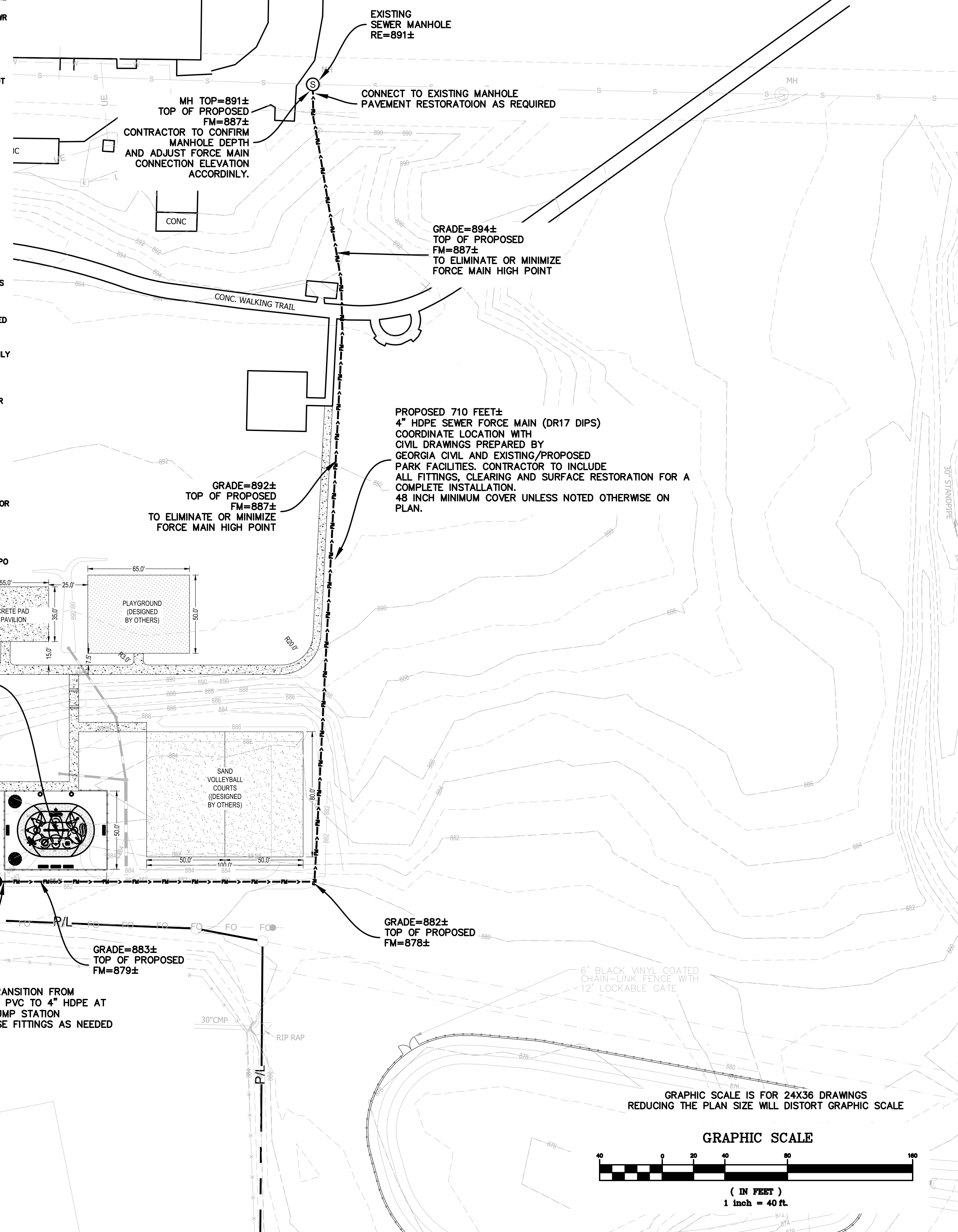
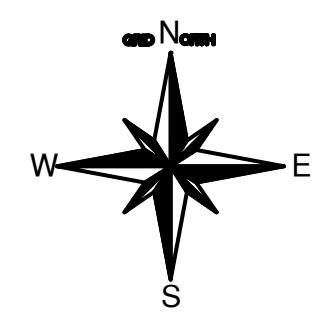


CONSTRUCTION NOTES:

1. OPEN TRENCHES IN EXISTING ASPHALT SHALL BE PLATED OVERNIGHT WITH NON SKID STEEL PLATES.
2. ALL BACKFILL AND UNDISTURBED EARTH SHALL HAVE A MINIMUM DENSITY OF 90% STANDARD PROCTOR. COMPACTION UNDER ROADWAYS TO BE A MINIMUM OF 98% STANDARD PROCTOR DENSITY. TEST IN ACCORDANCE WITH ASTM D698.
3. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. CONFLICTS BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE ENGINEER, WHO WILL DETERMINE THE INTENT OF THE DESIGN.
4. THE LOCATION, SIZE AND MATERIAL OF THE EXISTING FACILITIES, UTILITIES, AND TOPOGRAPHY HAVE BEEN RECORDED FROM THE INFORMATION PROVIDED TO THE RWR ENGINEER. THIS INFORMATION IS NOT GUARANTEED. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES, UTILITIES, AND TOPOGRAPHY SHOWN OR NOT SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THROUGH VACUUM EXTRACTION AND TEST HOLE METHODS, THE ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES SHOWN OR NOT SHOWN PRIOR TO ORDERING THE STRUCTURES AND PRIOR TO BEGINNING CONSTRUCTION. SUFFICIENTLY AHEAD OF HIS CONSTRUCTION SCHEDULE (90 DAYS MINIMUM). ANY AND ALL CONFLICTS WITH EXISTING FACILITIES SHALL BE REPORTED TO THE RWR ENGINEER SUFFICIENTLY AHEAD OF CONSTRUCTION (90 DAYS MINIMUM), TO ALLOW THE ENGINEER AMPLE RE-DESIGN TIME. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
5. EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND BASED ON RECORD DRAWINGS. POT HOLE AND SURVEY EXISTING UTILITIES THAT WILL BE AFFECTED BY TRENCHING OR EXCAVATIONS PRIOR TO ORDERING ANY MATERIALS. POTHOLES AND SURVEY DATA SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. POT HOLE DATA SHALL INCLUDE EXISTING UTILITY HORIZONTAL LOCATION, PIPE ELEVATION, PIPE ANGULAR CONFIGURATION, AND MATERIALS OF CONSTRUCTION. IDENTIFY POTENTIAL CONFLICTS WITH THE NEW PIPE LOCATION. PIPE ALIGNMENT ADJUSTMENTS THAT DO NOT INCREASE OVERALL PIPE OR FITTING QUANTITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE COUNTY. THE CONTRACTOR SHALL COMPLY WITH ALL UTILITIES PROTECTION CENTER REQUIREMENTS.
6. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
7. FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION, DIAMETER, AND ORIENTATION AT ALL CONNECTION POINTS AND COORDINATE WITH RWR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY RWR ENGINEERING DEPARTMENT AT LEAST 72 HOURS IN ADVANCE OF MAKING THE CONNECTION TO THE EXISTING SEWER MANHOLE. PROVIDE ALL PIPE MATERIALS AND FITTINGS, AS REQUIRED TO MEET EXISTING FIELD CONDITIONS FOR A COMPLETE INSTALLATION.
8. REPAIR DAMAGE TO LANDSCAPING, PAVING, UTILITIES, CURBS, GUTTERS, IRRIGATION, STRUCTURES, ETC., CAUSED BY THE WORK.
9. PAVEMENT CUTS SHALL BE PERFORMED BY SAW CUTTING OR GRINDING. RECUT PAVEMENT PRIOR TO REPAVING WHERE UNDERMINING HAS OCCURRED.
10. REPLACE TRAFFIC STRIPING OR STENCILING THAT IS OBLITERATED BY CONSTRUCTION TO THE SATISFACTION OF RWR.
11. MAINTAIN 48" MINIMUM PIPELINE COVER PER RWR UNLESS OTHERWISE SHOWN ON THE PLANS OR UNLESS REDUCED DEPTH IS SPECIFICALLY APPROVED BY THE ENGINEER.
12. MAINTAIN A 10'-0" HORIZONTAL DISTANCE BETWEEN WATERLINE AND SANITARY SEWER PIPE LINES. MAINTAIN AN 18" VERTICAL SEPARATION BETWEEN WATERLINE AND SANITARY SEWER PIPE.
13. SHOULD ANY PAVEMENT BE DAMAGED AS A RESULT OF THE PROPOSED WORK, IT SHALL BE REPAIRED AND RESURFACED BY CONTRACTOR.
14. REMOVAL AND REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH THE PLANS AND ROCKDALE COUNTY WATER AND SEWER STANDARDS AND SPECIFICATIONS SPECIFICATIONS.
15. ALL TRENCH EXCAVATION SHALL COMPLY WITH THE MOST CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS.
16. DELETERIOUS MATERIALS AND EXCAVATED MATERIALS NOT USED IN BACKFILL OR GRADING SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF.
17. ANY FENCES, MAILBOXES, OR OTHER PERMANENT STRUCTURES IN THE PATH OF THE PROPOSED SEWER LINE SHALL BE (IF NECESSARY) TEMPORARILY REMOVED PRIOR TO INSTALLATION AND REPLACED IN THE ORIGINAL LOCATION BEFORE GRASSING AND SEEDING. THESE TEMPORARILY REMOVED LINES MUST NOT REMAIN OUT OF SERVICE FOR MORE THAN 12 HOURS. MAILBOXES SHALL BE REPLACED, IF NECESSARY, AT NO ADDITIONAL COST TO THE OWNER.
18. SPOIL PILES ARE NOT TO BE PLACED ON THE PAVEMENT.
19. ALL DISTURBED DRAINAGE DITCHES AND SWALES SHALL BE RECONSTRUCTED TO THEIR ORIGINAL CONDITIONS TO PROVIDE POSITIVE DRAINAGE FOR UPSTREAM RUNOFF THROUGH DISTURBED AREA TO EXISTING DOWNSTREAM ELEMENTS OF THE DRAINAGE SYSTEM.
20. WHERE THE PROPOSED FORCE MAIN PASSES THROUGH OR ACROSS DRIP LINE OF A SPECIMEN TREE AS DEFINED BY ROCKDALE COUNTY TREE ORDINATES, THE PIPE SHALL BE BORED THROUGH THE ROOT SPACE OF THE TREE AND NOT TRENCHED FROM THE SURFACE.
21. ALL COSTS FOR INSTALLATION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INCLUDED IN THE BID PACKAGE.
22. ANY ROCKDALE COUNTY INFRASTRUCTURE OR PROPERTY DAMAGED DURING, OR AS RESULT OF, CONSTRUCTION OF THIS PROJECT WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF ROCKDALE COUNTY. [THIS INCLUDES, FOR EXAMPLE (BUT NOT LIMITED TO) PAVING, CURB, CURB/GUTTER, SHOULDERS, DITCHES, STORM DRAINAGE PIPES OR STRUCTURES; SIGNS; WATER DISTRIBUTION LINES OR APPURTENANCES, WATER TREATMENT FACILITIES, FIRE HYDRANTS, VALVES, METERS; WASTEWATER (SANITARY SEWER), COLLECTION LINES OR APPURTENANCES, MANHOLES OR OTHER STRUCTURES, FORCE MAINS, PUMP STATIONS OR APPURTENANCES; LANDSCAPING OR PLANT MATERIALS, INCLUDING MULCH, GRASSING, SHRUBBERY, TREES; STRUCTURES OF ANY NATURE, INCLUDING FENCING.]
23. CONTRACTOR TO COORDINATE EROSION CONTROL FOR THIS PROJECT WITH THE SITE CIVIL PLANS. IF THE FORCE MAIN IS OUTSIDE THE CONSTRUCTION LIMITS THEN SINGLE ROW SILT FENCE SHALL BE ADDED.
24. FORCE MAIN ELEVATIONS SHOWN ARE BASED ON TOPOGRAPHY PROVIDED TO RWR ENGINEER. CONTRACTOR SHALL CONFIRM FINAL OR EXISTING TOPO ELEVATIONS AND NOTIFY RWR ENGINEER IF ELEVATIONS VARY MORE THAN 6 INCHES, PRIOR TO CONSTRUCTION.



