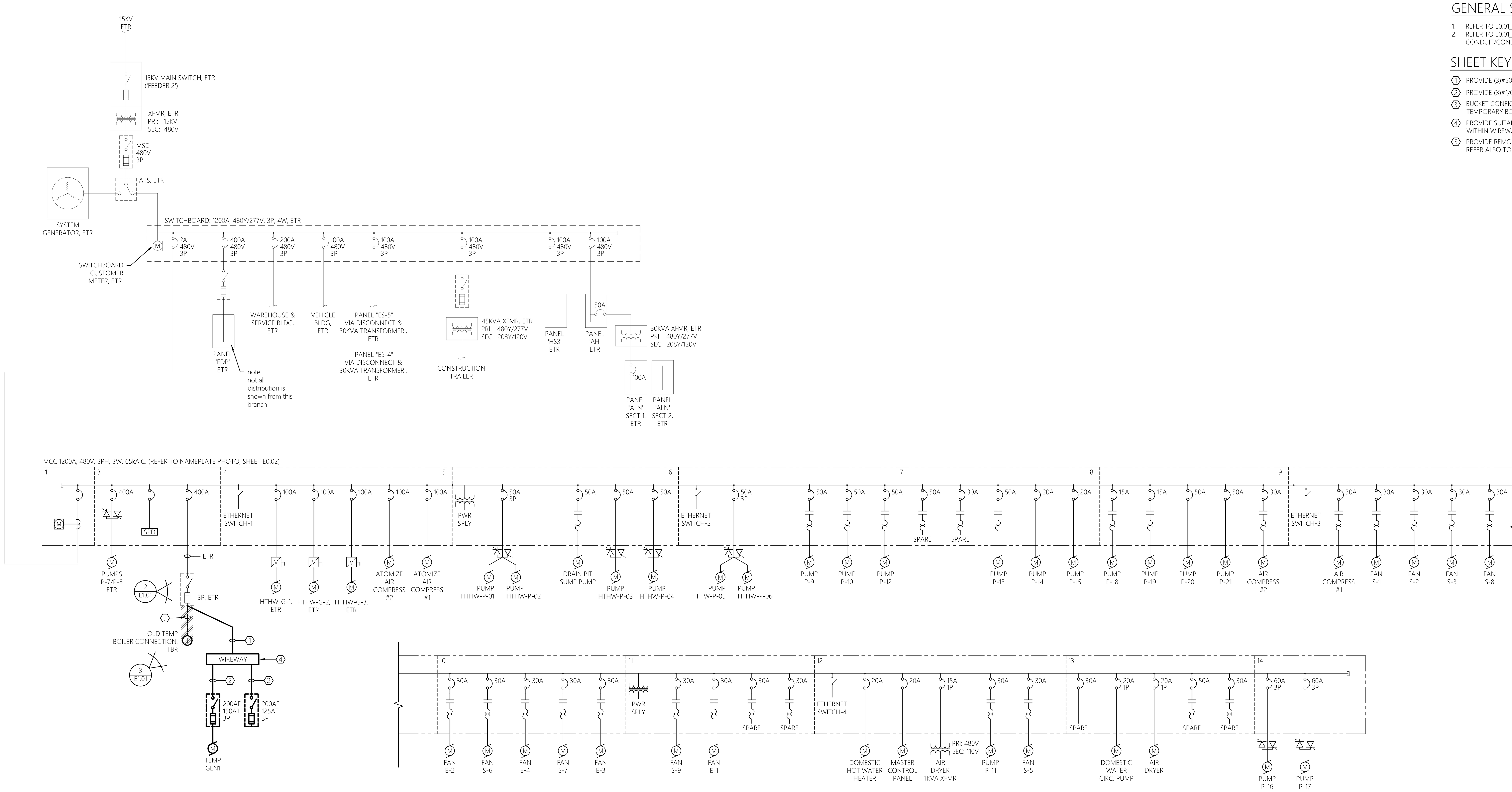
GENERAL SHEET NOTES:

1. REFER TO E0.01_R1 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES
2. REFER TO E0.01_R1 FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE AND ALL CONDUIT/CONDUCTOR SIZING AND CIRCUIT PROTECTION CHARACTERISTICS.

