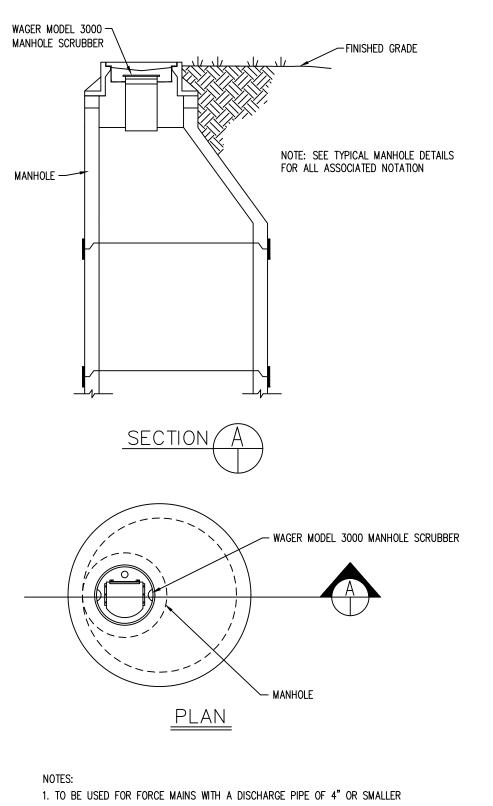


#10 TRACER WIRE TO BE SUPPORTED IN A CARLON' MODEL NUMBER _____ ROUND DOME UTILITY MARKER, WHITE POLE 66"H, 42" ABOVE GROUND, GREEN TOP UTILITY MARKER TO BE LOCATED OUTSIDE THE MANHOLE (SEE DETAIL). UTILITY MARKER TO BE LOCATED WHERE A FORCE MAIN CROSSES A STREET, ALL LIFT STATION / FORCE MAIN MANHOLES, VALVES AND FITTINGS, AND AT DISTANCES NOT TO EXCEED 1,200 FEED ALONG

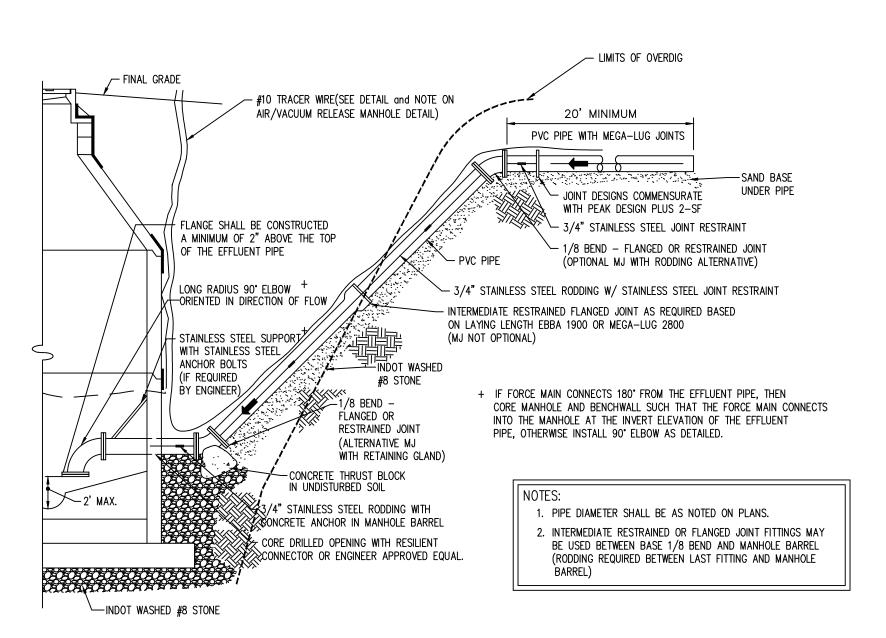
STRAIGHT RUNS. 2. TEST CONNECTIONS ARE TO BE LOCATED ON OUTSIDE OF POST.

> TRACER WIRE DETAIL NO SCALE



2. WAGER MODEL 3000 MANHOLE SCRUBBER WITH 50LBS MIDAS ODOR CONTROL MEDIA IS REQUIRED TO BE INSTALLED.

ODOR CONTROL AT FORCE MAIN DISCHARGE NO SCALE



FORCE MAIN DISCHARGE AT MANHOLE DETAIL

HSE'S LIFT STATION PLAN, LIFT STATION AND FORCE MAIN DETAILS AND LIFT STATION AND FORCE MAIN SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER SHEETS. REVISED 06/14/2022

