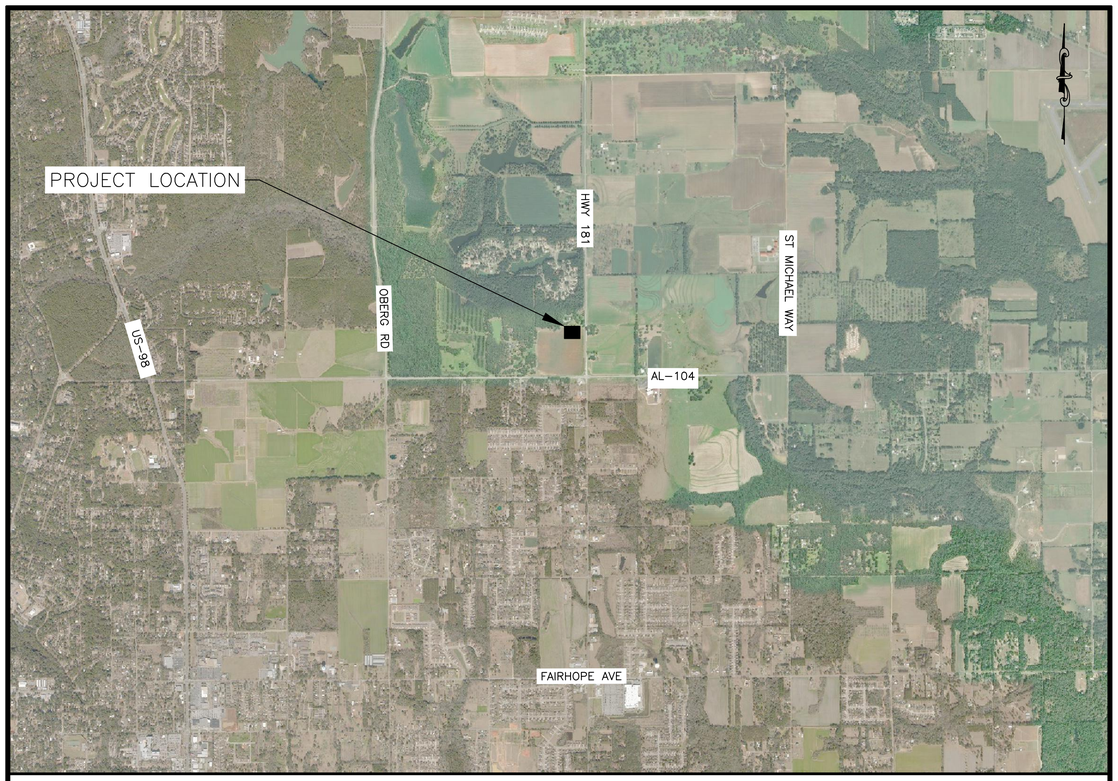
PLANTER'S POINTE LIFT STATION

PREPARED FOR

CITY OF FAIRHOPE UTILITIES

MAY 2023

PROJECT NUMBER 21-1101-0257



PROJECT VICINITY MAP

SCALE: 1" = 2000'

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thompson
ENGINEERING

2970 COTTAGE HILL RD., STE. 190
MOBILE, ALABAMA 36606

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SUBMITTED BY:

ALABAMA LICENSED 31245 PROFESSIONAL ENGINEER MATTHEW C. ROGERS 05/25/2023

MATTHEW C. ROGERS, P.E.

GENERAL NOTES

1. ALL ELEVATIONS REFER TO UNITED STATES GEOLOGICAL SURVEY DATUM. EXISTING TOPOGRAPHIC SURVEY PREPARED BY THOMPSON ENGINEERING DATED 07/29/2021. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING ELEVATIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE CONSTRUCTION DRAWINGS.
2. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF THE LOCATIONS SHOWN ARE CORRECT AND TO DETERMINE IF THERE ARE ADDITIONAL UTILITY LINES THAT ARE NOT SHOWN ON THE PLANS. ALSO, ANY SAFETY MEASURES OR METHODS THAT ARE NECESSARY TO PROTECT ALL EXISTING UTILITY LINES DURING CONSTRUCTION WILL BE THE CONTRACTOR'S RESPONSIBILITY WITH NO ADDITIONAL COMPENSATION.
3. STANDARD SPECIFICATIONS FOR STREETS AND DRAINAGE: REFERENCE IS MADE TO THE ALABAMA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 2018 EDITION. ALL PROVISIONS OF SAID STANDARD SPECIFICATIONS SHALL APPLY TO THIS CONTRACT AND ARE HEREBY MADE A PART OF THIS CONTRACT, EXCEPT WHEN THE PROVISIONS HEREON OR THE PLANS ARE CLEARLY IN CONFLICT WITH THE PROVISIONS OF SAID STANDARD SPECIFICATIONS, THE PROVISIONS HEREON AND THE PLANS SHALL GOVERN.
4. THE CONTRACTOR IS TO FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO CONSTRUCTION OR FABRICATION.
5. THE CIVIL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND ANY APPLICABLE SPECIFICATIONS. CONTRACTOR IS DIRECTED TO NOTIFY THE ENGINEER OF RECORD IMMEDIATELY IF ANY CONFLICT IS FOUND BETWEEN THE CIVIL PLANS AND THE PLANS OF OTHER DISCIPLINES.
6. THE CONTRACTOR SHALL OBTAIN THE PERMISSION AND APPROVAL FOR ALL PROPOSED SUBCONTRACTORS AND SHALL BE RESPONSIBLE FOR ALL PHASES OF THE PROJECT INCLUDING THE SUBCONTRACTORS' WORK.
7. WHERE A DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY CALLED FOR ON THE DRAWINGS.
8. ALL UNPAVED AREAS THAT HAVE BEEN GRADED, CUT, OR FILLED SHALL BE TREATED WITH A SUITABLE COMMERCIAL FERTILIZER IN ACCORDANCE WITH ALABAMA DEPARTMENT OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS, AND SEEDED WITH A MIXTURE TO SUIT THE PLANTING ZONE (652.03) AND DATE OF PLANTING (860.01) PER ALABAMA DEPARTMENT OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS. A FIRM STAND OF PERMANENT GRASS WILL BE REQUIRED.
9. ALL CONCRETE USED ON THE PROJECT SHALL BE 3,000 PSI MINIMUM COMPRESSIVE STRENGTH REQUIRED IN 28 DAYS, UNLESS SPECIFICATIONS REQUIRE CONCRETE OF GREATER STRENGTH.
10. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON INFORMATION PROVIDED. THE UTILITIES SHOWN MAY NOT BE A COMPLETE REPRESENTATION OF ALL UTILITY LINES IN THE PROJECT AREA. CONTRACTOR IS REQUIRED TO CONTACT ALABAMA ONE CALL PRIOR TO DIGGING (611) (WWW.ALICALL.COM). OTHER UTILITIES (INCLUDING PRIVATE UTILITIES OUTSIDE A PUBLIC RIGHT-OF-WAY) THAT DO NOT PARTICIPATE IN THE ALABAMA ONE CALL LINE LOCATION SERVICE NEED TO BE CONTACTED INDIVIDUALLY AND/OR PHYSICALLY LOCATED BY THE CONTRACTOR.
11. SUB-GRADE AND BASE SHALL BE COMPACTED TO THE REQUIREMENTS OF ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROPER COMPACTION ON ANY AND ALL UTILITY DITCHES.
13. ALL FILL AND EMBANKMENT CONSTRUCTION SHALL BE COMPACTED AS REQUIRED IN LAYERS NOT TO EXCEED 8".
14. ALL EXCESS UNCLASSIFIED EXCAVATION IS TO BE UTILIZED FOR CONSTRUCTION OF EMBANKMENTS AND SLOPES NOT DIRECTLY UNDER THE TRAVEL WAY OR PARKING AREAS PRIOR TO USING ANY OFFSITE BORROW EXCAVATION. AFTER CONSTRUCTION OF SUCH AREAS IS COMPLETED, EXCESS EXCAVATION SHALL BE SPREAD AS DIRECTED BY THE ENGINEER, OR AT THE ENGINEER'S DIRECTION, HAULED FROM THE SITE AT NO ADDITIONAL PAYMENT.
15. ALL SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED AND FULLY FUNCTIONING PRIOR TO ANY OTHER CONSTRUCTION OR GRADING ACTIVITY.
16. ALL SLOPES MUST BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EXCESSIVE EROSION.
17. ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER.
18. HIGH INTENSITY LIGHTING FACILITIES SHALL BE SO ARRANGED THAT THE SOURCE OF ANY LIGHT IS CONCEALED FROM PUBLIC VIEW AND FROM ADJACENT RESIDENTIAL PROPERTY AND DOES NOT INTERFERE WITH TRAFFIC.
19. CONTRACTOR IS REQUIRED TO USE "BEST MANAGEMENT PRACTICES" COMPLIANT WITH THE "ALABAMA HANDBOOK FOR EROSION CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS", ALABAMA SOIL AND WATER CONSERVATION COMMITTEE, MONTGOMERY, ALABAMA, VOLUMES 1 & 2, 2018 EDITION, TO PREVENT SEDIMENT LADEN STORM WATER RUNOFF OR ERODED MATERIALS FROM LEAVING THE CONSTRUCTION SITE.
20. ALL MATERIALS AND WORKMANSHIP WITHIN A STATE OR COUNTY RIGHT-OF-WAY SHALL CONFORM TO THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2018 EDITION.
21. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE TESTING LABORATORY OF HIS WORKING SCHEDULE IN ORDER THAT THE PROPER SAMPLE MAY BE OBTAINED AND TEST MADE.

LEGEND

EXISTING

P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
(A)	ACTUAL
(R)	RECORD DEED
(P)	PLAT OF RECORD
(C)	COMPUTED
OTIF	OPEN TOP IRON PIPE FOUND
IPF	IRON PIN FOUND
CTIF	CRIMP TOP IRON PIPE FOUND
CRF	CAPPED REBAR FOUND
RBF	1/2" REBAR FOUND
CRS	1/2" CAPPED REBAR SET STAMPED CA#604
CMF	CONCRETE MONUMENT FOUND
CMS	CONCRETE MONUMENT SET
LS#	LICENSED PROFESSIONAL SURVEYOR'S NUMBER
CA#	CERTIFICATE OF AUTHORIZATION NUMBER
(DIST)	DISTURBED
(REF)	REFERENCE CORNER SET ON LINE
(UNR)	UNREADABLE
INST #	INSTRUMENT NUMBER
SECT.	SECTION
T-	TOWNSHIP
R-	RANGE
	POWER POLE
	GUY WIRE
R/W	RIGHT-OF-WAY
R.O.W.	RIGHT-OF-WAY
	FIRE HYDRANT
	SIGN
TP	TELEPHONE PEDESTAL
EM	ELECTRIC METER BOX
AC	AIR CONDITIONER
JB	JUNCTION BOX (VAULT)
EL./ELEV	ELEVATION
INV	INVERT
TB	TELEPHONE BOX (VAULT)
WM	WATER METER
	SANITARY SEWER VALVE
	WATER VALVE
	GAS VALVE
TR	TRANSFORMER BOX
	LIGHT POLE
CA	CABLE TV BOX
EB	ELECTRIC BOX
EP	ELECTRIC PANEL
	IRRIGATION CONTROL VALVE
S	SANITARY SEWER MANHOLE
D	STORM DRAIN MANHOLE
T	TELEPHONE MANHOLE
	SEWER CLEANOUT
GP	SEWER GRINDER PUMP
GT	GREASE TRAP
	FLAG POLE
G	GAS LINE SIGN MARKER
	TELEPHONE SIGN MARKER
W	WATERLINE MARKER
	FIBER OPTIC LINE MARKER
(EX.)	EXCEPTION
— FO —	UNDERGROUND FIBER OPTIC LINE
— OE —	OVERHEAD ELECTRIC
— BE —	BURIED ELECTRIC LINE
— UT —	UNDERGROUND TELEPHONE LINE
— S —	UNDERGROUND SEWER LINE
— W —	UNDERGROUND WATERLINE
— G —	UNDERGROUND GAS LINE
— TV —	UNDERGROUND TELEVISION
ELEC.	ELECTRIC
	BACK FLOW PREVENTER
	EXISTING GRADE (PROFILE VIEW)

PROPOSED

FM	PROPOSED EFFLUENT FORCE MAIN (PLAN VIEW)
FM	EXISTING INFLUENT/EFFLUENT FORCE MAIN
5	MAJOR CONTOURS
4	MINOR CONTOURS
	PROPOSED EFFLUENT FORCE MAIN (PROFILE VIEW)
	PROPOSED ASPHALT
	B BASE AGGREGATE

