

4 HVAC EQUIPMENT DESIGNATION

NOTE: NOT ALL EQUIPMENT TYPES MAY APPLY TO PROJECT

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|-------------------------------------|--|--|--|
| AB AIR BLENDER | CUH CABINET UNIT HEATER | H HUMIDIFIER | SA SOUND ATTENUATOR |
| ACB ACTIVE CHILLED BEAM | PCR CONDENSER WATER PUMP | HC HEATING COIL | SAV SUPPLY AIR CONTROL VALVE |
| ACC AIR-COOLED CONDENSER | DEA DEAERATOR | HX HEAT EXCHANGER | SMD SMOKE DETECTOR |
| ACCU AIR-COOLED CONDENSING UNIT | DOAU DEDICATED OUTSIDE AIR UNIT | HGLP HOT GLYCOL PUMP | WFU SAND MEDIA WATER FILTER |
| AFCS AIRFLOW CONTROL STATION | EAHU EXHAUST AIR HANDLING UNIT | HRCH MODULAR SIX PIPE WATER SOURCE HEAT PUMP | SCB SCRUBBER |
| ACUH AIR CURTAIN UNIT HEATER | EAV EXHAUST AIR CONTROL VALVE | HRW TOTAL ENERGY (ENTHALPY) RECOVERY WHEEL | SCHP SECONDARY CHILLED WATER PUMP |
| AS AIR ELIMINATOR | EBB ELECTRIC BASEBOARD HEATER | HRV HEATING AND VENTILATING UNIT | SD SMOKE DAMPER |
| AFMS AIRFLOW MEASURING STATION | EF EXHAUST FAN | HVU HEATING AND VENTILATING UNIT | SF SUPPLY FAN |
| AHU AIR HANDLING UNIT | ERU ENERGY RECOVERY UNIT | PHW HOT WATER PUMP | SHWP SECONDARY HOT WATER PUMP |
| BFP BOILER FEED PUMP | TEX EXPANSION TANK | LDC LIQUID DRY COOLER | SV SAFETY VALVE (STEAM) |
| BIBO BAG IN BAG OUT FILTER ASSEMBLY | F FAN | P PUMP | UH UNIT HEATER |
| BHW BOILER | FCU FAN COIL UNIT | PFILT PRE-FILTER | VCV VARIABLE/CONSTANT VOLUME SUPPLY AIR TERMINAL |
| CB CHILLED BEAM (ACTIVE OR PASSIVE) | FD FIRE DAMPER | PHC PRE-HEAT COIL | VFD VARIABLE FREQUENCY DRIVE |
| CC COOLING COIL | FE FLOW ELEMENT (WATER) | PHE PLATE HEAT EXCHANGER | VV VARIABLE VOLUME SUPPLY AIR TERMINAL (NO COIL) |
| CFP CHEMICAL FEED PUMP | FFLT FINAL FILTER | PPCP PRESSURE POWERED CONDENSATE PUMP | VVE VARIABLE/CONSTANT VOLUME EXHAUST/RETURN AIR TERMINAL |
| CH CHILLER | FOP FUEL OIL PUMP | PRV PRESSURE REGULATING VALVE | WSHP WATER SOURCE HEAT PUMP |
| CHGLP CHILLED GLYCOL PUMP | FPT FAN-POWERED TERMINAL CONDENSATE PUMP | RF RETURN FAN | WCCU WATER COOLED CONDENSING UNIT |
| PCW CHILLED WATER PUMP | FSD FIRE/SMOKE DAMPER | RHC REHEAT COIL | PWE WELL FIELD PUMP |
| CP CONDENSATE RECEIVER/PUMP | FT FLASH TANK | RP RADIANT PANEL | PCT COOLING TOWER PUMP |
| CRAC COMPUTER ROOM A/C UNIT | FTR FINNED TUBE RADIATION | RTU ROOFTOP HVAC UNIT (COMPRESSORIZED) | |
| CT COOLING TOWER | GH GRAVITY HOOD | | |

5 ANNOTATION SYMBOLS

NOTE: NOT ALL SYMBOLS MAY APPLY TO PROJECT

| | | | |
|---|--|--|--|
| <ul style="list-style-type: none"> (ALM) ALARM (CD) CARBON DIOXIDE SENSOR (CM) CARBON MONOXIDE SENSOR (H) HUMIDISTAT / HUMIDITY SENSOR (O) OXYGEN SENSOR (OCC) OCCUPANCY SENSOR (P) PRESSURE SENSOR (SPM) SPACE PRESSURE MONITOR (T) THERMOSTAT / TEMPERATURE SENSOR (TH) TEMPERATURE AND HUMIDITY SENSOR (DD) DUCT SMOKE DETECTOR | <ul style="list-style-type: none"> (WS) WALL SWITCH (FHP) FUME HOOD PURGE (R) ROOM PURGE BUTTON WITH LOCAL ASSOCIATED AUDIBLE / VISUAL ALARM (S) SUPPLY AIRFLOW (R) RETURN OR EXHAUST AIRFLOW (UC/A) DOOR UNDER CUT ('A' CFM) (L/A) DOOR LOUVER ('A' CFM) (R) RISE (D) DROP | <ul style="list-style-type: none"> (DCP) DDC CONTROL PANEL (LCP) LOCAL CONTROL PANEL (C) CONNECT TO EXISTING (E) EXTENT OF DEMOLITION; PROVIDE CAP AS NECESSARY (P) PIPE, DUCT OR EQUIPMENT TO BE REMOVED | <ul style="list-style-type: none"> (X) SECTION REFERENCE (SECTION 'X' ON DRAWING 'Z') (1/A101) SIM DETAIL REFERENCE (DETAIL 'X' ON DRAWING 'Z') (#) SHEET KEY NOTE (NEW WORK) (#) SHEET DEMO KEY NOTE (DEMO) |
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6 HVAC PIPING DESIGNATION

NOTE: NOT ALL SYMBOLS MAY APPLY TO PROJECT

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| <ul style="list-style-type: none"> (I) ISOLATION VALVE (REFER TO SPEC FOR TYPE BASED ON SERVICE) GLOBE VALVE (A) ANGLE GLOBE BALL VALVE (N) NEEDLE VALVE (L) LOCK SHIELD VALVE (B) BUTTERFLY VALVE (L) LUBRICATED PLUG VALVE (F) FLOW BALANCING VALVE (C) CONSTANT FLOW VALVE (FLOW-LIMITING VALVE) (Q) QUICK ACTING VALVE (I) ISOLATION VALVE WITH CAP OR BLIND FLANGE (E) ELECTRIC MODULATING VALVE (TWO WAY) (E) ELECTRIC MODULATING VALVE (THREE WAY) (E) ELECTRIC SLOW ACTING SOLENOID (TWO-POSITION) VALVE (E) ELECTRIC SOLENOID (TWO-POSITION) VALVE (R) RELIEF VALVE OR SAFETY VALVE (F) FUSIBLE LINK VALVE | <ul style="list-style-type: none"> (C) CHECK VALVE (ARROW IN FLOW DIRECTION) (G) PIPE GUIDE (A) PIPE ANCHOR (R) CONCENTRIC REDUCER (E) ECCENTRIC REDUCER (FOT FOR LIQUID, FOB FOR STEAM) (M) MANUAL AIR VENT (A) AUTOMATIC AIR VENT (V) VACUUM BREAKER (E) EXPANSION JOINT (B) BALL JOINT (F) FLEXIBLE CONNECTION (U) UNION (F) FLANGE (S) STRAINER ASSEMBLY (G) PRESSURE GAUGE ASSEMBLY (T) PRESSURE TEMPERATURE TAP WITH CAP | <ul style="list-style-type: none"> (S) STEAM TRAP (S) STEAM TRAP ASSEMBLY (T) PIPE TURNED UP OR RISE (D) PIPE TURNED DOWN OR DROP (I) ISOLATION VALVE WITH BLIND FLANGE (D) DRIP-PAN ELBOW WITH DRAIN (M) METER (REFER TO SPECIFICATIONS FOR TYPES) (F) FLOW ELEMENT (T) THERMOMETER IN THERMO-WELL (S) PIPELINE SENSOR (SEE ANNOTATION SYMBOLS FOR TYPE) (R) RADIANT PANEL |
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7 DUCT & PIPING SERVICE

NOTE: NOT ALL SYMBOLS MAY APPLY TO PROJECT

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| <ul style="list-style-type: none"> CHS CHILLED WATER SUPPLY CHR CHILLED WATER RETURN CWS CONDENSER WATER SUPPLY CWR CONDENSER WATER RETURN EWIS EVAPORATOR WATER SUPPLY EWR EVAPORATOR WATER RETURN SCHS SECONDARY CHILLED WATER SUPPLY SCHR SECONDARY CHILLED WATER RETURN HWS HOT WATER SUPPLY (HEATING) HWR HOT WATER RETURN (HEATING) SHWS SECONDARY HOT WATER SUPPLY SHWR SECONDARY HOT WATER RETURN MPS MEDIUM PRESSURE STEAM MPR MEDIUM PRESSURE CONDENSATE RETURN HPS HIGH PRESSURE STEAM HPR HIGH PRESSURE STEAM CONDENSATE RETURN WFS WELL FIELD SUPPLY WFR WELL FIELD RETURN PD PUMPED DRAIN PC PUMPED STEAM CONDENSATE | <ul style="list-style-type: none"> PCWS PROCESS COOLING WATER SUPPLY PCWR PROCESS COOLING WATER RETURN CW DOMESTIC COLD WATER HW DOMESTIC HOT WATER D DRAIN (GRAVITY FLOW) V ATMOSPHERIC VESSEL VENT SRV SAFETY OR RELIEF VALVE DISCHARGE VENT FOF FUEL OIL FILL FOS FUEL OIL SUPPLY FOR FUEL OIL RETURN FOV FUEL OIL VENT RL REFRIGERANT LIQUID RS REFRIGERANT SUCTION RHG REFRIGERANT HOT GAS NPWC NON-POTABLE CITY WATER (REFER TO PLBG DRAWINGS) | <ul style="list-style-type: none"> BF BOILER FEED BD BOILER OR VESSEL BLOW DOWN CF CHEMICAL FEED SA SUPPLY AIR RA RETURN AIR RLA RELIEF AIR GX GENERAL EXHAUST AIR HX FUME HOOD EXHAUST AIR KX KITCHEN (GREASE) EXHAUST AIR TX TOILET ROOM EXHAUST AIR CHGLS CHILLED GLYCOL SUPPLY CHGLR CHILLED GLYCOL RETURN HGLS HOT GLYCOL SUPPLY HGLR HOT GLYCOL RETURN (E) SYS EXISTING PIPE OR DUCT NOTE: SOME SERVICE TYPES MAY NOT APPLY TO PROJECT |
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1 APPLICABLE BUILDING CODES AND REGULATIONS

THE FOLLOWING BUILDING CODES APPLY TO THE WORK OF THIS PROJECT:

1. BUILDING CODE: 2020 BUILDING CODE OF NEW YORK STATE
2. MECHANICAL CODE: 2020 MECHANICAL CODE OF NEW YORK STATE
3. ENERGY CONSERVATION CODE: 2020 ENERGY CONSERVATION CODE OF NEW YORK STATE

2 HVAC GENERAL NOTES

- A. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL A COMPLETE AND OPERABLE HVAC SYSTEM AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY CODE.
- B. CONTRACT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND DESIGN INTENT ONLY.
- C. LEGEND SYMBOLS AND ABBREVIATIONS ARE NOT PROJECT-SPECIFIC - SOME MAY NOT APPLY TO PROJECT SCOPE.
- D. BRING TO THE ATTENTION OF THE ARCHITECT ANY INFORMATIONAL CONFLICTS WITHIN THE SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL NOT PROCEED WITH WORK EXCEPT AT THEIR OWN RISK UNTIL ALL CONFLICTS ARE RESOLVED AND THE CLARIFYING INFORMATION IS ISSUED TO THE CONTRACTOR BY THE ARCHITECT.
- E. MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHALL BE SUPPORTED BY SUBSTANTIAL BUILDING STRUCTURE. REFER TO STRUCTURAL DRAWINGS FOR REQUIREMENTS. REFER TO SPECIFICATIONS. DO NOT SUPPORT ONE PIPE OR DUCT FROM ANOTHER.
- F. ALL EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL BE SUPPORTED AS SPECIFIED, AND AS REQUIRED TO PROVIDE VIBRATION CONTROL PER SPECIFICATION.
- G. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS PRIOR TO FABRICATION.
- H. LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL TRADES.
- I. LOCATE FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SEGMENT OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER. NOTIFY THE ARCHITECT WHERE MANUFACTURERS SPACING RECOMMENDATIONS CANNOT BE MET.
- J. PROVIDE CONDENSATE DRAIN PIPING FOR ALL HVAC COOLING EQUIPMENT; PIPING SHALL RUN TO AIR-GAP CONNECTION AT THE NEAREST CODE APPROVED DRAIN LOCATION.
- K. PROVIDE LIFE SAFETY DAMPERS IN ALL RATED WALLS AND SHAFT PENETRATIONS TO MEET CODE. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPES (LIFE SAFETY DRAWINGS).
- L. ALL OPENINGS IN RATED ASSEMBLIES DUE TO DUCTWORK, PIPING, CONDUIT, ETC. SHALL BE FIRE STOPPED, DRAFT-STOPPED, AND SMOKE STOPPED.
- M. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- N. ALL DUCT CONSTRUCTION SHALL AT A MINIMUM COMPLY WITH THE CURRENT VERSION OF SMACNA CONSTRUCTION STANDARDS AND AS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL 90 DEGREE ELBOWS SHALL BE LONG RADIUS TYPE UNLESS SPACE IS LIMITED. SHORT RADIUS AND RECTANGULAR ELBOWS SHALL HAVE TURNING VANES. UNLESS OTHERWISE NOTED, PROVIDE CONICAL TAPS FOR ROUND DUCTS AND 45 DEGREE TAPS FOR RECTANGULAR DUCTS FOR ALL BRANCH CONNECTIONS.
- O. PROVIDE VOLUME DAMPERS AT ALL BRANCH DUCT TAKEOFFS, AT EACH TERMINAL RUNOUT, AND PER SPECIFICATION.
- P. PROVIDE VIBRATION-ISOLATION CONNECTORS BETWEEN DUCTWORK AND ALL FANS.
- Q. FLEXIBLE DUCTWORK SHALL NOT BE USED IN RETURN OR EXHAUST AIR SYSTEMS. FLEXIBLE DUCT MAY BE USED FOR SUPPLY AIR SYSTEMS, ONLY WHERE SPECIFIED AND SUBJECT TO LIMITATIONS. SEE 'S' BELOW.
- R. PROVIDE FLEXIBLE PIPING CONNECTORS AT ALL BUILDING EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS AND EXTENT OF DESIGN DISPLACEMENT AT JOINT.
- S. PROVIDE CONTINUOUSLY DUCTED STEEL SHEET METAL (MIN 26 GA.) WHERE FLEXIBLE DUCT IS PERMITTED BY SPECIFICATIONS, PROVIDE FIRE DAMPERS AT ALL 1HR FIRE PARTITIONS (SEE LIFE SAFETY PLANS). REFER TO SPECIFICATION SECTION 233100 FOR ADDITIONAL INFORMATION.
- T. COORDINATE THE EXACT LOCATIONS OF DIFFUSERS, GRILLES, AND REGISTERS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO PROCUREMENT.
- U. ALL PRESSURE AND LEAKAGE TESTS SHALL BE COMPLETED PRIOR TO APPLYING INSULATION (EQUIPMENT, DUCTWORK, PIPING).
- V. INSULATE ALL DUCT-INTEGRATED EQUIPMENT (E.G. IN-LINE COILS, SOUND ATTENUATORS, DAMPERS, FANS) THAT ARE CONNECTED TO AN INSULATED DUCT SYSTEM. USE REMOVABLE INSULATION TO MAINTAIN SERVICE ACCESS.
- W. INSULATE ALL PIPE-INTEGRATED EQUIPMENT (EG. VALVES, STRAINERS, PUMPS) THAT ARE CONNECTED TO AN INSULATED PIPE SYSTEM. USE REMOVABLE INSULATION TO MAINTAIN SERVICE ACCESS.

3 HVAC ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY APPLY TO PROJECT

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|---|---|--|---|
| <ul style="list-style-type: none"> A/C AIR-CONDITIONING ABS ABSOLUTE AD AUTOMATIC DAMPER AFF ABOVE FINISHED FLOOR ALUM ALUMINUM AMB AMBIENT AP ACCESS PANEL APPROX APPROXIMATE ARCH ARCHITECTURAL ATM ATMOSPHERE AVG AVERAGE BF BLIND FLANGE BFC BELOW FINISHED CEILING BHP BRAKE HORSE POWER BOD BOTTOM OF DUCT BOP BOTTOM OF PIPE BTU(H) BRITISH THERMAL UNIT (PER HOUR) CAP CAPACITY CC COOLING COIL CFM CUBIC FEET PER MINUTE CI CAST IRON CM CONSTRUCTION MANAGER CO CLEAN OUT COND CONDENSATE CONT CONTINUATION CTE CONNECT TO EXISTING CUH CABINET UNIT HEATER CV CONTROL VALVE OR CONSTANT VOLUME DAT DISCHARGE AIR TEMPERATURE DB DEOBELS OR DRY BULB DBA DEOBELS (A-WEIGHTED SCALE) DDC DIRECT DIGITAL CONTROL DEFL DEFLECTION DIA DIAMETER DIV SPECIFICATION DIVISION DN DOWN DP DIFFERENTIAL PRESSURE DPE DRAIN PAN ELBOW DPT DEW POINT TEMPERATURE DR DRAIN DROP PIPE/DUCT ELEV. CHANGE WIN DWG DRAWING DX DIRECT EXPANSION (REFRIGERANT) (E) EXISTING EA EACH OR EXHAUST AIR EAT ENTERING AIR TEMPERATURE EDB ENTERING DRY BULB TEMPERATURE EER ENERGY EFFICIENT RATIO EFF EFFICIENCY EG ETHYLENE GLYCOL WATER SOLUTION EL ELEVATION ELEC ELECTRICAL EP ELECTRICAL PNEUMATIC | <ul style="list-style-type: none"> ENGR ENGINEER EQ EQUAL OR EQUIVALENT ESP EXTERNAL STATIC PRESSURE (INCHES OF WATER) ETR EXISTING TO REMAIN EWB EXISTING WET BULB TEMPERATURE EWT ENTERING WATER TEMPERATURE EXH EXHAUST EXP EXPANSION F FAHRENHEIT FA FREE AREA (SQUARE FEET) FC FAIL CLOSED FD FIRE DAMPER FFP FAIL IN PLACE FLA FULL LOAD AMPS FLR FLOOR FLX FLEXIBLE CONNECTION FO FAIL OPEN FOB FLAT ON BOTTOM FOT FLAT ON TOP FFI FINS PER FOOT FFM FINS PER MINUTE FSD FEET PER SECOND FSD FIRE/SMOKE DAMPER FT FEET OR FOOT FV FACE VELOCITY GAL GALLON(S) GALV GALVANIZED GC GENERAL CONTRACTOR GEN GENERATOR GLY GLYCOL/WATER MIX GRM GALLONS PER HOUR GRM GALLONS PER MINUTE GR GRAINS H HEIGHT HB HOSE BIB HC HEATING COIL HDPE HIGH DENSITY POLYETHYLENE HEPA HIGH EFFICIENCY PARTICULATE AIR HG MERCURY HO HUB OUTLET HP HORSE POWER HR HOUR HVAC HEATING, VENTILATION AND AIR-CONDITIONING ID INSIDE DIAMETER IE INVERT ELEVATION IFB INTEGRAL FACE AND BY-PASS IN INCHES IN H20 INCHES OF WATER | <ul style="list-style-type: none"> IN WG INCHES OF WATER GAUGE IPLV INTEGRATED PART LOAD VALUE IPS IRON PIPE SIZE IW INDIRECT WASTE W/ AIR GAP AT DISCHARGE ISO ISOLATION KW KILOWATTS KWH KILOWATT HOURS L LENGTH LAT LEAVING AIR TEMPERATURE LBS POUNDS LBSHR POUNDS PER HOUR LDB LEAVING DRY BULB TEMPERATURE LEED LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN LRA LOCK ROTOR AMPS LWB LEAVING WET BULB TEMPERATURE LWT LEAVING WATER TEMPERATURE MAX MAXIMUM MBH 1000 BTUHR MCA MINIMUM CIRCUIT AMPACITY MCC MOTOR CONTROL CENTER MECH MECHANICAL MER MECHANICAL EQUIPMENT ROOM MERV MINIMUM EFFICIENCY RATING VALVE MFR MANUFACTURER MHP MOTOR HORSEPOWER MIN MINIMUM MISC MISCELLANEOUS MOCPP MAXIMUM OVER CURRENT PROTECTION MTG MOUNTING NC NOISE CRITERIA OR NORMALLY CLOSED NFPA NATIONAL FIRE PROTECTION ASSOCIATION NIC NOT IN CONTRACT NO NORMALLY OPEN OR NUMBER NOM NOMINAL NPLV NON STANDARD PART LOAD VALVE NPSH NET POSITIVE SUCTION HEAD NTS NOT TO SCALE OA OUTSIDE AIR OBD OPPOSED BLADE DAMPER OC ON CENTER OD OUTSIDE DIAMETER OED OPEN ENDED DUCT OZ OUNCE PD PRESSURE DROP PE PNEUMATIC ELECTRIC PG PROPYLENE GLYCOL WATER SOLUTION PH PHASE PLBG PLUMBING PRV PRESSURE REDUCING VALVE PSI POUNDS PER SQUARE INCH PSIA POUNDS PER SQUARE INCH ABSOLUTE PSID POUNDS PER SQUARE INCH DIFFERENTIAL | <ul style="list-style-type: none"> PSIG POUNDS PER SQUARE INCH GAUGE QTY QUANTITY RA RETURN AIR RAHU RE-CIRCULATING AIR HANDLING UNIT RH RELATIVE HUMIDITY RHC REHEAT COIL RISE PIPE/DUCT ELEV. CHANGE WIN FLR FLOOR LEVEL RLA RUNNING LOAD AMPS RPM REVOLUTIONS PER MINUTE SD SMOKE DAMPER S/S STAINLESS STEEL SA SUPPLY AIR OR SOUND ATTENUATOR SCFM STANDARD CUBIC FEET PER MINUTE SMD SMOKE DETECTOR SEC SECOND SEER SEASONAL ENERGY EFFICIENCY RATIO SF OR SQFT SQUARE FEET SG SPECIFIC GRAVITY SP STATIC PRESSURE (INCHES OF WATER) SPECS SPECIFICATIONS SPL SOUND POWER LEVEL SQ SQUARE SS STAINLESS STEEL STD STANDARD TAB TESTING, ADJUSTING AND BALANCING TEMP TEMPERATURE MSB MOTOR SERVICE BOX TOD TOP OF DUCT TOP TOP OF PIPE TSP TOTAL STATIC PRESSURE (INCHES OF WATER) TT TOP THROAT TYP TYPICAL UL UNDERWRITERS LABORATORIES V/V VOLTAGE VAV VARIABLE AIR VOLUME VC VENT CONNECTOR VD VOLUME DAMPER VEL VELOCITY VFD VARIABLE FREQUENCY DRIVE VIFB VERTICAL INTEGRAL FACE AND BYPASS VOL VOLUME VRF VARIABLE REFRIGERANT FLOW VV VARIABLE VOLUME W WATTS OR WIDTH WI WITH WIN WITHIN W/O WITHOUT WB WET BULB TEMPERATURE WG WATER GAUGE WT WIRE MESH SCREEN WEIGHT |
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Prepared by Owner's on-staff
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| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 4 | 10.25.22 | INFORMATION | JB |
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.28.22 | INFORMATION | MSB |
| 1 | 04.26.21 | INFORMATION | AJT |