NO SCALE

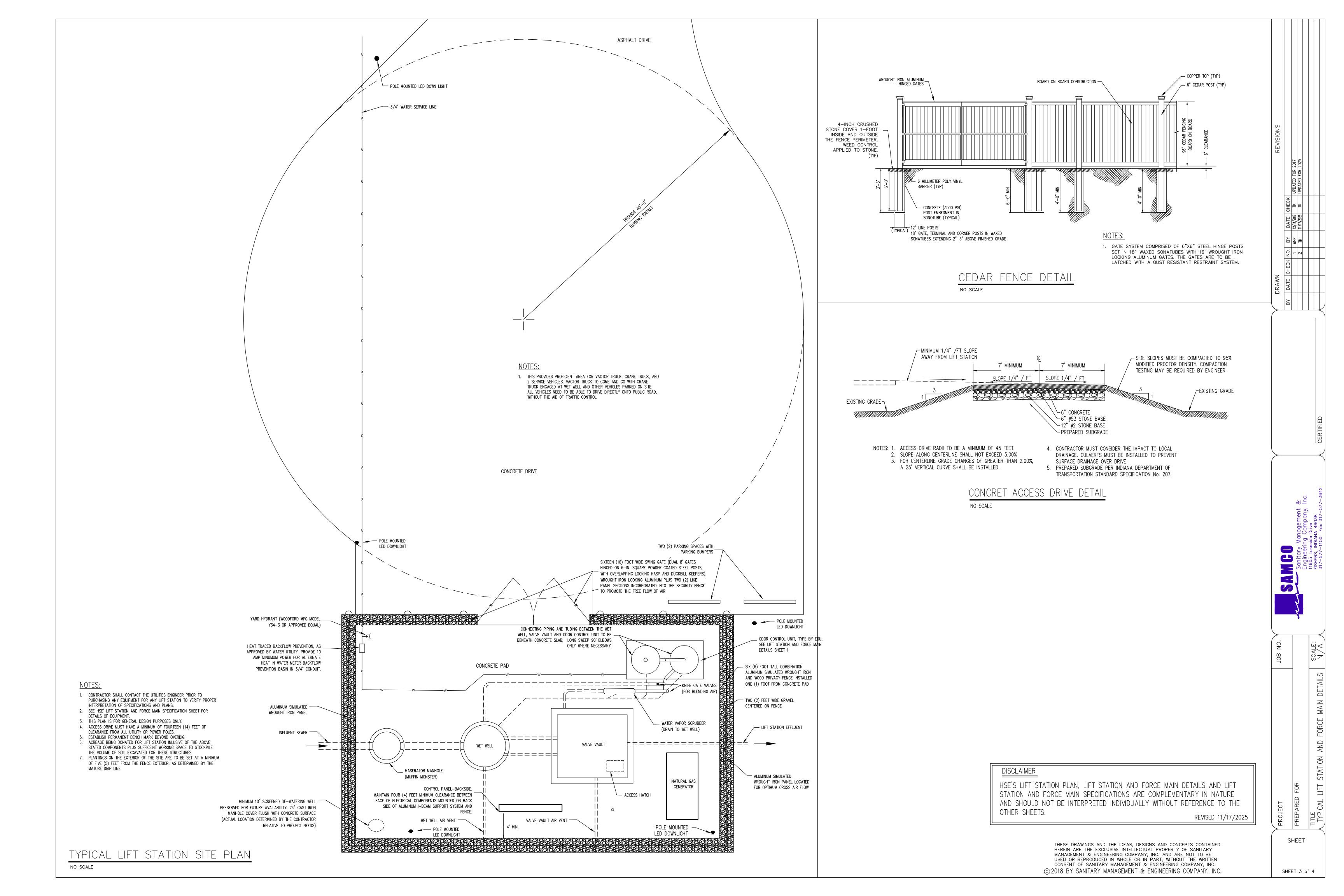
NOTE: CONTRACTOR SHALL CONTACT THE UTILITIES ENGINEER PRIOR TO PURCHASING ANY EQUIPMENT FOR THIS LIFT STATION OR FORCE MAIN TO VERIFY PROPER INTERPRETATION OF SPECIFICATIONS AND PLANS.

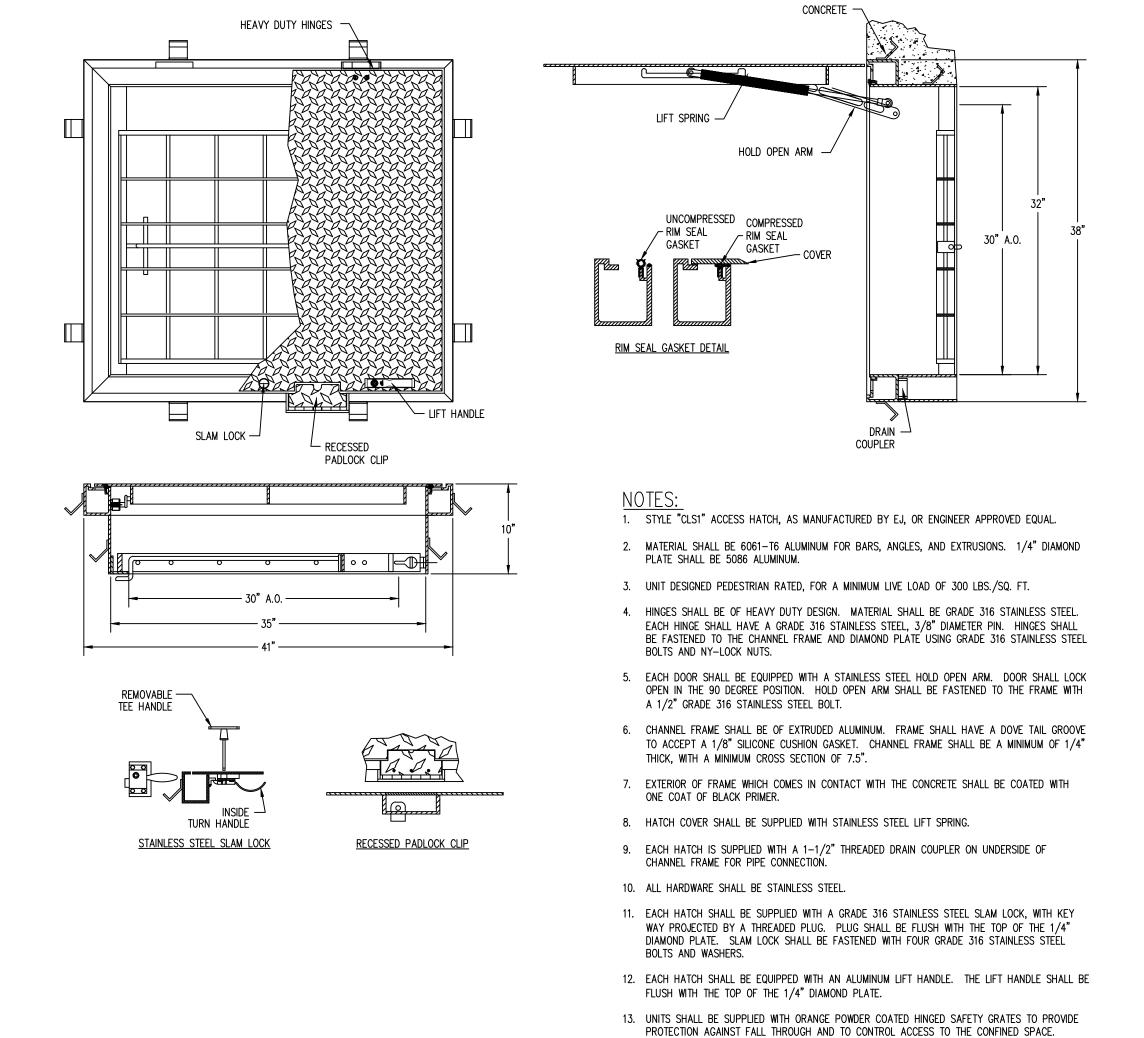
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SHEET