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EROSION CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHOWN ARE CONSIDERED TO BE THE MINIMUM ACCEPTABLE MEASURES. THE CONTRACTOR SHALL UTILIZE "BEST MANAGEMENT PRACTICES" AS NECESSARY TO PREVENT SEDIMENT LADEN STORMWATER RUNOFF OR ERODED MATERIALS FROM LEAVING THE CONSTRUCTION SITE. THE CONTRACTOR SHALL MAINTAIN AND REPAIR EROSION CONTROL MEASURES IN AN EXPEDITIOUS MANNER AFTER EACH RAINFALL EVENT AND INSPECT THEM TWICE WEEKLY IN THE EVENT OF NO RAINFALL. BEST MANAGEMENT PRACTICES (BMPS) ARE DEFINED AS: SCHEDULES OF ACTIVITIES, PROHIBITIONS OF PRACTICES, MAINTENANCE PROCEDURES, AND OTHER MANAGEMENT PRACTICES TO PREVENT OR REDUCE THE POLLUTION OF WATERS OF THE UNITED STATES. BMPS ALSO INCLUDE TREATMENT REQUIREMENTS, OPERATING PROCEDURES, AND PRACTICES TO CONTROL PLANT SITE RUNOFF, SPILLAGE OR LEAKS, SLUDGE OR WASTE DISPOSAL, OR DRAINAGE FROM RAW MATERIAL STORAGE. WITH REGARD TO CONSTRUCTION THESE MAY INCLUDE STRUCTURAL DEVICES OR NONSTRUCTURAL PRACTICES THAT ARE DESIGNED TO PREVENT POLLUTANTS FROM ENTERING WATER OR TO DIRECT THE FLOW OF WATER.
2. THE EROSION AND SEDIMENT CONTROL ITEMS SHOWN ON THE PLANS ARE PROVIDED AS A STARTING POINT FOR A COMPREHENSIVE SEDIMENT AND EROSION CONTROL PLAN TO BE IMPLEMENTED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE PREPARED TO ANTICIPATE AND ADJUST BEST MANAGEMENT PRACTICES AS NECESSARY THROUGHOUT CONSTRUCTION TO RESTRICT THE AMOUNT OF SILT LADEN RUNOFF LEAVING THE PROJECT. THE ENGINEER SHALL HAVE THE RIGHT TO REQUIRE INSTALLATION OF ADDITIONAL FACILITIES IF DEEMED NECESSARY TO PROTECT ADJACENT AREAS.
3. ALL SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED AND FULLY FUNCTIONING PRIOR TO ANY OTHER CONSTRUCTION OR GRADING ACTIVITY.
4. ALL CLEARING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO LIMIT EROSION OF MATERIALS FROM THE CONSTRUCTION AREA.
5. TYPE "A" SILT FENCE SHALL BE USED IN AREAS WHERE INDICATED OR AS DIRECTED BY THE ENGINEER.
6. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHALL BE ERECTED OPPOSITE ERODABLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
7. SILT FENCES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION OPERATION. SILT FENCES SHALL BE CLEANED, SILT REMOVED, AND REPAIRED AS NECESSARY AS PART OF REQUIRED BMP MAINTENANCE.
8. AT THE END OF EACH WORK DAY OR PERIOD, THE CONTRACTOR SHALL INSTALL NECESSARY RETENTION BERMS, HAY BALES, OR SILT FENCE TO PREVENT EROSION OF MATERIALS PRIOR TO THE NEXT SCHEDULED WORK OR PERIOD.
9. STORM DRAIN INLETS SHALL BE PROTECTED FROM SEDIMENT ENTRY WITH SEDIMENT BARRIERS LIKE "SILT SAVER" UNTIL THE SITE IS STABILIZED BY PAVING OR A FIRM STAND OF GRASS IS OBTAINED.
10. CONTRACTOR IS REQUIRED TO STABILIZE DISTURBED AREAS WITH TEMPORARY GRASS OR SOIL STABILIZER IF AREAS WILL REMAIN DISTURBED FOR 14 DAYS OR LONGER.
11. THE CONTRACTOR IS HEREBY DIRECTED TO PROVIDE SEDIMENT RUNOFF PROTECTION WHERE NECESSARY TO PREVENT SILT LADEN RUNOFF FROM ENTERING THE STREAMS NEAR THE PROPOSED PROJECT.
12. EROSION CONTROL AND SILTATION FACILITIES SHALL BE REMOVED ON AN INDIVIDUAL BASIS ONLY AFTER SPECIFIC AREAS HAVE STABILIZED.
13. HAY BALES REMOVED, WHICH ARE IN GOOD CONDITION, SHALL BE DISPERSED AS MULCH IN ADJACENT OR OTHER AREAS, AS APPROVED BY THE ENGINEER, TO FACILITATE ESTABLISHMENT OF A PERMANENT GRASS STAND.
14. AFTER THE CONSTRUCTION AREA IS STABILIZED BY PAVING OR A FIRM STAND OF GRASS AND EROSION ACTIVITY CURTAILED, SILT FENCES SHALL BE REMOVED.
15. GRASS GROUND COVER SHALL BE MAINTAINED UPON COMPLETION OF CONSTRUCTION.
16. SEDIMENT & EROSION CONTROL ITEMS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE FOLLOWING HANDBOOKS:
    A. ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, LATEST EDITION.
    B. EPA STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES.
    C. EPA GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NON-POINT POLLUTION IN COASTAL WATERS.
    D. AASHTO GUIDELINES FOR EROSION AND SEDIMENT CONTROL IN HIGHWAY CONSTRUCTION.
    E. SOUTH ALABAMA REGIONAL PLANNING COMMISSION BEST MANAGEMENT PRACTICES FOR NON-POINT SOURCE RUNOFF CONTROL, MOBILE & BALDWIN COUNTIES, ALABAMA.
17. UNLESS OTHERWISE SET FORTH IN CONTRACT DOCUMENTS WITH THE PROJECT OWNER, WHEN AN ADEM STORMWATER DISCHARGE PERMIT (NOI) HAS BEEN OBTAINED FOR THE SITE, THE CONTRACTOR SHALL INSTALL A RAIN GAUGE AT THE SITE AND MAINTAIN A WRITTEN DAILY LOG OF RAINFALL AMOUNTS AT THE SAME TIME EACH DAY. AT THE END OF EACH MONTH, THE CONTRACTOR MUST PROVIDE A COPY OF THAT MONTH'S RAINFALL RECORDS TO THE ENGINEER. THE RAIN GAUGE MUST BE INSTALLED AT THE TOP OF A POST PLACED AT LEAST 50' FROM TREES, BUILDINGS, OR OTHER OBJECTS THAT COULD IMPEDE THE FREE ENTRY OF RAINFALL INTO THE RAIN GAUGE. THE CONTRACTOR MUST NOTIFY THE ENGINEER WITHIN 8 HOURS OF RECORDING ANY DAILY RAINFALL AMOUNT EXCEEDING 0.75". THE CONTRACTOR SHALL POST THE NOI PERMIT NUMBER IN A HIGHLY VISIBLE LOCATION ON THE SITE AND MAINTAIN IT IN A LEGIBLE CONDITION UNTIL THE PROJECT IS COMPLETED AND A PERMIT TERMINATION HAS BEEN APPROVED BY ADEM. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR MUST NOTIFY THE ENGINEER IN ORDER TO INSPECT THE SITE AND APPLY FOR A TERMINATION OF THE ADEM PERMIT.
18. THE CONTRACTOR SHALL REFER TO THE "EROSION CONTROL, DITCHES, AND FLUMES" SECTION OF ALDOT SPECIAL AND STANDARD HIGHWAY DRAWINGS FOR ADDITIONAL METHODS OF EROSION AND SEDIMENT CONTROL.

TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRICT COMPLIANCE WITH PART VI OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND SHALL DEFEND THE ENGINEER AND THE COUNTY OF MOBILE AGAINST ALL LIABILITY, CLAIM OF LIABILITY, LOSS, COST OR DAMAGE, INCLUDING DEATH, AND LOSS OF SERVICES, ON ACCOUNT OF INJURY TO PERSONS OR PROPERTY, OCCURRING FROM ANY CAUSE WHATSOEVER, AS A RESULT OF CONSTRUCTION ACTIVITY INVOLVED IN THIS PROJECT. THE CONTRACTOR WILL, AT HIS EXPENSE, DEFEND ON BEHALF OF THE ENGINEER, COUNTY OF MOBILE AND THEIR OFFICERS AND EMPLOYEES, ALL SUITS BROUGHT AGAINST THEM OR ANY OF THEM, ARISING FROM ANY SUCH CAUSE.
2. THE CONTRACTOR SHALL HAVE AVAILABLE ADEQUATE PERSONNEL AND EQUIPMENT FOR TRAFFIC CONTROL AND SHALL NOT PERFORM ANY WORK WITHIN THE RIGHT OF WAY WHEN ADEQUATE PERSONNEL AND EQUIPMENT ARE NOT AVAILABLE.
3. TRAFFIC CONTROL DEVICES SHOWN ARE CONSIDERED TO BE THE MINIMUM REQUIRED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ADDITIONAL TRAFFIC CONTROL DEVICES OTHER THAN THOSE SHOWN WHEN ROADWAY AND TRAFFIC CONDITIONS WARRANT.
4. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED AT THE COMPLETION OF THE WORK WHEN THE WORK AREA IS OPENED TO TRAFFIC.
5. ALL TRAFFIC CONTROL DEVICES THAT ARE NOT APPLICABLE AT ANY SPECIFIC TIME SHALL BE COVERED OR REMOVED.
6. A REFLECTORIZED DRUM SHALL BE PLACED IN FRONT OF EACH CONSTRUCTION SIGN THAT IS STORED ON THE SHOULDER AT ANY TIME DURING THE COURSE OF THE PROJECT, INCLUDING BUT NOT LIMITED TO COVERED SIGNS AND TEMPORARY MOUNTED SIGNS THAT HAVE BEEN LAID OVER. THE COST OF THIS REQUIREMENT SHALL BE A SUBSIDIARY OBLIGATION OF ITEM 740B-000 (CONSTRUCTION SIGNS) WHEN A PAY ITEM FOR CHANNELIZING DRUM IS NOT PROVIDED IN THE PLANS.
7. ALL VEHICLES, EQUIPMENT, AND WORKERS (EXCLUDING FLAGGERS) AND THEIR ACTIVITIES SHOULD BE RESTRICTED TO ONE SIDE OF THE ROADWAY UNLESS THE NATURE OF THE CONSTRUCTION OR MAINTENANCE OPERATION REQUIRES OTHERWISE.
8. ALL SIGNS SHALL BE POST MOUNTED IF THE WORK PERIOD EXCEEDS FOUR DAYS EXCEPT FOR THOSE SIGNS THAT ARE MOUNTED ON BARRICADES. FOR REPEATED DAY OPERATIONS, IN THE SAME LOCATION, WHEN ALL DEVICES ARE REMOVED AT NIGHT, SIGNS MAY BE MOUNTED ON TEMPORARY SUPPORTS.
9. ANY OBSTACLES OR HAZARDS WITHIN THE WORK AREA SHALL BE MARKED IN ACCORDANCE WITH THE MUTCD, PART VI (LATEST EDITION).
10. THE SPACING BETWEEN CHANNELIZING DEVICES IN A WORK AREA SHALL BE 40' (MAXIMUM).
11. WARNING LIGHTS SHOULD BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.
12. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
13. DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS WITH THE APPROVAL OF THE ENGINEER.
14. TYPE I BARRICADES OR DRUMS MAY BE SUBSTITUTED FOR CONES (NO PAY ITEM FOR TYPE I BARRICADES).
15. HIGH LEVEL WARNING DEVICES SHOULD BE USED TO SUPPORT ANY SIGNS SHOWN WHEN TRAFFIC CONDITIONS WARRANT.
16. TYPE B HIGH INTENSITY WARNING LIGHTS SHOULD BE PLACED ON ADVANCE WARNING SIGNS.
17. TRAFFIC CONES SHALL BE PLACED AT 40' O/C PARALLEL TO THE TRAFFIC LANE, 20' O/C IN TAPERS.
18. ALL CONSTRUCTION SIGNS SHALL MEET ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 2018 EDITION.
19. THE CONTRACTOR IS REQUIRED TO MAINTAIN ONE LANE OF TRAFFIC AND TEMPORARY ACCESS TO RESIDENCES AT ALL TIMES.