Title: **LEGEND AND SCOPE**

Project: **CENTRAL ENERGY PLANT**

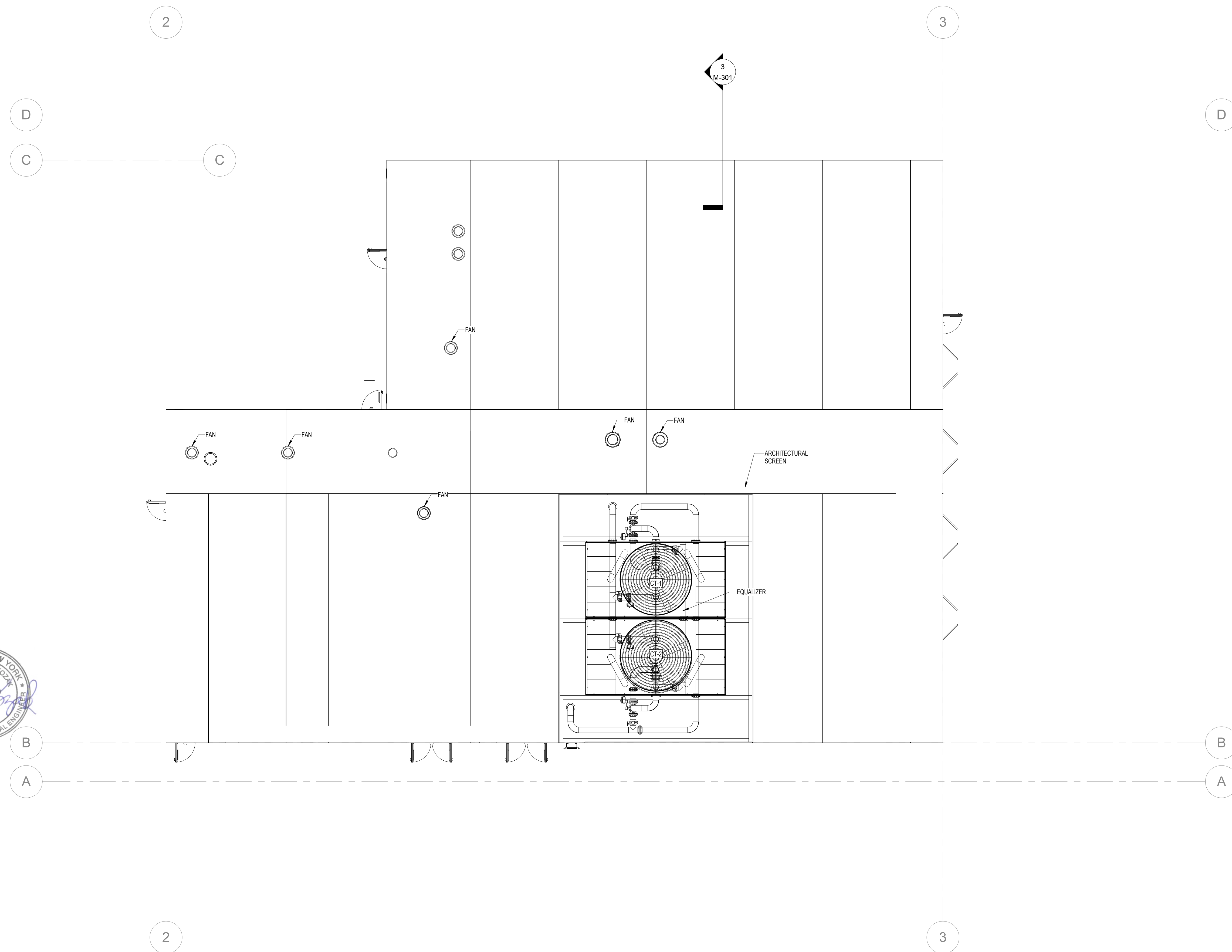
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Project no: **19009** Revision: **P4**

Sheet: **M-001**

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL EQUIPMENT TAGS ON THIS DRAWING ARE PRECEDED BY CP-01-
2. PIPING SHALL BE PROVIDED AND COORDINATED BY PRE-FABRICATED CENTRAL PLANT MANUFACTURER.



1 ROOF - MECHANICAL PLAN
1/8" = 1'-0"
0 4' 8' 16'

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.10.22 | INFORMATION | SH |
| 1 | 04.07.21 | INFORMATION | DF |

Title
ROOF - MECHANICAL PLAN

Project
CENTRAL ENERGY PLANT

Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

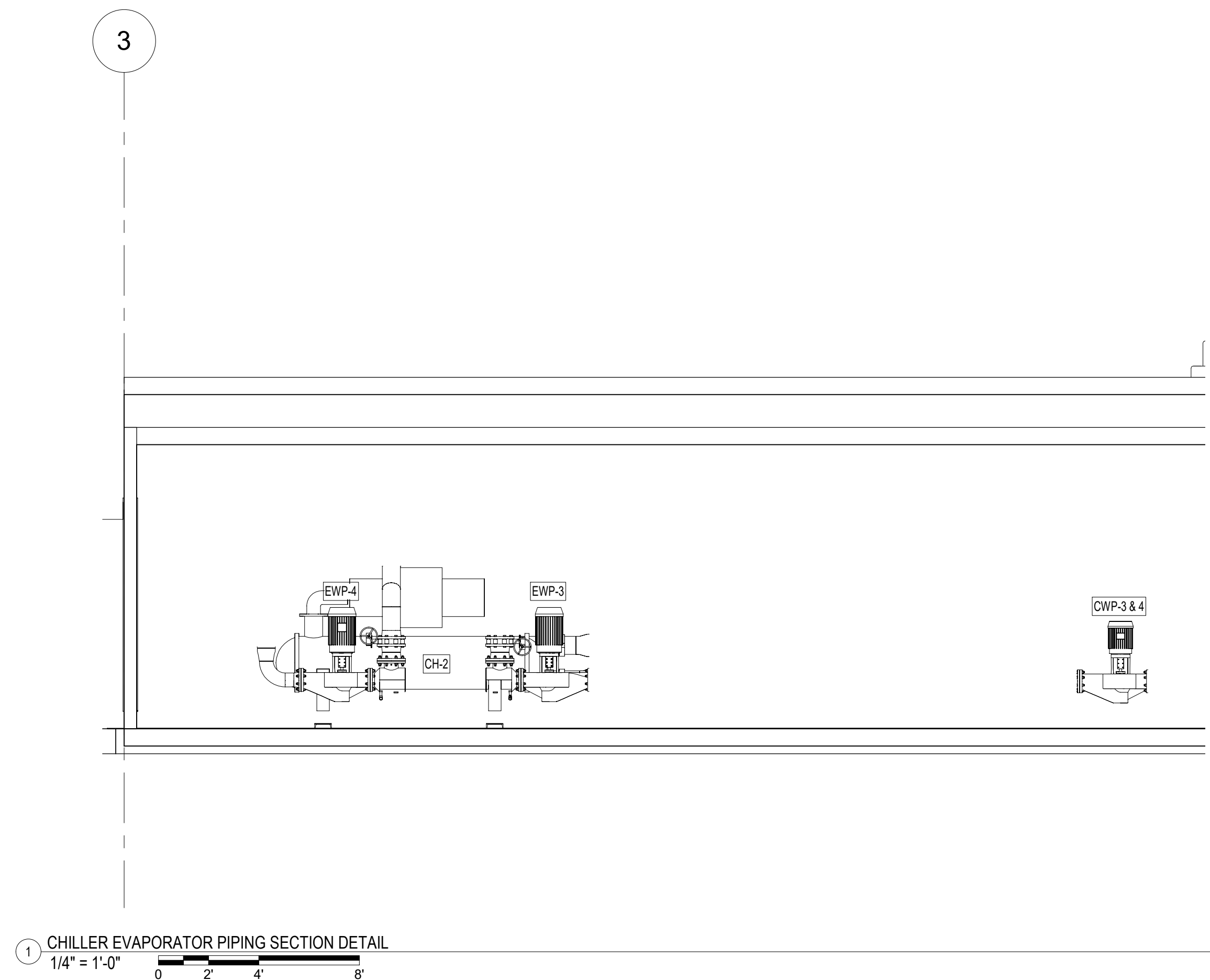
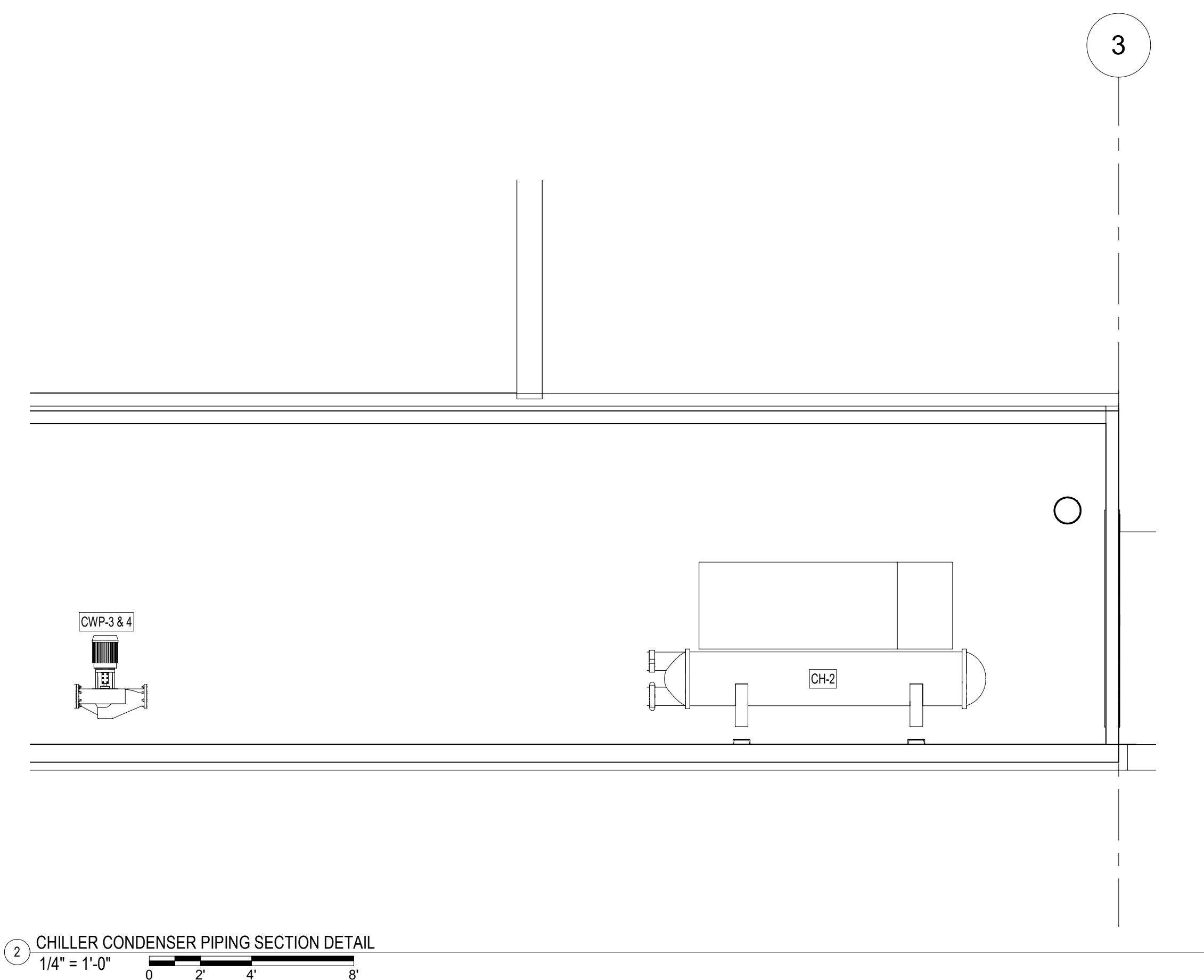
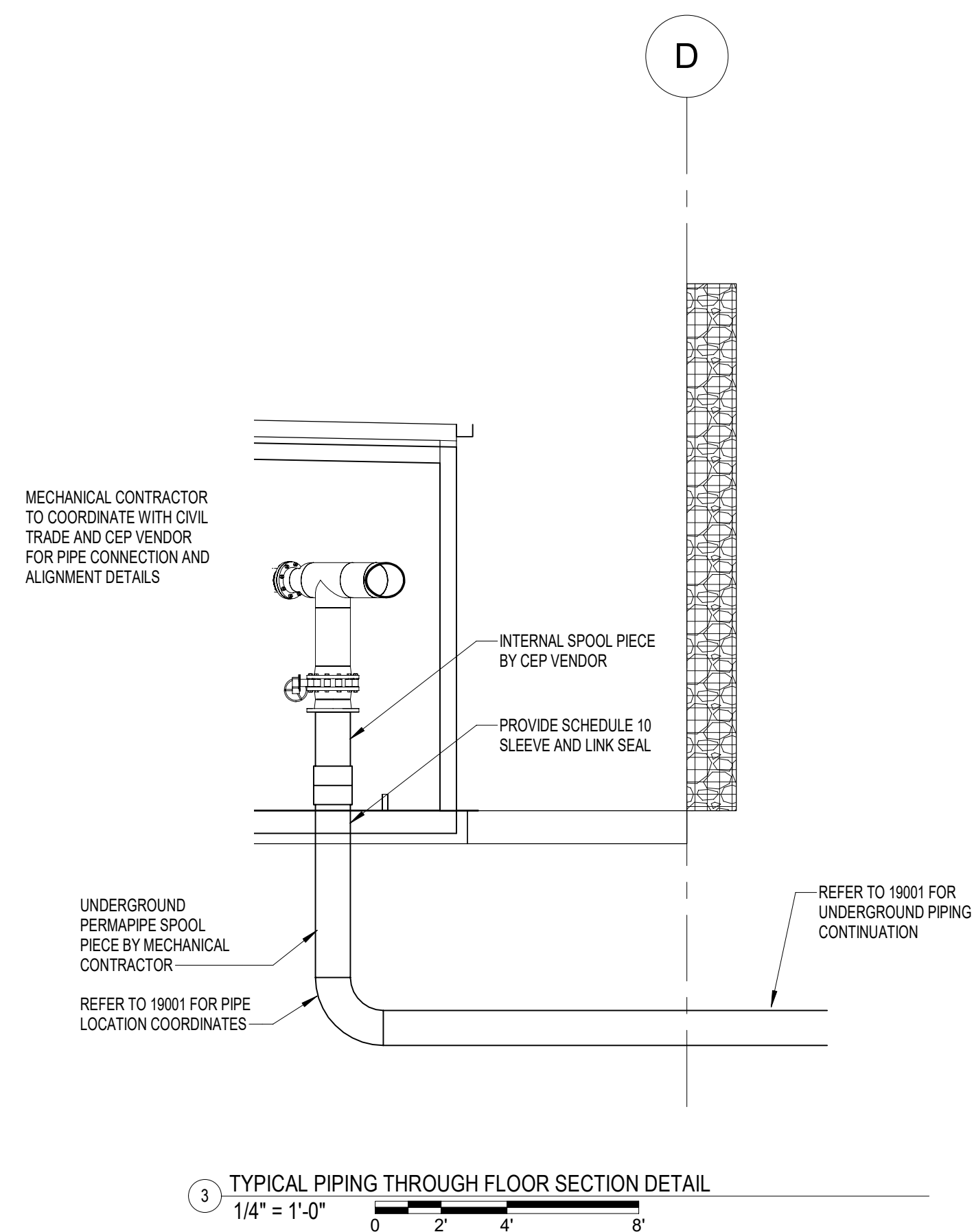
Project no **19009** Revision **P3**

Sheet

M-113

GENERAL NOTES

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|-----|----------|-------------|-----|
| 4 | 08.05.22 | SUBMISSION | JB |
| 3 | 02.28.22 | INFORMATION | JF |
| 2 | 02.10.22 | INFORMATION | SH |
| 1 | 04.07.21 | INFORMATION | DF |