PARKER ROAD R/W VARIES

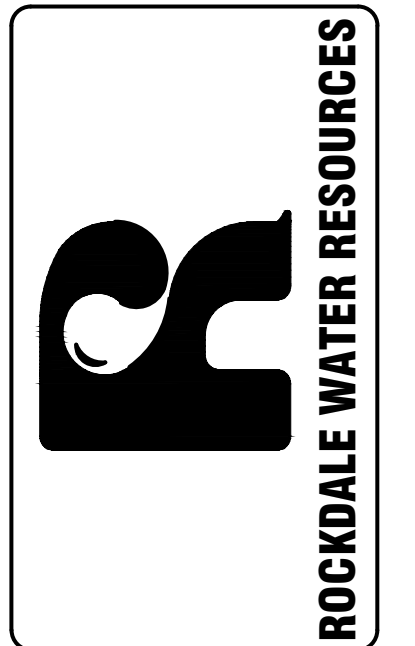
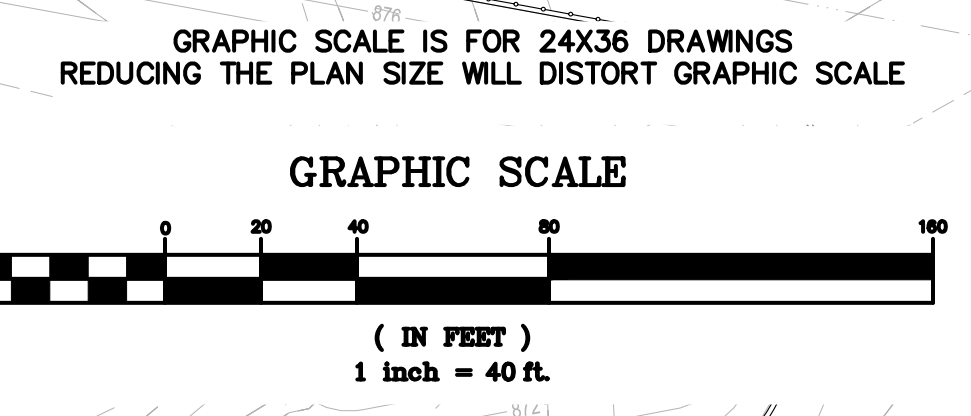
CULPEPPER DRIVE

BEFORE ORDERING THE PACKAGE SEWER PUMP STATION, CONTRACTOR SHALL CONFIRM THE SEWER SERVICE SIZE AND DEPTH WITH THE CIVIL ENGINEERING PLANS AND NOTIFY RWR ENGINEER. THE SEWER LATERAL ELEVATION AT PUMP STATION SHALL BE NO LOWER THAN 880'. SEWER LATERALS BY CIVIL ENGINEER.

PROPOSED PRIVATE PACKAGE SEWER PUMP STATION
TOP ELEV=884'
BOTTOM ELEV=873'
PUMPS OFF ELEV NO LOWER THAN 875.5'
DESIGN PUMPING RATE=115 GPM
TDH=27'
1.5HP
208/230V
3 PHASE

(REFER TO DETAILS ON SHEET C-02 AND ELECTRICAL DRAWINGS PREPARED BY EDEC)
CONTRACTOR MAY SUBMIT AN EQUAL ALTERNATIVE TO LIBERTY PUMPS. THE ALTERNATIVE MUST BE A PACKAGE PUMP STATION AND MEET DESIGN AND DIMENSIONAL CRITERIA SHOWN ON THE PLANS AND DETAILS.

ATTN NANCY BAKER
11320 WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226-3413
DB 4442 PG 337
PB 6 PG 106
PARCEL 0750010175



REVISION		DESCRIPTION	
No.	DATE	No.	DATE

PRIVATE PUMP STATION & FORCE MAIN PLAN

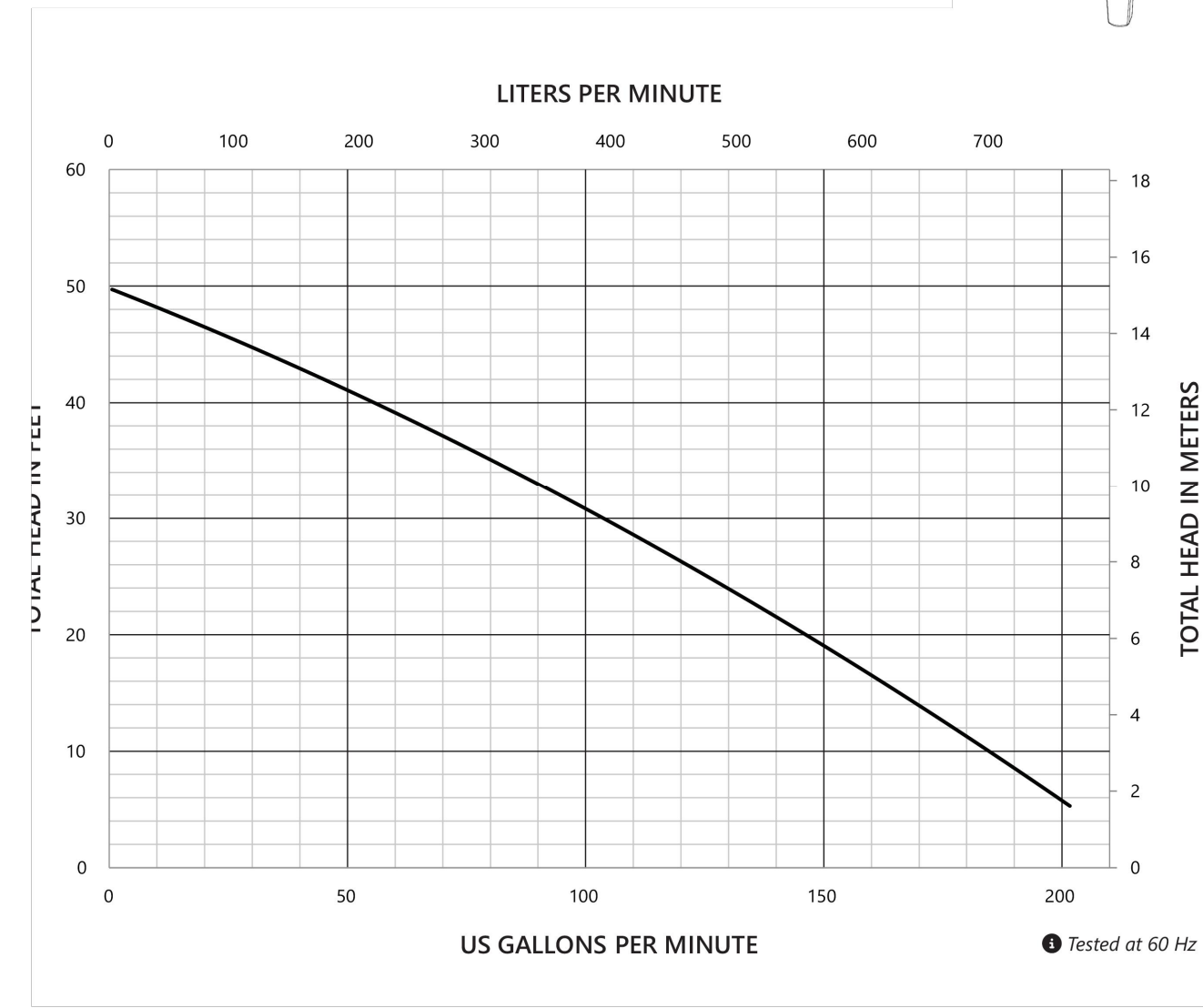
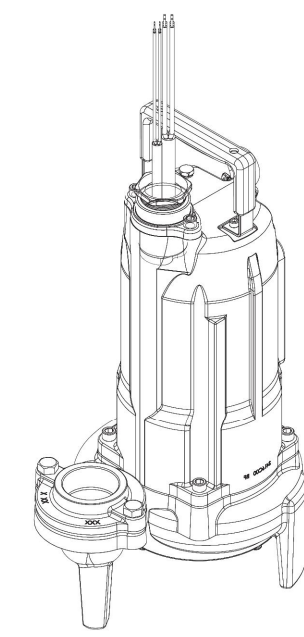
DESIGNED BY: DAVID CERVONE
DRAWN BY: WALT BOBO
CHECKED BY: DAVID CERVONE
DATE: 03/13/2024
FILE NAME: PUMP STA. & FORCE MAIN