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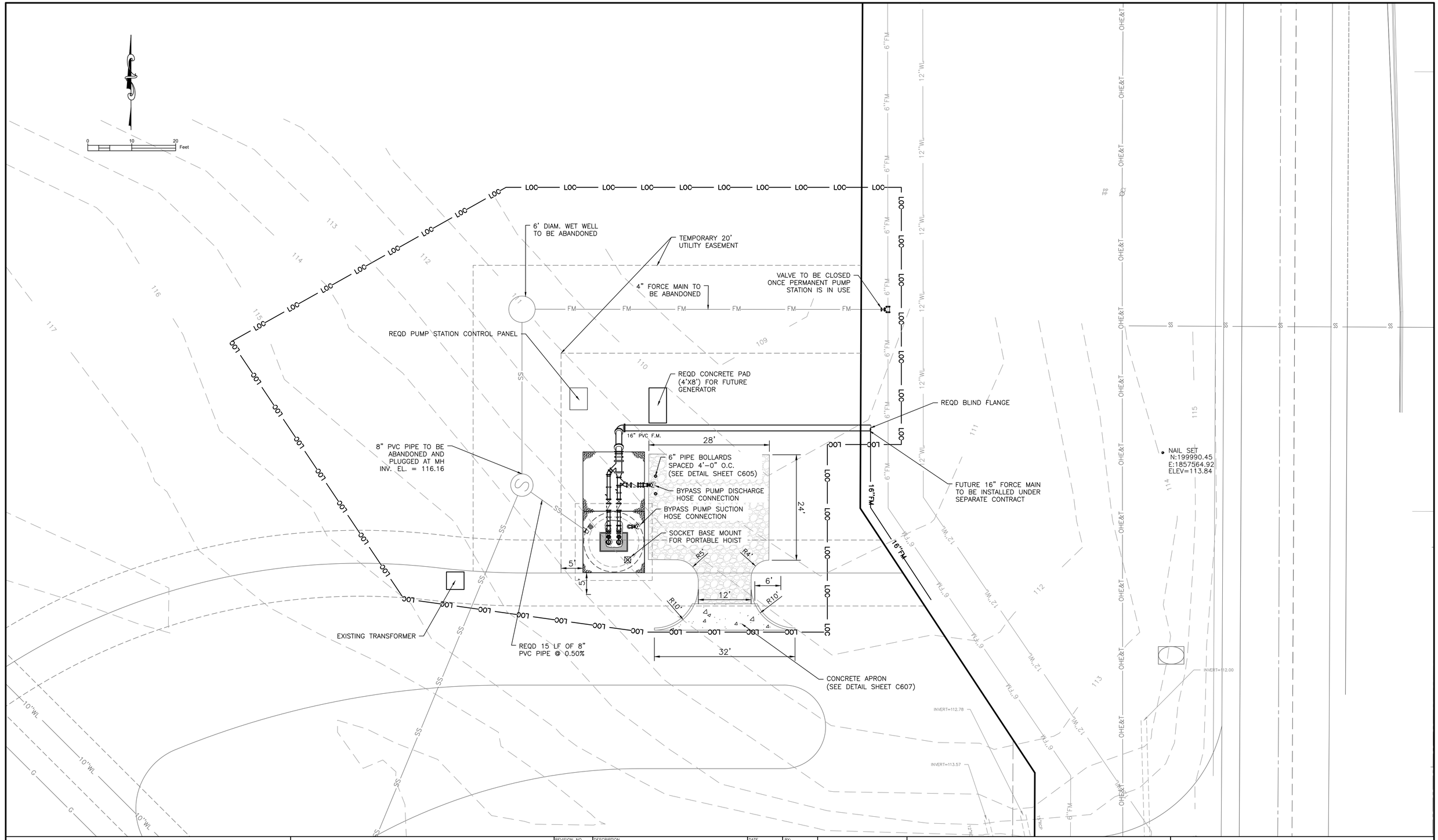

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PLANTER'S POINTE LIFT STATION

SITE PLAN

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1"=10'	1:1	KMC	EHB	MCR	MAY 2023	21-1101-0257	C601	0

CONTOUR LEGEND

EXISTING

PROPOSED CONTOUR (BY SITE CONTRACTOR)

PROPOSED CONTOUR (BY UTILITY CONTRACTOR)

0 10 20 Feet

109 110 111 112 113 114 115 116

115.64 115.37 116.12 115.85 116.22 116.15 116.08 115.81 115.49

117.04

INVERT=112.00 INVERT=112.78 INVERT=113.57

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GRADING PLAN

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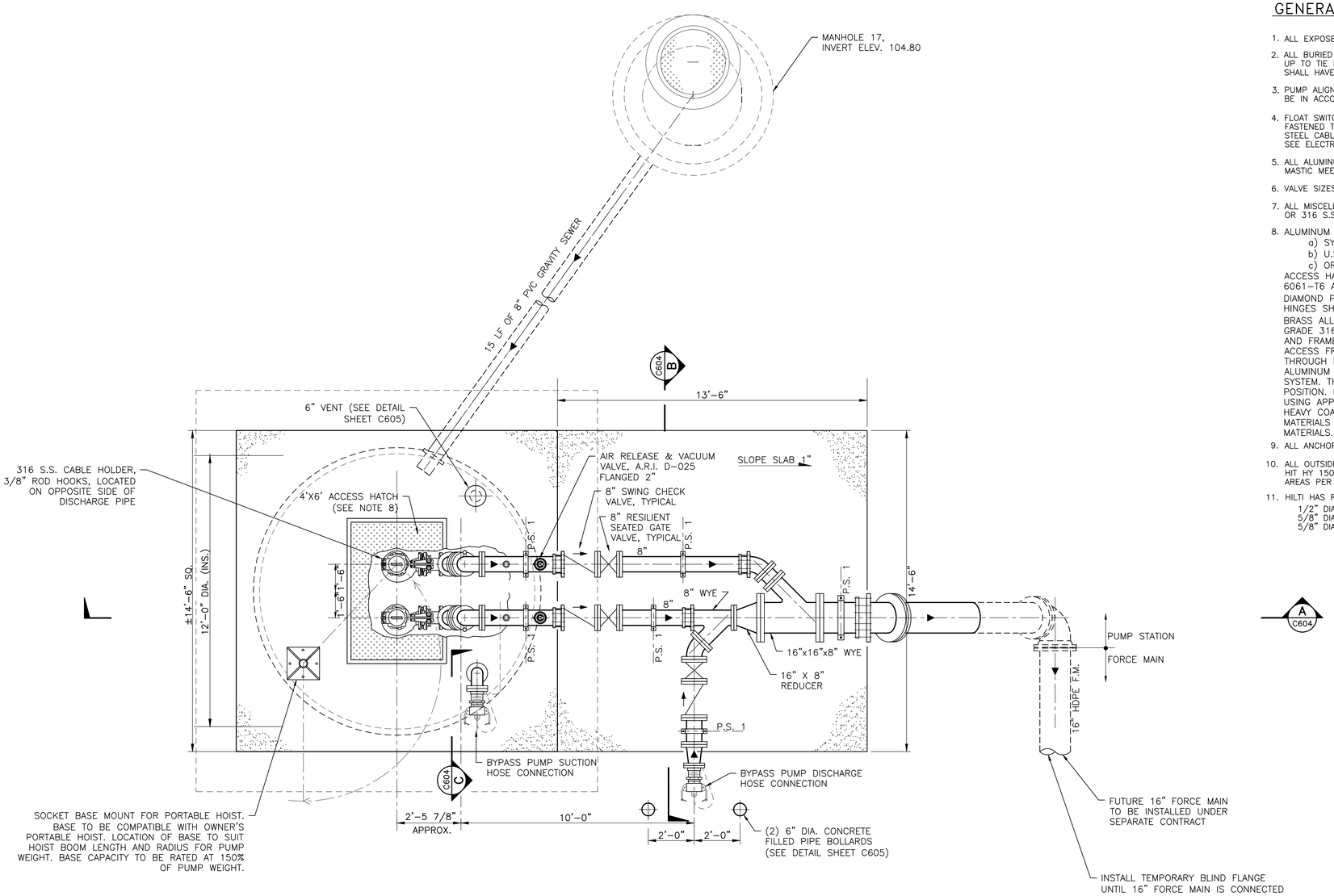

GENERAL NOTES:

1. ALL EXPOSED PIPING SHALL BE FLANGED STAINLESS STEEL.
2. ALL BURIED PIPING SHALL BE MECHANICAL JOINT STAINLESS PIPE UP TO TIE PT. WITH HDPE FORCE MAIN AS INDICATED. ALL MECHANICAL JOINTS SHALL HAVE MEGALUG TYPE RETAINER GLANDS.
3. PUMP ALIGNMENT IN SUMP MAY BE VARIED TO SUIT INSTALLATION AND SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
4. FLOAT SWITCHES SHALL BE "CONSOLIDATED ELECTRIC CO." MODEL 9G (3 EA.) FASTENED TO 1" DIA. SCH. 40, TYPE 316 S.S. PIPE, OR 3/4" DIA. STAINLESS STEEL CABLE (AS DIRECTED BY OWNER) AT ELEVATIONS INDICATED. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.
5. ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH ASPHALT MASTIC MEETING ASTM SPECIFICATION D-491.
6. VALVE SIZES SHALL BE THE SAME AS DISCHARGE PIPING.
7. ALL MISCELLANEOUS METAL IN WET WELL SHALL BE TYPE 6063-T6 ALUMINUM OR 316 S.S.
8. ALUMINUM ACCESS COVERS SHALL BE AS MANUFACTURED BY:
   a) SYRACUSE CASTINGS SALES CORPORATION
   b) U.S.F. FABRICATION, INCORPORATED
   c) OR EQUAL

   ACCESS HATCH COVERS AND FRAMES SHALL BE CONSTRUCTED OF 6061-T6 ALUMINUM BARS, ANGLES AND EXTRUSIONS AND 5086 DIAMOND PATTERN ALUMINUM PLATE OF A MINIMUM THICKNESS OF $\frac{1}{4}$". HINGES SHALL BE OF HEAVY DUTY DESIGN. HINGE LEAVES SHALL BE BRASS ALLOY OR TYPE 316 SS. HINGE PINS SHALL BE $\frac{3}{8}$" DIAMETER GRADE 316 SS. THE HINGES SHALL BE BOLTED TO THE COVER PLATE AND FRAMES WITH GRADE 316 SS BOLTS AND LOCK NUTS. EACH ACCESS FRAME AND COVER ASSEMBLY SHALL BE PROVIDED WITH FALL THROUGH PROTECTION IN ACCORDANCE WITH OSHA STD. 1910.23. EACH ALUMINUM GRATE SHALL BE PROVIDED WITH A PERMENANT HINGING SYSTEM. THE GRATE SHALL LOCK IN THE 90 DEGREE OPENED POSITION. PROTECTION OF ALUMINUM FROM DISSIMILAR MATERIALS: USING APPROVED ASPHALTIC OR ZINC CHROMATE PAINT, PROVIDE TWO HEAVY COATS ON ALUMINUM SURFACES IN CONTACT WITH DISSIMILAR MATERIALS SUCH AS CONCRETE, MASONRY, STEEL, AND OTHER MATERIALS.
9. ALL ANCHOR BOLTS INSIDE OF WET WELL TO BE 316 S.S.
10. ALL OUTSIDE ANCHOR BOLTS TO BE CARBON STEEL HILTI HAS ROD SET WITH HILTI HIT HY 150 INJECTION ADHESIVE. SEE DETAILS FOR ROD SIZES. COAT EXPOSED AREAS PER SPECIFICATIONS.
11. HILTI HAS ROD EMBEDMENTS: (S.S. AND C.S. RODS)
    1/2" DIA. ROD 4 1/4" EMBED
    5/8" DIA. ROD 5" EMBED
    5/8" DIA. ROD 6 5/8" EMBED

PLAN VIEW – PUMP STATION

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

REVISION NO.	DESCRIPTION	DATE	BY:
0	100% SUBMITTAL	5/25/23	KMC
REVISION NO.	DESCRIPTION	DATE	BY:
REVISION NO.	DESCRIPTION	DATE	BY:
REVISION NO.	DESCRIPTION	DATE	BY:
REVISION NO.	DESCRIPTION	DATE	BY:
REVISION NO.	DESCRIPTION	DATE	BY:

ALABAMA LICENSED 31245 PROFESSIONAL 05/25/2023 ENGINEER MATTHEW C. ROGERS

CITY OF FAIRHOPE UTILITIES
FAIRHOPE, ALABAMA

thompson ENGINEERING
2970 COTTAGE HILL RD., STE. 190
MOBILE, ALABAMA 36606
TEL: (251) 666-2443
FAX: (251) 666-6422

PLANTER'S POINTE LIFT STATION

PUMP STATION PLAN AND NOTES

SCALE:	PLOT SCALE:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE :	JOB NO. :	DRAWING NO.	REVISION NO. :
	1:1	KMC	EHB	MCR	MAY 2023	21-1101-0257	C603	0

GENERAL NOTES:

1. ALL EXPOSED PIPING SHALL BE FLANGED STAINLESS STEEL, SPEC. NO. D-3A.
2. ALL BURIED PIPING SHALL BE MECHANICAL JOINT STAINLESS STEEL, SPEC. NO. D-2A. UP TO TIE PT. WITH HDPE FORCE MAIN AS INDICATED. ALL MECHANICAL JOINTS SHALL HAVE MEGALUG TYPE RETAINER GLANDS.
3. PUMP ALIGNMENT IN SUMP MAY BE VARIED TO SUIT INSTALLATION AND SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
4. FLOAT SWITCHES SHALL BE "CONSOLIDATED ELECTRIC CO." MODEL 9G (3 EA.) FASTENED TO 1" DIA. SCH. 40, TYPE 316 S.S. PIPE, OR 3/4" DIA. STAINLESS STEEL CABLE (AS DIRECTED BY OWNER) AT ELEVATIONS INDICATED. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.
5. ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH ASPHALT MASTIC MEETING ASTM SPECIFICATION D-491.
6. VALVE SIZES SHALL BE THE SAME AS DISCHARGE PIPING.
7. ALL MISCELLANEOUS METAL IN WET WELL SHALL BE TYPE 6063-T6 ALUMINUM OR 316 S.S.
8. ALUMINUM ACCESS COVER SHALL BE EQUIPPED WITH AN EXTERNALLY OPERATED LOCKING DEVICE TO PREVENT OPENING OF COVER BY UNAUTHORIZED PERSON. LOCKING DEVICE IS TO BE KEYED. COVER SHALL BE MINIMUM 1/4" THICK DIAMOND PATTERN ALUMINUM REINFORCED TO SUPPORT A LIVE LOAD OF 150# PSF, MINIMUM. HINGES, BOLTS, AND FASTENERS SHALL BE STAINLESS STEEL. ACCESS COVER SHALL BE EQUIPPED WITH GRATING, FLYGT "SAFE-HATCH" OR APPROVED EQUAL TO PROVIDE FOR VISUAL INSPECTION OF WET WELL WITH FALL-THROUGH PROTECTION. THE ACCESS COVER SHALL HAVE A POSITIVE LOCKING ARM TO HOLD THE DOOR IN AN OPEN POSITION WHEN NECESSARY. CONSTRUCTION HINGES SHALL BE TAMPER-PROOF.
9. ALL ANCHOR BOLTS INSIDE OF WET WELL TO BE 316 S.S.
10. ALL OUTSIDE ANCHOR BOLTS TO BE CARBON STEEL HILTI HAS ROD SET WITH HILTI HIT HY 150 INJECTION ADHESIVE. SEE DETAILS FOR ROD SIZES. COAT EXPOSED AREAS PER SPECIFICATIONS.
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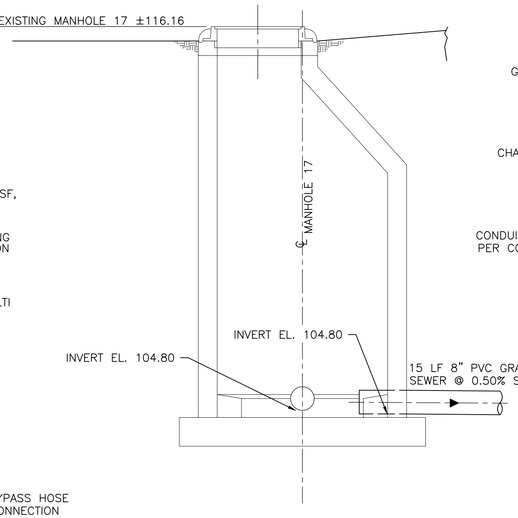
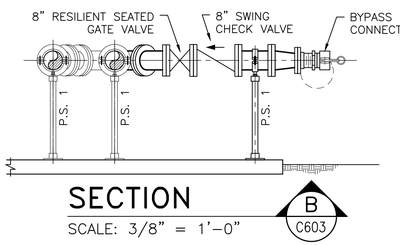
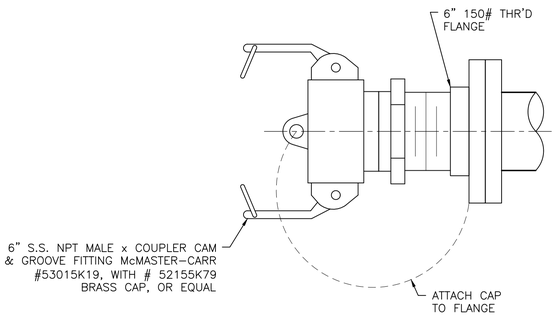
    1/2" DIA. ROD 4 1/4" EMBED
    5/8" DIA. ROD 5" EMBED
    5/8" DIA. ROD 6 5/8" EMBED



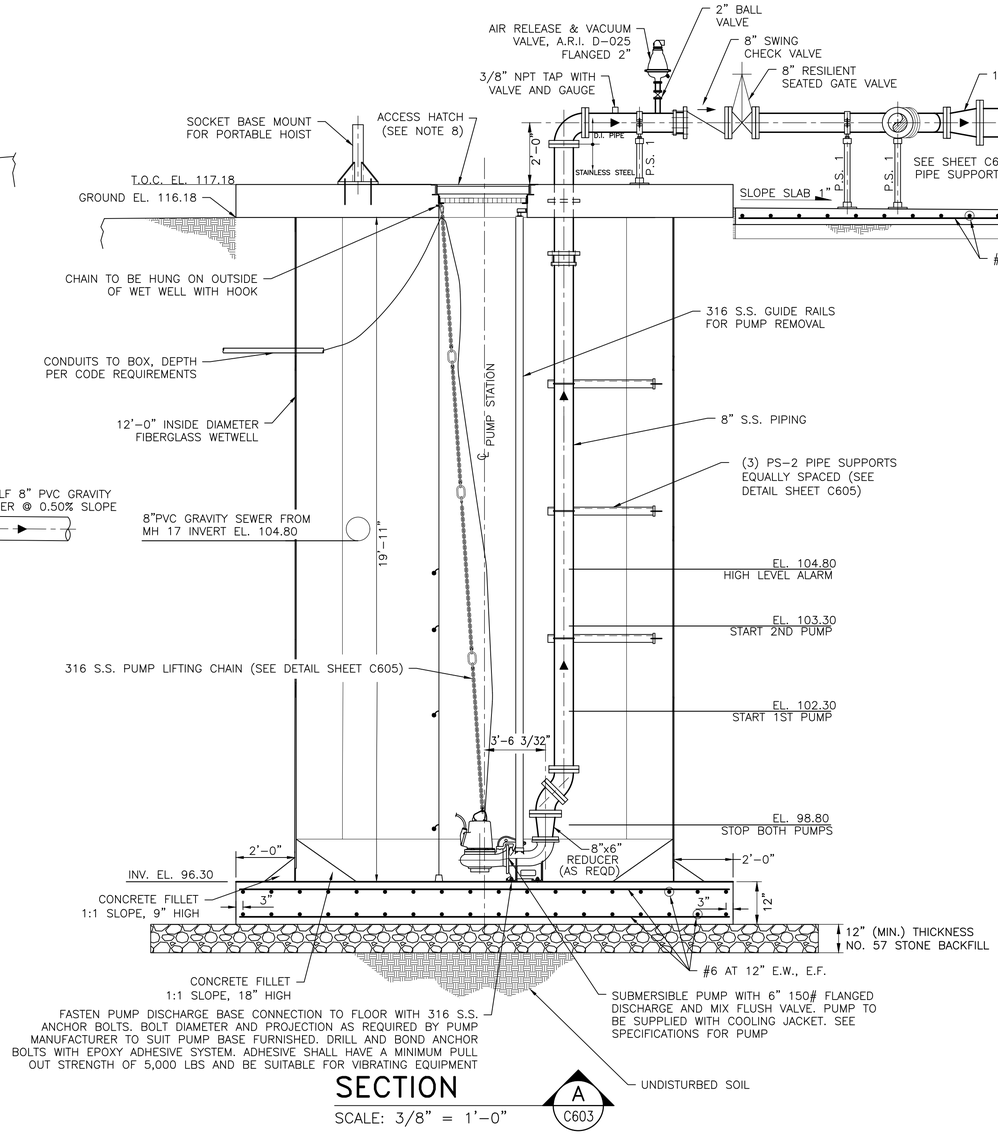


SECTION B C603
SCALE: 3/8" = 1'-0"

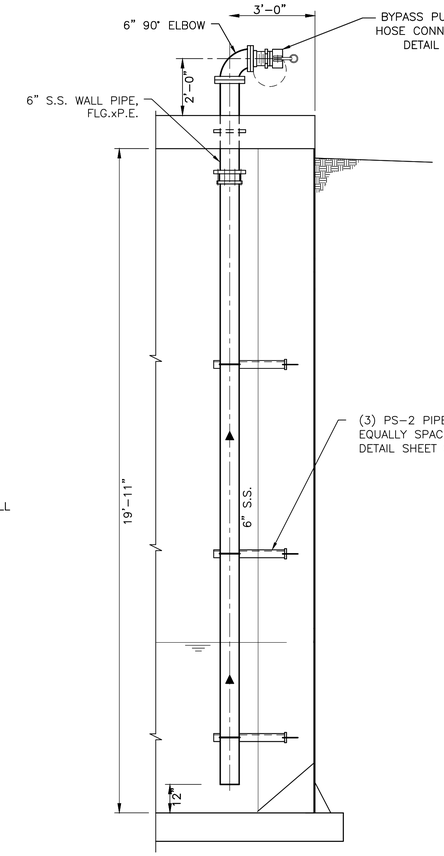


BYPASS HOSE CONNECTION DETAIL

N.T.S.



SECTION A C603
SCALE: 3/8" = 1'-0"



SECTION C C603
SCALE: 3/8" = 1'-0"

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PLANTER'S POINTE LIFT STATION

PUMP STATION PLAN, SECTIONS, AND NOTES

SCALE:	PLOT SCALE:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE :	JOB NO. :	DRAWING NO.	REVISION NO. :
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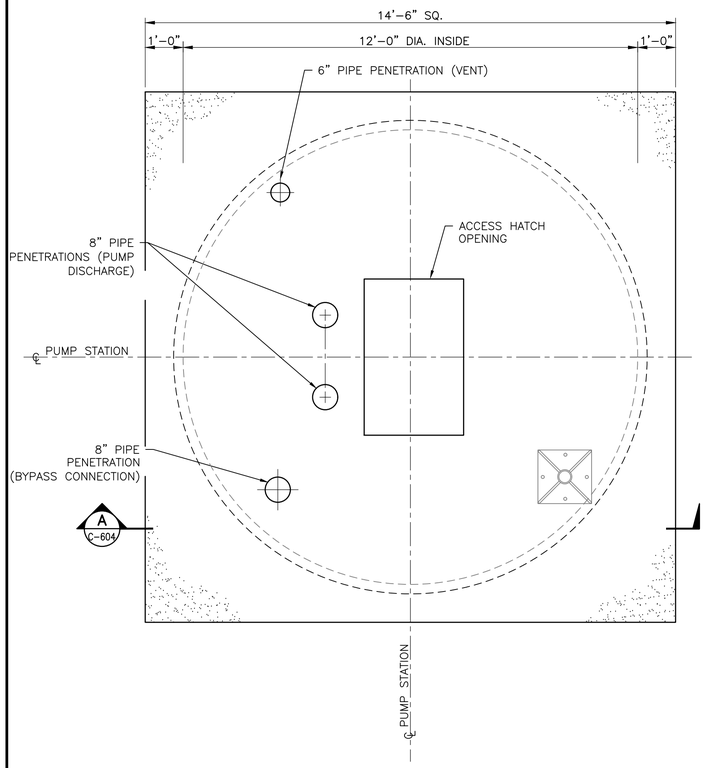
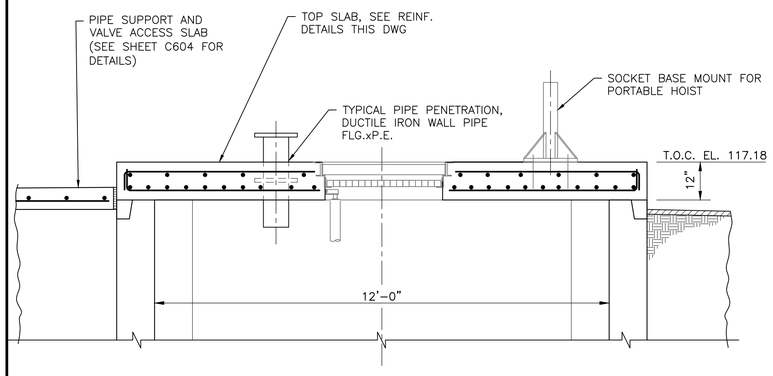


PLAN VIEW PUMP STATION TOP SLAB

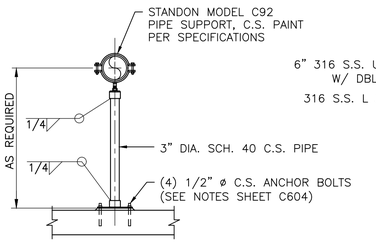
SCALE: 1/2" = 1'–0"



SECTION

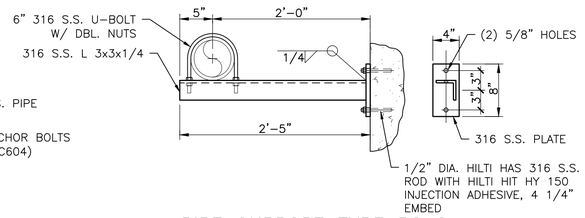
SCALE: 1/2" = 1'–0"

A C-604



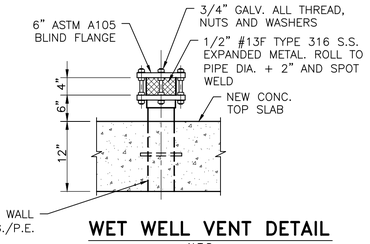
PIPE SUPPORT TYPE PS 1

N.T.S.