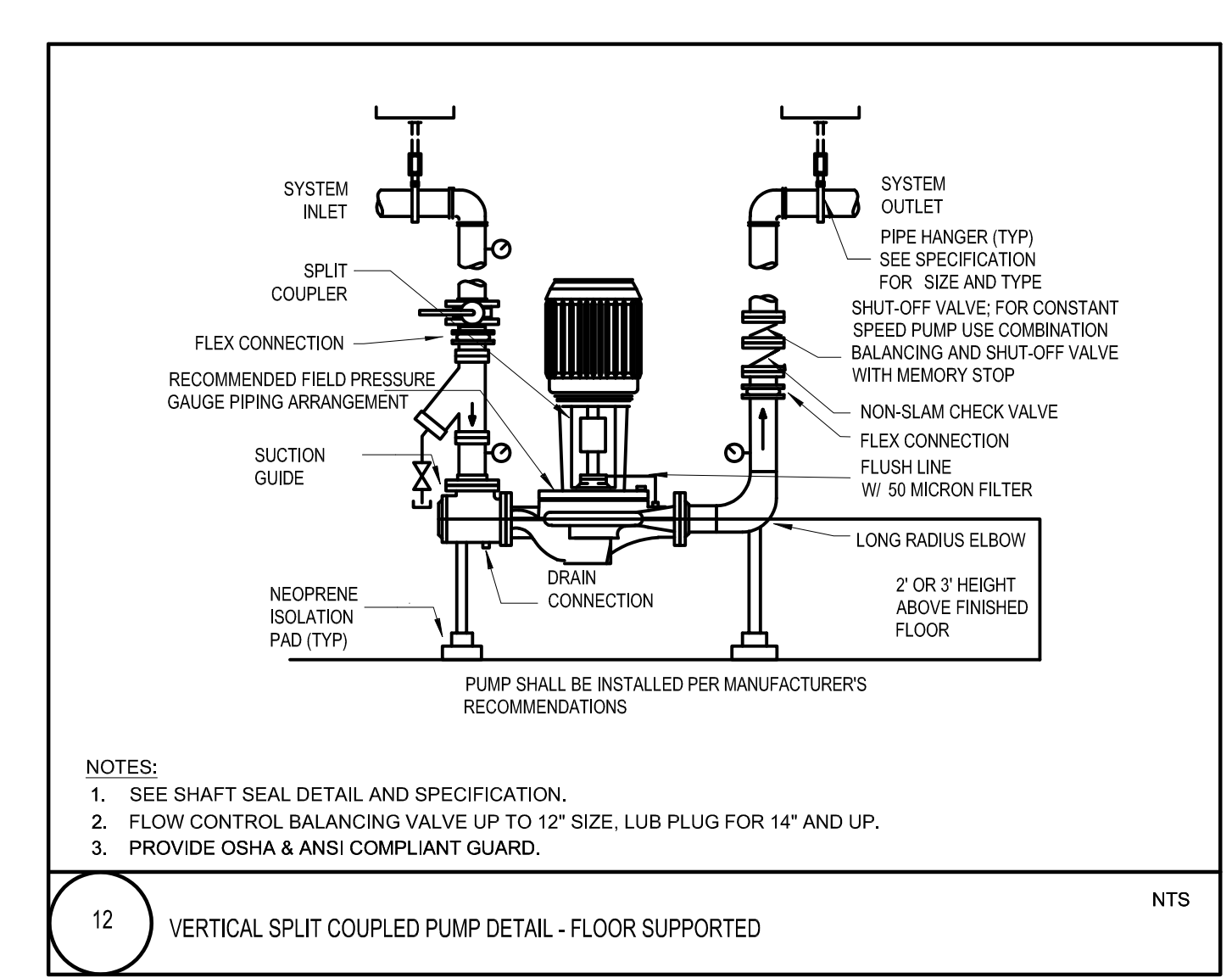
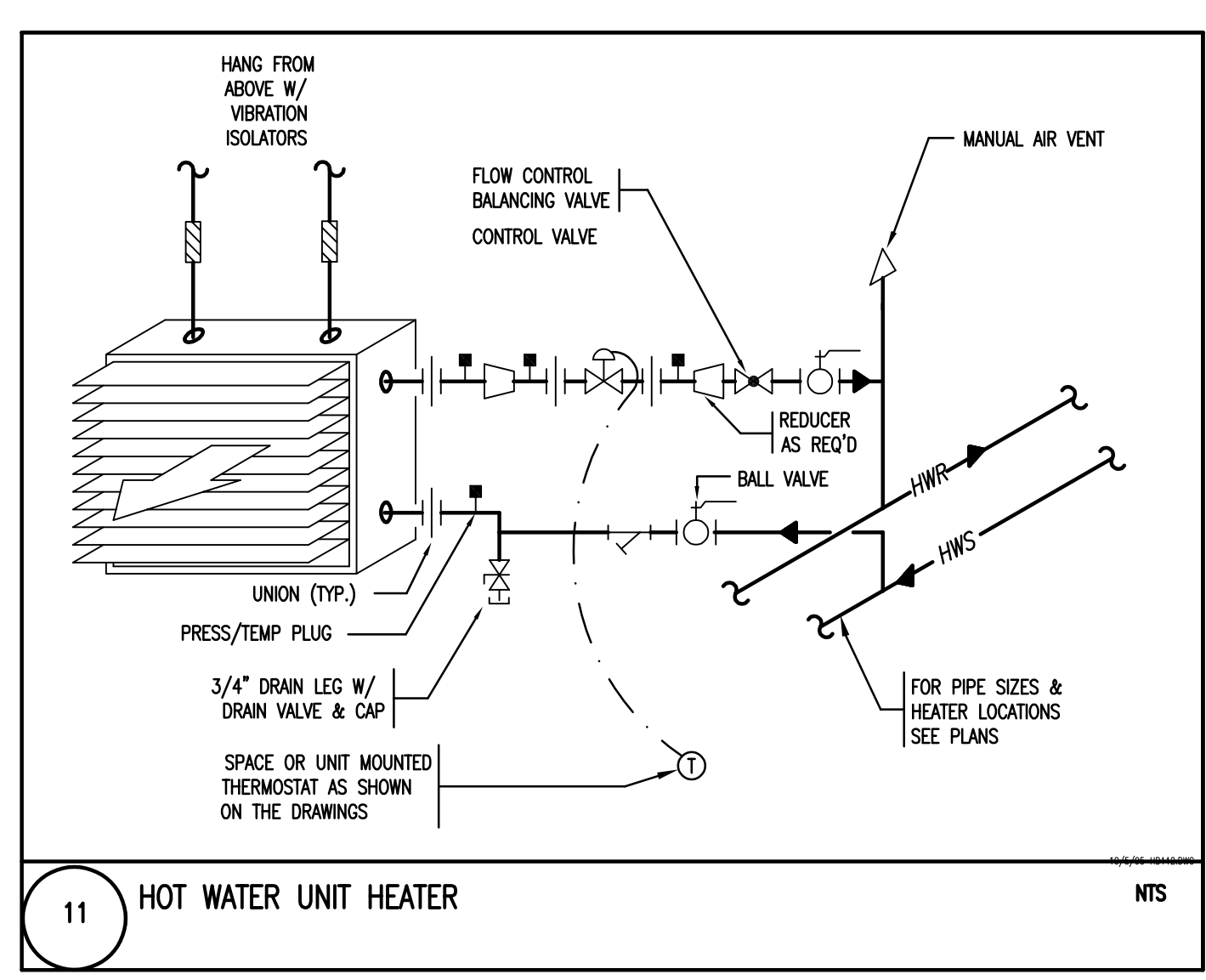
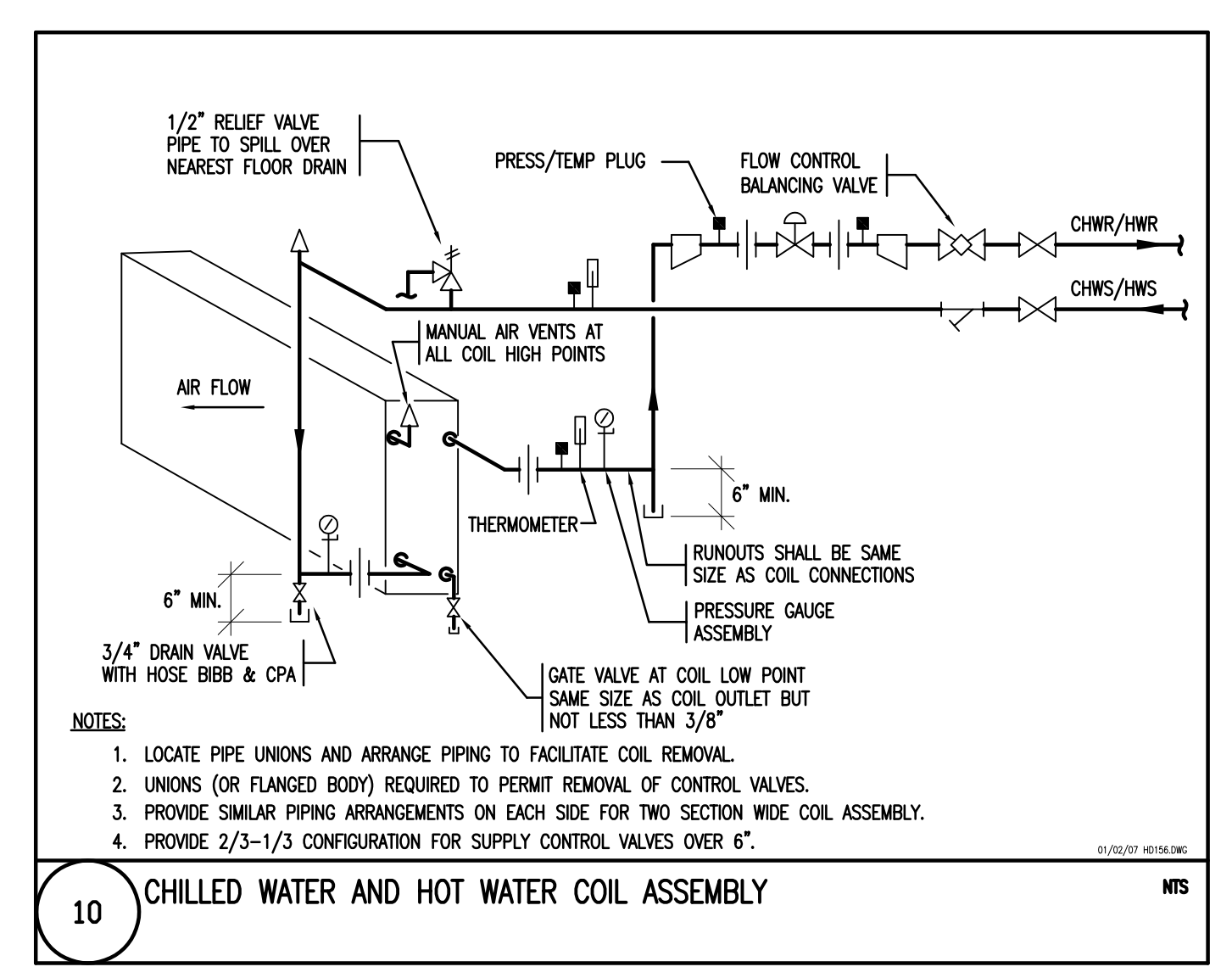
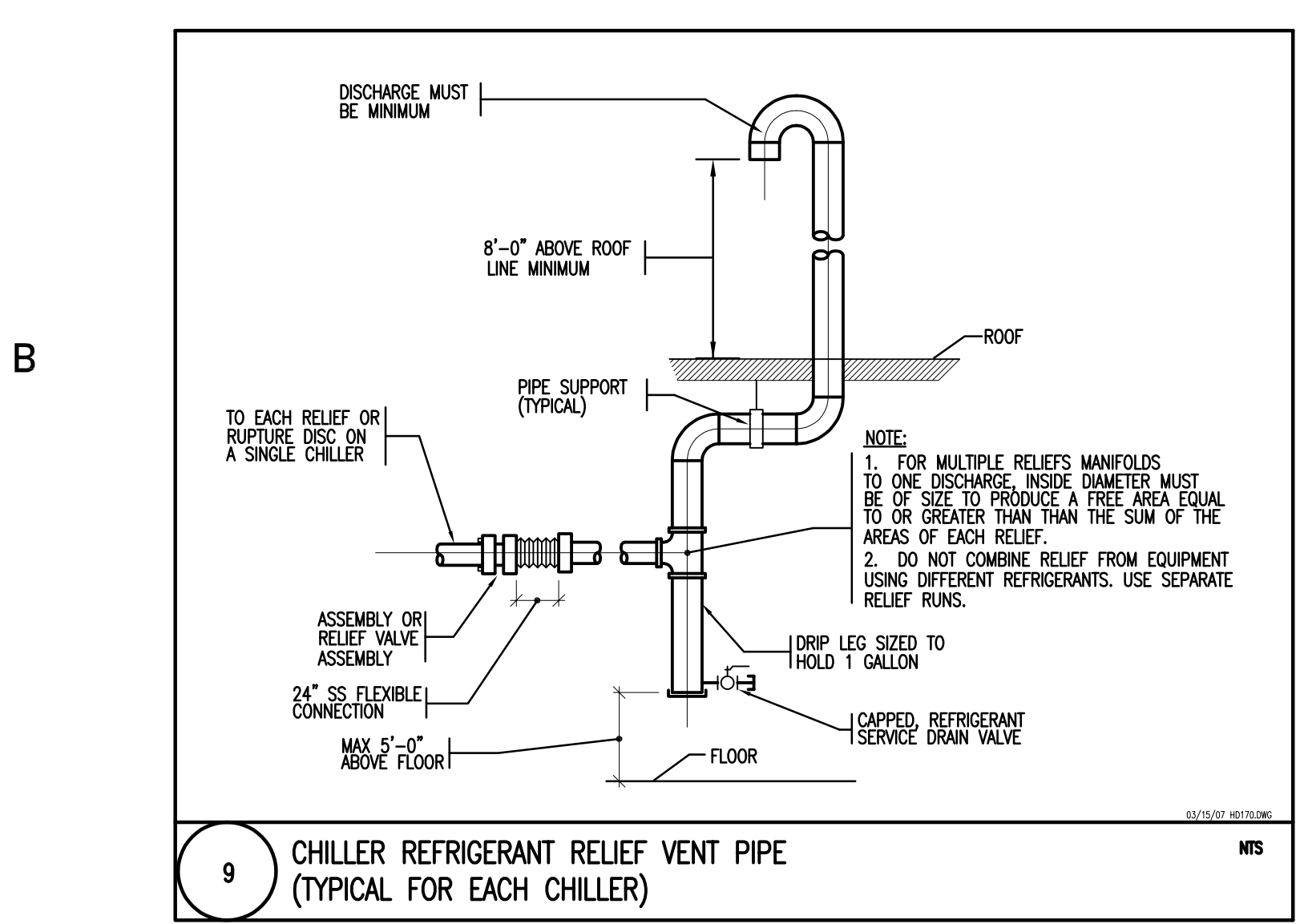
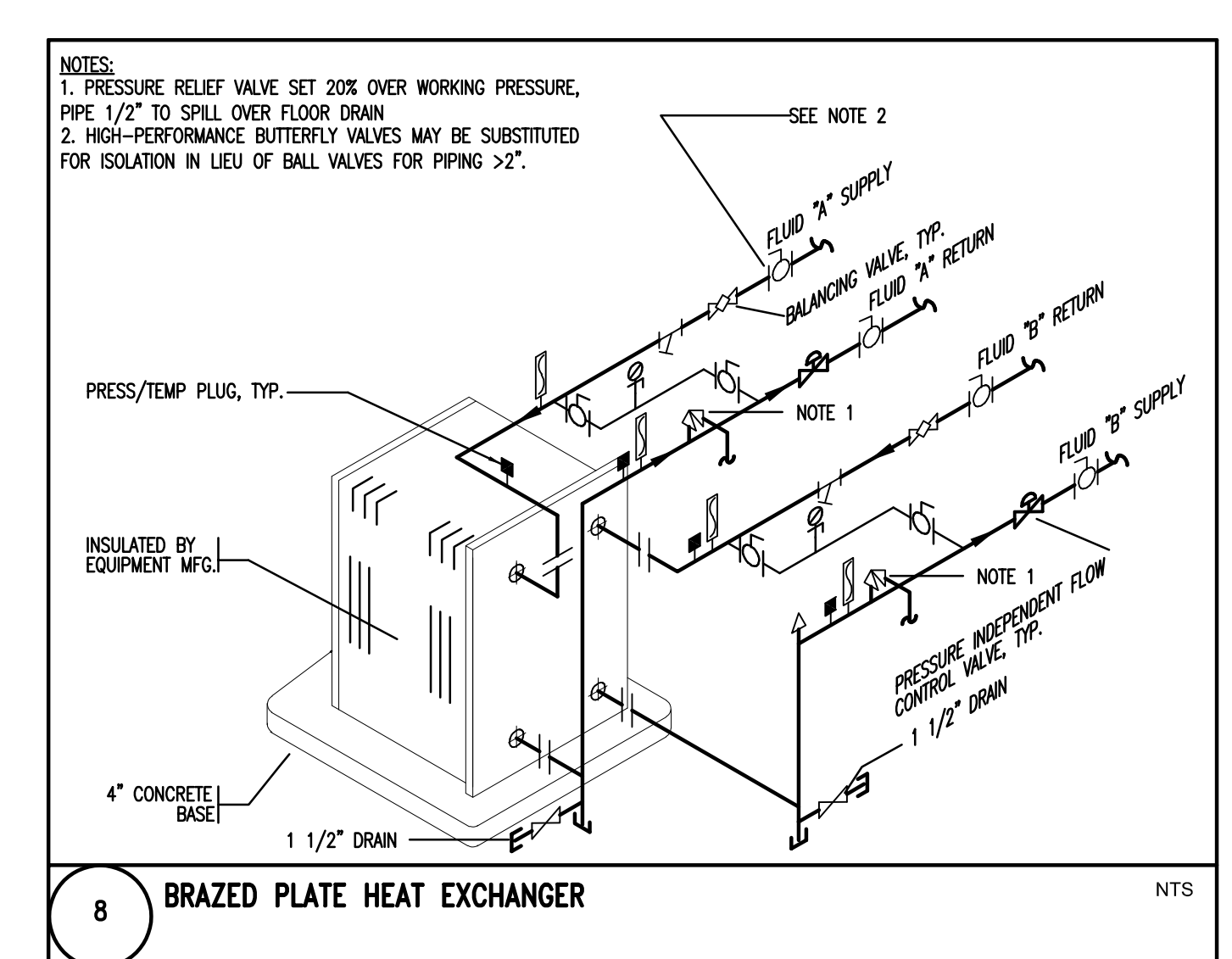
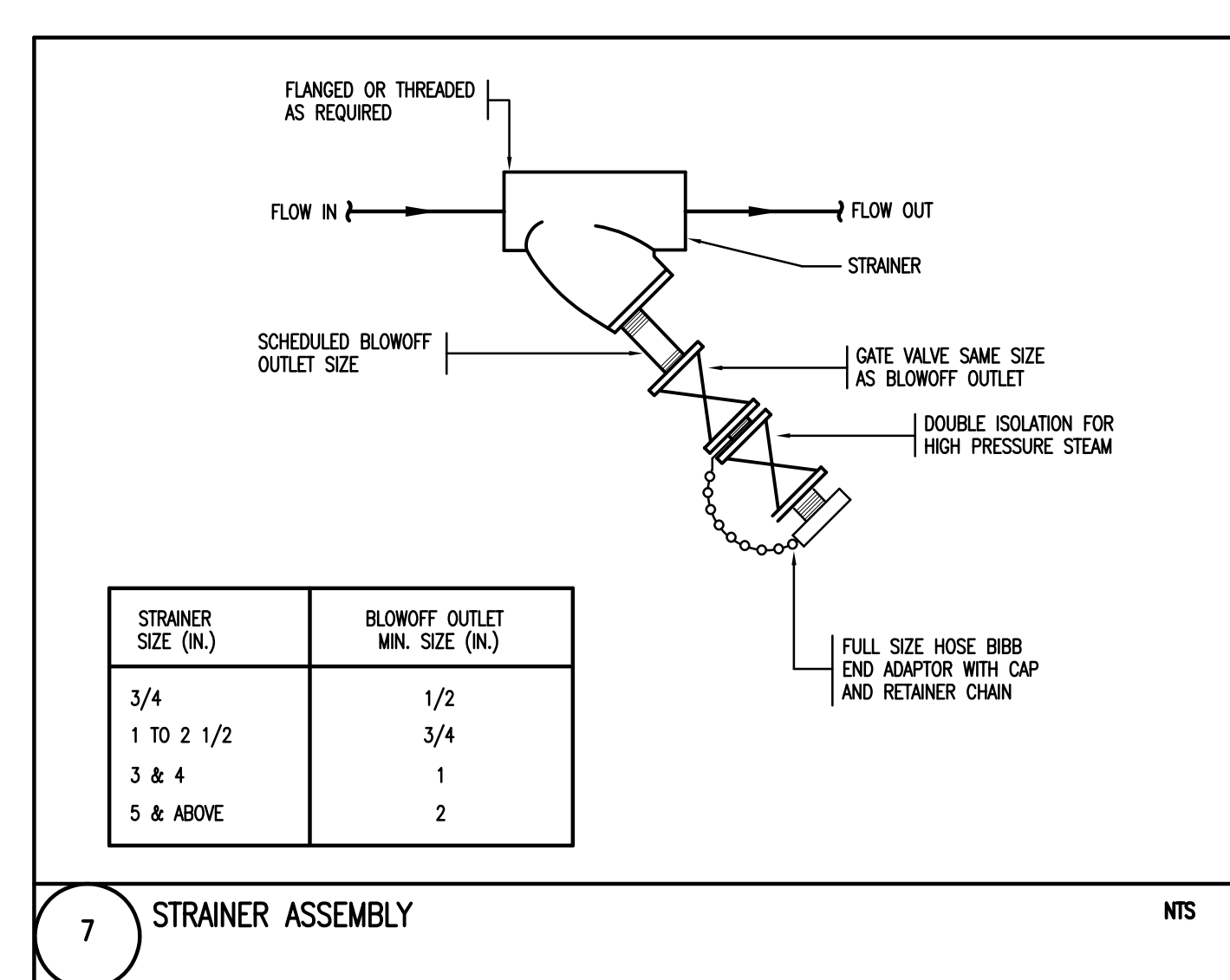