UPDATED FOR 2017
CHANGED 2" TO 3" ON AIR/VACUUM RELEASE MANHOLE DETAILS
REMOVED DUCTILE IRON TEES FROM AIR RELEASE & CLEAN OUT DETAILS CHANGED TO ROMAC SST
REMOVED MARKER BALL NOTATION FROM FORCEMANI TO MANHOLE DETAIL

SHEET 2 OF 4

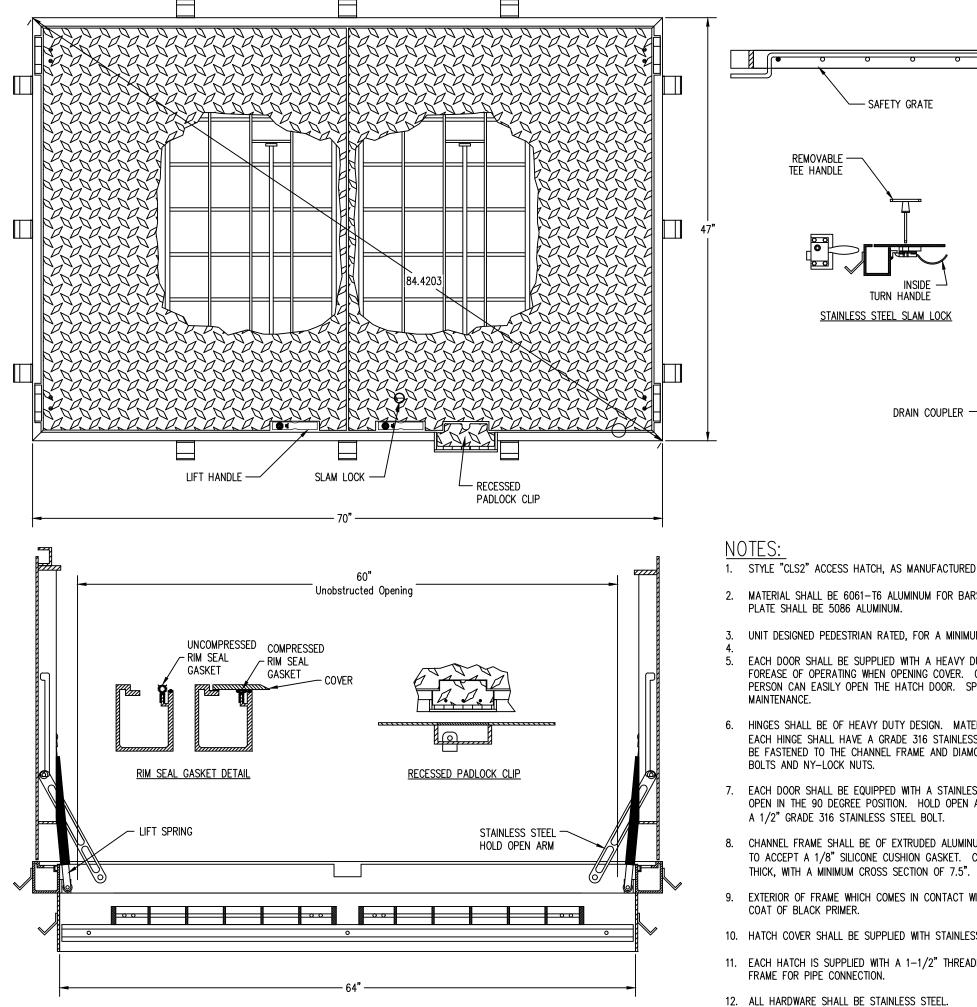




PEDESTRIAN RATED ALUMINUM SAFE HATCH®

14. EACH UNIT SHALL BE SUPPLIED WITH RIMSEAL GASKET.

15. EACH HATCH SHALL BE SUPPLIED WITH A RECESSED PADLOCK CLIP (PADLOCK SUPPLIED BY



1. STYLE "CLS2" ACCESS HATCH, AS MANUFACTURED BY EJ, OR ENGINEER APPROVED EQUAL.

Unobstructed Opening

- 2. MATERIAL SHALL BE 6061-T6 ALUMINUM FOR BARS, ANGLES, AND EXTRUSIONS. 1/4" DIAMOND
- 3. UNIT DESIGNED PEDESTRIAN RATED, FOR A MINIMUM LIVE LOAD OF 300 LBS./SQ. FT.
- 5. EACH DOOR SHALL BE SUPPLIED WITH A HEAVY DUTY STAINLESS STEEL PNEUMATIC LIFT SPRING, FOREASE OF OPERATING WHEN OPENING COVER. COVER SHALL BE COUNTERBALANCED. SO ONE PERSON CAN EASILY OPEN THE HATCH DOOR. SPRING DESIGN SHALL ACCOMMODATE EASE OF
- 6. HINGES SHALL BE OF HEAVY DUTY DESIGN. MATERIAL SHALL BE GRADE 316 STAINLESS STEEL. EACH HINGE SHALL HAVE A GRADE 316 STAINLESS STEEL, 3/8" DIAMETER PIN. HINGES SHALL BE FASTENED TO THE CHANNEL FRAME AND DIAMOND PLATE USING GRADE 316 STAINLESS STEEL
- 7. EACH DOOR SHALL BE EQUIPPED WITH A STAINLESS STEEL HOLD OPEN ARM. DOOR SHALL LOCK OPEN IN THE 90 DEGREE POSITION. HOLD OPEN ARM SHALL BE FASTENED TO THE FRAME WITH
- 8. CHANNEL FRAME SHALL BE OF EXTRUDED ALUMINUM. FRAME SHALL HAVE A DOVE TAIL GROOVE TO ACCEPT A 1/8" SILICONE CUSHION GASKET. CHANNEL FRAME SHALL BE A MINIMUM OF 1/4"
- 9. EXTERIOR OF FRAME WHICH COMES IN CONTACT WITH THE CONCRETE SHALL BE COATED WITH ONE
- 10. HATCH COVER SHALL BE SUPPLIED WITH STAINLESS STEEL LIFT SPRING.
- 11. EACH HATCH IS SUPPLIED WITH A 1-1/2" THREADED DRAIN COUPLER ON UNDERSIDE OF CHANNEL
- 13. EACH HATCH SHALL BE SUPPLIED WITH A GRADE 316 STAINLESS STEEL SLAM LOCK, WITH KEY WAY PROJECTED BY A THREADED PLUG. PLUG SHALL BE FLUSH WITH THE TOP OF THE 1/4" DIAMOND PLATE. SLAM LOCK SHALL BE FASTENED WITH FOUR GRADE 316 STAINLESS STEEL BOLTS AND WASHERS.
- 14. EACH HATCH SHALL BE EQUIPPED WITH AN ALUMINUM LIFT HANDLE. THE LIFT HANDLE SHALL BE FLUSH WITH THE TOP OF THE 1/4" DIAMOND PLATE.
- 15. UNITS SHALL BE SUPPLIED WITH ORANGE POWDER COATED HINGED SAFETY GRATES TO PROVIDE PROTECTION AGAINST FALL THROUGH AND TO CONTROL ACCESS TO THE CONFINED SPACE.
- 16. EACH UNIT SHALL BE SUPPLIED WITH RIMSEAL GASKET.
- 17. EACH HATCH SHALL BE SUPPLIED WITH A RECESSED PADLOCK CLIP (PADLOCK SUPPLIED BY