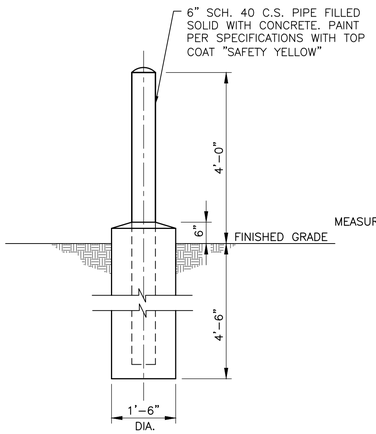
PIPE SUPPORT TYPE PS 2

N.T.S.



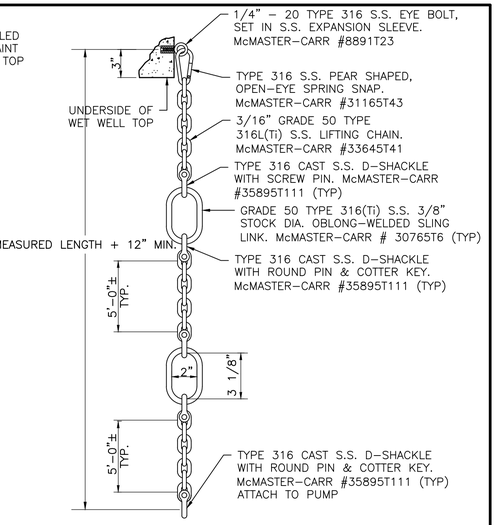
WET WELL VENT DETAIL

N.T.S.



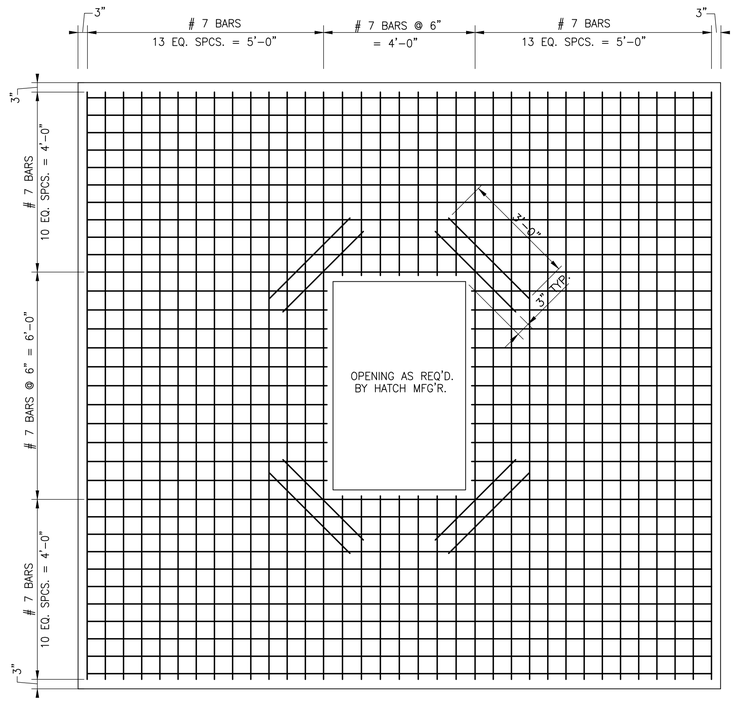
BOLLARD DETAIL

N.T.S.

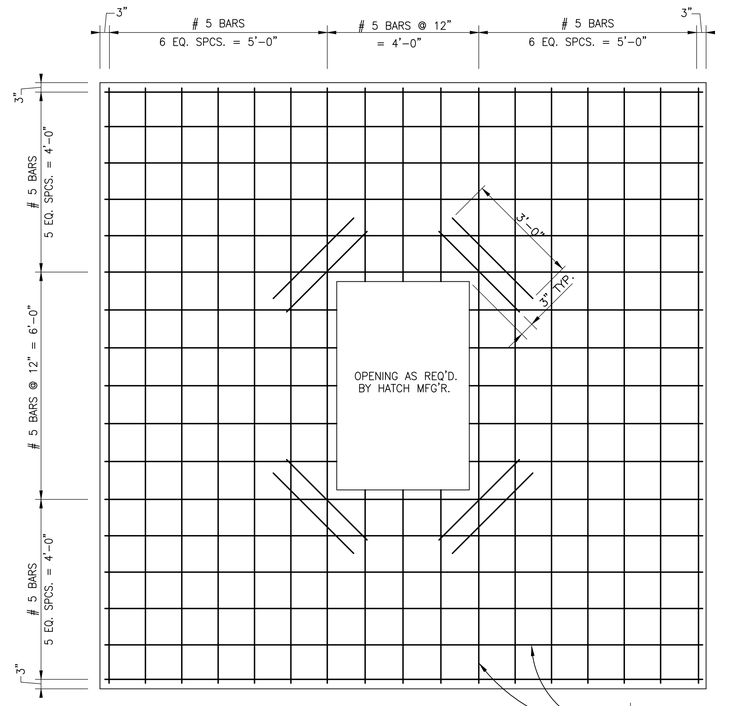


PUMP LIFTING CHAIN DETAIL

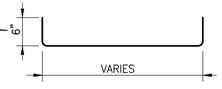
N.T.S.
(PROVIDE ONE ASSEMBLY FOR EACH PUMP)
(1000LB. CAPACITY LIMIT)



BOTTOM STEEL



TOP STEEL



#7 BARS TYPICAL TOP AND BOTTOM BARS EXCEPT DIAGONALS

PUMP STATION TOP SLAB REINFORCING PLANS

SCALE: 1/2" = 1'–0"

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PLANTER'S POINTE LIFT STATION

PUMP STATION TOP SLAB & MISCELLANEOUS DETAILS

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ISSUED 1/18/2023 **PUMP SPECIFICATION SHEET** **SP-1**

Tag No.: P-1 & P-2

Service: Sewage

Location: Planters Pointe Shopping Center Pumping Station

Type of Pump: End Suction Centrifugal - Submersible Pump

Solids Handling Capability: 3" minimum diameter spherical solid

Materials of Construction:

1. Casing – Gray cast iron Class 35B
2. All Exposed Bolts & Nuts – 303/304 stainless steel
3. Pump Exterior Coating - Factory applied primer and finish coat Epoxy Paint to suit pumped media
4. Shaft & Sleeve - Stainless Steel
5. Impeller – Ductile Iron
6. O-Rings – Buna-N and Fluorocarbon (DuPont Viton or Equivalent)
7. Upper Bearing - Single row ball bearing/ permanent lubrication
8. Lower Bearing - Single row ball bearing/ permanent lubrication
9. Seal – Tandem Mechanical Oil lubrication Upper, self-lubricating lower
10. Guide Rails - Type 316 Stainless Steel

Installation: The pump shall have a 6" cast iron quick-disconnect discharge elbow permanently mounted to the wet well floor. The elbow shall include 316 stainless steel guide-rail guides to allow removal and replacement of pump without personnel entering the wet wall. The guide rails shall be furnished by the contractor and the brackets furnished by the pump supplier.

Drive Motor:

1. 50 horsepower, 460V, 60Hz, 3 phase
2. Design –squirrel-cage, induction
3. NEMA Design – Type B
4. Windings – Copper, Class H Insulated rated for 356 ^{o}F / 180 ^{o}C
5. Service Factor – 1.15 continuous
6. Design Temperature – 40°C ambient
7. Non-overloading at any point on pump curve
8. Explosion Proof
9. Air filled or oil motor, may have closed, integral, liquid cooling system.
10. Motor Terminal Board
11. Stator shall be heat-shrink fitted.
12. Motor Winding Over temperature switches embedded in windings.
13. Seal Failure Moisture Probe

Guaranteed Performance:

	GPM	TDH	RPM	EFF
Design:	1650	67'	1770	68%

Warranty: The pump manufacturer shall warrant the unit being supplied to the Owner against defects in workmanship and material for a period of two (2) years unlimited hours.

Experience: Pump manufacturer's direct sales and service representative shall have local experience directly related to the proposed pumps and adjoining equipment.

Manufacturer(s): Pumps complying with the specified parameters and as included on the Owner's list of approved pump manufacturers shall be acceptable.

ACCEPTABLE PUMP EQUIVALENTS

MANUFACTURER	MODEL	REMARKS
Wilo	EMU FA15.97Z	Curve FA15.97Z 1740 Impeller 10.63"

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PLANTER'S POINTE LIFT STATION

PUMP SPECIFICATIONS

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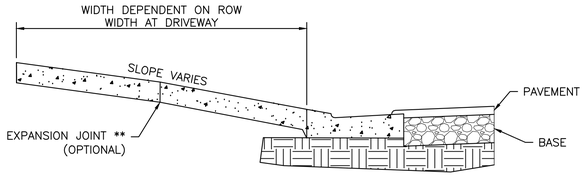
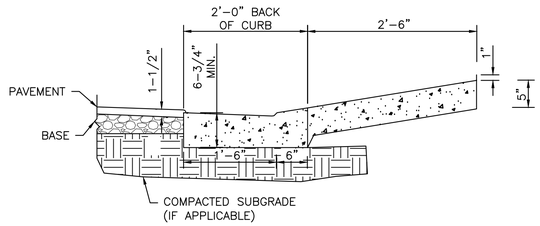


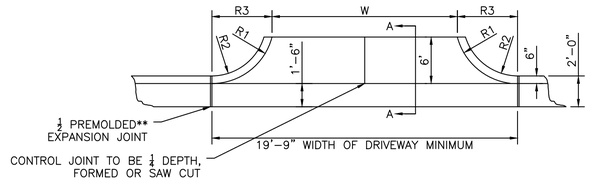
CROSS SECTION DRIVEWAY & SIDEWALK

N.T.S.



SECTION "A-A"

N.T.S.



PLAN VIEW CONCRETE DRIVEWAY APRON

N.T.S.

	MINIMUM*
R1	20'
R2	19.5'
R3	20'
W	24'

* IF SITE CONDITIONS PROHIBIT THE USE OF THESE STANDARDS, AN ALTERNATIVE MAY BE SUBMITTED FOR APPROVAL TO THE ENGINEER

** EXPANSION JOINT MATERIAL TO MEET ALDOT SPECIFICATIONS 832.01 & 832.02

NOTE:
CONCRETE APRON AND DRIVEWAY TO BE 5" MINIMUM THICKNESS.

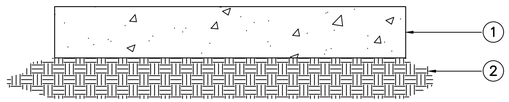
SIDEWALK PANELS THAT ABUT THE DRIVEWAY TO BE 5" MINIMUM THICKNESS.

OTHER SIDEWALK PANELS TO BE 4" MIN. THICKNESS.