SHEET
C-01



Pump Specification

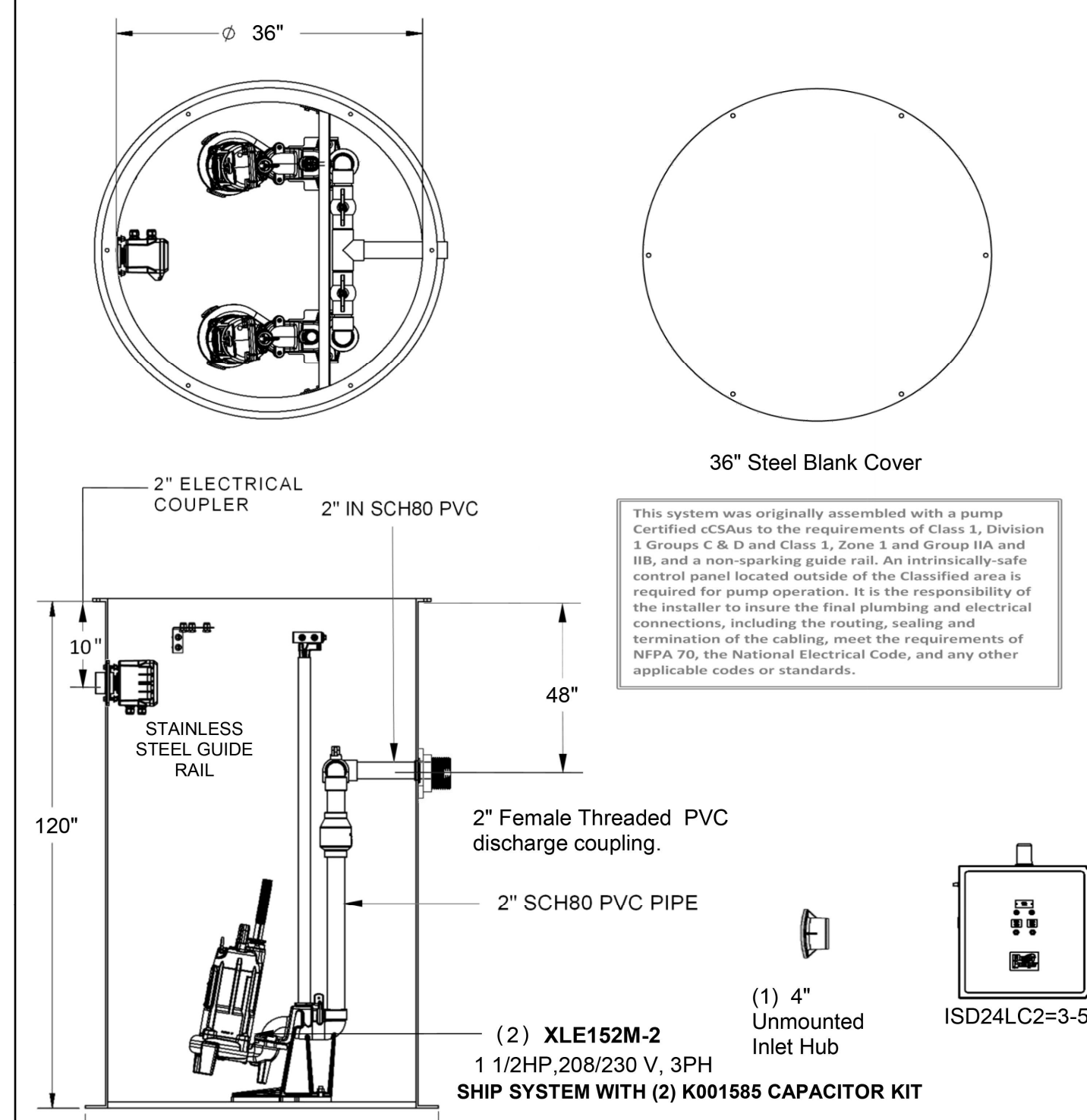
XLE150-Series
 1-1/2 hp Submersible Sewage Pumps for Hazardous Locations
 Class 1, Division 1, Groups C and D
 Class 1, Zone 1, Groups IIA and IIB



Copyright © Liberty Pumps, Inc. 2023 All rights reserved. Specifications subject to change without notice. XLE150_P1 R05/25/2023
 7000 Apple Tree Avenue Bergen NY 14416 Phone 1-800-543-2550 Fax 1-585-494-1839 Email Liberty@LibertyPumps.com Web www.LibertyPumps.com

EPS109612

36X120 DUPLEX XLE152M-2



Fiberglass Tank dimension tolerance(s): +/- 1"

Customer items are non-cancelable once order is placed. 100% restocking fee applies.

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LIBERTY PUMPS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LIBERTY PUMPS IS PROHIBITED.

7000 APPLE TREE AVENUE
 BERGEN, N.Y. 14416
 (585) 494-1817

QUOTED PROVIDED BY: J. AUSTIN

REVISION: C

CUSTOMER APPROVAL

DATE:

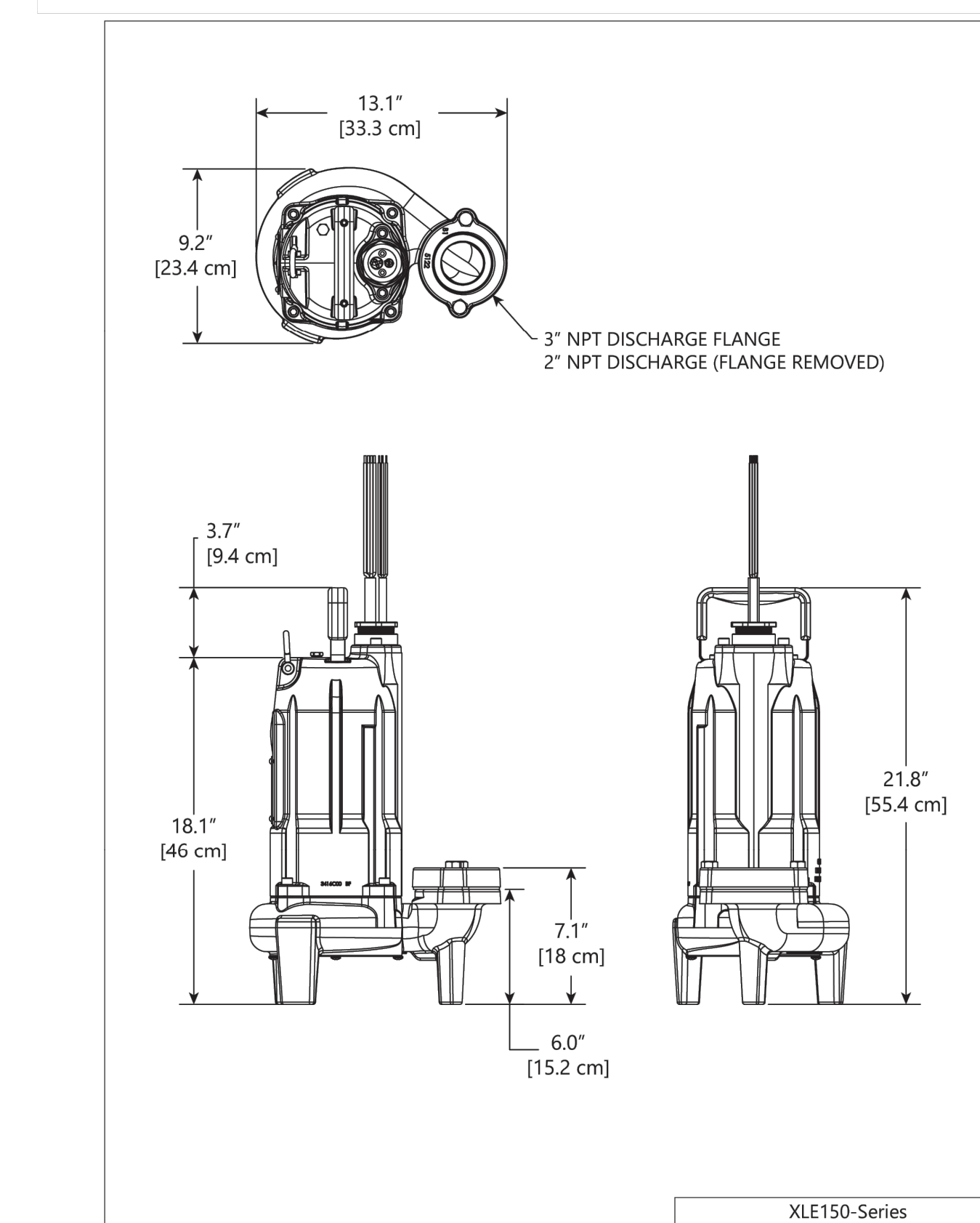
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NAME(SIGN):

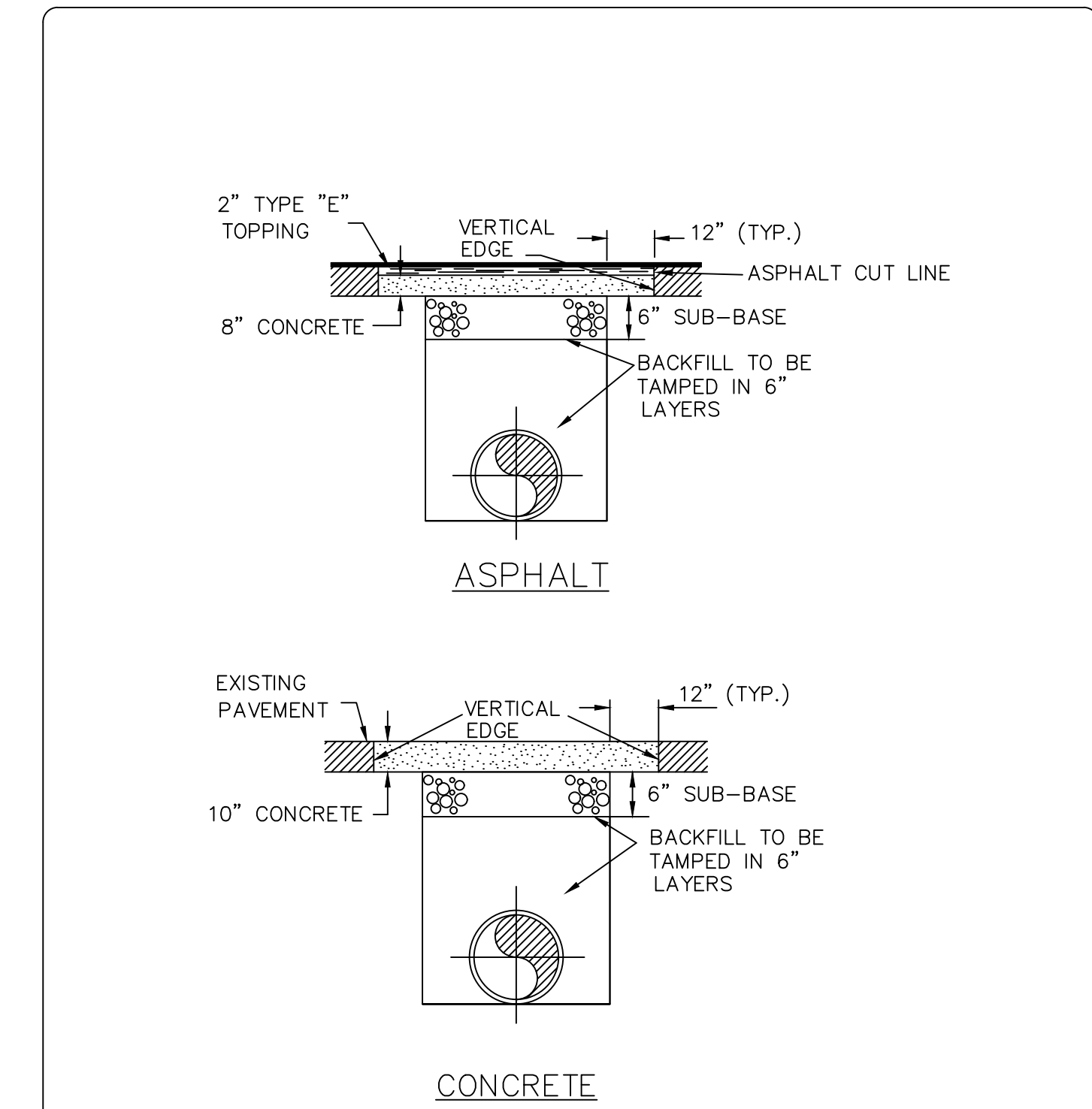
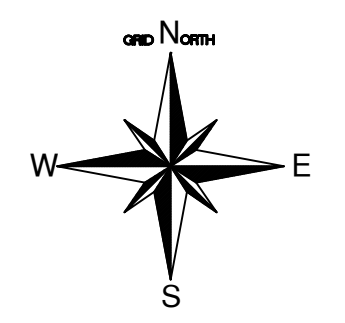
FINAL CONFIGURATIONS MAY VARY SLIGHTLY FROM THE ILLUSTRATIONS ON THIS PRINT