PEDESTRIAN RATED ALUMINUM SAFE HATCH®

DISCLAIMER

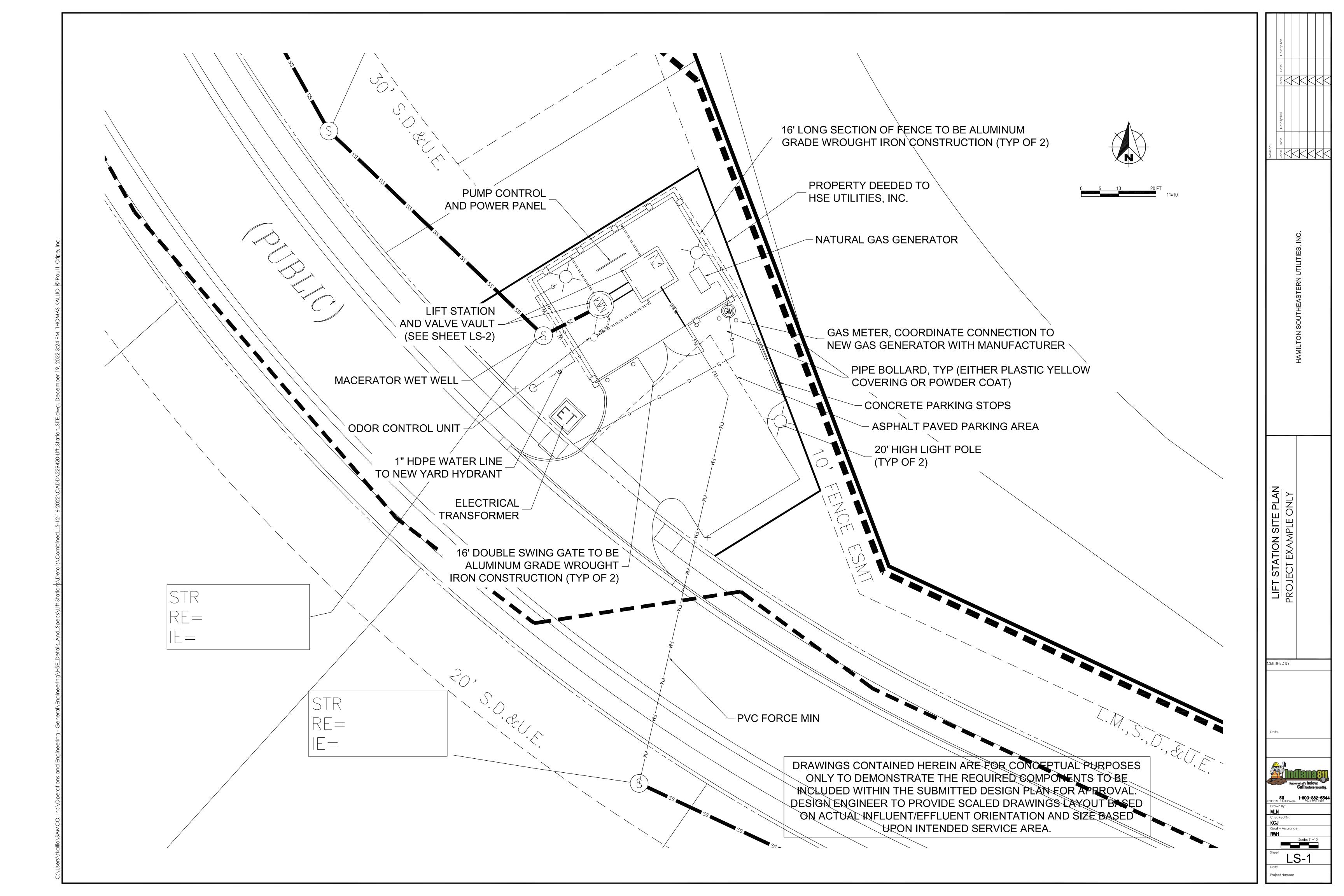
HSE'S LIFT STATION PLAN, LIFT STATION AND FORCE MAIN DETAILS AND LIFT STATION AND FORCE MAIN SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER SHEETS. REVISED 4/15/2021