CONCRETE TO BE 3000 P.S.I. MIX WITH NATURAL COLOR AND BROOM FINISH.

CONCRETE DRIVEWAY DETAIL FOR ASPHALT ROADWAY WITH CURB & GUTTER

N.T.S.



1. 4" THICK, 3000 PSI MIN. CONCRETE (SIZE AS INDICATED ON SHEET C601)
2. SUBGRADE, TOP 12" COMPACTED TO 98% STANDARD PROCTOR (ASTM D-1557 AT ±3% O.M.C.)

CONCRETE PAD DETAIL

N.T.S.

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MISCELLANEOUS DETAILS

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ABBREVIATIONS

A	AMPS
A/C	AIR CONDITIONING
A.F.F.	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
A.I.C.	AMPS INTERRUPTING CAPACITY (SHORT CIRCUIT)
Al	ALUMINUM
AM	AMMETER
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
B	BARE
C.	CONDUIT
C.B.	CIRCUIT BREAKER
CH.	CHILLED
CKT	CIRCUIT
Cu	COPPER
CONN.	CONNECTED
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
C.O.	CONDUIT ONLY
C.T.	CURRENT TRANSFORMER
D.	DEEP
DC	DIRECT CURRENT
DISC.	DISCONNECT
DN	DOWN
EA.	EACH
E.O.	ELECTRIC OPERATOR
ELEC	ELECTRIC
E, EM	EMERGENCY
EX. RE.	EXIST. RELOCATED
EQ.	EQUIPMENT (GROUND)
FA	FIRE ALARM
FU	FUSE(S)
FUT	FUTURE
G, GR.	GROUND
GRDG.	GROUNDING
GFI	GROUND FAULT INTERRUPTING
H.	HIGH, (MOUNTING HEIGHT TO CENTER LINE)
H.O.A.	HAND–OFF AUTOMATIC SWITCH
HT	HEAT
IG	ISOLATED GROUND
ISO	ISOLATED
IN	INPUT
INS.	INSULATED
INST.	INSTALL OR INSTRUMENT
J.B.	JUNCTION BOX
K.O.	KNOCK OUT
kW	KILOWATTS
LTG.	LIGHTING
LTS	LIGHTS
LG	LONG
MAG	MAGNETIC (METER or STARTER)
MAN	MANUAL
M.B.	MAIN BREAKER
MCM	THOUSAND CIRCULAR MILS
MCS	MOLDED CASE SWITCH
MECH.	MECHANICALLY (HELD)
MT.	MOUNT
MTD.	MOUNTED
N, NEUT	NEUTRAL
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OHE	OVER HEAD ELECTRICAL LINE
O.L.'s	OVERLOADS (THERMAL)
OUT	OUTPUT
P	POLE(S)
PNL	PANEL OR PANELBOARD
P.T.	POTENTIAL TRANSFORMER
#(SUFFIX)	POUNDS WEIGHT
#(PREFIX)	WIRE GAUGE (AWG)
ø	PHASE
REC.	RECEPTACLE
RECEPT	RECEPTACLE
S.C.	SHORT CIRCUIT (DUTY)
SN	SOLID NEUTRAL
SOL	SOLID (CONDUCTOR)
SQ.	SQUARE
ST	SHUNT TRIP
STR.	STARTER
SW.	SWITCH
TEL	TELEPHONE
TEMP.	TEMPERATURE (CONTROL)
T.O.E.	TIMED ON ENERGIZAITON
TYP.	TYPICAL
UPS	UNINTERRUPTIBLE POWER SYSTEM
UG	UNDERGROUND
UGP	UNDERGROUND PRIMARY
UGS	UNDERGROUND SECONDARY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VM	VOLTMETER
W	WATTS OR WIRE (USE CONTEXT) 100W (WATTS) 3W (WIRE)
W.H.	WATER HEATER
WP	WEATHERPROOF
WW	WIREWAY (or GUTTER)

ELECTRICAL LEGEND
POWER, LIGHTING & FIRE

A	WALL MOUNTED EXTERIOR LIGHT, SEE FIXTURE SCHEDULE
EM	WALL MOUNTED, SELF–CONTAINED EMERGENCY LIGHT, SEE FIXTURE SCHEDULE
L.A.	SURGE SUPPRESSOR
	CEILING/WALL MOUNTED EXIT LIGHT, SEE FIXTURE SCHEDULE
	DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W,, GRDG, NEMA 5–20R, MOUNTED 18" H. ADDITIONAL MARKS FOR RECEPTS: G = GROUND FAULT INTERRUPTING TYPE WP = GROUND FAULT & WEATHERPROOF BOX & COVER PLATE FOR WET LOCATIONS XX"H. INDICATES HEIGHT ABOVE FINISHED FLOOR IF NOT STANDARD
S	SINGLE POLE LIGHTING SWITCH, 20A, 120/277VAC, SILENT TOGGLE
S_3	THREE–WAY LIGHTING SWITCH, 20A, 120/277VAC, SILENT TOGGLE
S_4	FOUR–WAY LIGHTING SWITCH, 20A, 120/277VAC, SILENT TOGGLE
S^a	"a" INDICATES OUTLET(S) OR LIGHTING CIRCUITS SWITCHED
S_M	MANUAL MOTOR STARTING SWITCH, WHEN USED FOR THERMAL PROTECTION, INSTALL HEATERS
	SAFETY DISCONNECT SWITCH, NON–FUSED, SIZE/NO. OF POLES & ENCLOSURE NOTED
	ENCLOSED CIRCUIT BREAKER, SIZE/NO. OF POLES & ENCLOSURE NOTED
J	JUNCTION BOX, 4" SQ. UNLESS NOTED, FURNISH BLANK COVER PLATE INCREASE SIZE AS PER CODE REQUIRED VOLUME
J	JUNCTION BOX, WALL MOUNTED, 4" SQ. OR LARGER AS REQUIRED
	MAIN OR DISTRIBUTION PANEL OR SWITCHBOARD, 277/480V, 3PH., SURFACE TRIM
	LIGHTING OR MISCELLANEOUS POWER PANEL, SURFACE TRIM, SEE SCHEDULES
	WIRING IN CONDUIT, CONCEALED IN WALLS OR CEILING, HATCH MARKS INDICATE NO. OF CURRENT CARRYING WIRES IF MORE THAN 2. WHEN NOT MARKED 1/2" C. w/2–#12 & 1–#12 GR. (GROUND WIRES NOT MARKED, BUT REQUIRED; MINIMUM SIZE #12, GREEN INSULATED COPPER)
	WIRING IN EXPOSED CONDUIT, RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES & STRUCTURAL ELEMENTS, WIRES SAME AS NOTES ABOVE
	WIRING, IN UNDERGROUND PVC CONDUIT, 18" MIN. COVER (GREATER WHEN NOTED) SEE NOTES FOR CONCEALED WIRING ABOVE
	HOME RUN TO PANEL, SEE NOTES FOR EXPOSED & CONCEALED WIRING, PANEL–CIRCUIT(S) NOTED
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
M	MOTOR, AC INDUCTION; HORSEPOWER MARKED, VOLTAGE & PHASE NOTED
T	DRY TYPE TRANSFORMER
T	THERMOSTAT
	OPEN/CLOSE/AUTOMATIC (OCA)) STARTER, RELAY OR CONTACTOR; SEE PLANS FOR NOTES (FA = FIRE ALARM, LC = LIGHTING CONTACTOR)
	GROUND
	GROUND TEST STATION

LOAD DESCRIPTION	WIRE SIZE	KVA LOAD ØA	KVA LOAD ØB	CKT NO.	BKR. TRIP	L1 / L2	BKR. TRIP	CKT NO.	KVA LOAD ØA	KVA LOAD ØB	LOAD DESCRIPTION	WIRE SIZE
CONTROL BLDG LIGHTS	12	0.12		1	20		20	2	0.36		CNTRL BLDG RECEPTS	12
LEVEL XTMR (LIT–100)	12		0.03	3	20		20	4		0.18	P.S. CONTROL PANEL	12
				5	20		20	6				
				7	20		20	8				
				9	20			10				
				11				12				
				13				14				
				15				16				
				17				18				
				19			30	20			SURGE SUPPRESSOR	10
AC/HTR UNIT				21	20		2P	22				10
				23	2P			24				
SUBTOTAL VA:		0.12	0.03			NEUT. ⏚			0.36	0.18	SUBTOTAL VA	

VOLTAGE SOURCE: TRANSFORMER "T–1"
VOLTAGE: 120/240 MAIN: 60
TOTAL CKTS: 42 AMPS: 100 PHASE: 1
TRIM: SURFACE
INTERRUPT RATING: 10,000 A.I.C. SYMMETRICAL

TOTAL KVA ØA: 0.48
TOTAL KVA ØB: 0.21
TOTAL CONN. KVA: 0.69
EST. DEMAND: 2.88

PANEL " P " CIRCUIT SCHEDULE
LOC'N: CONTROL BLDG.

INSTRUMENT PLAN SYMBOLS

HS XXX	(SHOWN ON ELECTRICAL PLANS) HAND SWITCH LIGHT
FT XXX	TRANSMITTER
FY XXX	TRANSDUCER, I/P, ETC..
LS XXX	LEVEL SWITCH, PRESSURE SWITCH, ETC..
TT XXX	TEMPERATURE WELL AND TRANSMITTER
	ANALYZER OR FIELD PANEL
M	MAGMETER FLOW TUBE
	PNEUMATIC CONTROL VALVE
	BUTTERFLY VALVE w/PNEUMATIC OPERATOR
M	MOTOR OPERATED PINCH VALVE
M	MOTOR OPERATED PLUG VALVE
M	MOTOR OPERATED KNIFE GATE VALVE
S	SOLENOID VALVE, 120VAC COIL
TS–3	TEMPERATURE SWITCH IN MOTOR
FS–3	LIMIT SWITCH
LS–1	LEVEL SWITCH
	1/8A DIN RAIL MOUNTED FUSE
	GENERAL CONTROL PATH
	ELECTRONIC, FREQUENCY, ETC.
	PNEUMATIC LINE
	DATA OR LOGIC PERFORMED BY COMPUTER
	FUNCTION EXPLANATION OR UNITS INSTRUMENT CONTROL FUNCTION TAG LOOP NUMBER
	DENOTES MOUNTED INSIDE PANEL (OR REAR)
	w/o LINE DENOTES PRIMARY ELEMENT OR LOCALLY MOUNTED
	PANEL MOUNTED INSTRUMENT
DI	COMPUTER FUNCTION INPUT OR OUTPUT D = DIGITAL I = INPUT A = ANALOG O = OUTPUT
	PLC FUNCTION
	FUNCTION TAG LOOP NUMBER
R	INDICATOR LIGHT (LETTER=COLOR)
M	MOTOR OR MOTORIZED ACTUATOR
	SURGE ARRESTOR
I	INTERLOCK
QI	STATUS OR EVENT
JI	POWER ON
MS	MOISTURE SWITCH
TS	TEMPERATURE SWITCH
TI	TEMPERATURE SWITCH ACTIVATED
LS	LEVEL SWITCH
LI	LEVEL SWITCH ACTIVATED
QS	DIGITAL CLOSURE EQUIVALENT

INSTRUMENT IDENTIFICATION LETTERS

	FIRST–LETTER		SUCCEEDING–LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	
C	USER'S CHOICE			CONTROL	USER'S CHOICE
D	DISSOLVED OXYGEN	DIFFERENTIAL	DENSITY		
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			
G	USER'S CHOICE		GLASS, VIEWING DEVICE		
H	HAND (MANUAL)				
I	CURRENT (ELECT.) OR INTERLOCK		INDICATE		HIGH
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		
M	MOTION OR MOISTURE	MOMENTARY			LOW
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	MIDDLE, INTERMEDIATE
O	USER'S CHOICE		ORIFICE, RESTRICTION		USER'S CHOICE
P	PRESSURE OR VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY OR EVENT	INTEGRATE, TOTALIZE			
R	RATIO		RECORD		
S	SPEED, FREQUENCY OR SOLENOID	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	MULTIFUNCTION
W	WEIGHT, FORCE		WELL		
X	TORQUE OR USER' S CHOICE	X AXIS	UNCLASSIFIED	UNCLASSIFIED	
Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	UNCLASSIFIED
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED, FINAL CONTROL ELEMENT	