SHEET KEY NOTES:

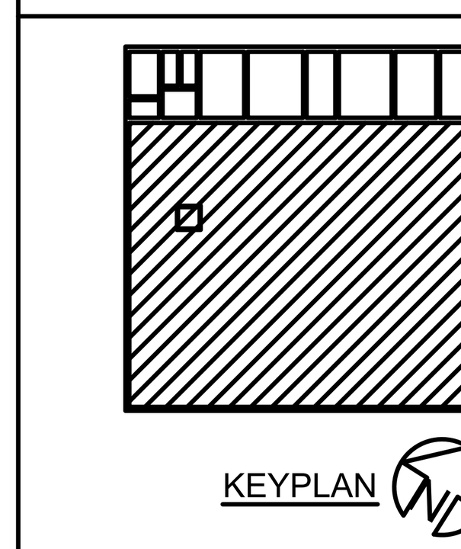
1. PROVIDE (3)#500 & #3G, 4"C
2. PROVIDE (3)#1/0 & #6G, 2"C
3. BUCKET CONFIGURATION TO REMAIN. UTILIZE TO FEED (2) TEMPORARY BOILER CONNECTIONS. REFER TO SINGLE LINE DIAGRAM.
4. PROVIDE SUITABLY SIZED WIREWAY AND UTILIZE POLARIS TYPE TAPS WITHIN WIREWAY, TYP.
5. PROVIDE REMOVAL OF OLD TEMP BOILER CIRCUIT BACK TO DISCONNECT. REFER ALSO TO KEYNOTE 3, SHEET E1.01



1 MCC SINGLE LINE DIAGRAM
SCALE: NTS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	POWER METERING	TRANSITION	PUMP P-7/P-8 (200HP) 400A MCCB (VFD DISCONNECT)	MAIN ETHERNET SWITCH	PWR SUPPLY	ETHERNET SWITCH	SPACE	SPACE	ETHERNET SWITCH	SPACE	POWER SUPPLY	ETHERNET SWITCH	SPACE	SPACE
B				SPACE										
C–D	MAIN CIRCUIT BREAKER 1200A, LSI MCCB (900A TRIP)			HTHW GEN-1 (BOILER) 100A MCCB	PUMP P-1/P-2 (20HP) 50A MCCB	PUMP P-5/P-6 (20HP) 50A MCCB	SPARE 50AMCB NEMA-2 FVNR	PUMP P-18 (2HP) 15A MCP NEMA-00 FVNR	AIR COMPRESSOR NO. 1 (10HP) 30A MCB NEMA-1 FVNR	FAN E-2 (10HP) 30A MCB NEMA-1 FVNR	FAN S-9 (10HP) 30A MCB NEMA-1 FVNR	DOMESTIC HOT WATER HEATER 20A MCCB NEMA-1 FVNR (TOP ENTRY/EXIT)	SPARE	PUMP P-16 (40HP) 100A MCCB
E–F				HTHW GEN-2 (BOILER) 100A MCCB	SPARE 50A MCCB	SPARE 50A MCCB	SPARE 30A MCP NEMA-1 FVNR	PUMP P-19 (2HP) 15A MCB NEMA-00 FVNR	FAN S-1 (10HP) 30A MCB NEMA-1 FVNR	FAN S-6 (10HP) 30A MCB NEMA-1 FVNR	FAN E-1 (10HP) 30A MCB NEMA-1 FVNR	MASTER CONTROL PANEL 20A MCCB	DOMESTIC WATER CIRCULATION PUMP (DWCP) 20A MCCB, 1P 110V/1PH	PUMP P-17 (40HP) 100A MCCB
G–H			SPD	HTHW GEN-3 (BOILER) 100A MCCB	DRAIN PIT SUMP PUMP (20HP) 50A MCB NEMA-2 FVNR	PUMP P-9 (15HP) 50A MCB NEMA-2 FVNR	PUMP P-13 (20HP) 50A MCB NEMA-2 FVNR	PUMP P-20 (10HP) 50A MCCB	FAN S-2 (10HP) 30A MCB NEMA-1 FVNR	FAN E-4 (10HP) 30A MCB NEMA-1 FVNR	FAN S-4 (10HP) 30A MCB NEMA-1 FVNR	1KVA DRY-TYPE XFMR PRI: 480V SEC: 110V 1PH FOR AIR DRYER 15A, 1P MCCB	AIR DRYER (1PH) 20A MCCB, 1P 110V/1PH	SPACE
I–J			(3) NEW TEMP HTHW GENERATORS (TEMP GEN1 & TEMP GEN2) 400A	ATOMIZING AIR COMPRESSOR NO. 2 100A MCCB (TOP ENTRY/EXIT)	PUMP P-3 (20HP) 50A MCCB (VFD DISCONNECT)	PUMP P-10 (15HP) 50A MCB NEMA-2 FVNR	PUMP P-14 (7.5HP) 30A MCB	PUMP P-21 (10HP) 50A MCCB	FAN S-3 (10HP) 30A MCB NEMA-1 FVNR	FAN S-7 (10HP) 30A MCB NEMA-1 FVNR	SPARE (10HP) 30A MCB NEMA-1 FVNR	PUMP P-11 (10HP) 30A MCB NEMA-1 FVNR	SPARE 50A MCB NEMA-2 FVNR	SPACE
K–L				ATOMIZING AIR COMPRESSOR NO. 1 150A MCCB (TOP ENTRY/EXIT)	PUMP P-4 (20HP) 50A MCCB (VFD DISCONNECT)	PUMP P-12 (20HP) 50A MCB NEMA-2 FVNR	PUMP P-15 (7.5HP) 30A MCB	AIR COMPRESSOR NO. 2 (10HP) 30A MCB NEMA-1 FVNR	FAN S-8 (10HP) 30A MCB NEMA-1 FVNR	FAN E-3 (10HP) 30A MCB NEMA-1 FVNR	SPARE (10HP) 30A MCB NEMA-1 FVNR	FAN S-5 (10HP) 30A MCB NEMA-1 FVNR	SPARE 30A MCB NEMA-1 FVNR	SPACE