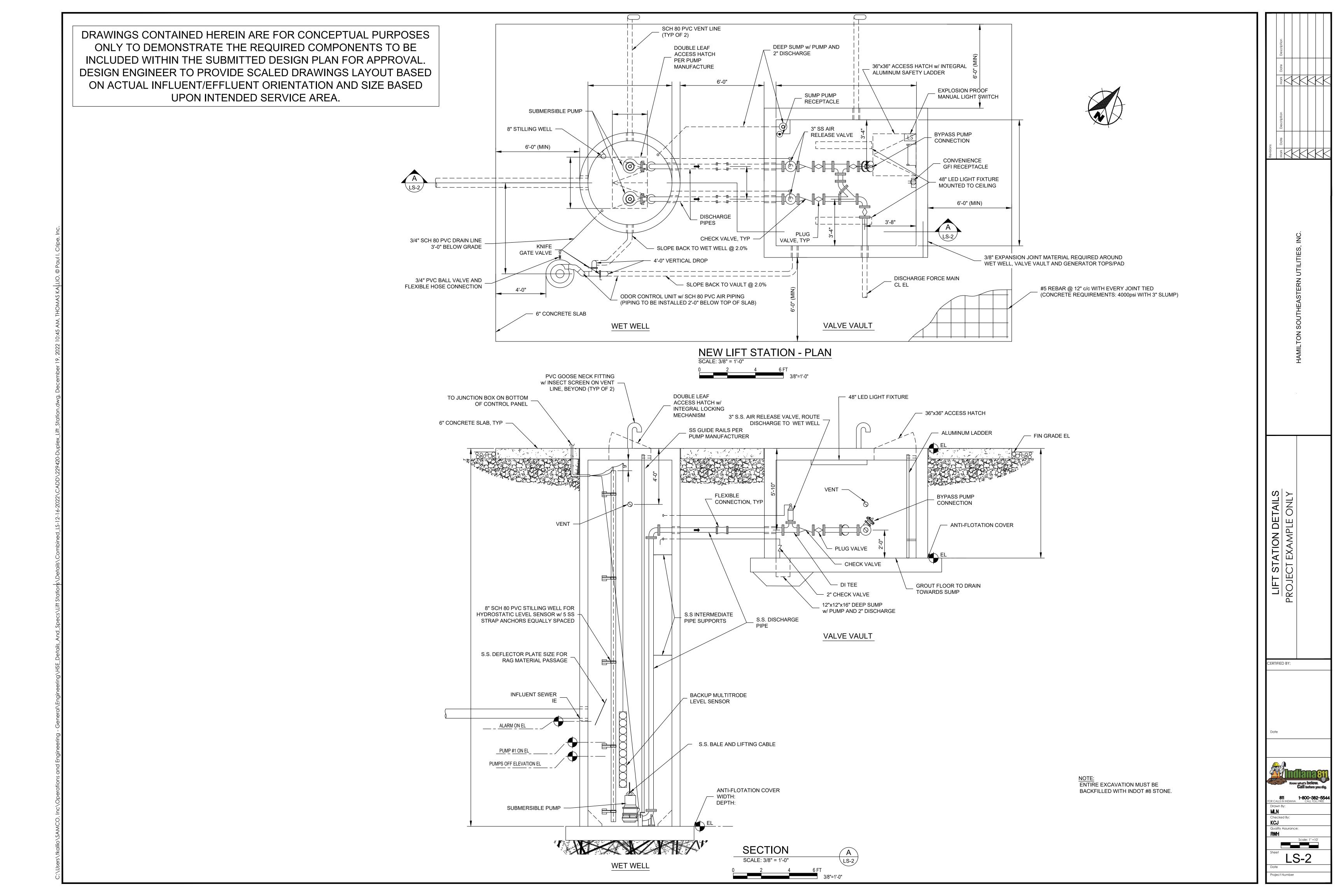
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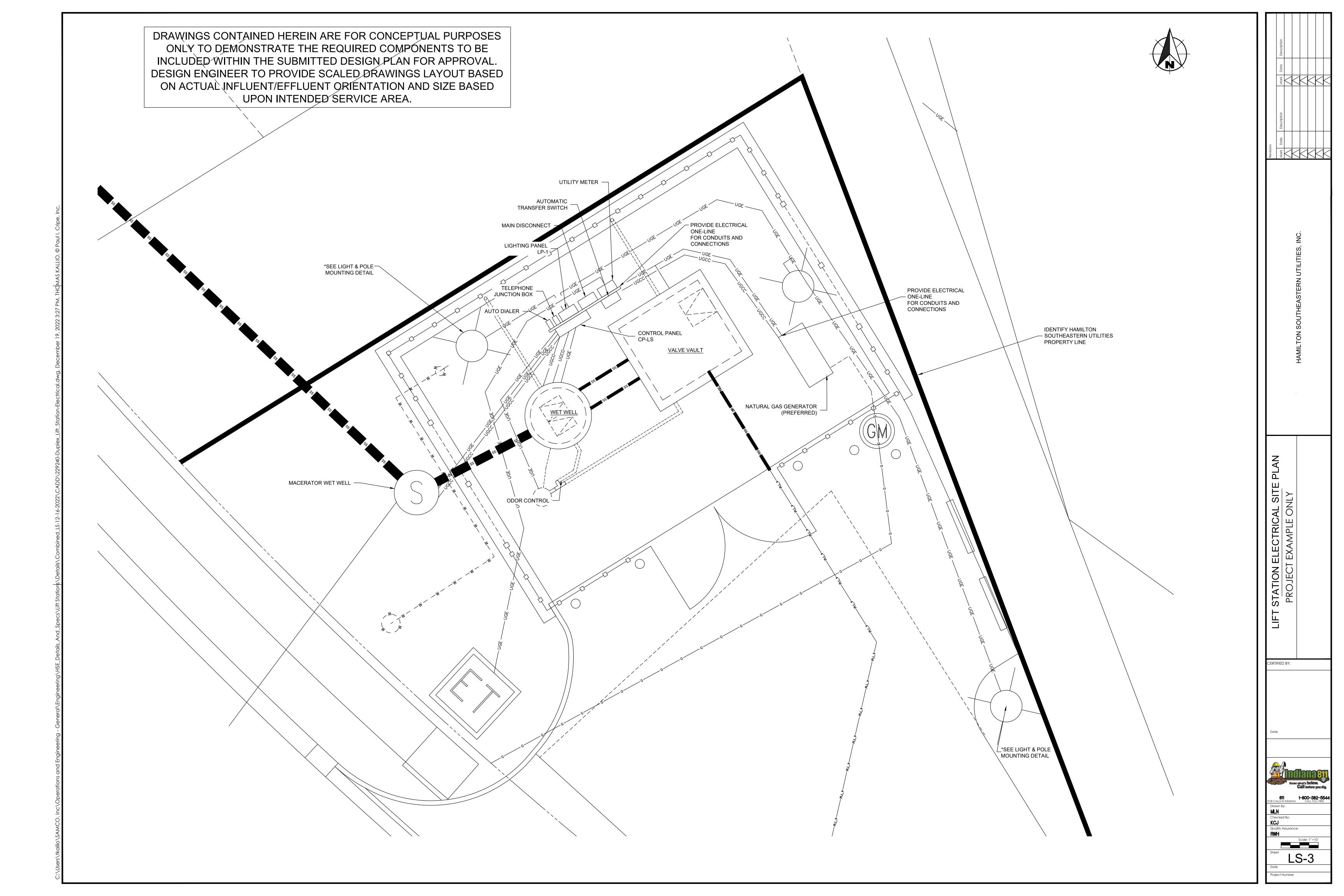
SHEET