28-March-2024:10:33 PM

XLE150-Series Dimensional Data

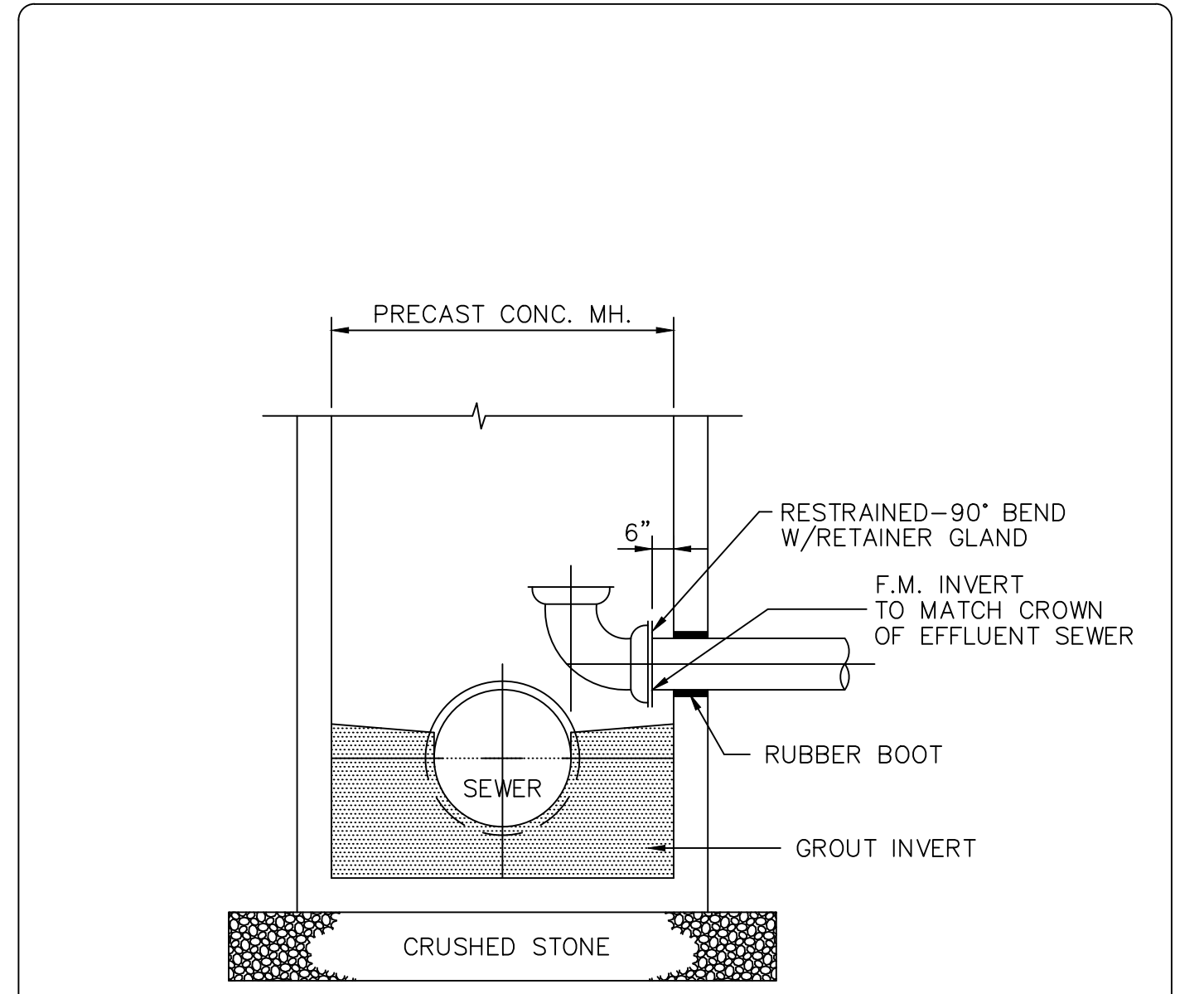


Copyright © Liberty Pumps, Inc. 2023 All rights reserved. Specifications subject to change without notice. XLE150_P2 R05/25/2023
 7000 Apple Tree Avenue Bergen NY 14416 Phone 1-800-543-2550 Fax 1-585-494-1839 Email Liberty@LibertyPumps.com Web www.LibertyPumps.com



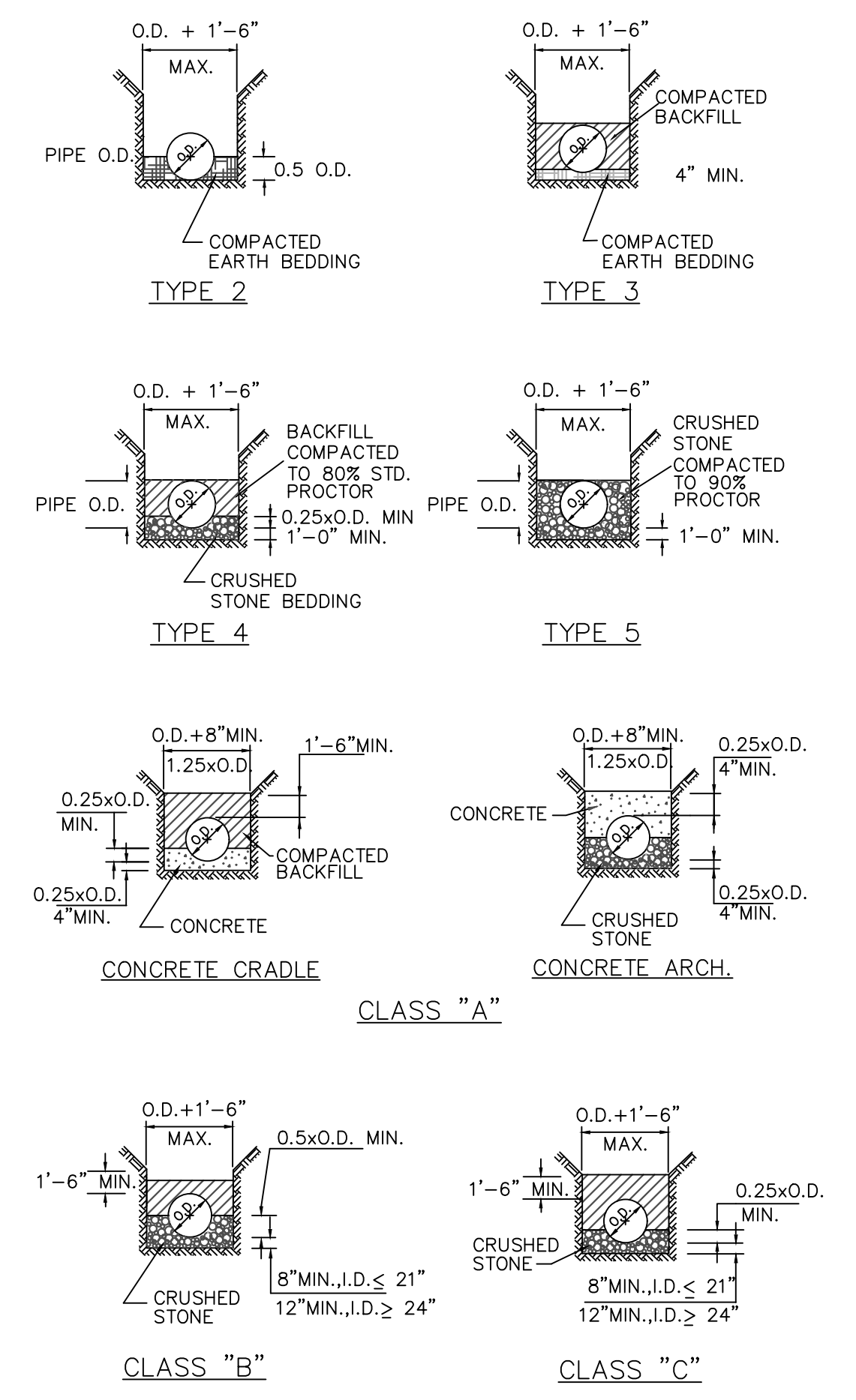
PAVEMENT REPLACEMENT
 NOT TO SCALE

STANDARD DRAWING No. A-14

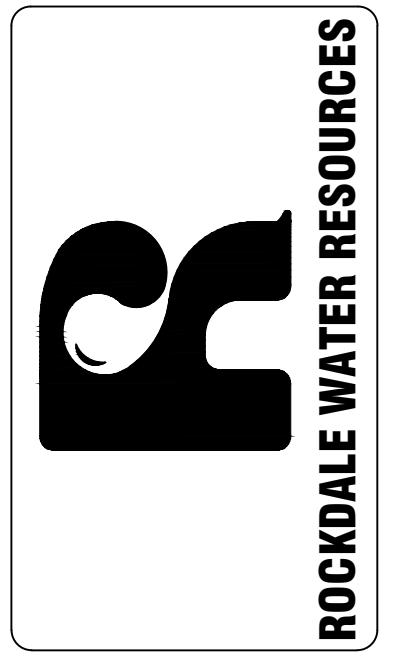


FORCE MAIN CONNECTION DETAIL
 EXISTING MANHOLE
 NOT TO SCALE

STANDARD DRAWING No. B-6



TYPICAL PIPE BEDDING DETAIL
 NTS



REVISION		DATE	DESCRIPTION
No.			
1			
2			
3			
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PUMP STATION DETAILS

DESIGNED BY: DAVID CERVOE
 DRAWN BY: WALT BOBO
 CHECKED BY: DAVID CERVOE
 DATE: 03/13/2024
 FILE NAME: PUMP STA. & FROCE MAN

SHEET
C-02

SCHEMATIC DIAGRAM SYMBOLS:

Table listing schematic diagram symbols such as conductors connected/not connected, connection points, terminal points, circuit breakers (MCP, CB), fuses (FU), disconnect switches (DS, FD), motors (M), limit switches (LS), pressure switches (PS), temperature switches (TS), flow switches (FS), level switches (FLT), proximity switches (PRS), pullcord switches (PCS), momentary pushbuttons (PB), selector switches (SS), time delay switches (TDS), control relays (CR), solenoid valves (SV), control relays (CR), pilot lights (LT), alarm lights (AL), alarm horns (AH), control power transformers (CPT), current transformers (CT), and motor space heaters (XZ).