2 MCC ELEVATION DETAIL PROPOSED RECONFIGURATIONS
SCALE: NTS



REV	DESCRIPTION	DATE

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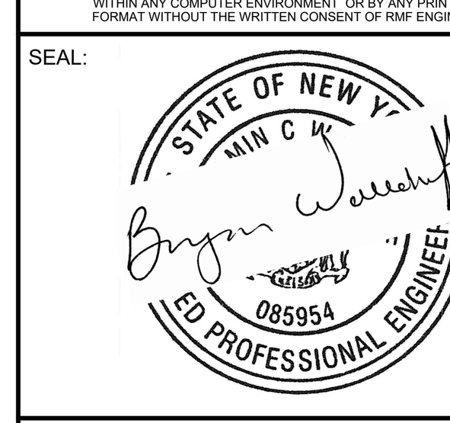

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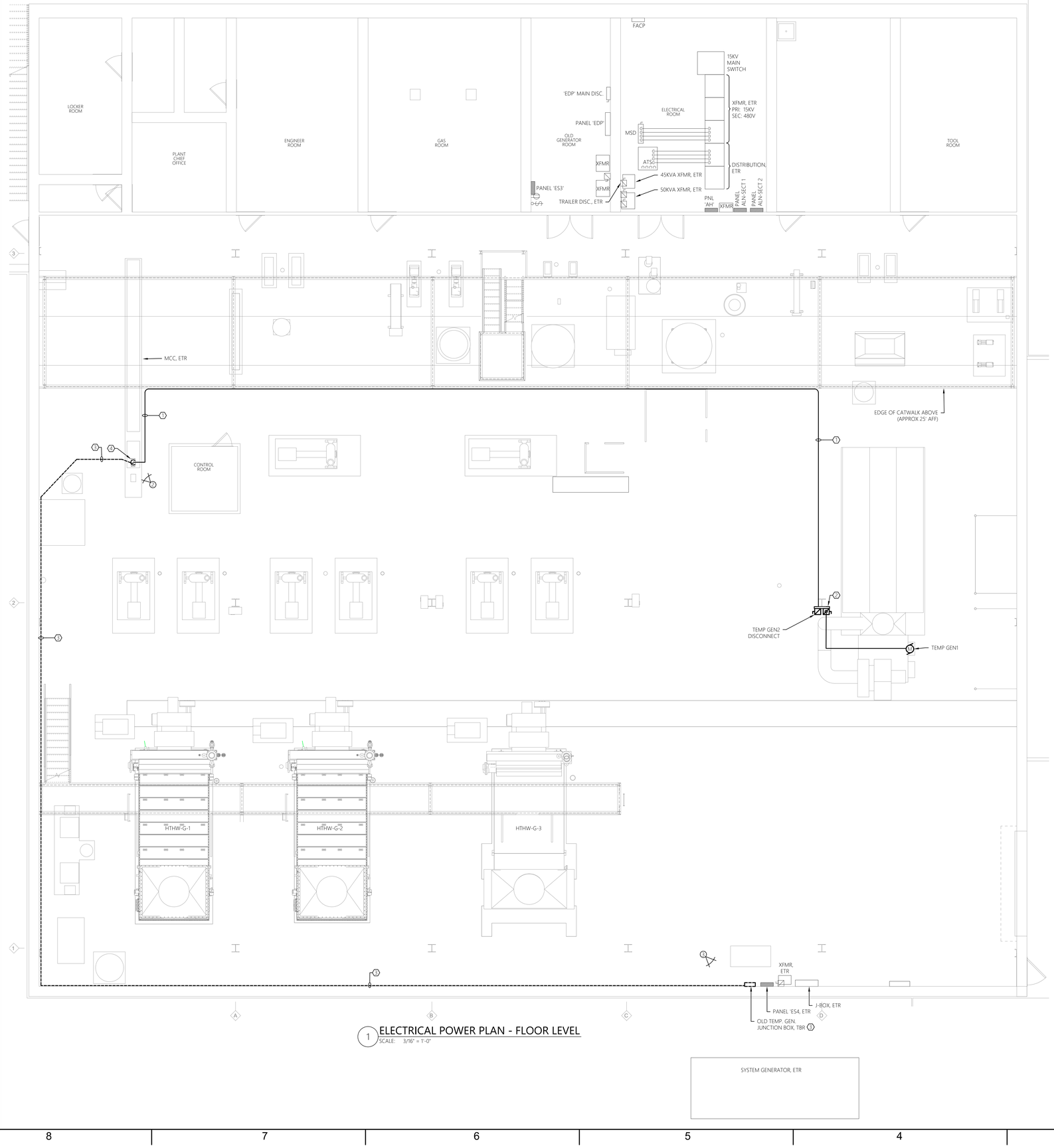
DESIGNED BY:	BCW	SCALE:	AS NOTED
CHECKED BY:	BCW	RMF JOB NO.:	062470058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd,
Purchase, NY 10577