STATION

SHEET 4 of 4







480V, 3PH. SERVICE, LIFT STATION **ONE-LINE DIAGRAM** SCALE: NO SCALE

DRAWINGS CONTAINED HEREIN ARE FOR CONCEPTUAL PURPOSES ONLY TO DEMONSTRATE THE REQUIRED COMPONENTS TO BE INCLUDED WITHIN THE SUBMITTED DESIGN PLAN FOR APPROVAL. DESIGN ENGINEER TO PROVIDE SCALED DRAWINGS LAYOUT BASED ON ACTUAL INFLUENT/EFFLUENT ORIENTATION AND SIZE BASED UPON INTENDED SERVICE AREA.

Parts List Specs for a 2 pump control cabinet Part Number **Manufacture** Control Cabinet (Nema 4X) Hoffman Hoff A62H4818SSLP3PT Control Cabinet Back Plate Hoffman Hoff A60P48 Control Cabinet Inner door Kit (Swing Out Panels) Hoffman Match Cabinet Part number (Hoff A62H4818SSLP3PT) Hoffman DAH2001A 115Volt 200Watt Control Cabinet Document Holder X2 (1 on each door) ADP2 Hoffman Control Cabinet Cooling Fan & Filter Kit SK3243.110 Cooling Fan Stainless all weather covers for fan kit Rittal SK3243.080 Junction Boxes Cabinet (NEMA 4X) Hoffman A16H1208SSLF Junction Boxes Back Plate Hoffman A16P12 Junction Boxes Feed Through Wire Way F66W24SS Hoffman ALL BREAKERS TO BE 600v Rated Siemans 100amp Breaker Style Disconnect 4X cabinet 100A Siemans FD3100L 100amp main breaker (or Equal) Eaton Motor Rated Breakers (or Equal) HMCP 5 Amp Eaton 15amp breaker (or Equal) FD3015L Eaton

2D20UL

1D20UL

1D16UL

1D4UL

Control Cabinet Heater

Altech Control Breaker 20a 2p (or Equal)

Altech Control Breaker 20a 1p (or Equal)

Altech Control Breaker 16a 1p (or equal)

Altech Control Breaker 4a 1p (or Equal)

Sola Power Supplies 24vdc (2 Will be needed)

480v to 120v open type IP20

Sierra Wireless Cell Modem

Sierra Wireless Power Supply

Modem Din Rail Mount

Cell Modem Antenna

Din Rail Receptacles

Sola Tracking Filter

Sola Diode

Sola UPS

Sola Battery

Start Relay

Seal Relays

PLC Live Relays

MCB 101 card

CE2000MH 2KVA Emerson 1492-REC15 Allen Bradley 1769-L24ER-QBFC1B Allen Bradley STFE100-10N Sola SDN2.5-24-100P Sola Sola **SDN2.5-20 RED** Sola SDU 10-24 SDU 24 BAT Sola AirLink RV50 (DC)NA Sierra Wireless Din Rail RV50 Mounting Bracket Sierra Wireless AC-12VDC Adapter for GX Series, LS5300 RV50, MP70,CG Panorama Antenna Low Profile 2x2 MiMO LTE/Cell 9' Cable SMA(N) Threaded Bolt Allen Bradley 8 Pin 700-HA32**Z**24 SFP120A100 Macromatic 8 Pin Allen Bradley 8 Pin 700-HA32Z24

Option B 130B1212 (one per VFD)

Allen Bradley 8 Pin 700-HN100 Relay Base 800T-Q24R Pilot Light (red) Seal Failure Allen Bradley 800T-Q24G Pilot Light (green) Pump On Allen Bradley 30mm selector switch (HOA 3 position) Allen Bradley 800T-J2A Push Button (For Reset) Allen Bradley 800T (Type 4,13) Terminal Blocks 1492-J4 Allen Bradely End Anchors Allen Bradley 1492-EAJ35 Din Rail 6' Allen Bradely 1' x 1-3/8" x 3' Standard Size din rail Wireways w/covers 2x2 (white) Panduit Standard White Panduit Standard White Wireways w/covers 1x2 (white) MPE Level Probe **MPelectronics** 115-10-100 LPC420R Level Probe Control Relay **MPelectronics** LM-10-100 Transducer **MPelectronics** Transducer Surge Arrester LM Surge **MPelectronics** Transducer Bellow **MPelectronics** TVB1 Horse Power compatible VFD Dan Foss VLT Aqua Drive 2HP 130B1117 (one for each pump) LCP mounting kit Dan Foss LCP Panels 130B1107 (one for each pump) Dan Foss

Dan Foss

Altech

Altech

Altech

Altech

Site Lighting and Electrical RAB RAB PS4-11-20D2 Poles for Area Lighting RAB RAB BCK-S4 Pole Base Cover Kit RAB RAB ALED4T105/D10/WS2 Pole Light Heads RAB Pole Anchor Kit RAB BOLT4/11 RAB **RAB WSREM** Pole Light Commission Tool RAB W34-35L Valve Vault Lighting Mini-Substation LP-1, 10KVA, 480V to 240/120V Square D