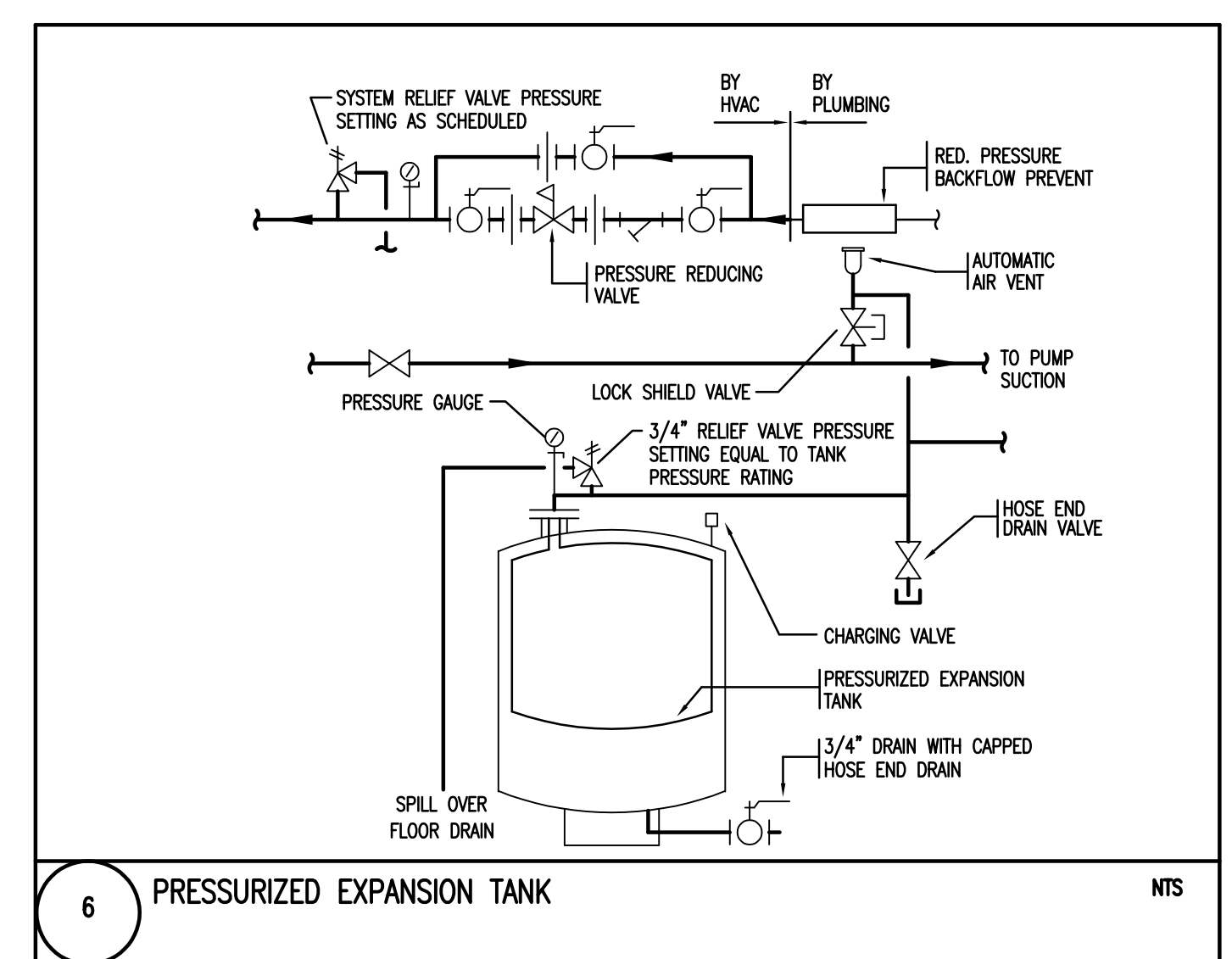
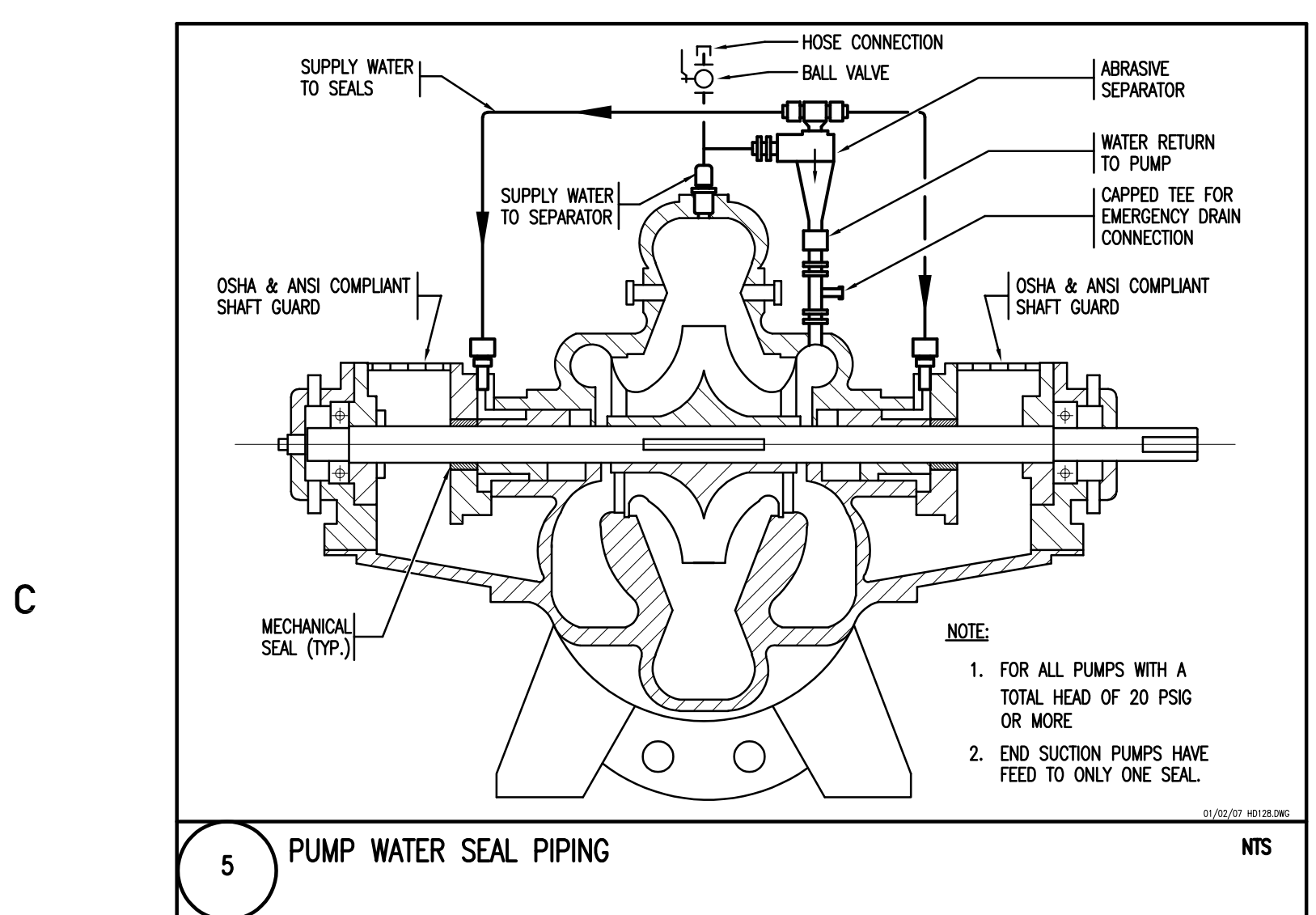
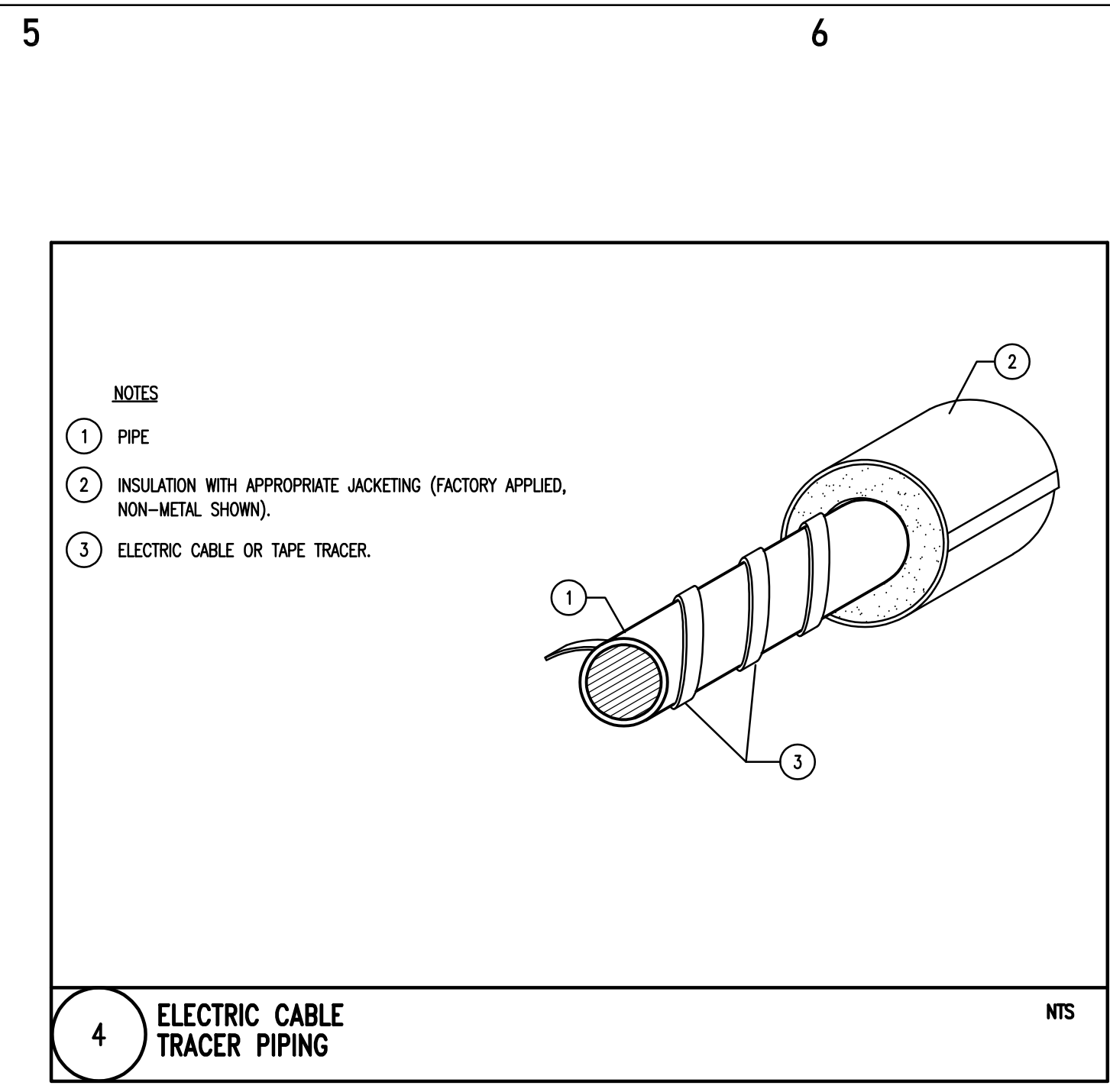
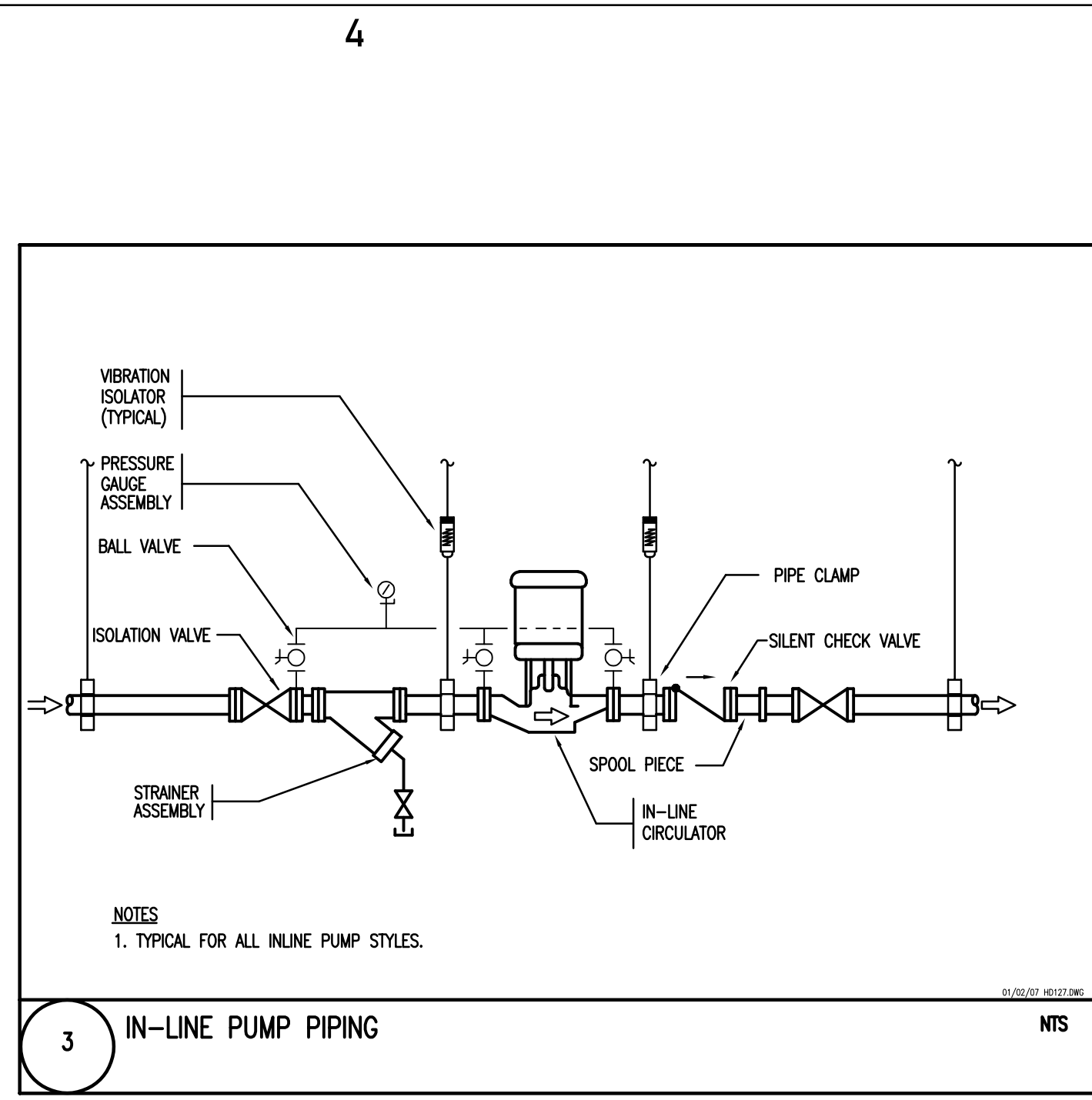
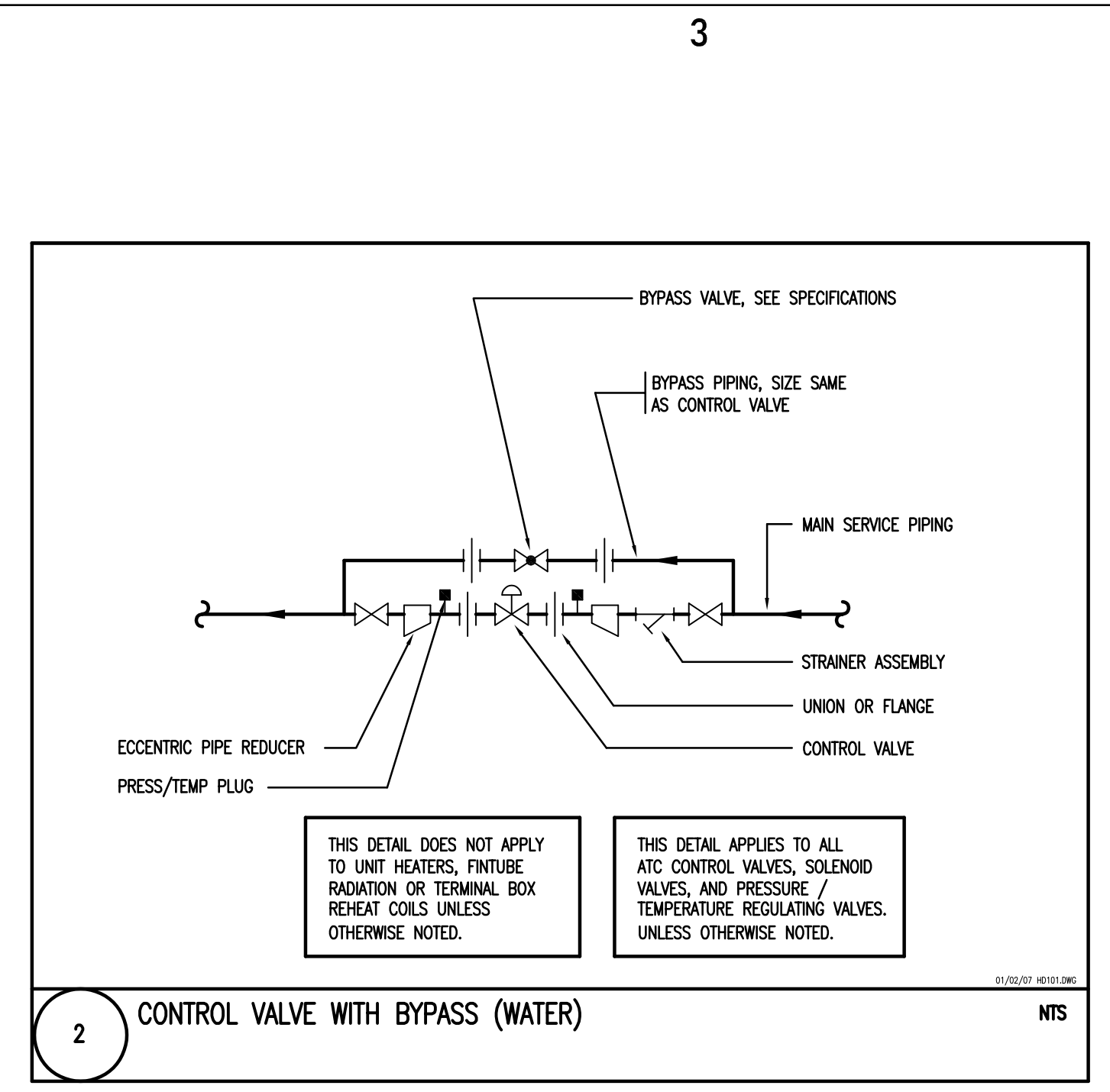
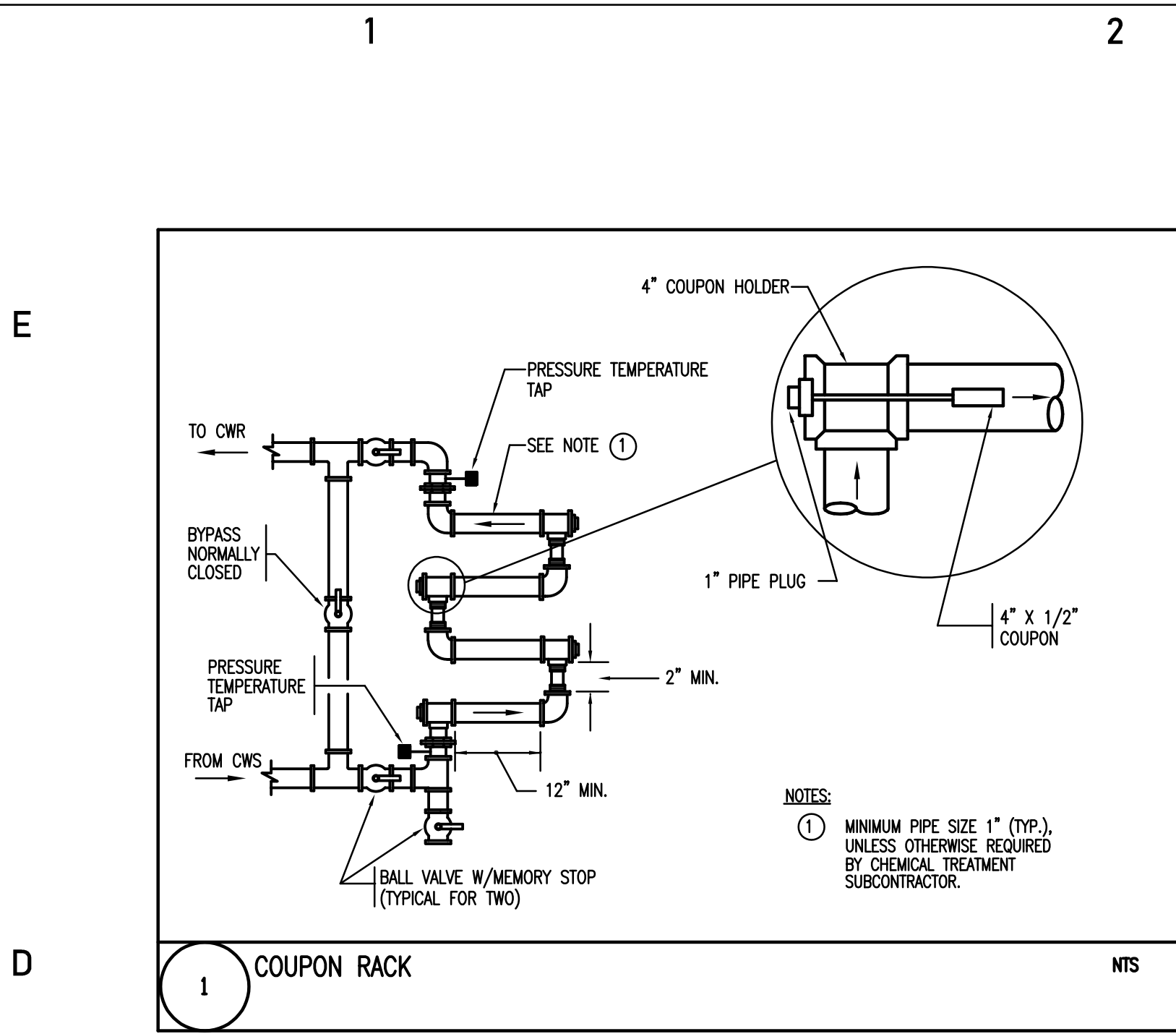
Title
MECHANICAL SECTIONS