ONE LINE DIAGRAM SYMBOLS:

Table listing one line diagram symbols including low voltage power circuit breakers (CB), molded case circuit breakers (CB), lightning arresters (LA), disconnect/isolating switches (DS), magnetic-only circuit breakers (MCP), fused disconnect switches (FD), power transformers (TFR), current transformers (CT), potential transformers (PT), meters (METER), full voltage non-reversing magnetic motor starters (FVNR), full voltage reversing magnetic motor starters (FVR), variable frequency drives (VFD), reduced voltage solid state drives (RVSS), motors (M), generator receptacles (G), manual transfer switches (MTS), and cable tags (CABLE TAG).

CIRCUIT AND RACEWAY SYMBOLS:

Table listing circuit and raceway symbols such as raceway systems above and below floor level, schematic diagram field wiring, one line diagram equipment enclosures, grounding conductors (concealed and exposed), home runs, and examples of home runs to panelboards.

GENERAL ABBREVIATIONS:

Table of general abbreviations for electrical components, including alarm relays, ammeters, alternating current, amperes, aluminum, ampere trip, automatic, auxiliary, American wire gauge, bare copper conductor, breaker, conductor/contactor, circuit breaker, circuit junction box, circuit, ceiling, control relay, conduit, concrete, control switch, control power transformer, current transformer, copper, diameter, duct bank, direct current, detail, diagram, differential pressure switch, disconnect switch, drawing, each, electrical contractor, exhaust fan, elevation, electric(al), emergency, enclosure/enclosed, explosion proof equip., existing, furnished with equipment panel, feeder, full load amps, fiber optic distribution panel, flow switch, fuse, future, full voltage non-reversing, full voltage reversing, galvanized, generator, ground fault relay, ground, galvanized rigid steel, high, height, handhole, high intensity discharge, horsepower, hand station, heating, ventilation and air conditioning, hertz, hand/off/auto, hand/off/reverse, high voltage manhole, inside diameter, individual motor controller, interlock, instantaneous, instrument, input-output, junction box, kilovolt, kilovolt-ampere, kilovolt-ampere reactive, kilowatt, kilowatt-hour, kilo ampere interrupting current, local-off-remote, long, lighting contactor, local control panel, lighting panel, lock-out stop, long, short, instantaneous trip, setting and ground fault protection, level switch low, limit switch open, limit switch closed, lighting, low voltage, level switch high, motor contactor, milliamperes, maximum, main circuit breaker, MCC, MCP, motor control center, motor control panel/motor circuit, protector, mechanical, manufacture, manhole, microphone, minimum, miscellaneous, milivolt, millivolt, milli circular mills, motor operator panel, motor protection relay, motor starter, motor, medium voltage starter, N/A, not applicable, normally closed, neutral, not in contract, normally open, nominal, nameplate, not to scale, on center, outside diameter, overhead, overloads, oil tight, pole, public address, pushbutton, pullbox, photo electric cell, power factor, phase, power junction box, programmable logic controller, panel, power panel, pair, primary, pressure switch, potential transformer, polyvinyl chloride, power, shear pin limit switch, receptacle, reactor, reference req'd required, root mean square, resistance temperature detector, schedule, speed sensor, secondary, selector, service entrance rated, single pole double throw, specification, motor space heater, speaker, stainless steel, speed switch, shielded twisted pair, substation, switch, symmetrical, system, solenoid operated valve, signal pull box, terminal box, telephone, temperature, transformer, thermostat, terminal junction box, temperature switch high, television, typical, timing relay, transient voltage surge suppressor, undergound, unit heater, unless otherwise noted, volt, volt ampere, volt ampere reactive, variable frequency drive, vibration switch, watt, wire, wide, with, without, weight load cell, weight indicating transmitter, weatherproof, warning horn/light, anemometer, position (limit) switch, position (limit) switch open, position (limit) switch closed, position transmitter, ground rod, ground rod and well, compression type grounding bond, and exothermic type grounding bond.

GENERAL NOTES:

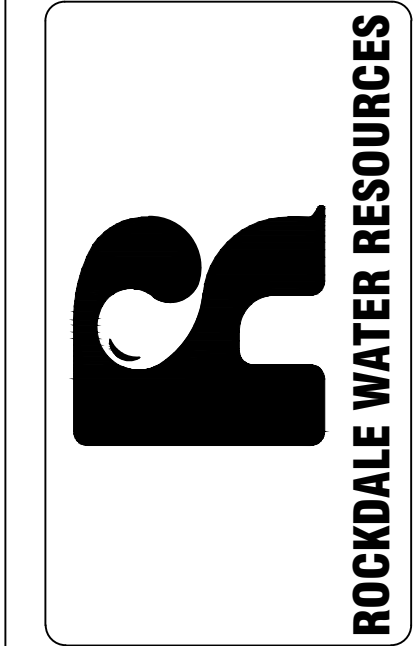
- 1. SCOPE:
A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER AND SAFE OPERATION OR OTHERWISE REQUIRED BY CODE, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, ANY OTHER LOCALLY ADOPTED CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASING.
3. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATE THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
4. THE POWER, LIGHTING AND CONTROL CABLES SHALL BE COPPER CONDUCTORS WITH 600V TYPE "XHHW" INSULATION, #12 AWG MINIMUM SIZE. THE SIGNAL CABLES SHALL BE COPPER CONDUCTORS, 600V RATED, TWISTED AND SHIELDED TYPE, #16 AWG MINIMUM SIZE. CABLES BETWEEN THE VFD AND ASSOCIATED MOTOR SHALL BE SHIELDED POWER VFD RATED CABLES. ALL CABLES INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
5. POWER WIRES SIZES #12 AWG AND #10 AWG SHALL BE SOLID TYPE. ALL OTHER SIZES SHALL BE STRANDED.
6. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND DISTANCES IN THE FIELD. IN CASE OF DISCREPANCY, CONTRACTOR SHALL INCLUDE A MORE EXPENSIVE OPTION.
7. ALL EXPOSED CONDUITS SHALL BE GALVANIZED RIGID STEEL, UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM OF 3/4". ALL BURIED CONDUIT SHALL BE PVC-40, MINIMUM OF 1". ALL UNDERGROUND CONDUITS SHALL HAVE RIGID STEEL ELBOWS. ALL METAL CONDUITS SHALL BE PROTECTED WITH A BITUMINOUS COATING WHEN INSTALLED UNDERGROUND OR WHEN IN CONTACT WITH CONCRETE.
8. ALL FITTINGS SHALL BE CAST WITH THREADED HUBS. ALL CONNECTIONS SHALL BE COMPRESSION TYPE.
9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CABLES AND EQUIPMENT LUG SIZES. IN CASE THE CABLE IS OF A LARGER SIZE THAN THE EQUIPMENT LUG, CONTRACTOR SHALL PROVIDE THE REQUIRED CONNECTOR AT NO ADDITIONAL CHARGE TO OWNER.
10. THE CONTRACTOR SHALL PROVIDE PULL STRING AND PERMANENTLY ATTACHED IDENTIFICATION LABELS AT EACH CONDUIT END FOR ALL SPARE CONDUITS. EACH TAG SHALL INCLUDE CONDUIT NUMBER, SIZE AND DESTINATION POINT.
11. ALL EQUIPMENT LOCATED IN THE PRIMARY SEWAGE WETWELL SHALL BE CLASS 1, DIVISION 1, GROUP D RATED.
12. INSTALLATION AND MATERIALS SHALL FOLLOW ROCKDALE COUNTY WATER & SEWER SPECIFICATIONS.

PLAN DRAWING SYMBOLS:

- (M) MOTOR CONNECTION
☒ MOTOR STARTER, INDIVIDUAL --- NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY IN NEMA 4X ENCLOSURE UNLESS OTHERWISE NOTED. MOUNT AT 4'-8" TO CENTER OF STARTER.
☒ COMBINATION MOTOR STARTER/DISCONNECT, INDIVIDUAL --- NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY IN NEMA 4X ENCLOSURE UNLESS OTHERWISE NOTED. MOUNT AT 4'-8" TO CENTER OF STARTER/DISCONNECT.
☐ DISCONNECT SWITCH. DISCONNECT SWITCHES ARE HEAVY DUTY, SINGLE THROW, WITH NEMA 4X ENCLOSURE UNLESS OTHERWISE NOTED. MOUNT AT 4'-8" TO CENTER OF DISCONNECT.
☒ FUSED DISCONNECT, NON-FUSED. PROVISION FOR CLASS R FUSES.
⊗ FIELD INSTRUMENT CONNECTION
☐ START/STOP HAND STATION MOUNTED TO HANDRAIL (NEMA 4X UNLESS OTHERWISE NOTED)
\$ X 120V, 20A, 1P TOGGLE SWITCH [BLANK] = 1P TOGGLE SWITCH, 2 = 2P TOGGLE SWITCH, 3 = 3P TOGGLE SWITCH, D = SLIDE DIMMER, M = MOTOR RATED, S = TOGGLE WITH OCCUPANCY SENSOR
⊕ DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 18" ABOVE FINISHED FLOOR (A.F.F.) OR 6" ABOVE COUNTER, DESK, OR CABINET.
⊕ GFCI DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 18" ABOVE FINISHED FLOOR (A.F.F.) OR 6" ABOVE COUNTER, DESK, OR CABINET.
⊕ QUADRAPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 18" ABOVE FINISHED FLOOR (A.F.F.) OR 6" ABOVE COUNTER, DESK, OR CABINET.
△ TELEPHONE/DATA BOX. MOUNT 18" A.F.F., INSTALL A 1/2" CONDUIT FROM BOX TO 6" ABOVE CEILING. PROVIDE PULL CORD FOR FUTURE CONNECTIONS AS REQUIRED.
☒ JUNCTION BOX
⊕ 60A, 480V, 3PH WELDING RECEPTACLE
⊕ WELDING RECEPTACLE, 240V, 30A, 2P. MOUNT 18" ABOVE FINISHED FLOOR (A.F.F.)