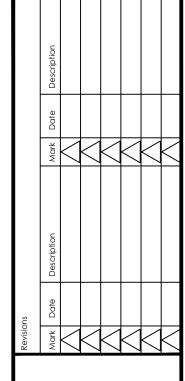
Surge Protection Device Current Tech. GG40-120/240-2G-5 Site Convenience Receptacle 20A, GFCI, duplex with corrosion resistant "in-use" type cover Valve Vault Convenience Receptacle 20A, GFCI, duplex with corrosion resistant "in-use" type cover

20A, GFCI, duplex with corrosion resistant "in-use" type cover Valve Vault Sump Effluent Pump Receptacle 20A Roller Arm Switch IP68 Valve Vault Lights Hatch Open Limit Switch Generator / ATS / Docking Station

MTU Generator Natural Gas 30KW WW Williams Generator to have sound barrier Enclosure 100A ASCO Automatic Transfer Switch (NEMA 4X) WW Williams

GENERAL NOTES:

- BONDED 3 POINT GROUNDED SYSTEM BEYOND THE OVER DIG, IN ALL NATURAL, UNDISTURBED SOIL. ELECTRICIAN / ELECTRICAL CONTRACTOR TO PROVE / VALIDATE GROUND ATTACHMENT.
- 2. ALL PANELS TO BE NEMA 4X STAINLESS STEEL.

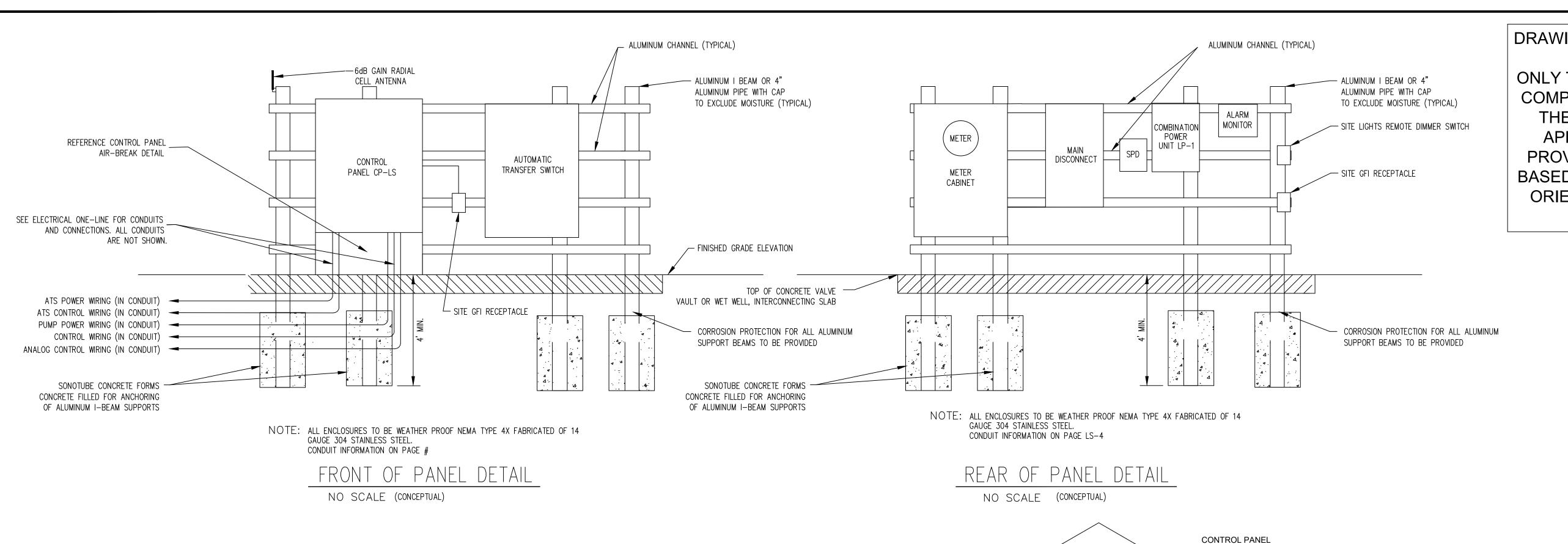


ELE(STATION | PROJECT

CERTIFIED BY:



egale. T LS-4

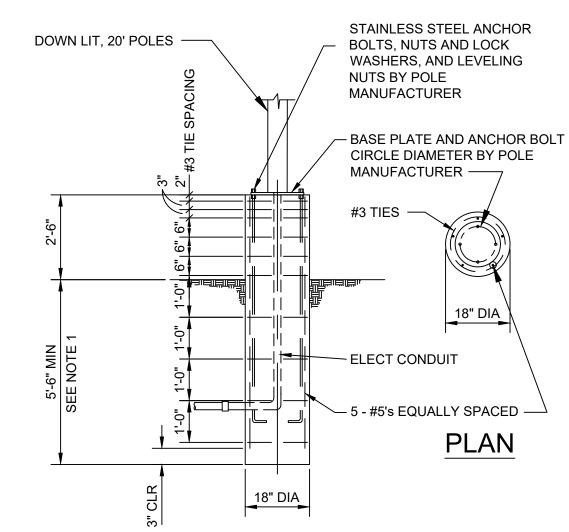


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✓ (NOT TO SCALE) 1/16" EXPANDED ALUMINUM BACK, SIDE AND DOOR FILLER PANELS, — LATTICE PATTERN MINIMUM 18" FROM TOP OF CONDUITS TO BOTTOM OF CONTROL PANEL TERMINATE CONDUITS MINIMUM **6" ABOVE CONCRETE** ALUMINUM MOUNTING / **POSTS** SEALOFFS, IF REQUIRED DOUBLE SECTION ALUMINUM TO WET WELL. ALL DOOR PANELS, (2) STAINLESS CONDUITS ARE NOT SHOWN. STEEL HINGES PER PANEL, PROVIDE SEE ONE-LINE DIAGRAM WITH CENTER MOUNTED STAINLESS TO AUTOMATIC TRANSFER STEEL PADLOCK LATCH SWITCH