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no **19009** Revision **P4**

Sheet

M-301



A

2

3

4

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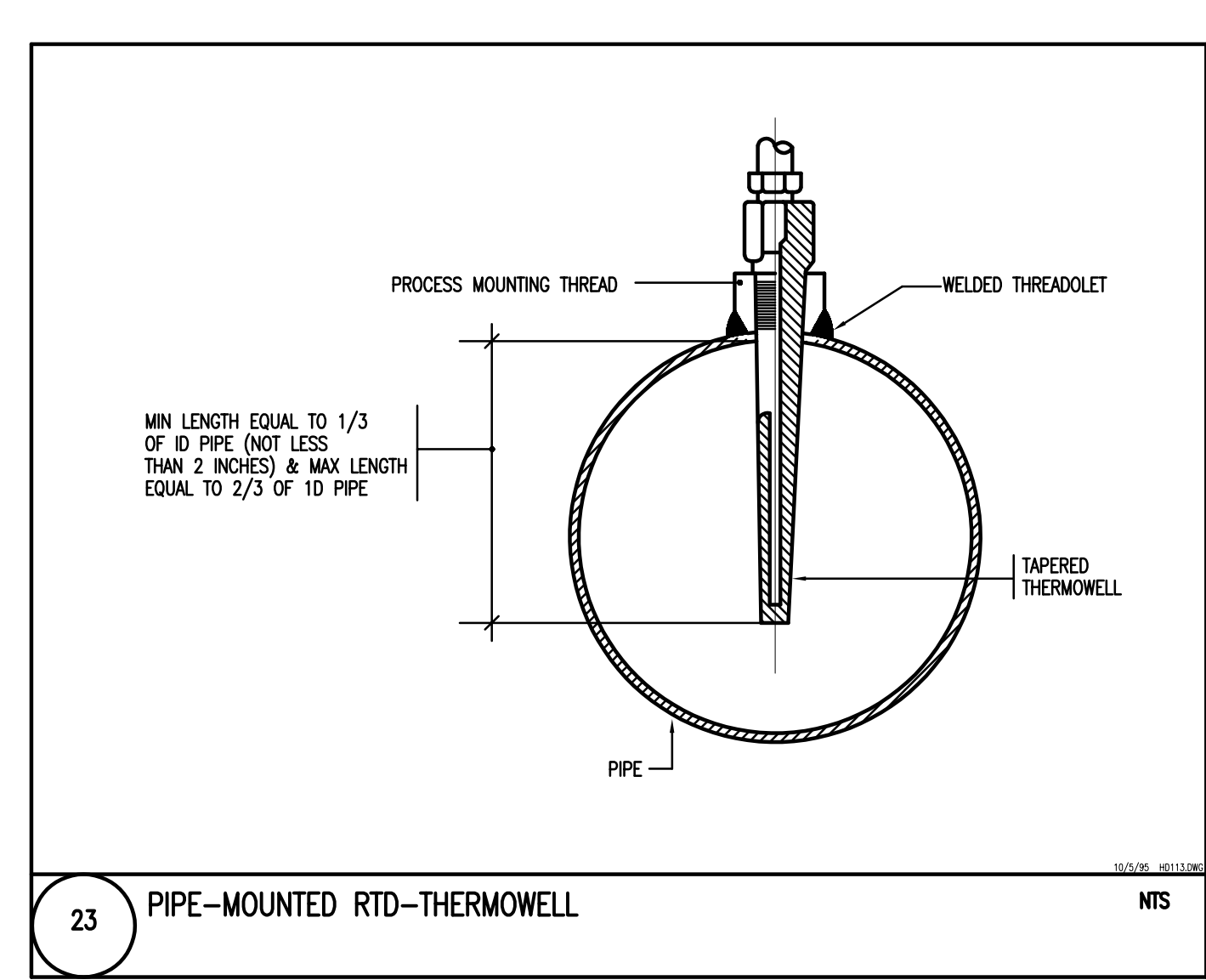
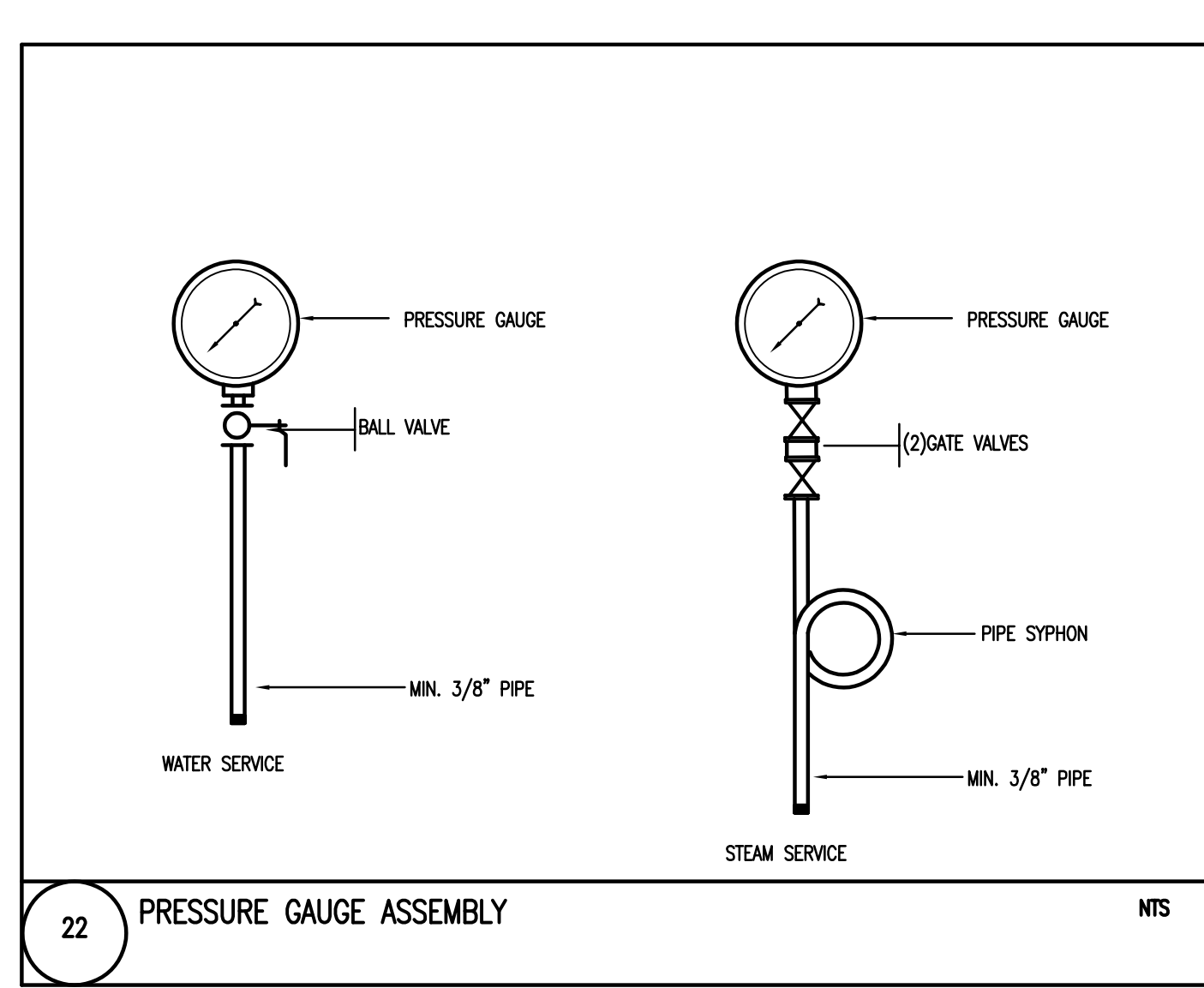
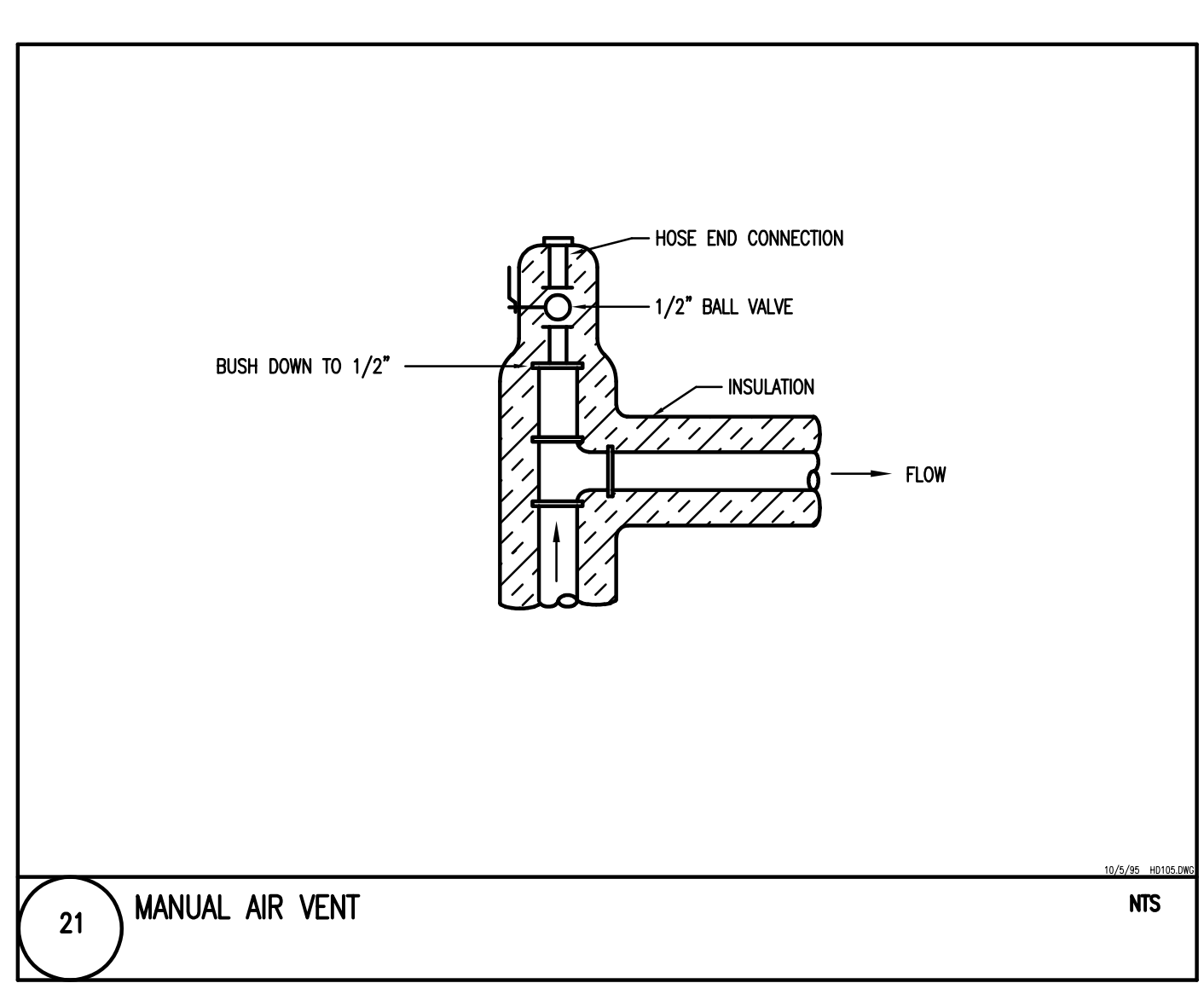
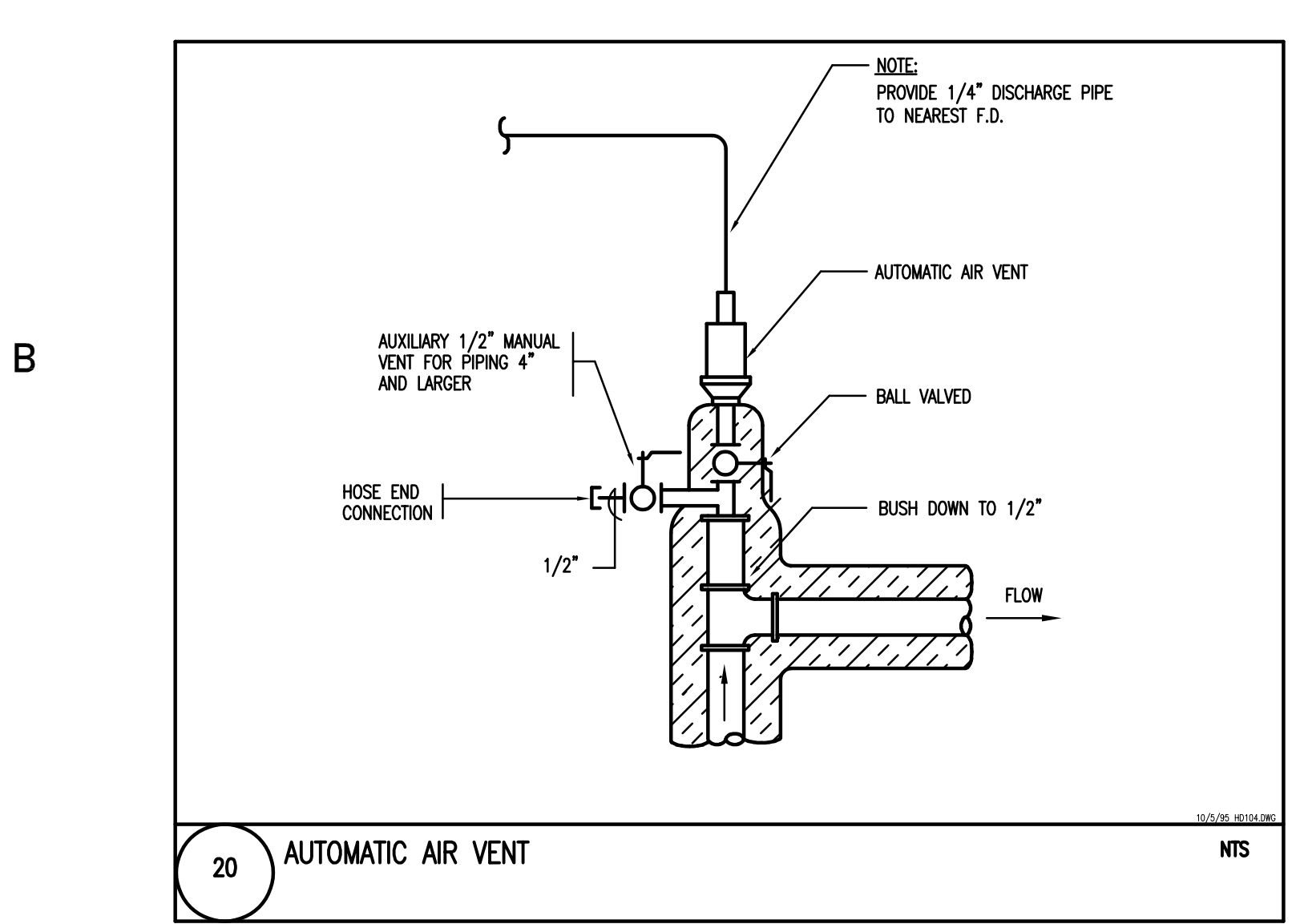
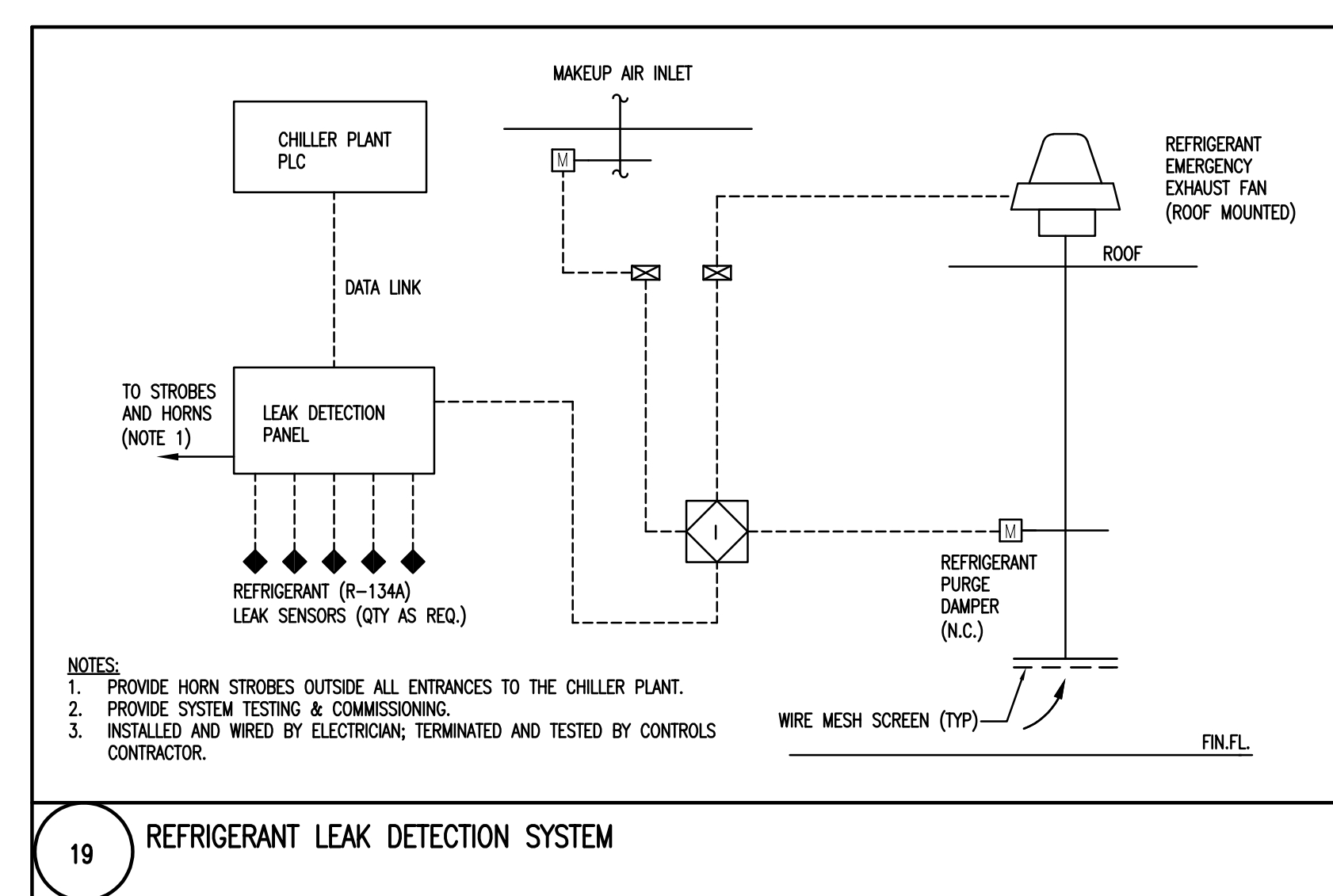
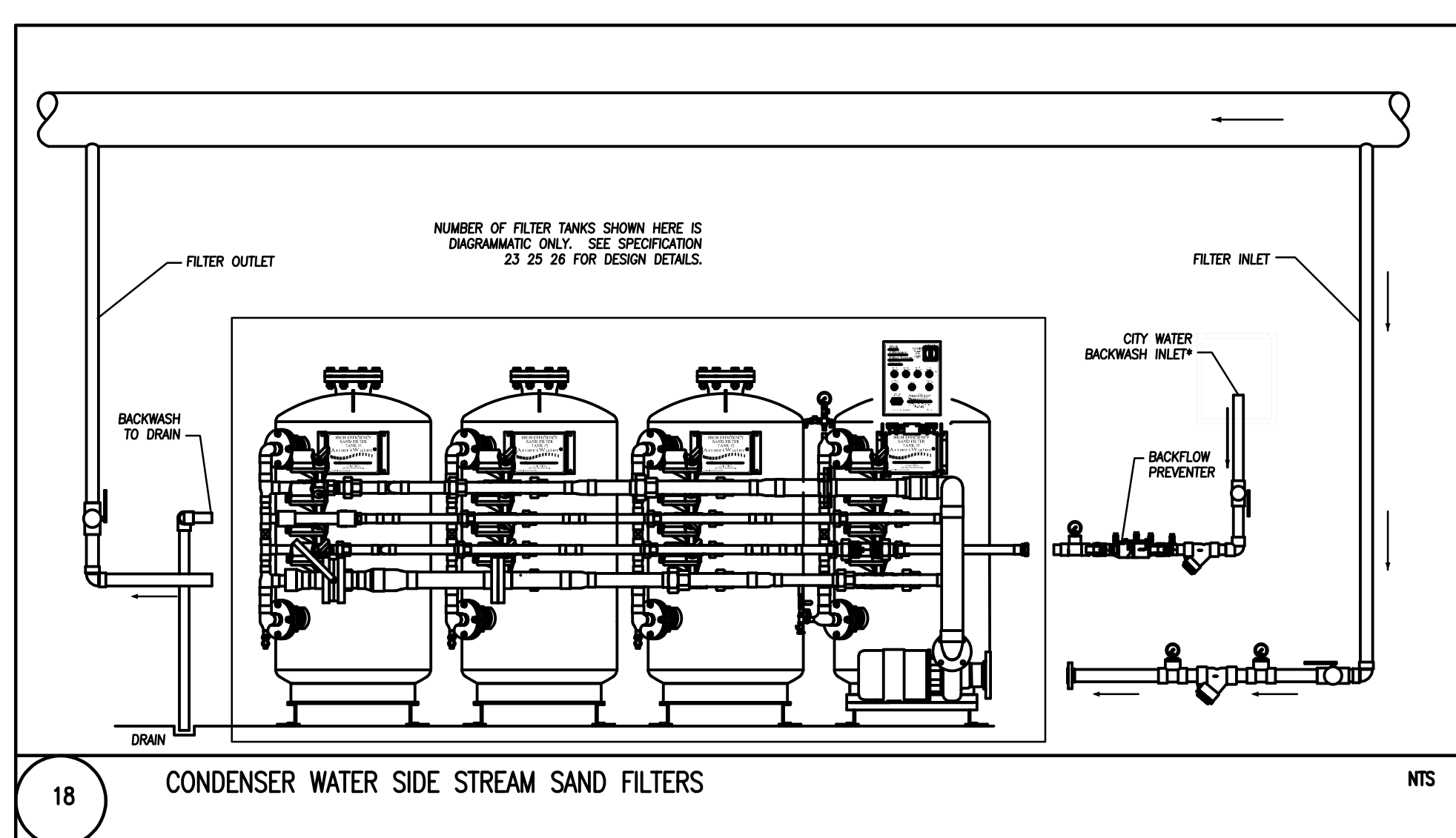
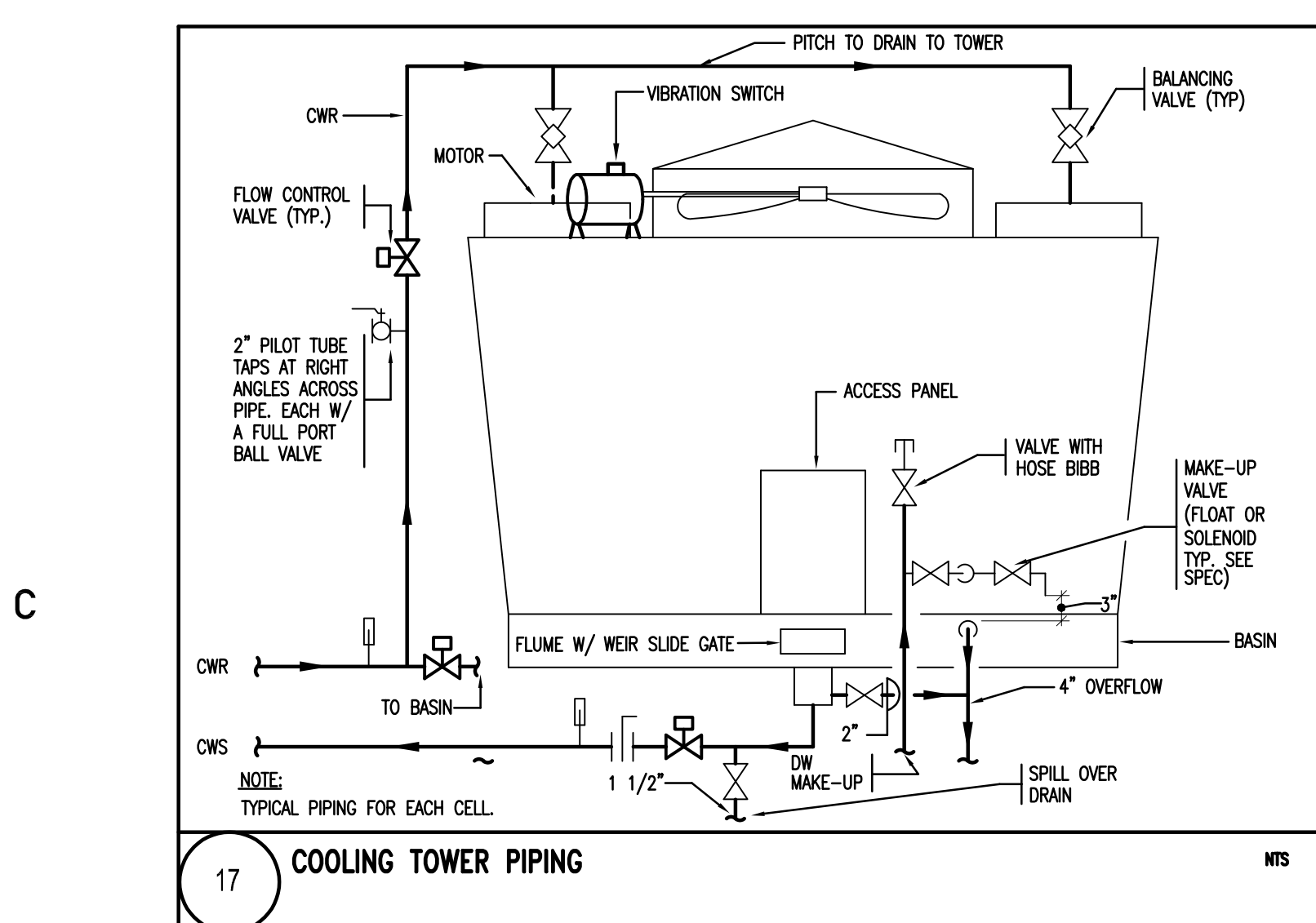
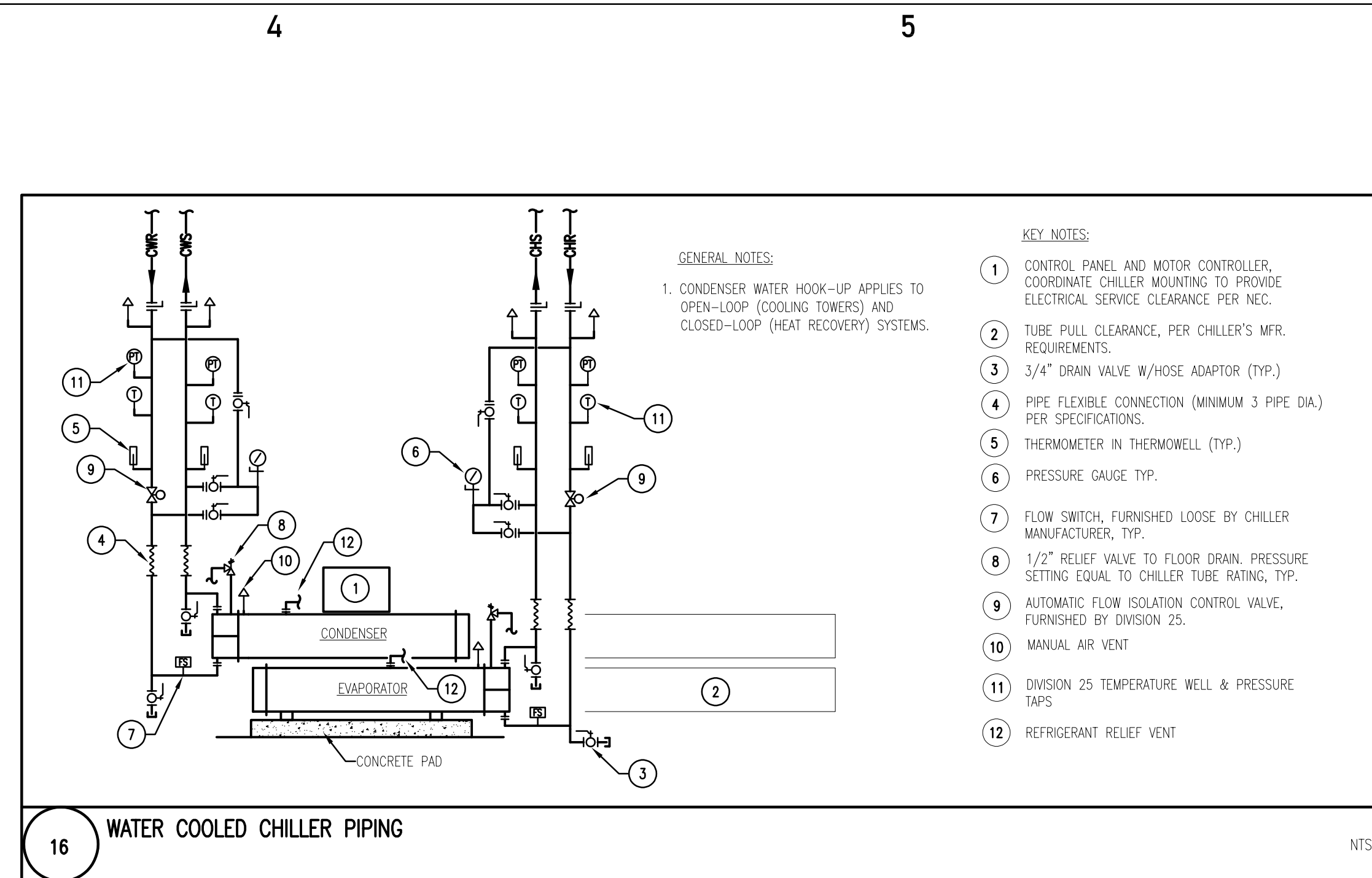
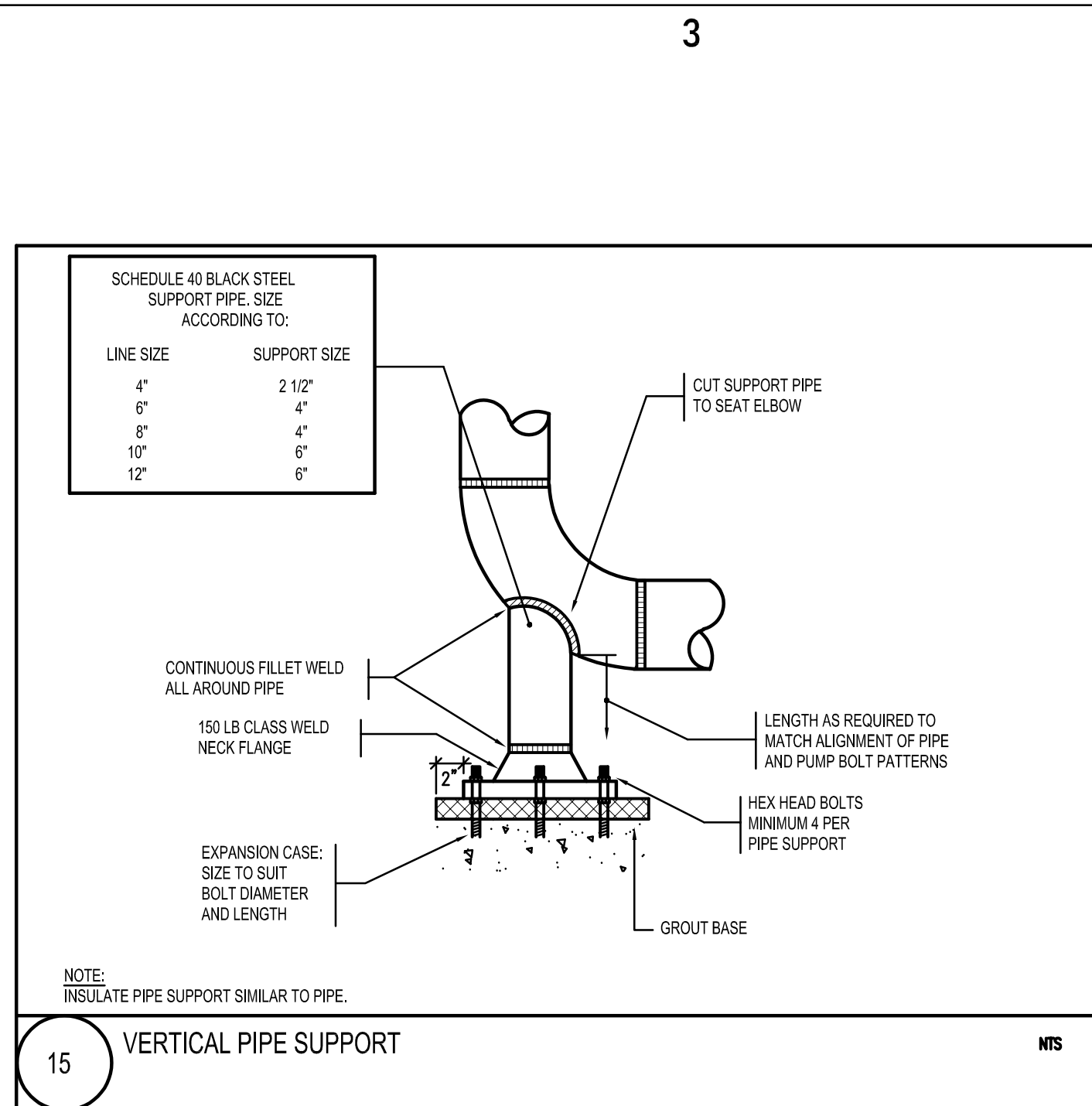
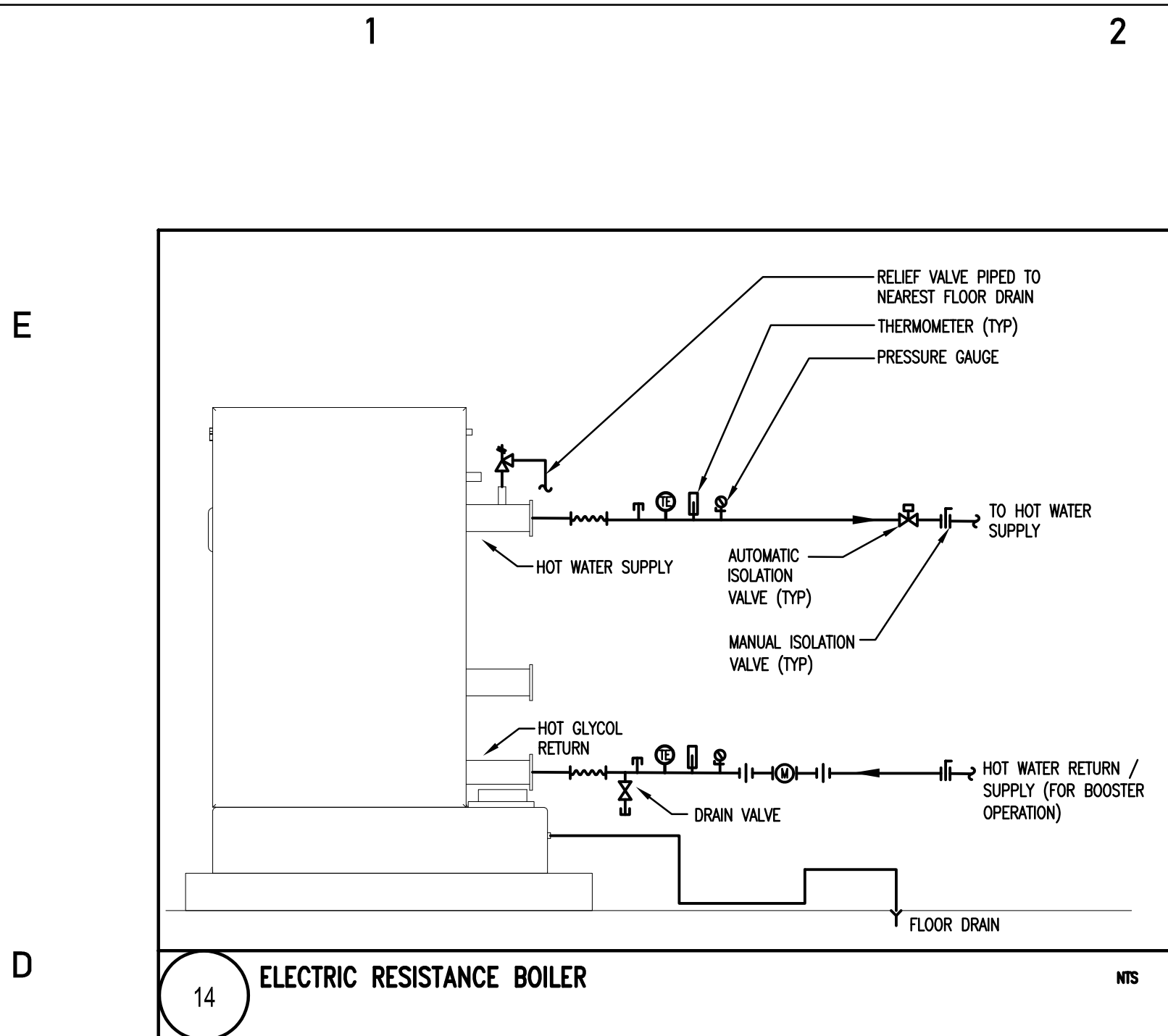
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| 5 | 10.25.22 | INFORMATION | JB |
| 4 | 08.05.22 | SUBMISSION | JB |
| 3 | 02.28.22 | INFORMATION | AMF |
| 2 | 04.24.21 | INFORMATION | AJT |
| 1 | 09.04.20 | INFORMATION | JF |