GROUNDING SYMBOLS:

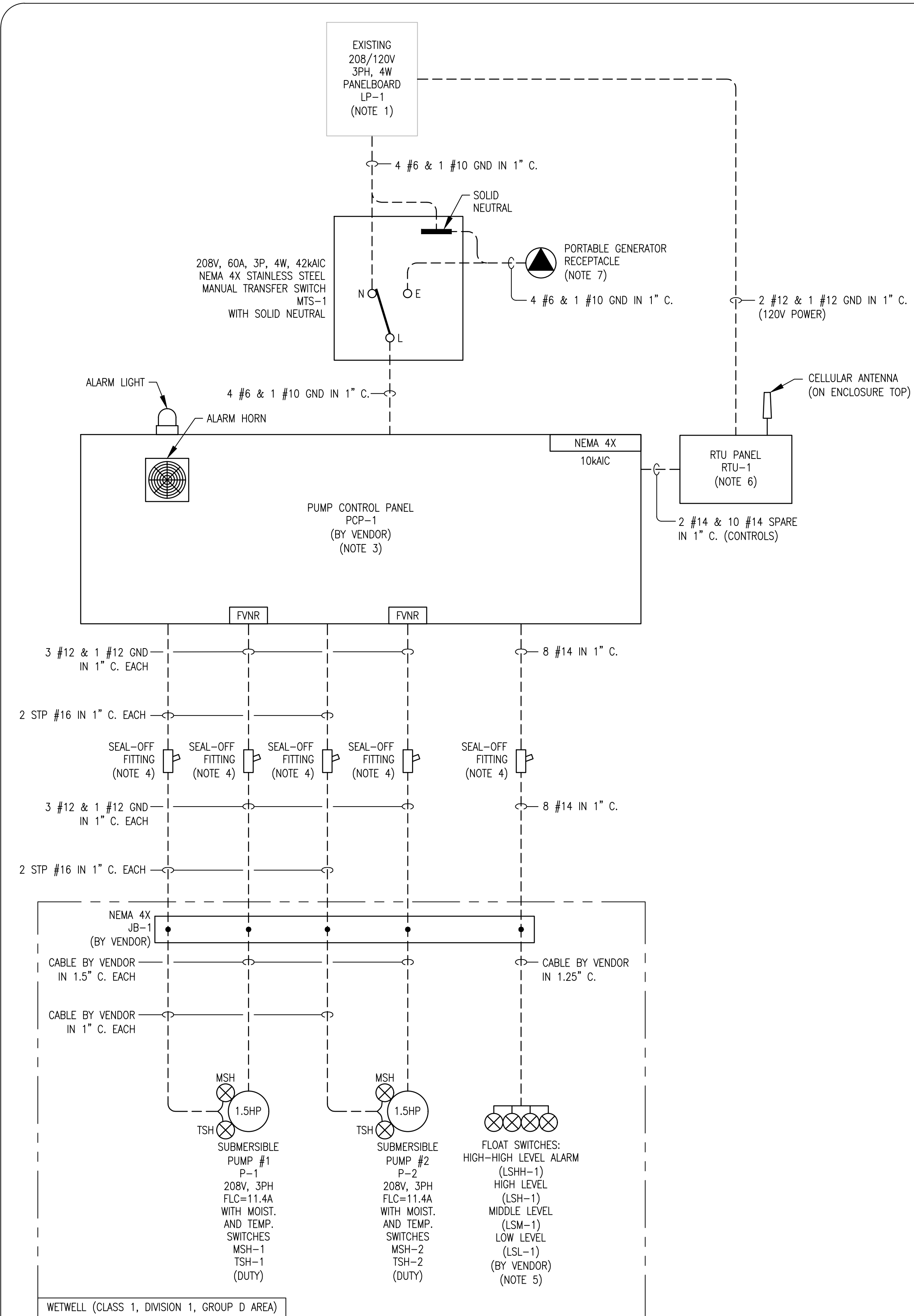
- ⊙ GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED)
⊗ GROUND ROD AND WELL
— COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
• EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT



REVISION table with columns for No., DATE, DESCRIPTION, and ISSUED FOR BID. Includes a row for No. 1 dated 04/03/24.

ELECTRICAL LEGEND & NOTES section.

DESIGNED BY: MM, DRAWN BY: MM, CHECKED BY: DV, DATE: 04/03/2024, FILE NAME:



NOTES:

- THE CONTRACTOR SHALL USE EXISTING 208/120V, 3PH PANELBOARD LOCATED IN THE RAIN DROP PUMPS BUILDING TO FEED THE PUMP STATION CONTROL PANEL AND THE RTU. THE CONTRACTOR SHALL USE EXISTING CIRCUIT BREAKERS IN THE EXISTING PANELBOARD (INSTALLED BY OTHERS) - 50A, 3P BREAKER FOR PUMPS CONTROL PANEL AND 20A, 1P BREAKER FOR RTU.
- ALL ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE PADLOCKABLE.
- THE PUMP VENDOR SHALL FURNISH AND CONTRACTOR SHALL INSTALL THE PUMP STATION CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
 - CONTROL PANEL SCRR SHALL BE 10KAC MINIMUM.
 - ENCLOSURE: WALL MOUNTED NEMA 4X FIBERGLASS.
 - MAIN DEVICE - THERMAL MAGNETIC CIRCUIT BREAKER 50A, 208V, 3P.
 - TWO (2) FULL VOLTAGE NON-REVERSIBLE (FVNR), 208V, 3PH STARTERS RATED FOR 1.5HP MOTORS WITH MOTOR CIRCUIT PROTECTORS.
 - CONTROLLER - NONE (RELAY LOGIC).
 - CONTROLLER OIT - NONE.
 - PRIMARY LEVEL DEVICE - FOUR (4) FLOAT SWITCHES.
 - SELECTOR SWITCHES:
 - H-O-A SWITCHES (FOR EACH PUMP).
 - PUSH BUTTONS:
 - ALARM SILENCE;
 - ALARM RESET
 - INDICATING LIGHTS FOR:
 - PUMP RUNNING (RED) (FOR EACH PUMP);
 - PUMP TEMPERATURE ALARM (AMBER) (FOR EACH PUMP);
 - PUMP MOISTURE ALARM (AMBER) (FOR EACH PUMP);
 - PUMP OVERLOAD ALARM (AMBER) (FOR EACH PUMP);
 - WETWELL HIGH-HIGH LEVEL ALARM (AMBER);
 - WETWELL LOW-LOW LEVEL ALARM (AMBER).
 - MOISTURE/TEMPERATURE PROTECTION RELAY FOR EACH PUMP.
 - 120V, 5A RATED DRY CONTACTS, AND SIGNAL WIRING PREWIRED TO FIELD TERMINALS:
 - WETWELL HIGH-HIGH LEVEL ALARM;
 - PUMP ALTERNATOR.
 - ALARM LIGHT AND HORN.
 - INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WETWELL.
 - PUMPS HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
 - LOW-LOW LEVEL CUTOFF;
 - COMMON FAULT (MOISTURE/TEMPERATURE/OVERLOAD ALARM).
- PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

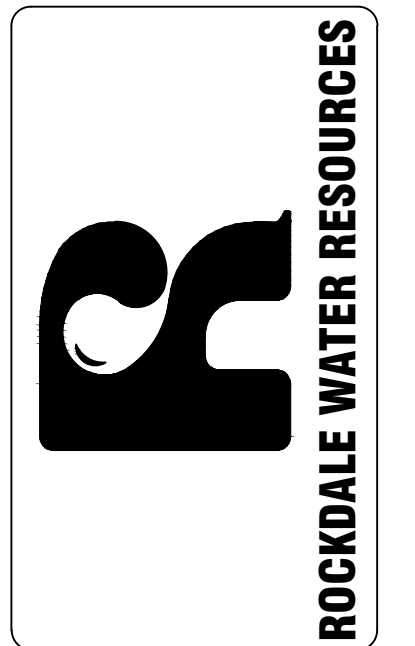
- THE CONTRACTOR SHALL PROVIDE AND INSTALL SEAL-OFF FITTINGS LEAVING HAZARDOUS AREA TO PREVENT METHANE GAS AND MOISTURE ENTERING INTO ELECTRICAL EQUIPMENT. USE NON-HARDENING SEAL COMPOUND (IDEAL CAT. NO 31-601 OR APPROVED EQUAL).
- FOUR (4) LEVEL FLOAT SWITCHES (LSHH-1, LSH-1, LSM-1 AND LSL-1) SHALL BE PROVIDED BY PUMP VENDOR AND WIRED TO THE PUMP CONTROL PANEL. THE CONTRACTOR SHALL WIRE HIGH-HIGH LEVEL FLOAT SWITCH (LSHH-1) TO ACTIVATE ALARM HORN AND STROBE. CABLES PROVIDED WITH THE FLOATS SHALL BE LONG ENOUGH TO REACH PUMP CONTROL PANEL WITHOUT SPLICING. FLOAT SWITCHES SHALL BE CLASS 1, DIVISION 1, GROUP D AREA RATED AND SHALL BE MERCURY FREE.
- CONTRACTOR SHALL PROVIDE AND INSTALL PACKAGED REMOTE TELEMETRY UNIT AS SHOWN ON THE DESIGN DRAWINGS FOR I/O'S MONITORING AND CONTROLS AS DESCRIBED BELOW:
 - BRAND: MISSION COMMUNICATIONS.
 - MODEL: MYDRO 850.
 - MEANS OF COMMUNICATION: WIRELESS, CELLULAR (IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TYPES OF CELLULAR TRANSCEIVER WHICH WILL PROVIDE THE MOST RELIABLE CONNECTION).
 - ENCLOSURE: NEMA 4X STAINLESS STEEL.
 - INCLUDE ALL THE REQUIRED ACCESSORIES, SUCH AS GSM ANTENNA, ANTENNA CABLES, TERMINALS, ETC. AS NEEDED FOR COMPLETE AND OPERATIONAL SYSTEM.

INCLUDE I/O'S EXPANSION MODULES AS NEEDED TO ACCOMMODATE I/O'S AS LISTED BELOW.

- DIGITAL INPUTS:
 - WETWELL HIGH-HIGH LEVEL ALARM - FROM PCP-1.

THE CONTRACTOR SHALL CONTACT JASON BOTT WITH KAZMIER & ASSOCIATES (EMAIL: JASON@KAZMIERINC.COM; TEL: 770-475-2242 EXT. 112) TO DETERMINE THE SPECIFIC REQUIREMENTS TO BE USED FOR THIS PROJECT.

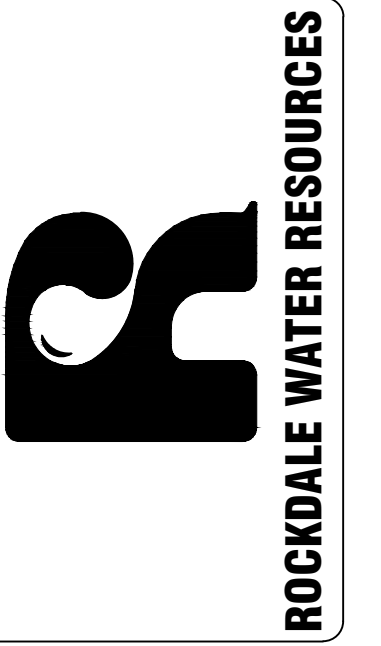
- THE CONTRACTOR SHALL PROVIDE AND INSTALL 208V, 60A, 3PH, 5W, NEMA 4 PIN AND SLEEVE GENERATOR RECEPTACLE ASSEMBLY WITH BACK BOX. THE RECEPTACLE SHALL BE BY CROUSE-HINDS "ARKITITE" SERIES OR APPROVED EQUAL. COORDINATE THE EXACT RECEPTACLE MODEL NUMBER WITH THE COUNTY TO MATCH EXISTING PORTABLE GENERATOR PLUG TYPE.