DRAWING TITLE :
ELECTRICAL DETAILS

DRAWING NUMBER :
E0.02



1 ELECTRICAL POWER PLAN - FLOOR LEVEL
SCALE: 3/16" = 1'-0"

GENERAL SHEET NOTES:

1. REFER TO E0.01 FOR ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
2. ALL CONDUCTORS SHALL BE THHN/THWN-2.
3. INSTALLATION SHALL BE PER NECA1 GUIDELINES.
4. PROVIDE HANGERS & SUPPORTS AS REQUIRED.
5. PROVIDE GROUNDING PER NEC FOR ALL ELECTRICAL EQUIPMENT AND ASSOCIATED EQUIPMENT.
6. PROVIDE SUBMITTAL DATA FOR ALL PROPOSED HARDWARE, DEVICES, CONDUIT, HANGERS, ETC. FOR ENGINEER REVIEW & APPROVAL PRIOR TO ORDERING.
7. ALL CONDUCTORS AND EQUIPMENT NOT SHOWN FOR CLARITY. COORDINATE WITH ALL TRADES AND PROVIDE COMPLETE ELECTRICAL CIRCUITING FOR ALL INSTALLED EQUIPMENT. ALL REQUIREMENTS TO BE PER NEC.
8. PHOTOGRAPHS PROVIDED ARE FOR REFERENCE PURPOSES ONLY. PHOTOS REPRESENT WHAT CONDITIONS WERE AT THE TIME THEY WERE TAKEN AND MAY NOT ACCURATELY REPRESENT CURRENT CONDITIONS.

SHEET KEY NOTES:

1. PROVIDE CIRCUITS FOR TEMPORARY HTHW GENERATOR 'TEMP GEN1' & BACKUP 'TEMP GEN2'. UTILIZE OVERHEAD CONDUIT ROUTING. REFER TO SINGLE LINE DIAGRAM.
2. PROVIDE DISCONNECTS. REFER TO SINGLE LINE DIAGRAM.
3. REMOVE EXISTING TEMP HTHW GENERATOR CONDUCTORS/CONDUIT/RACEWAY.
4. TEMP HTHW GENERATOR DISCONNECT, ETR.

2 REFERENCE PHOTO
SCALE: NTS DISCONNECT

3 REFERENCE PHOTO
SCALE: NTS JUNCTION BOX

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KEYPLAN

REV	DESCRIPTION	DATE
REVISIONS		

SUBMISSION TITLE :
BID DOCUMENTS

SEAL:
STATE OF NEW YORK
BRYAN C. WASSELL
085954
PROFESSIONAL ENGINEER

DRAWN BY:	KJM	DATE:	03/03/2025
DESIGNED BY:	BCW	SCALE:	AS NOTED
CHECKED BY:	BCW	RMF JOB NO.:	062470058.A0
PROJ. MGR.:	PKG	CLIENT JOB #:	SU-031125

PROJECT NAME :
MODIFICATIONS TO HEATING PLANT FOR TEMPORARY BOILER

PROJECT ADDRESS :
735 Anderson Hill Rd, Purchase, NY 10577

DRAWING TITLE :
ELECTRICAL POWER & LIGHTING PLAN

DRAWING NUMBER :
E1.01

0' 2' 4' 8' 16'
SCALE: 3/16" = 1'-0"