MECHANICAL DETAILS SHEET 1

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBUR, NY 10974**

Project no. 19009 Revision P5

Sheet
M-501



Prepared by Owner's on-staff
Design professionals

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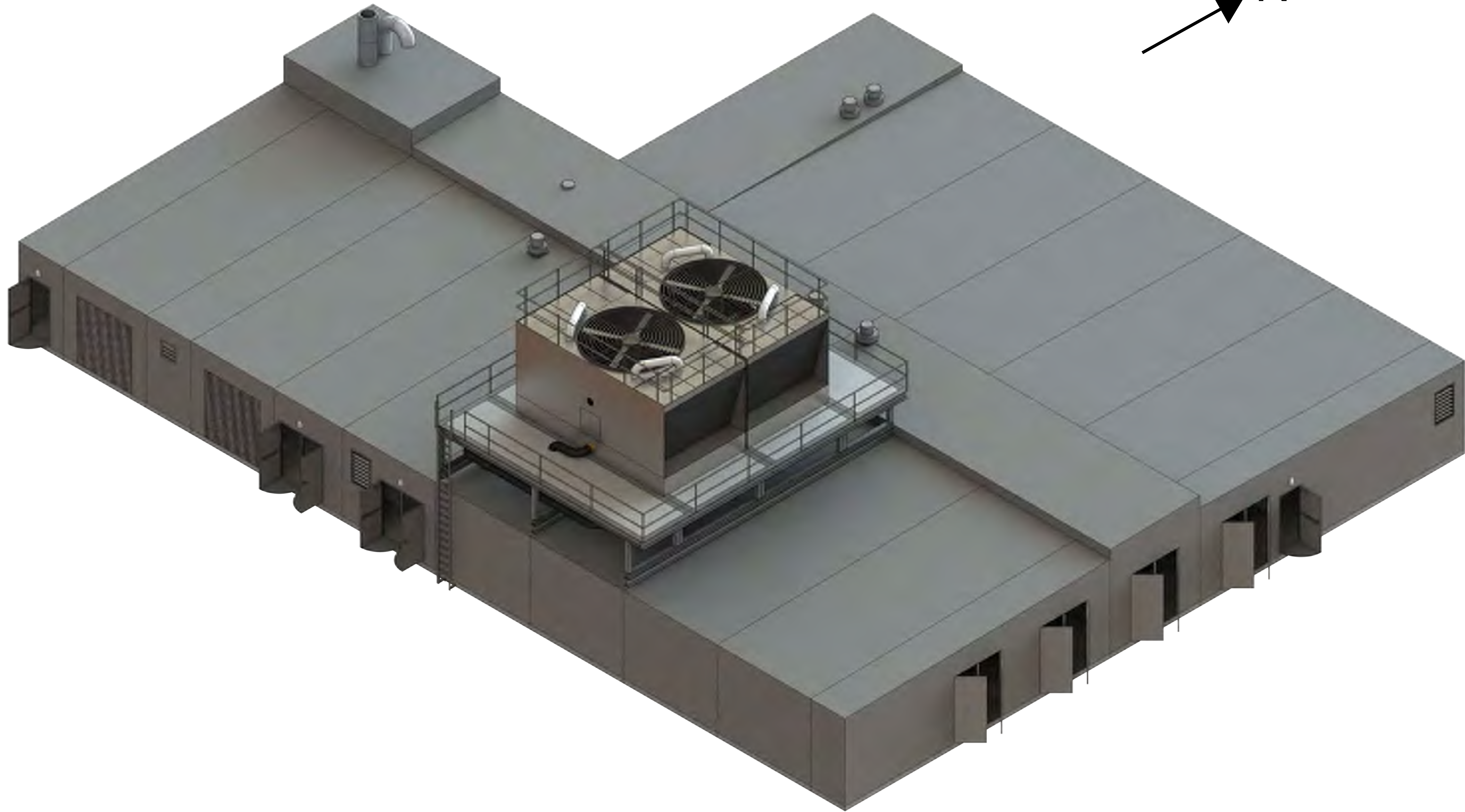
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| 3 | 10.25.22 | INFORMATION | JB |
| 2 | 08.05.22 | SUBMISSION | JB |
| 1 | 02.28.22 | INFORMATION | AMF |

Title: **MECHANICAL DETAILS SHEET 2**

Project: **CENTRAL ENERGY PLANT**
Address: **155 STERLING MINE ROAD SLOATSBUR, NY 10974**

Project no. **19009** Revision **P3**

Sheet **M-502**



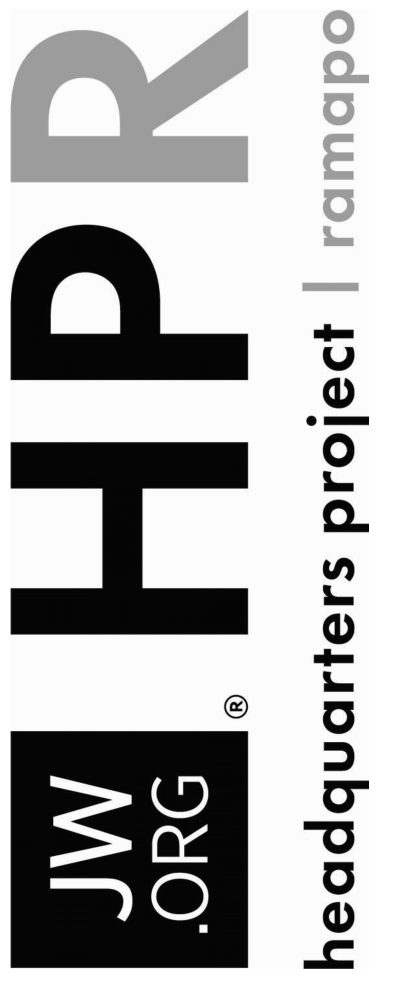
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Design professionals

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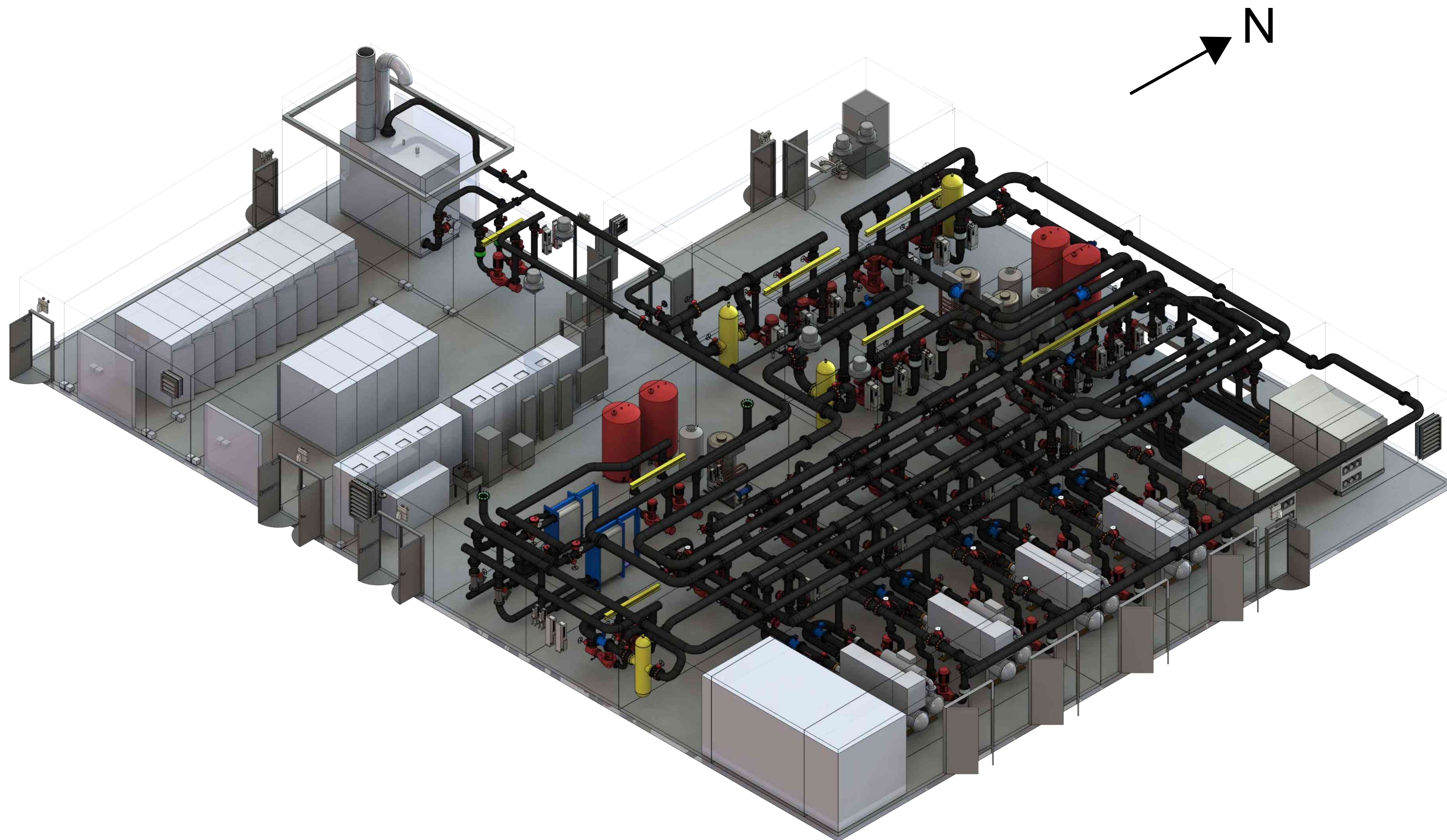
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|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JF |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | JF |

Title
MECHANICAL ISOMETRIC EXTERIOR

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no. **19009** Revision **P3**

Sheet
M-901



GENERAL NOTE:

1. ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING BY EPSILON INDUSTRIES. SEE SPECIFICATION 23 73 25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
2. BUILDING SEGMENTS WILL BE RIGGED IN PLACE ON SITE WITH MANUFACTURER'S ON SITE REPRESENTATIVE PROVIDING DIRECTION ON SYSTEM CONNECTIONS.