REVISION		DESCRIPTION
No.	DATE	
A	04/03/24	ISSUED FOR BID

ONE LINE DIAGRAM

DESIGNED BY: MM
 DRAWN BY: MM
 CHECKED BY: DV
 DATE: 04/03/2024
 FILE NAME:

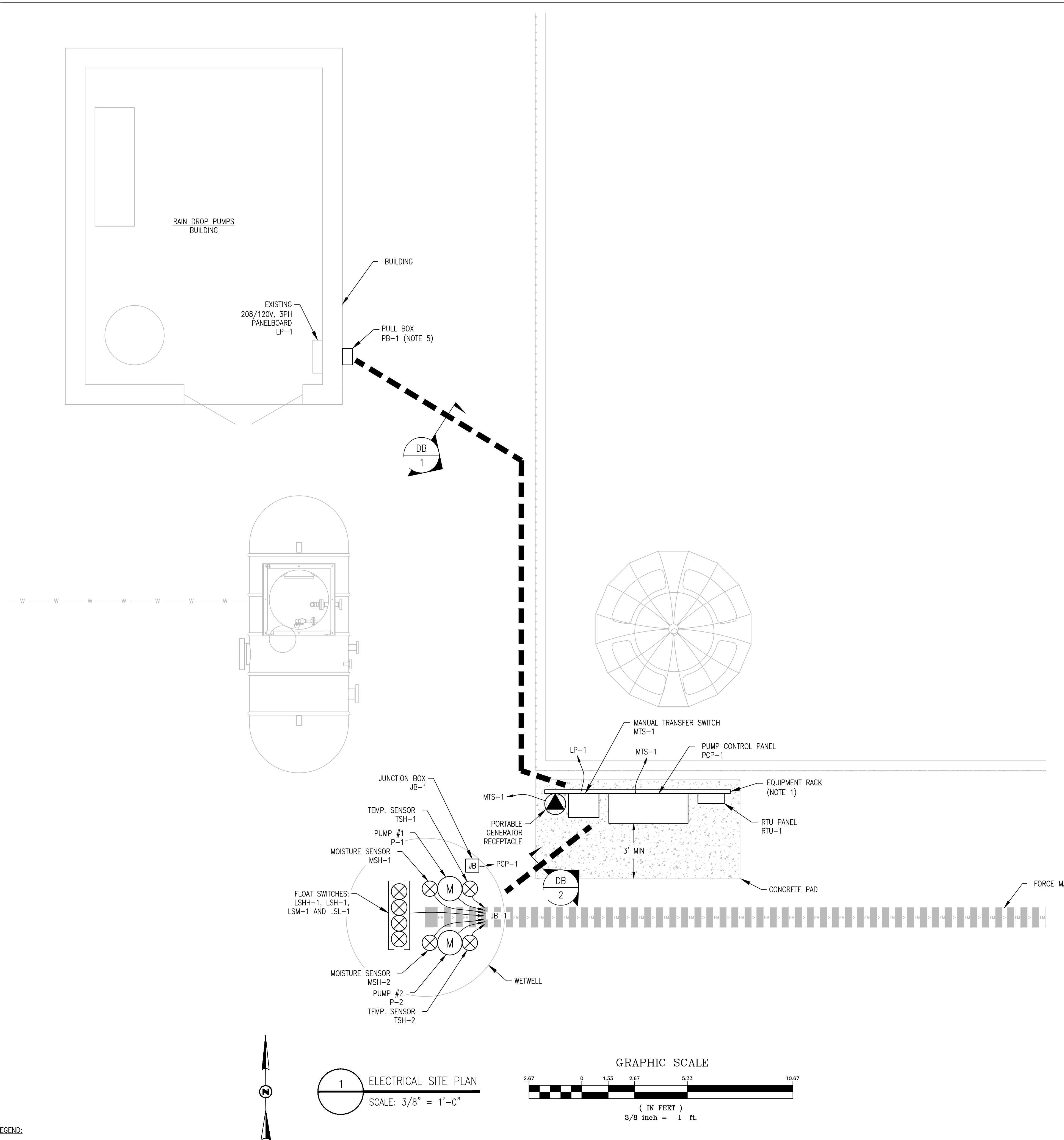
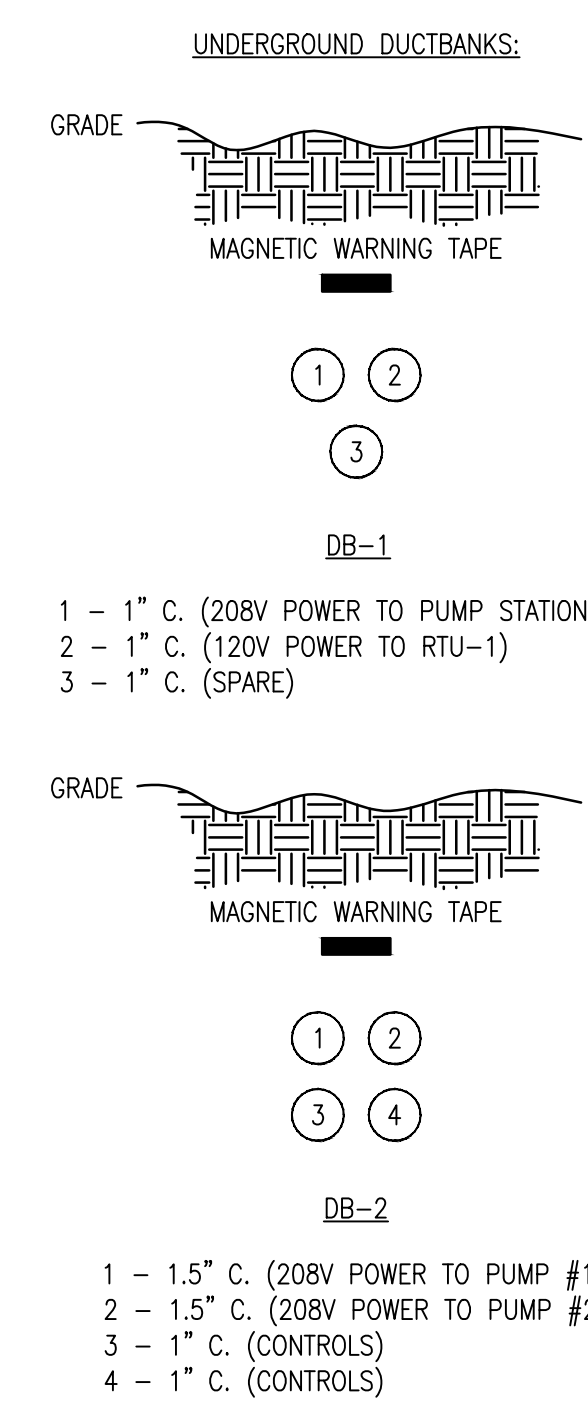


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No.	DATE	DESCRIPTION
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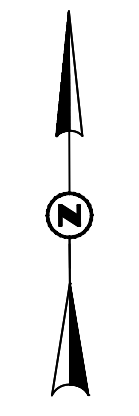
ELECTRICAL SITE PLAN

DESIGNED BY:	MM
DRAWN BY:	MM
CHECKED BY:	DV
DATE:	04/03/2024
FILE NAME:	

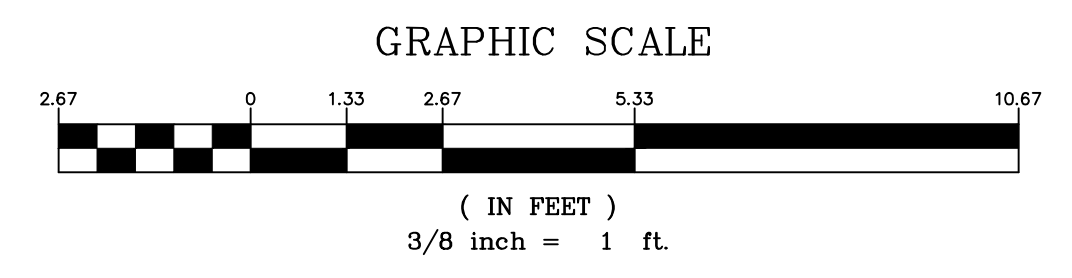
- NOTES:**
- CONTRACTOR SHALL PROVIDE AND INSTALL UNISTRUT SUPPORT AS SHOWN. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF UNISTRUT TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" AND "B" ON DWG. E-4 FOR INSTALLATION DETAILS. 6" CONCRETE PAD SHALL BE UNDER ELECTRICAL EQUIPMENT AND SHALL EXTEND 3 FEET IN FRONT OF THE EQUIPMENT.
 - ONLY MAJOR UNDERGROUND CONDUITS ARE SHOWN FOR CLARITY. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES.
 - THE CONTRACTOR SHALL CONFIRM ELECTRICAL EQUIPMENT WORKING CLEARANCES PRIOR TO INSTALLATION AND ADJUST EQUIPMENT LOCATION AS NEEDED TO MEET NEC REQUIREMENTS.
 - THE CONTRACTOR SHALL COORDINATE THE EXACT EQUIPMENT LOCATION WITH THE COUNTY DURING INSTALLATION TO AVOID INTERFERENCE WITH OTHER STRUCTURES AND UTILITIES.
 - THE CONTRACTOR SHALL PROVIDE AND INSTALL A NEMA 4X SS PULL BOX ADEQUATELY SIZED FOR ASSOCIATED CABLES AND CONDUITS.