(*) pH, CL RES., DO , OR AS NOTED ABOVE BUBBLE

ELECTRICAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE, THE OCCUPATIONAL SAFETY AND HEALTH ACT, AND ALL ELECTRICAL CODES LOCALLY BEING ENFORCED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IN THE PROJECT AREA.
2. CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS, INSPECTION AND CONNECTION FEES.
3. CONTRACTOR TO PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND SUPERVISION FOR AND INCIDENTAL TO THE COMPLETION OF A FULLY FUNCTIONAL, SAFE AND COMPLETE ELECTRICAL SYSTEM.
4. CONTRACTOR TO TEST SYSTEM THOROUGHLY IN THE PRESENCE OF OWNER AND RENDER IT FREE FROM DEFECTS. CONTRACTOR TO PROVIDE OWNER WITH A ONE YEAR WARRANTY AFTER ACCEPTANCE.
5. THE CONTRACTOR SHALL PROPERLY SEAL ALL PENETRATIONS.
6. ELECTRICAL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY CONFLICTS AND/OR CREATING A SAFETY HAZARD.
7. ELECTRICAL CONTRACTOR TO COORDINATE WITH THE OWNER FOR ANY ELECTRICAL REQUIREMENTS FOR SPECIAL EQUIPMENT.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL CIRCUITS ASSOCIATED WITH THE PROJECT WORK AREA.
9. ALL EQUIPMENT AND MATERIALS SHALL MEET OR EXCEED THE SCHEDULED AND/OR REQUIRED ITEMS. SUBMIT FOR PRIOR APPROVAL FOR ANY DEVIATIONS.
10. NO CHANGES SHALL BE MADE IN MATERIALS OR INSTALLATION WITHOUT ENGINEER AND OWNER'S APPROVAL.
11. CONTRACTOR SHALL VERIFY CLEARANCE SPACE AVAILABLE, OFFSETS REQUIRED, STRUCTURAL OPENINGS, AND WORK BY OTHER TRADES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PUMP STATIONS IN OPERATION DURING CONSTRUCTION.
13. CONDUCTORS SHALL BE COPPER. MINIMUM SIZE FOR POWER CONDUCTORS SHALL BE #12 AWG. CONTROL CABLES SHALL BE TYPE THHW STRANDED COPPER, MINIMUM SIZE #14 AWG. SIGNAL CABLES SHALL BE TWISTED AND SHIELD, #16 AWG MINIMUM. CABLES SHALL BE U.L. LISTED AND SHALL BE MANUFACTURED BY G.E., GENERAL CABLE, ROME, COLLYER, OR AN ENGINEER APPROVED EQUIVALENT.
14. SCHEDULE 80 PVC CONDUITS SHALL BE PROVIDED FOR UNDERGROUND INSTALLATION. ALL EXPOSED CONDUITS SHALL BE RIGID GALVANIZED STEEL.
15. SPLICING OF CABLES INSIDE CONDUIT AND AREAS THAT ARE DAMP IS NOT PERMITTED.
16. THE PLC SHALL BE PROGRAMMED TO ACCEPT THE NEW INPUTS AND OUTPUTS SIGNALS AS INDICATED BY THE PLANS.
17. ALL ELECTRICAL EQUIPMENT SHALL BE PURCHASED FROM LOCAL DISTRIBUTION WITHIN 100 MILES OF PROJECT UNLESS OTHERWISE SPECIFIED.
18. ALL MOTORS HORSEPOWER 50 HP OR GREATER SHALL HAVE SOLID STATE SOFT STARTERS UNLESS OTHERWISE SPECIFIED.
19. ALL EXTERIOR RECEPTACLES WITH WEATHERPROOF (WP) COVERS SHALL BE THE "WHILE IN USE" POLYCARBONATE TYPE.
20. THE ELECTRICAL SYSTEM SHALL MEET OR EXCEED THE IEEE 519 REQUIREMENTS FOR HARMONICS.

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ALABAMA REGISTERED PROFESSIONAL ENGINEER ROBERT EVERETT 3/23/22
STAMP VALID ONLY IF SIGNED & DATED

CITY OF FAIRHOPE UTILITIES
FAIRHOPE, ALABAMA

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PUMP STATION AND FORCE MAIN IMPROVEMENTS

LEGEND AND SYMBOLS

SCALE:	PLOT SCALE:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE :	JOB NO. :	DRAWING NO.	REVISION NO. :
	1:1	NRE	DLU	MCR	DECEMBER 2021	21–1101–0257	E100	C

NOTES:

1. THE NEW RISER POLE SHALL BE INSTALLED AS REQUIRED BY THE LOCAL UTILITY COMPANY, ORDINANCES AND THE AUTHORITY HAVING JURISDICTION.
2. THE LOCAL UTILITY COMPANY SHALL PROVIDE THE OVERHEAD SERVICE POLES AND LINES FROM THE HIGHWAY ALONG THE ROAD TO THE NEW RISER POLE.
3. SEE DRAWING NO. E102 FOR CONTROL BUILDING FLOOR PLAN.
4. ALL INSTRUMENT TAG NUMBERS ARE ARBITRARILY ASSIGNED FOR CLARITY ONLY, IT SHALL BE THE CONTROL SYSTEM PROGRAMMER WHO SHALL BE RESPONSIBLE FOR ASCERTAINING THE ACTUAL EXISTING INSTRUMENT TAG NUMBERS AND THE AVAILABLE NUMBERS REQUIRED TO REPROGRAM THE EXISTING CONTROL SYSTEM TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL EFFLUENT PUMP STATION CONTROL SYSTEM.

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ALABAMA REGISTERED No. 21407 PROFESSIONAL ENGINEER NATHANIEL R. EVERETT

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PUMP STATION AND FORCE MAIN IMPROVEMENTS

PUMP STATION SITE PLAN

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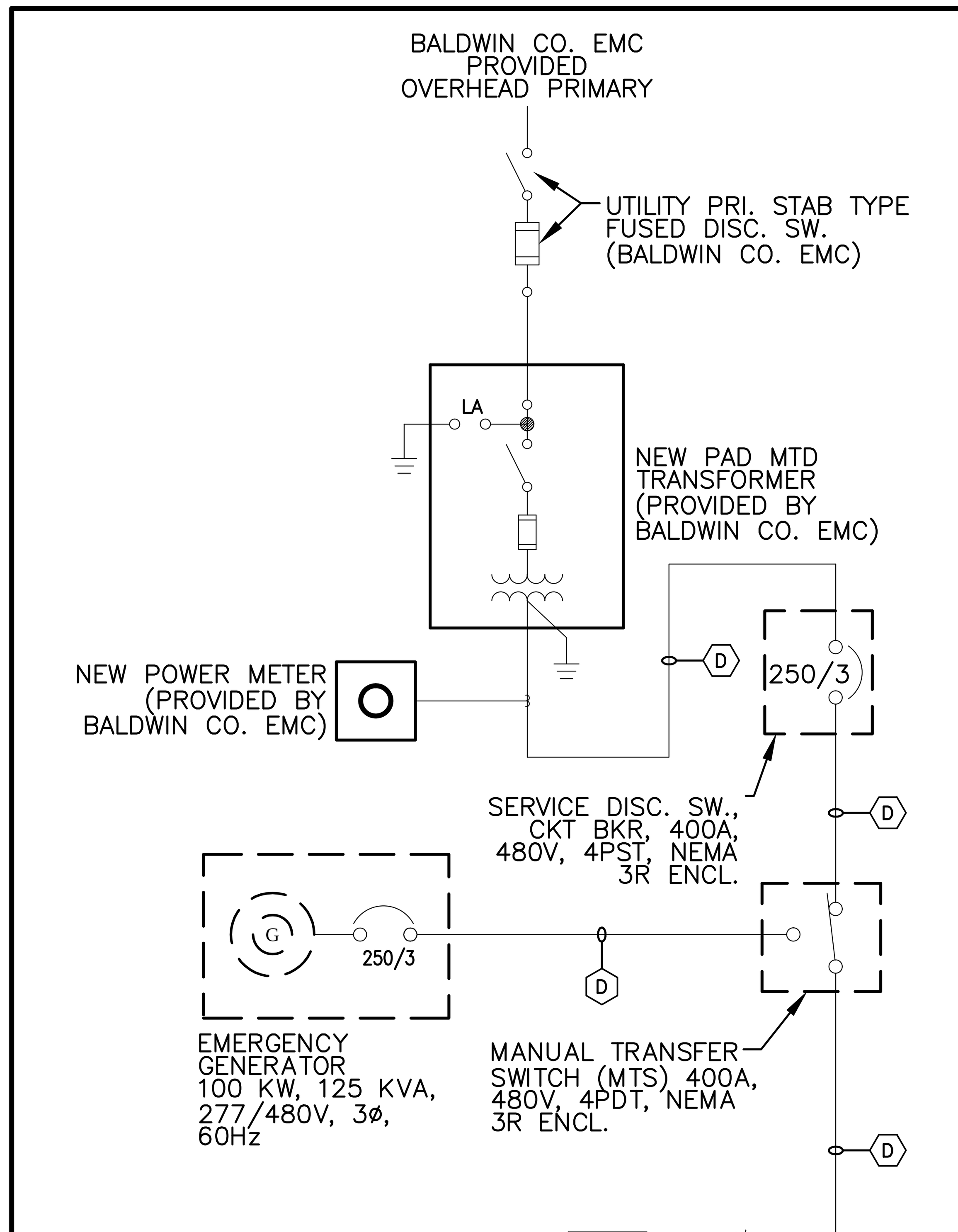
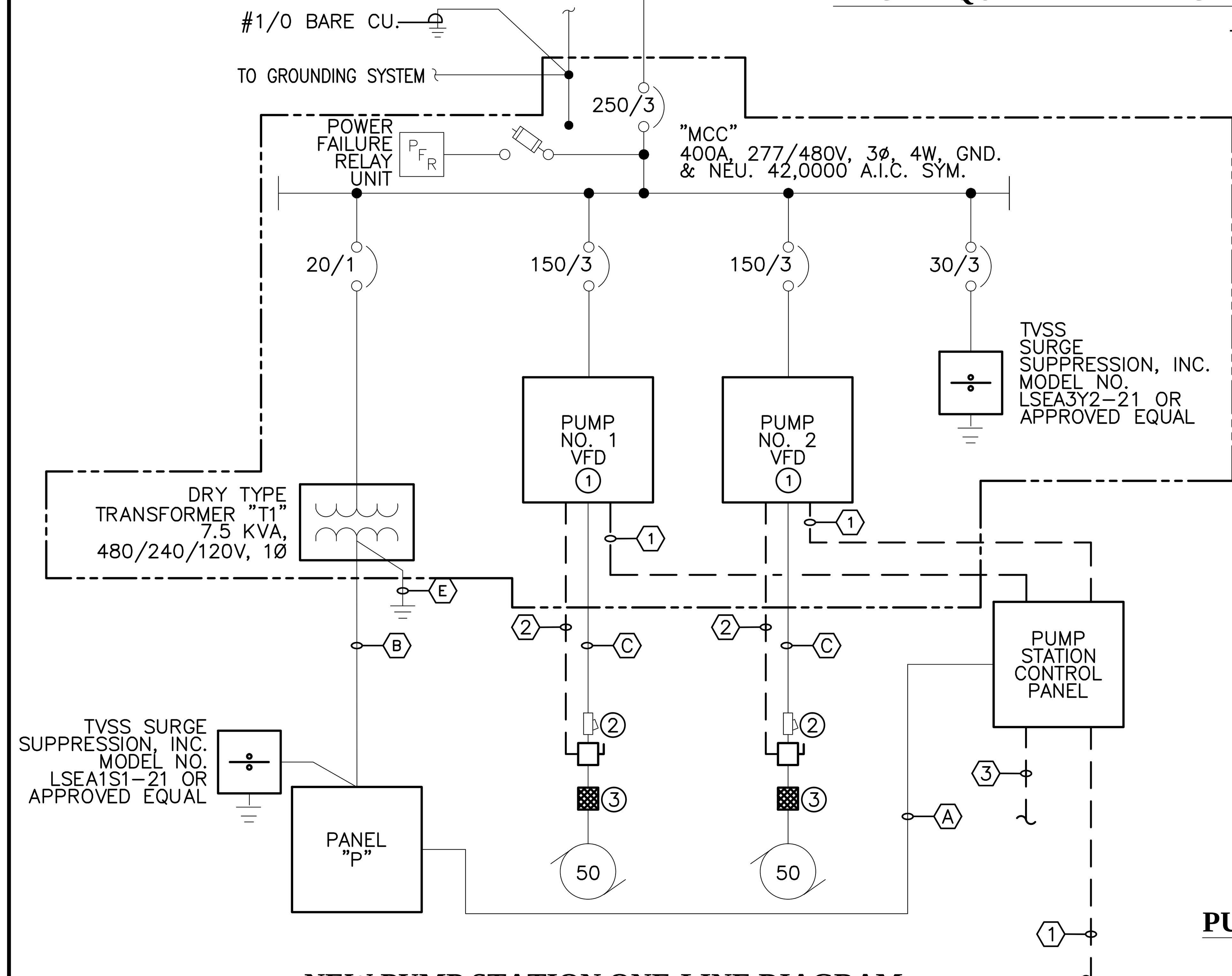
	1:1	NRE	DLU	MCR	DECEMBER 2021	21-1101-0257	E101	C