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JF |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | JF |

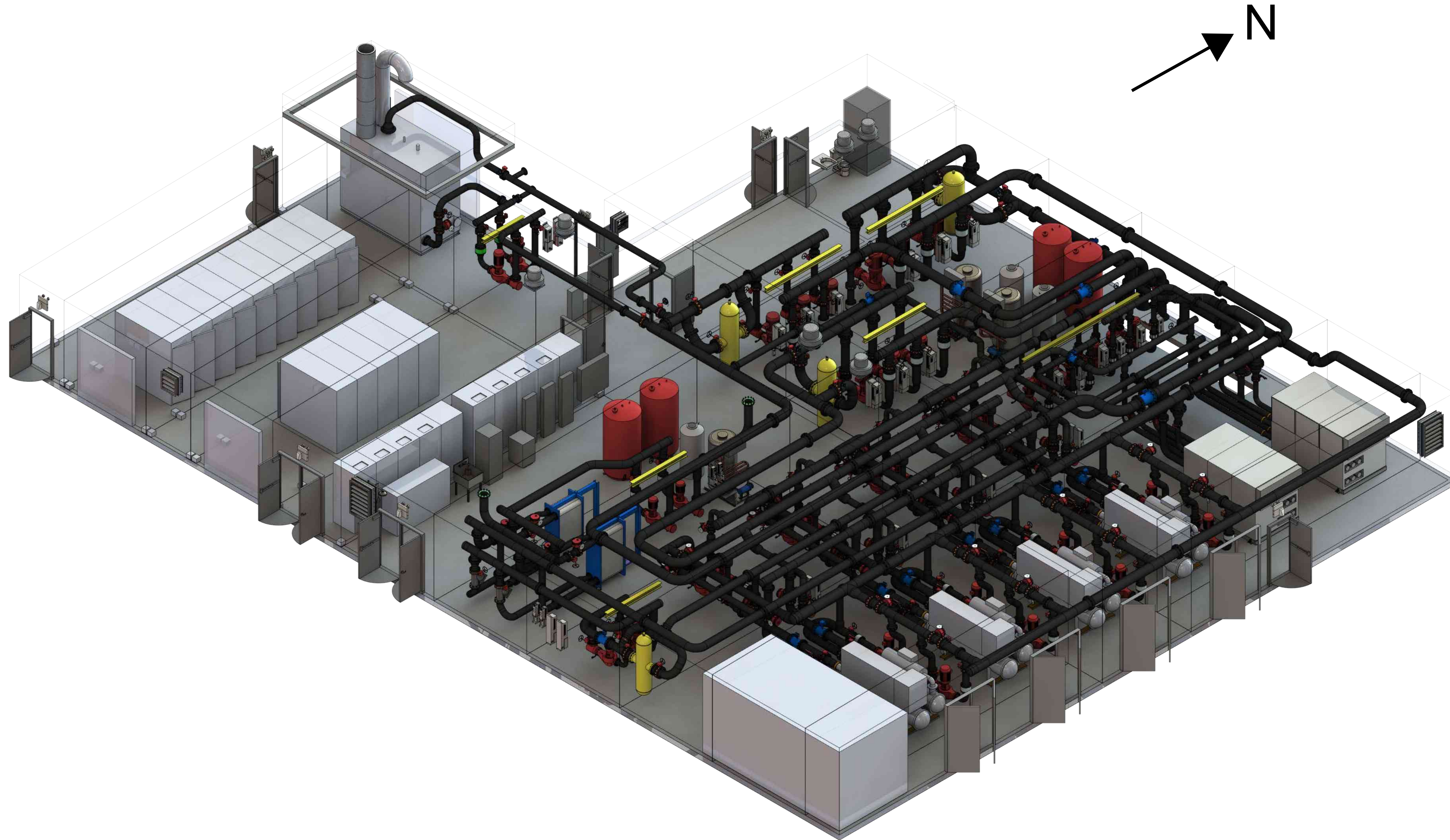
Title
MECHANICAL ISOMETRIC INTERIOR

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no. **19009** Revision **P3**

Sheet

M-902



Prepared by Owner's on-staff
Design professionals

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| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JF |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | JF |

GENERAL NOTE:

1. ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING BY EPSILON INDUSTRIES. SEE SPECIFICATION 23 73 25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
2. BUILDING SEGMENTS WILL BE RIGGED IN PLACE ON SITE WITH MANUFACTURER'S ON SITE REPRESENTATIVE PROVIDING DIRECTION ON SYSTEM CONNECTIONS.

Title
MECHANICAL ISOMETRIC PIPING

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no. **19009** Revision **P3**

Sheet

M-903



- GENERAL NOTES**
- ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING SYSTEM BY EPSILON INDUSTRIES. SEE SPECIFICATION 23 73 25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
 - BUILDING SEGMENTS WILL BE RIGGED IN PLACE ON SITE WITH MANUFACTURER'S ON SITE REPRESENTATIVE PROVIDING DIRECTION ON SYSTEM CONNECTIONS.
 - SITE PIPING CONNECTIONS WILL BE TERMINATED BELOW GRADE FOR CONNECTION INTO THE CUP. REFER TO 1901 SERIES DRAWINGS FOR COORDINATES OF UNDERGROUND UTILITIES. PROVIDE SPOOL PIECE AS REQUIRED TO EXTEND THE PIPING FROM BELOW GRADE THROUGH THE CEP CONCRETE PAD. PROVIDE SCHEDULE 10 SLEEVES AND LINK SEALS TO SEAL THE PENETRATIONS.
 - UNLESS OTHERWISE NOTED, ALL EQUIPMENT TAGS ON THIS DRAWING ARE PRECEDED BY CP-01.
 - PIPING SHALL BE PROVIDED AND COORDINATED BY PRE-FABRICATED CENTRAL PLANT MANUFACTURER.



1 FIRST FLOOR - CHILLED WATER PIPING PLAN
1/8" = 1'-0"
0 4' 8' 16'

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | DF |

Title
CHILLED WATER PIPING PLAN FIRST FLOOR

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

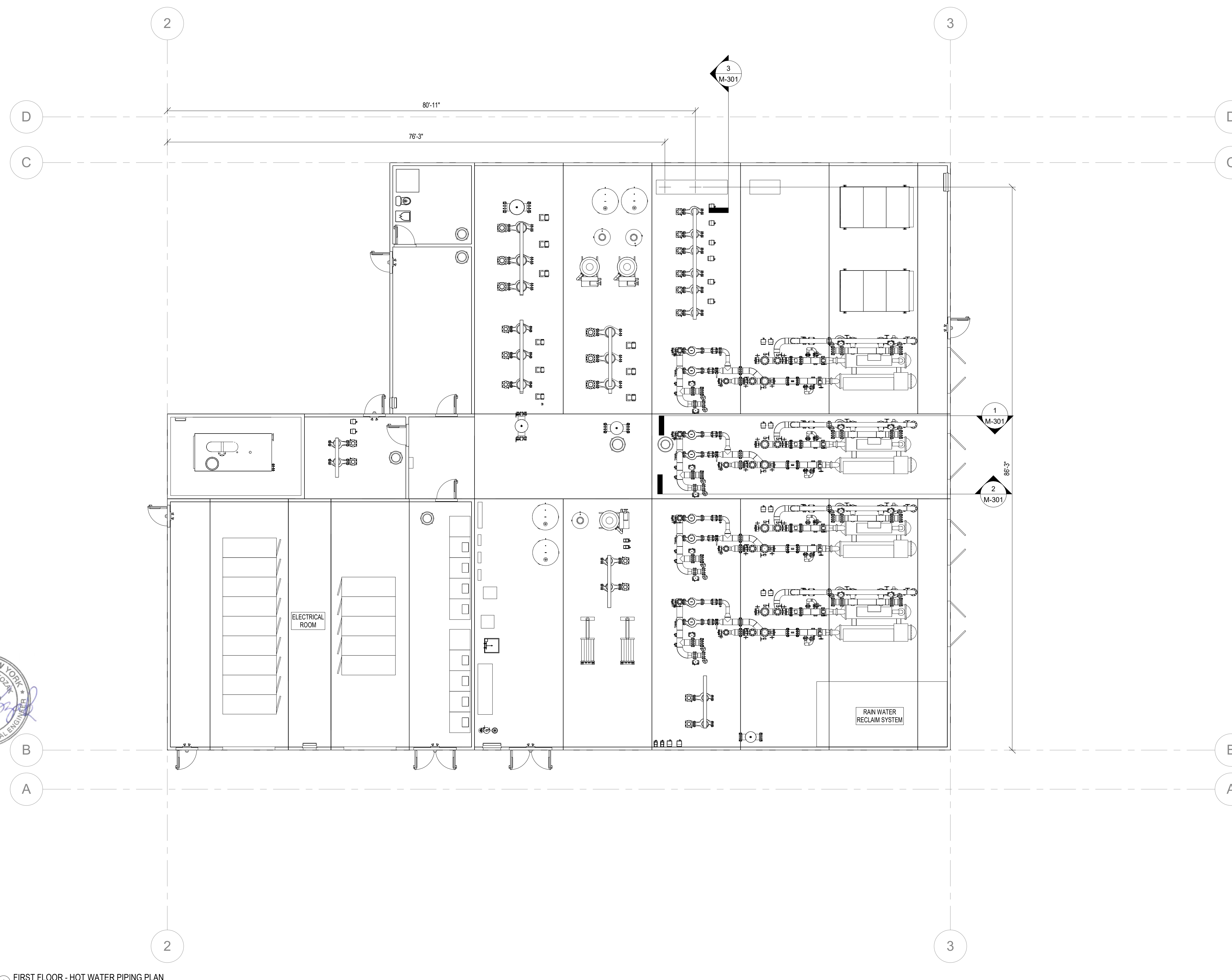
Project no **19009** Revision **P3**

Sheet
MC103



GENERAL NOTES

- ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING BY EPSILON INDUSTRIES. SEE SPECIFICATION 23 73 25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
- BUILDING SEGMENTS WILL BE RIGGED IN PLACE ON SITE WITH MANUFACTURERS ON SITE REPRESENTATIVE PROVIDING DIRECTION ON SYSTEM CONNECTIONS.
- SITE PIPING CONNECTIONS WILL BE TERMINATED BELOW GRADE FOR CONNECTION INTO THE CLIP. REFER TO 19001 SERIES DRAWINGS FOR COORDINATES OF UNDERGROUND UTILITIES. PROVIDE SPOOL PIECE AS REQUIRED TO EXTEND THE PIPING FROM BELOW GRADE THROUGH THE CEP CONCRETE PAD. PROVIDE SCHEDULE 10 SLEEVES AND LINK SEALS TO SEAL THE PENETRATIONS.
- UNLESS OTHERWISE NOTED, ALL EQUIPMENT TAGS ON THIS DRAWING ARE PRECEDED BY CP-01.
- PIPING SHALL BE PROVIDED AND COORDINATED BY PRE-FABRICATED CENTRAL PLANT MANUFACTURER.



1 FIRST FLOOR - HOT WATER PIPING PLAN
1/8" = 1'-0"
0 4' 8' 16'

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | DF |

Title
HOT WATER PIPING PLAN FIRST FLOOR

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

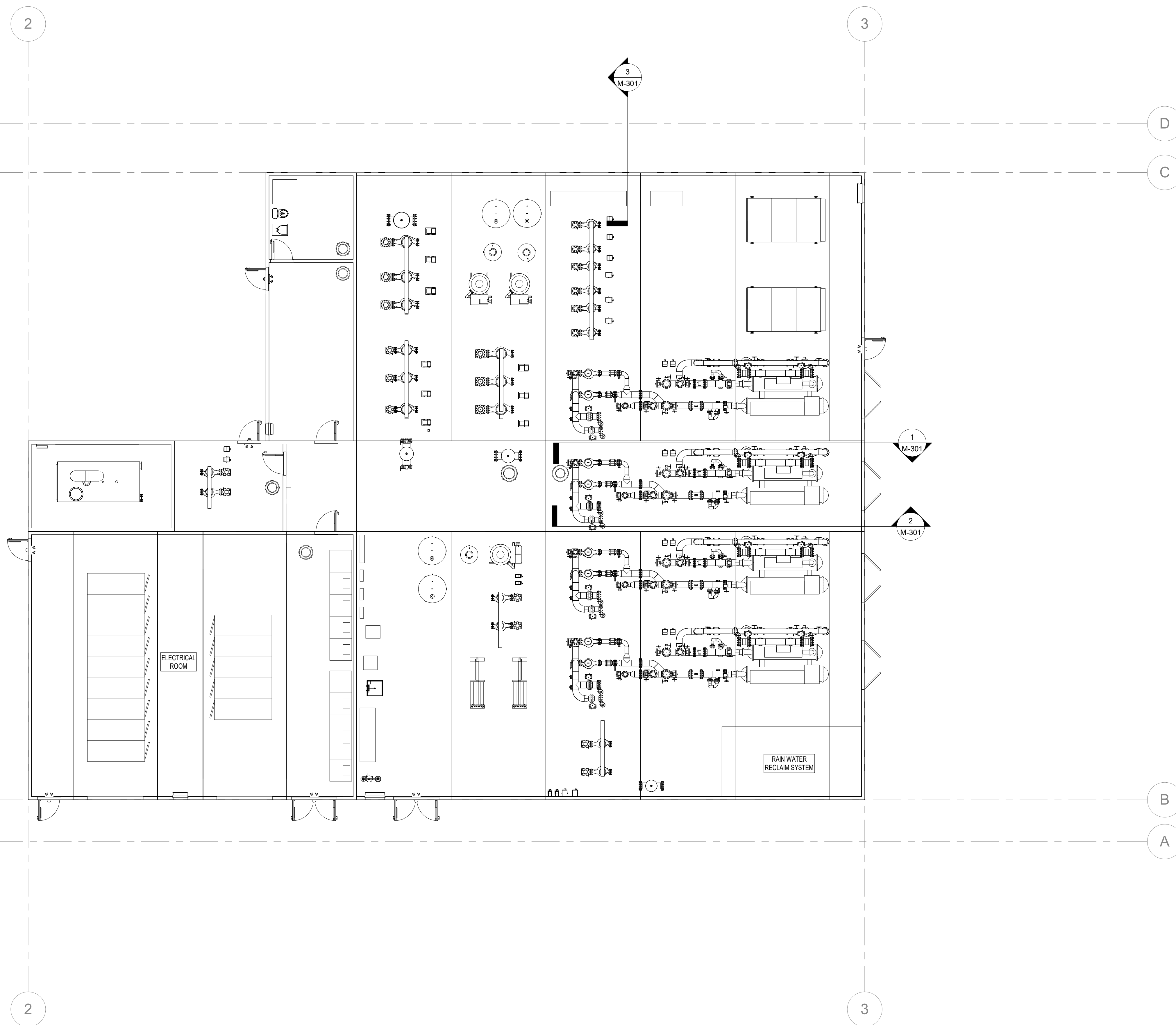
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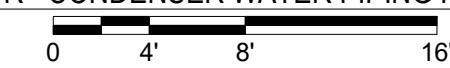
MH103

GENERAL NOTES

- ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING BY EPSILON INDUSTRIES. SEE SPECIFICATION 23 73 25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
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- SITE PIPING CONNECTIONS WILL BE TERMINATED BELOW GRADE FOR CONNECTION INTO THE CUP. REFER TO 1901 SERIES DRAWINGS FOR COORDINATES OF UNDERGROUND UTILITIES. PROVIDE SPOOL PIECE AS REQUIRED TO EXTEND THE PIPING FROM BELOW GRADE THROUGH THE CEP CONCRETE PAD. PROVIDE SCHEDULE 10 SLEEVES AND LINK SEALS TO SEAL THE PENETRATIONS.
- UNLESS OTHERWISE NOTED, ALL EQUIPMENT TAGS ON THIS DRAWING ARE PRECEDED BY CP-01.
- PIPING SHALL BE PROVIDED AND COORDINATED BY PRE-FABRICATED CENTRAL PLANT MANUFACTURER.



1 FIRST FLOOR - CONDENSER WATER PIPING PLAN
1/8" = 1'-0"



| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | DF |

Title
CONDENSER WATER PIPING PLAN
FIRST FLOOR

Project
CENTRAL ENERGY PLANT
Address
155 STERLING MINE ROAD
SLOATSBURG, NY 10974

Project no 19009 Revision P3

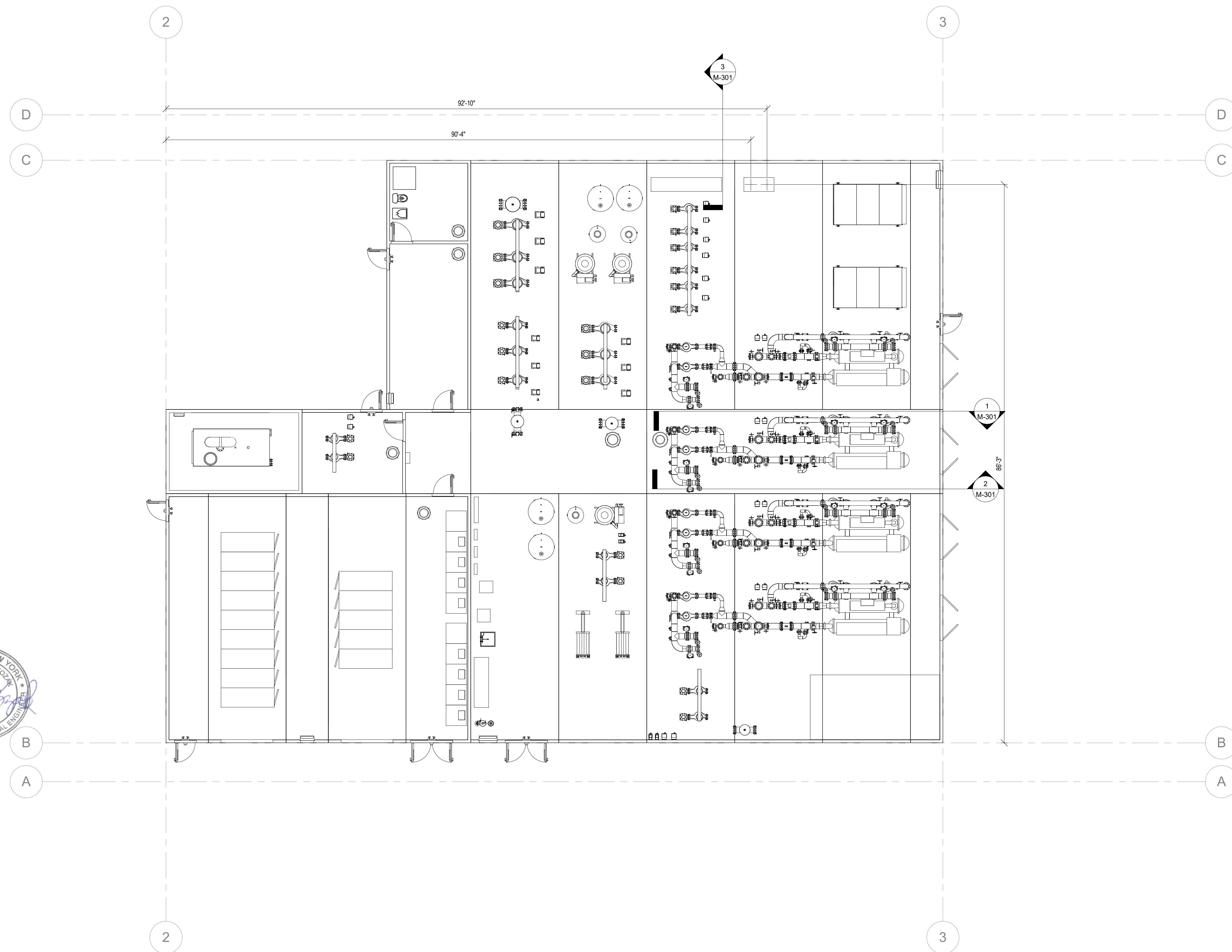
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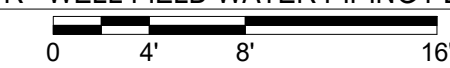


headquarters project | ramapo

- GENERAL NOTES**
- ENTIRE CENTRAL PLANT SYSTEM WILL BE PROVIDED AS A PREFABRICATED BUILDING BY EPSILON INDUSTRIES. SEE SPECIFICATION 23.17.25. SYSTEM DETAILS SHOWN HERE FOR INFORMATION.
 - BUILDING SEGMENTS WILL BE RIGGED IN PLACE ON SITE WITH MANUFACTURER'S ON SITE REPRESENTATIVE PROVIDING DIRECTION ON SYSTEM CONNECTIONS.
 - SITE PIPING CONNECTIONS WILL BE TERMINATED BELOW GRADE FOR CONNECTION INTO THE CUP. REFER TO 19001 SERIES DRAWINGS FOR COORDINATES OF UNDERGROUND UTILITIES. PROVIDE SPOOL PIECE AS REQUIRED TO EXTEND THE PIPING FROM BELOW GRADE THROUGH THE CEP CONCRETE PAD. PROVIDE SCHEDULE 10 SLEEVES AND LINK SEALS TO SEAL THE PENETRATIONS.
 - UNLESS OTHERWISE NOTED, ALL EQUIPMENT TAGS ON THIS DRAWING ARE PRECEDED BY CP-01.
 - PIPING SHALL BE PROVIDED AND COORDINATED BY PRE-FABRICATED CENTRAL PLANT MANUFACTURER.