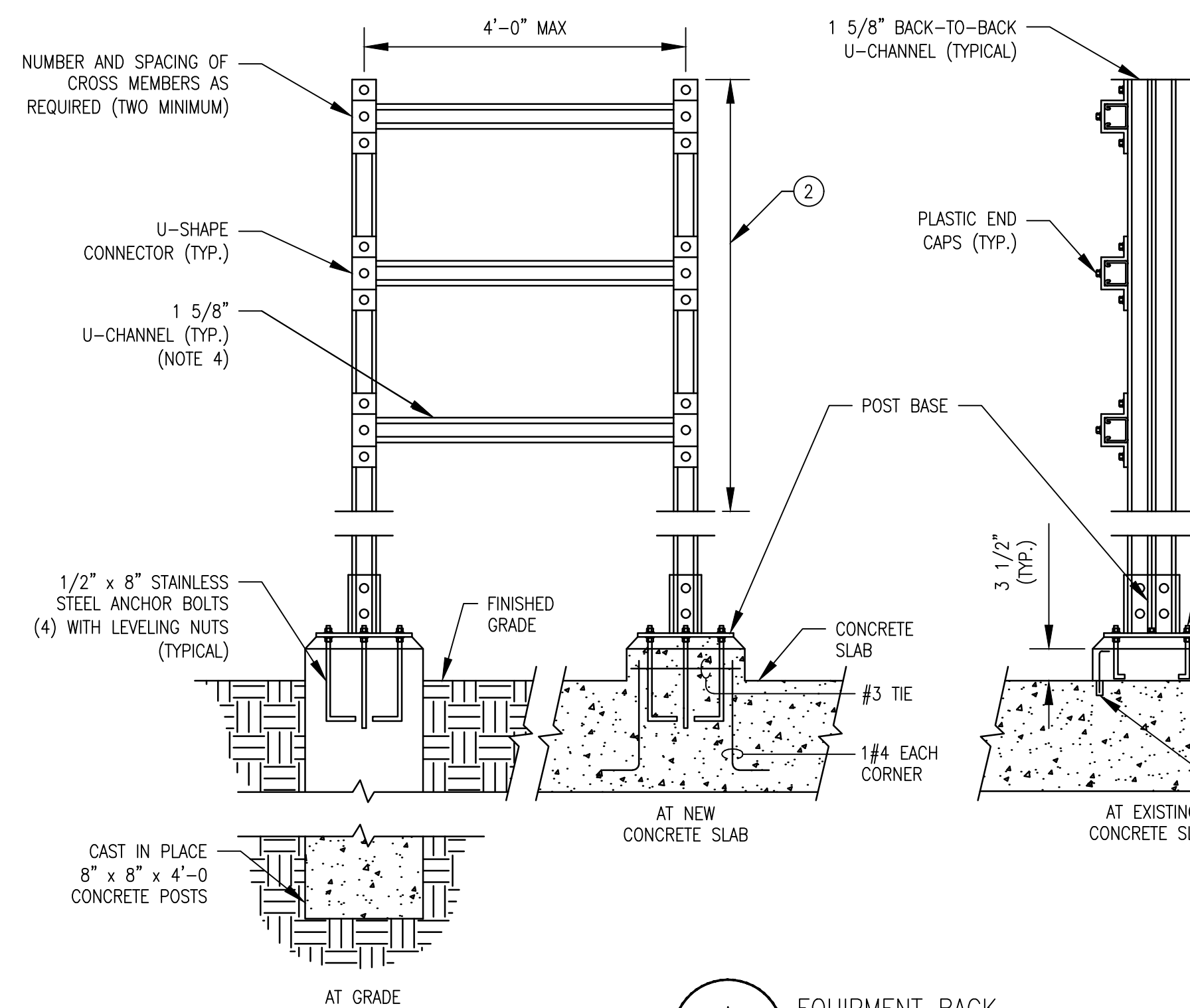


LEGEND:
 ■■■■■ - DIRECT BURIED UNDERGROUND DUCTBANK



1 ELECTRICAL SITE PLAN
 SCALE: 3/8" = 1'-0"

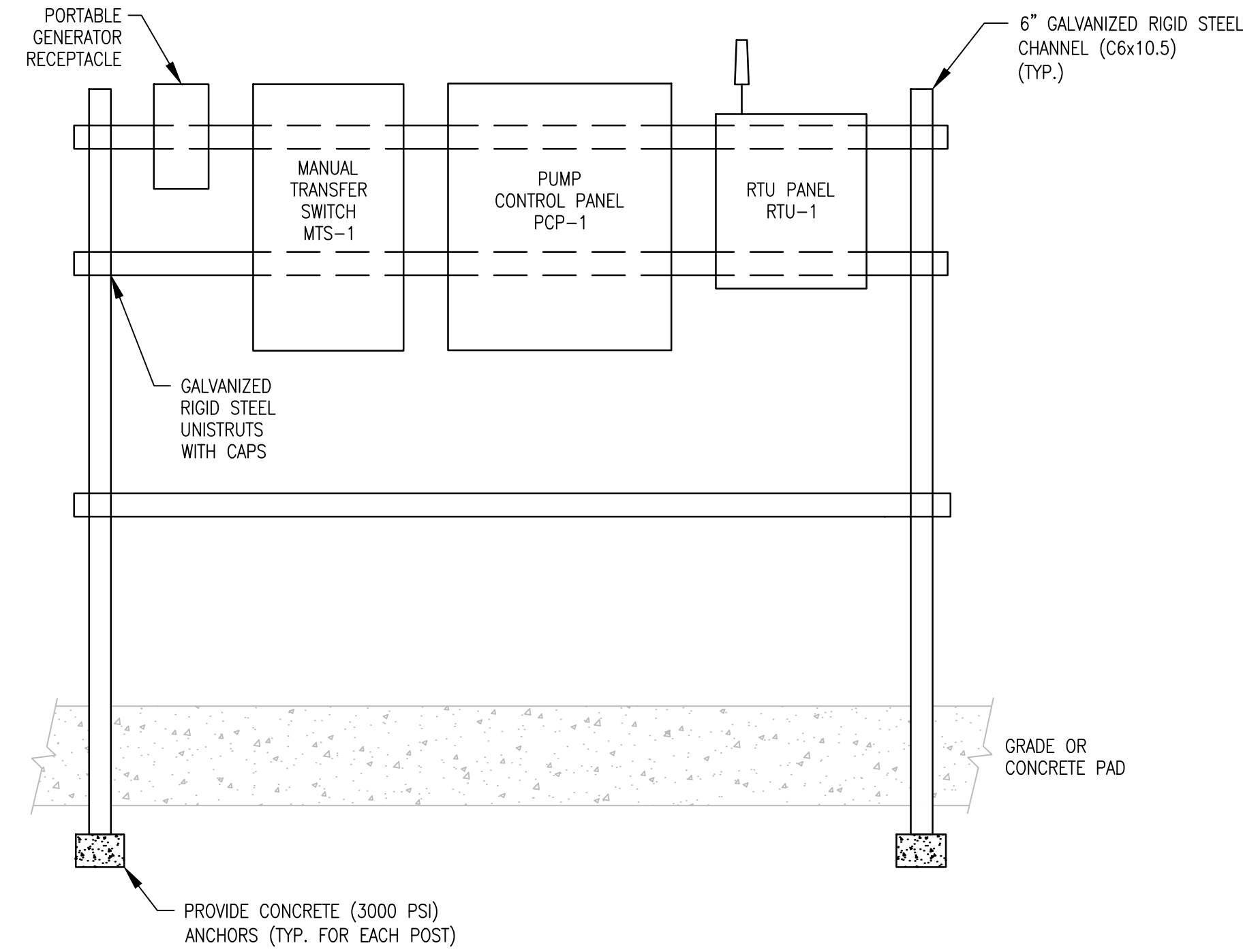




EQUIPMENT RACK NOTES:

- EQUIPMENT RACK SHALL BE UTILIZED FOR MOUNTING THE FOLLOWING:
 A. ONE EQUIPMENT ITEM WITH MOUNTING FOOTPRINT GREATER THAN 150 IN.
 B. TWO EQUIPMENT ITEMS WITH COMBINED MOUNTING FOOTPRINT GREATER THAN 130 IN.
 C. THREE OR MORE EQUIPMENT ITEMS.
- EQUIPMENT SHALL BE MOUNTED SO THAT INDICATION, ADJUSTMENTS, OR OPERATING HANDLES ARE FOUR TO FIVE FEET ABOVE FLOOR OR PLATFORM.
- REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANCHORAGE MATERIALS AND METHOD REQUIREMENTS.
- EQUIPMENT RACK CHANNELS AND FITTINGS SHALL BE GALVANIZED RIGID STEEL.

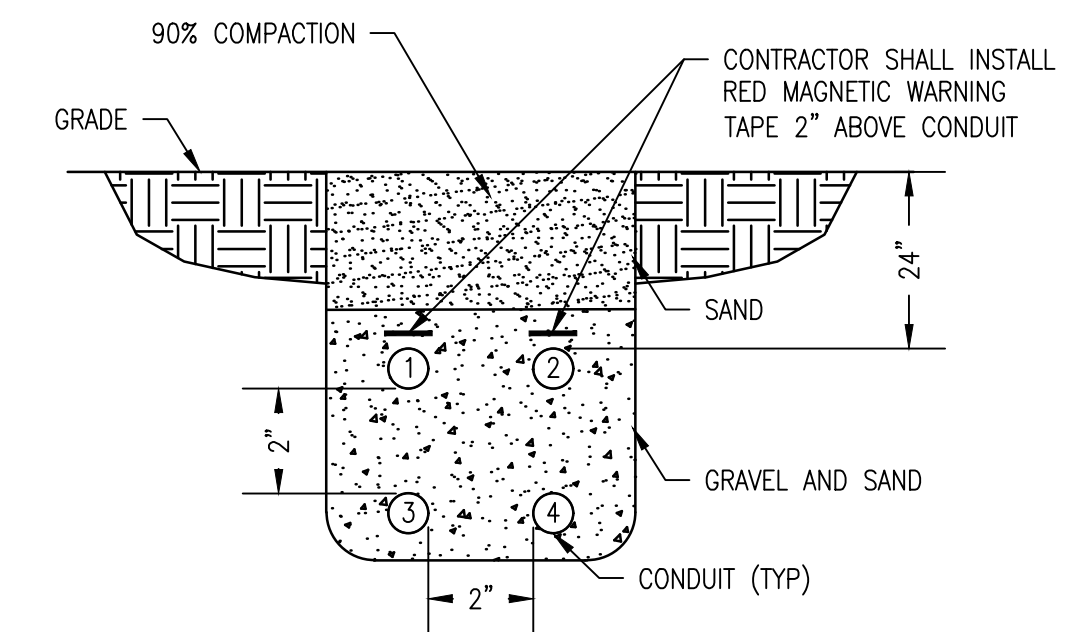
A EQUIPMENT RACK



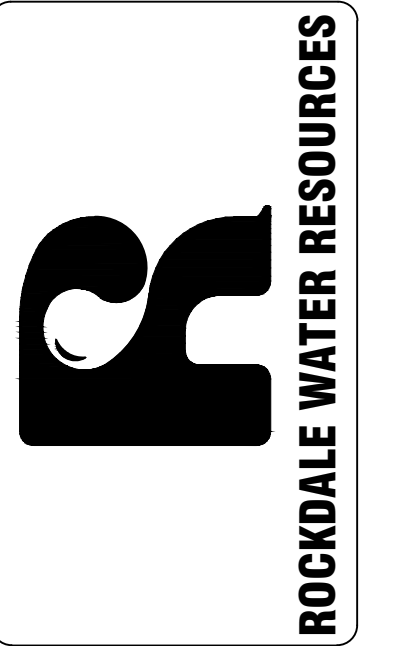
UNI-STRUT NOTES:

- CONTRACTOR SHALL PROVIDE ANCHORS, CHANNELS AND UNI-STRUTS AS REQUIRED TO SUPPORT EQUIPMENT.
- SEE ELECTRICAL PLAN DRAWING FOR ACTUAL EQUIPMENT LAYOUT.
- CONTRACTOR SHALL COAT ALL ALUMINUM EMBEDDED IN CONCRETE WITH TWO COATS OF BLACK ASPHALTIC TYPE PAINT.

B UNI-STRUT INSTALLATION DETAIL
TYPICAL



C CONDUIT SECTION IN TRENCH



REVISION		DESCRIPTION	DATE
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ELECTRICAL INSTALLATION
DETAILS

DESIGNED BY: MM
 DRAWN BY: MM
 CHECKED BY: DV
 DATE: 04/03/2024
 FILE NAME:

SHEET
E-4