CONTROL PANEL AIR-BREAK

NO SCALE (CONCEPTUAL)



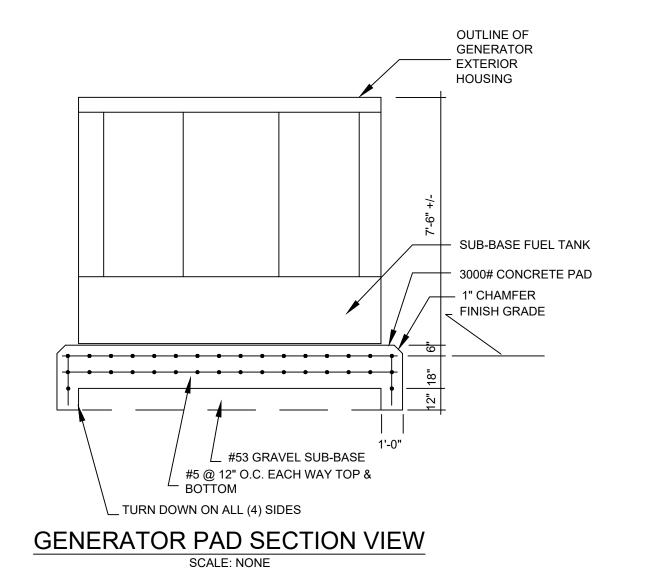
SECTION

NOTES:

- 1. USE TEMPLATE FOR SETTING ANCHOR BOLTS
- CONCRETE f '_C = 3000 psi (MIN).
 REINFORCING STEEL GRADE 60
- 4. PLACE NON-SHRINK GROUT BELOW BASE PLATE IF USING LEVELING NUTS. FOLLOW LIGHT POLE MANUFACTURER PUBLISHED INSTRUCTIONS FOR INSTALLATION.

LIGHT AND POLE MOUNTING

SCALE: NONE



PANEL "LP-1 "

1 PHASE, 3 WIRE

120/240V

POLE

20

20

20

20

30

40

0.18

0.18

EXTERIOR LIGHTING PANEL

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00 30

0.00 TOTAL =

MAINS:

BUS SIZE

PANEL MOUNTING:

CKT. BKR.

AMPS POLE

IALL BREAKERS

20

20

20

2

25 AMP MAIN CIRCUIT BREAKER

LOAD

DESCRIPTION

GENERATOR - BATTERY CHARGER

GENERATOR - STRIP HEATER

ODOR CONTROL UNIT

GENERATOR - BLOOK HEATER 12

SPARE 10

SPD 16

18

VALVE VAULT GFI RECEPTACLE

14,000 A.I.C. (MINIMUM).

100 AMP

SURFACE

0.50

1.00

0.18

0.55

1.50

6.09 KVA

DESIGNATION:

LOCATION:

VOLTAGE:

ONE (1) OR TWO (2) DIGIT NUMBERS REFER TO CONDUIT & WIRE SCHEDULE ON THIS SHEET.

PANEL

SCHEDULE

7 SUMP EFFLUENT PUMP RECEPTACLE

TOTAL CONNECTED LOAD:

NEMA 4x, STAINLESS STEEL ENCLOSURE

1 SITE POLE LIGHT

9 SPARE

11 SPARE

13 SPARE

15 SPARE

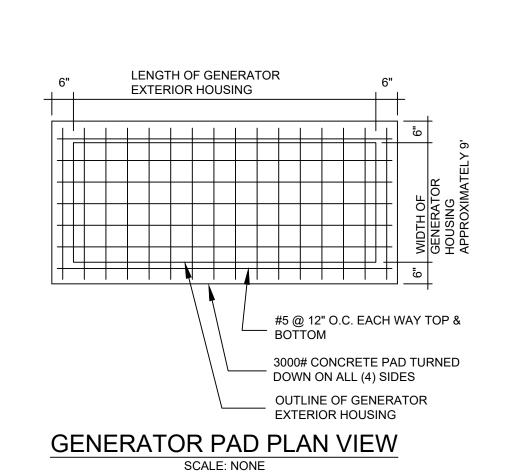
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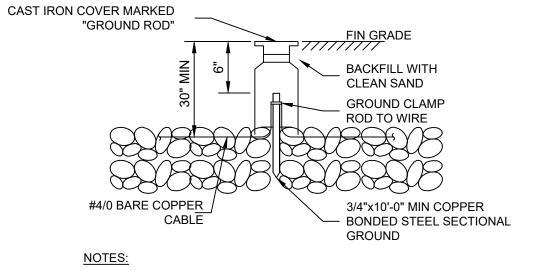
3 VALVE VAULT LIGHTS

5 SITE GFI RECEPTACLE

LOAD

DESCRIPTION

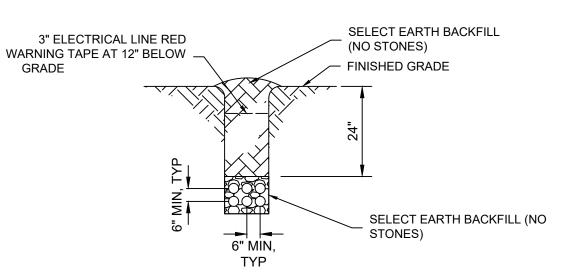




NOTES:

REFER TO JOB SPECIFICATION FOR MINIMUM SYSTEM RESISTANCE TO GROUND. IF THE RESISTANCE CANNOT BE MET WITH SINGLE 10'-0" RODS, ADD ADDITIONAL SECTIONS TO RODS OR ADD NEW RODS AS REQUIRED, SPACED 6'-0" TO 10'-0" FROM EXISTING RODS.

ELECTRICAL INSTALLATION
GROUND ROD ASSEMBLY
SCALE: NONE



CONDUIT TRENCH
SCALE: NONE

Date

Know what's below.
Call before you dig.

FOR CALLS IN INDIANA
Drawn By:
MLN
Checked By:
KCJ
Quality Assurance:
RWH

Scale: 1"=10'
Sheet

LS-5

CERTIFIED BY:

Mark

Revision Mark