1 FIRST FLOOR - WELL FIELD WATER PIPING PLAN
1/8" = 1'-0"



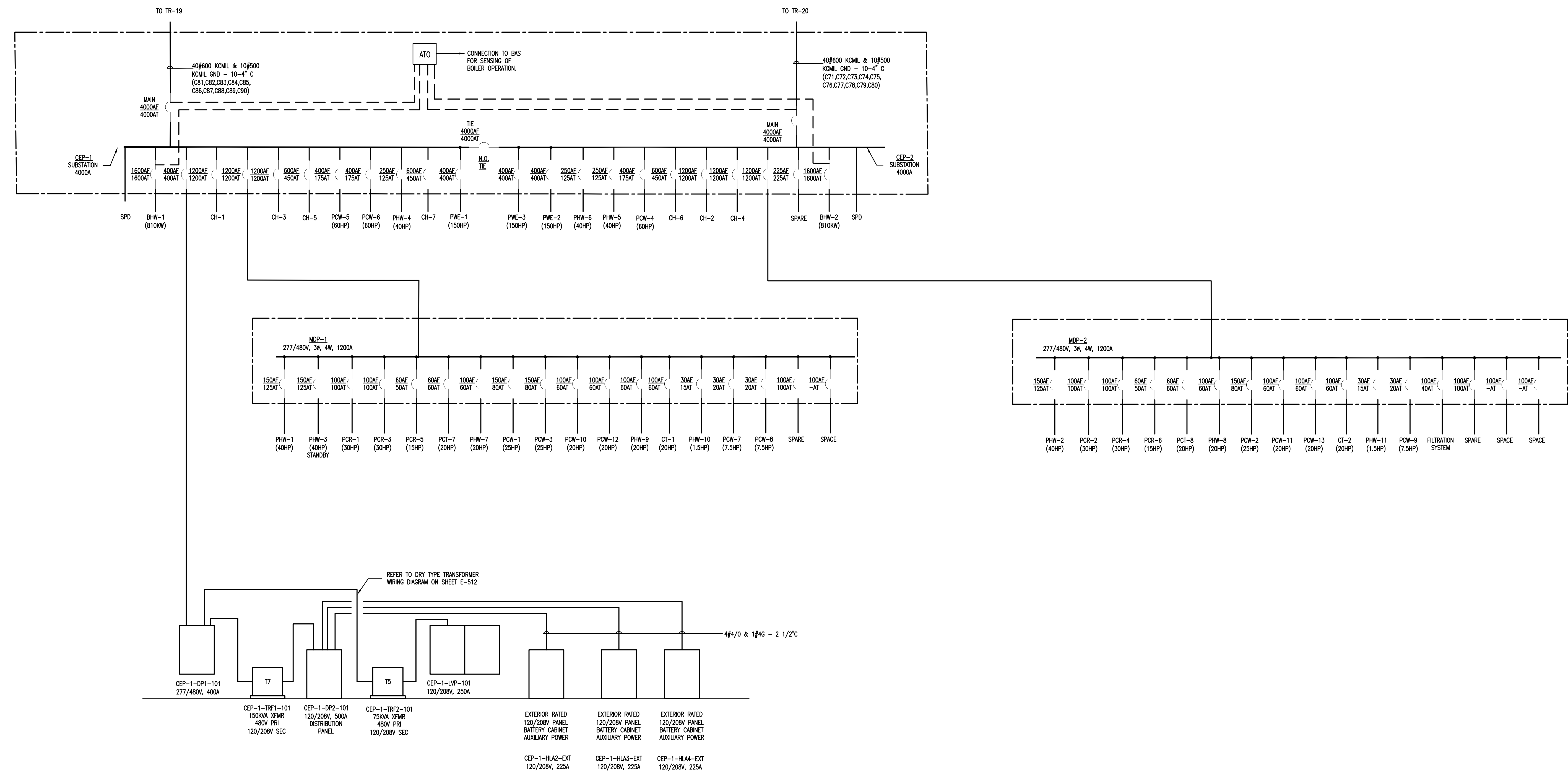
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|-----|----------|-------------|-----|
| 3 | 08.05.22 | SUBMISSION | JB |
| 2 | 02.28.22 | INFORMATION | JF |
| 1 | 04.07.21 | INFORMATION | DF |

Title
**WELL FIELD WATER PIPING PLAN
FIRST FLOOR**

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no **19009** Revision **P3**

Sheet
MW103



CENTRAL ENERGY PLANT (CEP) - ELECTRICAL ONE LINE DIAGRAM
SCALE : NTS

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 9 | 10.25.22 | INFORMATION | MHC |
| 8 | 09.29.22 | SUBMISSION | MHC |
| 7 | 08.05.22 | SUBMISSION | DF |
| 6 | 02.28.22 | INFORMATION | DF |
| 5 | 02.10.22 | INFORMATION | DF |
| 4 | 01.14.22 | INFORMATION | DF |
| 3 | 04.26.21 | INFORMATION | DF |
| 2 | 02.19.21 | INFORMATION | DF |
| 1 | 08.31.20 | INFORMATION | DF |

Title
ELECTRICAL ONE LINE DIAGRAM

Project
CENTRAL ENERGY PLANT

Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no. **19009** Revision **P09**

Sheet
E-602



| CEP MECHANICAL DISTRIBUTION PANEL MDP-1 | | | | | | |
|---|-----------------|--------------------|------|-----------------|-----------------------|----------------|
| 277/480 VOLTS | | 3 PHASE | | 4 WIRE | | 65,000 AIC |
| MAIN BUS SIZE: 1200 AMPS | | NEUTRAL: 1200 AMPS | | GROUND BUS: YES | | |
| MAIN DEVICE: 1200A MLO | | MOUNTING: FLOOR | | | | |
| CIRCUIT NUMBER | LOAD ITEM | OVERCURRENT DEVICE | | | FEEDER SIZE | REMARKS |
| | | FRAME | TRIP | POLE | | |
| 1 | PHW-1 (40 HP) | 150 | 125 | 3 | 3#3 & 1#6G - 1 1/4" C | - |
| 2 | PHW-3 (40 HP) | 150 | 125 | 3 | 3#3 & 1#6G - 1 1/4" C | STANDBY |
| 3 | PCR-1 (30 HP) | 100 | 100 | 3 | 3#4 & 1#6G - 1 1/4" C | - |
| 4 | PCR-3 (30 HP) | 100 | 100 | 3 | 3#4 & 1#6G - 1 1/4" C | - |
| 5 | PCR-5 (15 HP) | 60 | 50 | 3 | 3#8 & 1#10G - 1" C | - |
| 6 | PCT-7 (20 HP) | 60 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 7 | PHW-7 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 8 | PCW-1 (25 HP) | 150 | 80 | 3 | 3#6 & 1#8G - 1" C | - |
| 9 | PCW-3 (25 HP) | 150 | 80 | 3 | 3#6 & 1#8G - 1" C | - |
| 10 | PCW-10 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 11 | PCW-12 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 12 | PHW-9 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 13 | CT-1 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 14 | PHW-10 (1.5 HP) | 30 | 15 | 3 | 3#12 & 1#12G - 3/4" C | - |
| 15 | PCW-7 (7.5 HP) | 30 | 20 | 3 | 3#10 & 1#10G - 3/4" C | - |
| 16 | PCW-8 (7.5 HP) | 30 | 20 | 3 | 3#10 & 1#10G - 3/4" C | - |
| 17 | SPARE | 100 | 100 | 3 | - | - |
| 18 | SPACE | 100 | - | 3 | - | BUS & HARDWARE |

| CEP MECHANICAL DISTRIBUTION PANEL MDP-2 | | | | | | |
|---|-------------------|--------------------|------|-----------------|-----------------------|----------------|
| 277/480 VOLTS | | 3 PHASE | | 4 WIRE | | 65,000 AIC |
| MAIN BUS SIZE: 1200 AMPS | | NEUTRAL: 1200 AMPS | | GROUND BUS: YES | | |
| MAIN DEVICE: 1200A MLO | | MOUNTING: FLOOR | | | | |
| CIRCUIT NUMBER | LOAD ITEM | OVERCURRENT DEVICE | | | FEEDER SIZE | REMARKS |
| | | FRAME | TRIP | POLE | | |
| 1 | PHW-2 (40 HP) | 150 | 125 | 3 | 3#3 & 1#6G - 1 1/4" C | - |
| 2 | PCR-2 (30 HP) | 100 | 100 | 3 | 3#4 & 1#6G - 1 1/4" C | - |
| 3 | PCR-4 (30 HP) | 100 | 100 | 3 | 3#4 & 1#6G - 1 1/4" C | - |
| 4 | PCR-6 (15 HP) | 60 | 50 | 3 | 3#8 & 1#10G - 1" C | - |
| 5 | PCT-8 (20 HP) | 60 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 6 | PHW-8 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 7 | PCW-2 (25 HP) | 150 | 80 | 3 | 3#6 & 1#8G - 1" C | - |
| 8 | PCW-11 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 9 | PCW-13 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 10 | CT-2 (20 HP) | 100 | 60 | 3 | 3#6 & 1#8G - 1" C | - |
| 11 | PHW-11 (1.5 HP) | 30 | 15 | 3 | 3#12 & 1#12G - 3/4" C | - |
| 12 | PCW-9 (7.5 HP) | 30 | 20 | 3 | 3#10 & 1#10G - 3/4" C | - |
| 13 | FILTRATION SYSTEM | 100 | 40 | 3 | - | - |
| 14 | SPARE | 100 | 100 | 3 | - | - |
| 15 | SPACE | 100 | - | 3 | - | BUS & HARDWARE |
| 16 | SPACE | 100 | - | 3 | - | BUS & HARDWARE |

| MEDIUM VOLTAGE MAIN SWITCHGEAR - MSG-1 | | | | | | |
|--|---|--------------------|------|-----------------|----------------|----------------|
| 13,200 VOLTS | | 3 PHASE | | 4 WIRE | | 65,000 AIC |
| MAIN BUS SIZE: 1200 AMPS | | NEUTRAL: 1200 AMPS | | GROUND BUS: YES | | |
| MAIN DEVICE: 1200A MCB | | MOUNTING: FLOOR | | | | |
| CIRCUIT NUMBER | LOAD ITEM | OVERCURRENT DEVICE | | | FEEDER SIZE | REMARKS |
| | | FRAME | TRIP | POLE | | |
| 1 | MAIN | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 2A | PARKING GARAGE | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 2B | BACKLOT LOOP A | 1200 | 1200 | 3 | - | - |
| 3A | BACKLOT LOOP B | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 3B | AV STUDIO, VISITOR CENTER, PUMP HOUSE & SOCCER FIELD LOOP A | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 4A | AV STUDIO, VISITOR CENTER, PUMP HOUSE & SOCCER FIELD LOOP B | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 4B | OFFICES AND EVENTS FACILITY LOOP A | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 5A | OFFICES AND EVENTS FACILITY LOOP B | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 5B | RESIDENCE LOOP A | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 6A | RESIDENCE LOOP B | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 6B | SPARE | 1200 | 1200 | 3 | - | - |
| 7A | SPARE | 1200 | 1200 | 3 | - | - |
| 7B | PV ARRAY | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 8A | CEP-1 & CEP-2 LOOP A | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 8B | BATTERY BANK | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 9A | CEP-1 & CEP-2 LOOP B | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 9B | TIE | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 10 | TIE | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 11 | GENERATOR 1 | - | - | - | - | - |
| 12 | GENERATOR 2 | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 13 | ROLL-UP GENERATOR CONNECTOR DEVICE | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 14 | LOAD BANK | 1200 | 1200 | 3 | REFER TO E-601 | - |
| 15 | SPACE | 1200 | 1200 | 3 | REFER TO E-601 | BUS & HARDWARE |
| 16 | CONTROLS CABINET | 1200 | - | 3 | - | - |

| GENERATOR SCHEDULE | | | | |
|--------------------|--------------------------|-------|----------------|------------------------|
| GEN # | LOAD ITEM | VOLTS | GENERATOR SIZE | ADDITIONAL INFORMATION |
| 1 | GENERATOR A (ST-EX-EG01) | 13.2K | 2500KW | - |
| 2 | GENERATOR B (ST-EX-EG02) | 13.2K | 2500KW | - |

| DOUBLE ENDED UNIT SUBSTATION CEP-1 | | | | | | | |
|--|--|---------------------------|-----------|-----------------------|------|-------------------------------------|-----------|
| HORZ. BUS: 1200A @ 13.2KV | | VERT. BUS: 1200A @ 13.2KV | | S.C.R.: 65,000 AIC | | NEUT. BUS: NONE | |
| GROUND BUS: FULL SIZE | | NEMA CLASS: SEE SPEC | | VOLTAGE: 13.2KV | | ENCLOSURE NEMA TYPE: SEE SPEC. | |
| MVA MEDIUM VOLTAGE CABLE TERMINATION SECTION | | | SEE SPECS | | | | |
| TRANSFORMER SIZE | | PRI VOLTAGE | | SEC VOLTAGE | | REMARKS | |
| 2500/3150 KVA | | 13.2 | | 480V/277 | | SEE SPECS | |
| HORZ. BUS: 4000A | | VERT. BUS: 4000A | | S.C.R.: 50,000 AIC | | NEUT. BUS: 3200A | |
| GROUND BUS: FULL SIZE | | NEMA CLASS: SEE SPEC | | VOLTAGE: 480/277 3#4W | | ENCLOSURE NEMA TYPE: SEE SPEC. | |
| CIRCUIT NO. | EQUIPMENT DESIGNATION | DISCONNECT DEVICE | | | | FEEDER | REMARKS |
| | | POLES | FRAME | TRIP | TYPE | | |
| 1 | METERING (ELECTRONIC) | - | - | - | - | - | SEE SPECS |
| 2 | SURGE PROTECTION DEVICE (REMOTE MOUNTED) | 3 | - | - | - | - | SEE SPECS |
| 3 | MAIN DEVICE | 3 | 4000 | 4000 | - | - | SEE SPECS |
| 4 | BWH-1 | 3 | 1600 | 1600 | - | 12#600 KCMIL & 4#4/OG IN 4-3 1/2" C | - |
| 5 | CEP-1-DP1-101 - 480V DISTRIBUTION PANEL | 3 | 400 | 400 | - | 4#600 KCMIL & 1#3G IN 4" C | - |
| 6 | CH-1 | 3 | 1200 | 1200 | - | 9#400 KCMIL & 3#2/OG IN 3-3" C | - |
| 7 | MDP-1 | 3 | 1200 | 1200 | - | 12#600 KCMIL & 3#3/OG IN 3-4" C | - |
| 8 | CH-3 | 3 | 1200 | 1200 | - | 9#400 KCMIL & 3#2/OG IN 3-3" C | - |
| 9 | CH-5 | 3 | 600 | 450 | - | 3#600 KCMIL & 1#3G IN 4" C | - |
| 10 | PCW-5 (60 HP) | 3 | 400 | 175 | - | 3#1/0 & 1#4G IN 2" C | - |
| 11 | PCW-6 (60 HP) | 3 | 400 | 175 | - | 3#1/0 & 1#4G IN 2" C | STANDBY |
| 12 | PHW-4 (40 HP) | 3 | 250 | 125 | - | 3#3 & 1#6G IN 1 1/4" C | - |
| 13 | CH-7 | 3 | 600 | 450 | - | 3#4/0 & 1#2G IN 2 1/2" C | - |
| 14 | PWE-1 (150 HP) | 3 | 400 | 400 | - | 3#350KCMIL & 1#1/OG - 3" C | - |
| TIE CIRCUIT BREAKER | | 3 | 4000 | 4000 | - | - | SEE SPECS |

| DOUBLE ENDED UNIT SUBSTATION CEP-2 | | | | | | | |
|--|---|---------------------------|-----------|-----------------------|------|-------------------------------------|-----------|
| HORZ. BUS: 1200A @ 13.2KV | | VERT. BUS: 1200A @ 13.2KV | | S.C.R.: 65,000 AIC | | NEUT. BUS: NONE | |
| GROUND BUS: FULL SIZE | | NEMA CLASS: SEE SPEC | | VOLTAGE: 13.2KV | | ENCLOSURE NEMA TYPE: SEE SPEC. | |
| MVA MEDIUM VOLTAGE CABLE TERMINATION SECTION | | | SEE SPECS | | | | |
| TRANSFORMER SIZE | | PRI VOLTAGE | | SEC VOLTAGE | | REMARKS | |
| 2500/3150 KVA | | 13.2 | | 480V/277 | | SEE SPECS | |
| HORZ. BUS: 4000A | | VERT. BUS: 4000A | | S.C.R.: 50,000 AIC | | NEUT. BUS: 3200A | |
| GROUND BUS: FULL SIZE | | NEMA CLASS: SEE SPEC | | VOLTAGE: 480/277 3#4W | | ENCLOSURE NEMA TYPE: SEE SPEC. | |
| CIRCUIT NO. | EQUIPMENT DESIGNATION | DISCONNECT DEVICE | | | | FEEDER | REMARKS |
| | | POLES | FRAME | TRIP | TYPE | | |
| 1 | METERING (ELECTRONIC) | - | - | - | - | - | SEE SPECS |
| 2 | SPD (REMOTE MOUNTED) | 3 | - | - | - | - | SEE SPECS |
| 3 | MAIN DEVICE | 3 | 4000 | 4000 | - | - | SEE SPECS |
| 4 | BWH-2 | 3 | 1600 | 1600 | - | 12#600 KCMIL & 4#4/OG IN 4-3 1/2" C | - |
| 5 | SPARE | 3 | 225 | 225 | - | - | - |
| 6 | CEP MECHANICAL DISTRIBUTION PANEL MDP-2 | 3 | 1200 | 1200 | - | 12#600 KCMIL & 3#3/OG IN 3-4" C | - |
| 7 | CH-4 | 3 | 1200 | 1200 | - | 9#400 KCMIL & 3#2/OG IN 3-3" C | - |
| 8 | CH-2 | 3 | 1200 | 1200 | - | 9#400 KCMIL & 3#2/OG IN 3-3" C | - |
| 9 | CH-6 | 3 | 600 | 450 | - | 3#600 KCMIL & 1#3G IN 3 1/2" C | - |
| 10 | PCW-4 (60 HP) | 3 | 400 | 175 | - | 3#1/0 & 1#4G IN 2" C | - |
| 11 | PHW-5 (40 HP) | 3 | 250 | 125 | - | 3#3 & 1#6G IN 1 1/4" C | - |
| 12 | PHW-6 (40 HP) | 3 | 250 | 125 | - | 3#3 & 1#6G IN 1 1/4" C | STANDBY |
| 13 | PWE-2 (150 HP) | 3 | 400 | 400 | - | 3#350KCMIL & 1#1/OG - 3" C | - |
| 14 | PWE-3 (150 HP) | 3 | 400 | 400 | - | 3#350KCMIL & 1#1/OG - 3" C | - |

| REV | DATE | DESCRIPTION | ISS |
|-----|----------|-------------|-----|
| 7 | 10.25.22 | SUBMISSION | DF |
| 6 | 09.29.22 | SUBMISSION | MHC |
| 5 | 08.05.22 | INFORMATION | DF |
| 4 | 02.10.22 | INFORMATION | DF |
| 3 | 01.14.22 | INFORMATION | DF |
| 2 | 10.01.21 | INFORMATION | DF |
| 1 | 04.26.21 | INFORMATION | DF |

Title
**ELECTRICAL DISTRIBUTION
SCHEDULES**

Project
CENTRAL ENERGY PLANT
Address
**155 STERLING MINE ROAD
SLOATSBURG, NY 10974**

Project no. **19009** Revision **P7**

Sheet

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