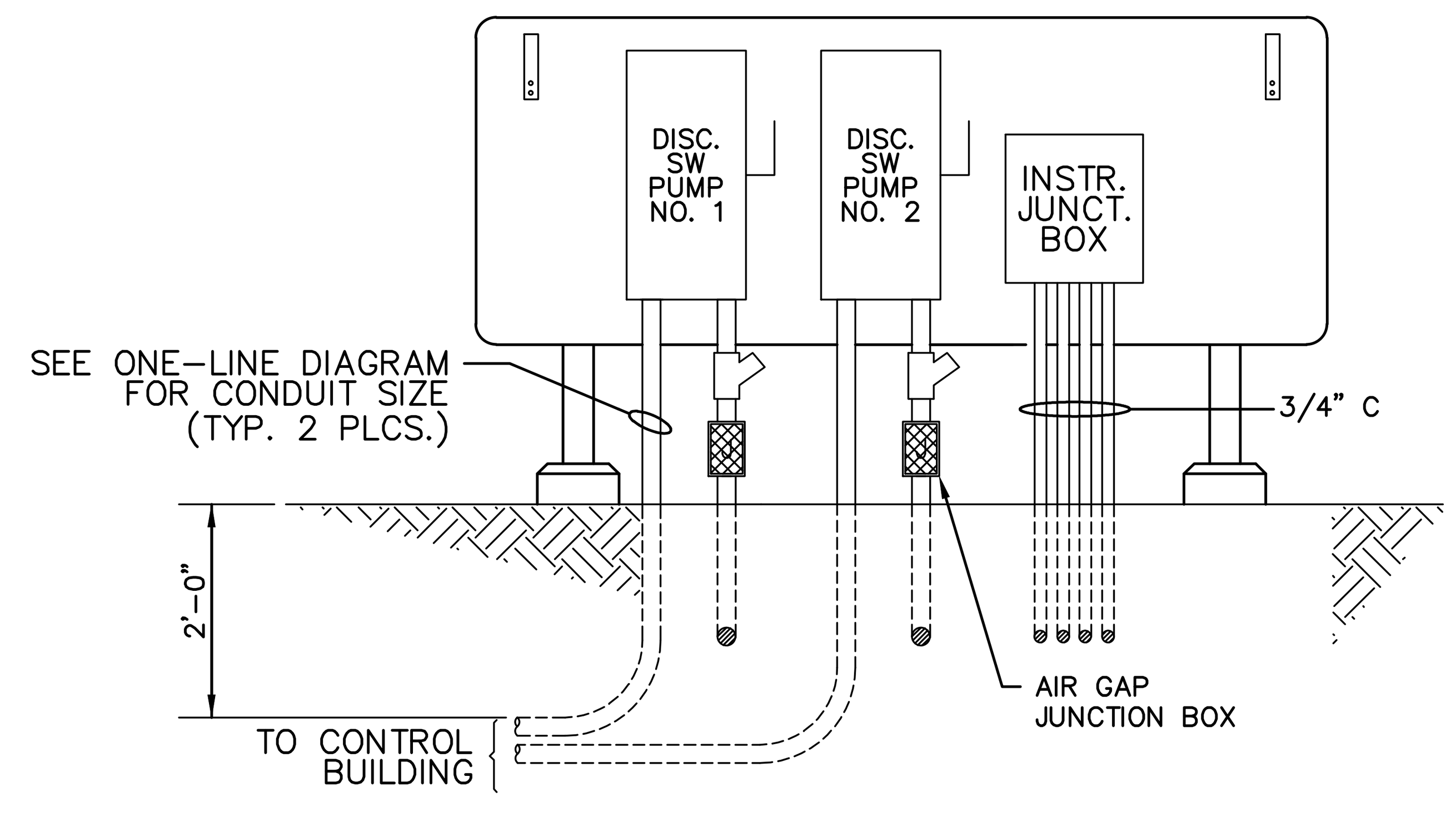


NEW PUMP STATION ONE-LINE DIAGRAM

NOT TO SCALE

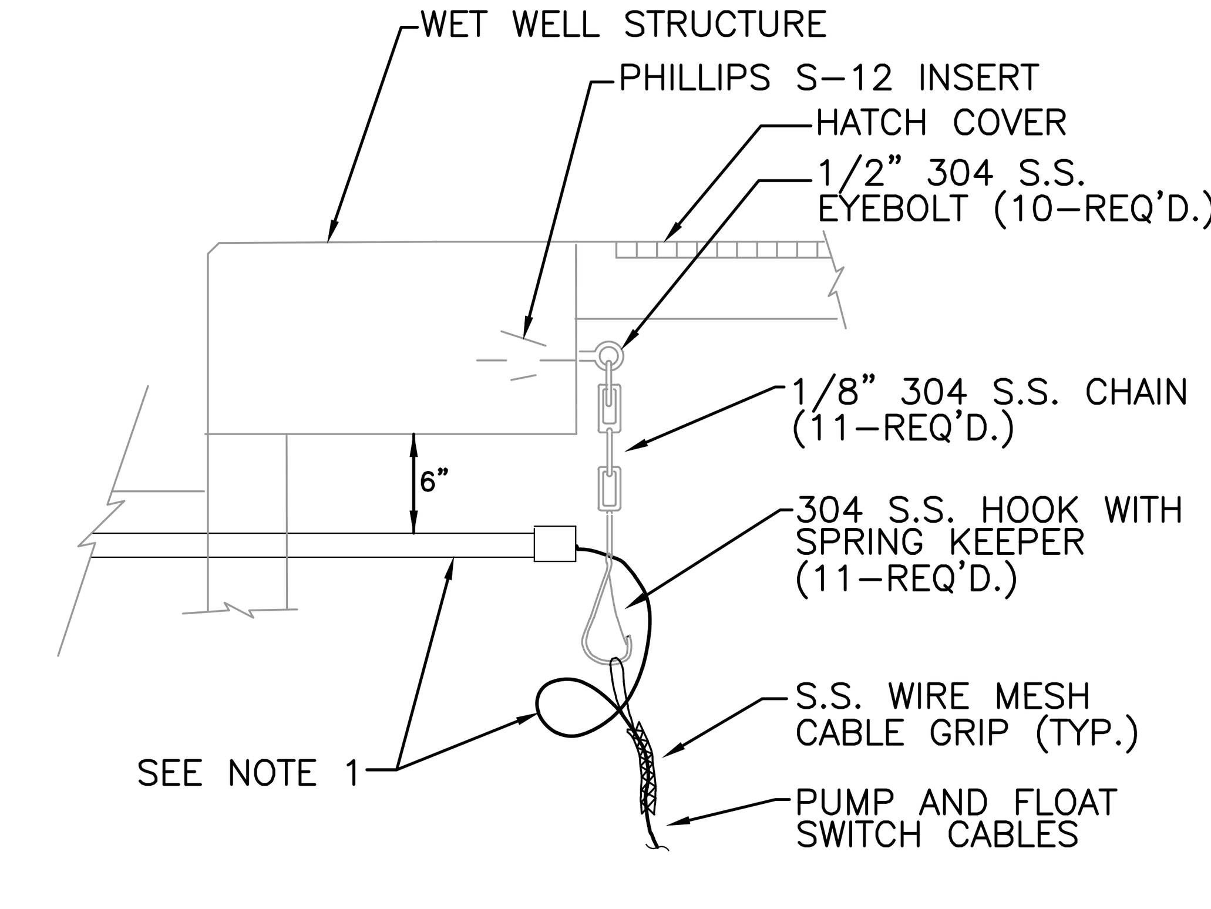
CABLE SCHEDULE NO. "CS-1"

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
1	10 #14, 6 #14 SPARE 2- 1 PR #16 SHLD.	A	2 #12, 1 #12 GRND, 3/4" C
2	FROM PUMP DISCONNECT SW. 2 #14, 2 #14 SPARE, 3/4" C	B	3 #8, 1 #10 GRND, 3/4" C
3	FROM LIT-100 1 PR #16 SHLD, 3/4" C	C	3 #2, 1 #6 GRND, 1 1/2" C
		D	4 #4/0, 1 #4 GND., 2 1/2" C
		E	1 #10 BARE CU.



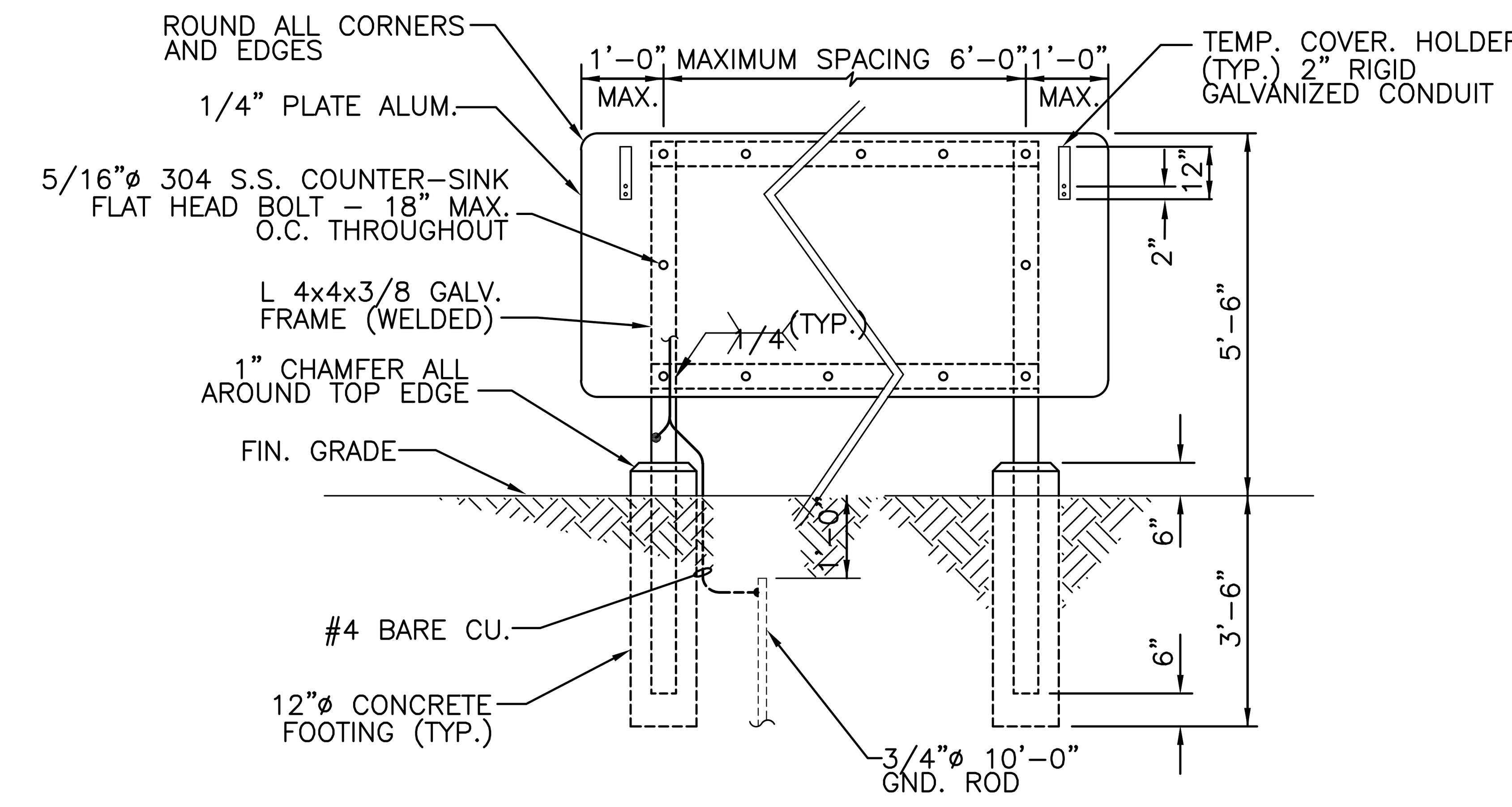
RACK EQUIPMENT TYPICAL MOUNTING CONFIGURATION

N.T.S.



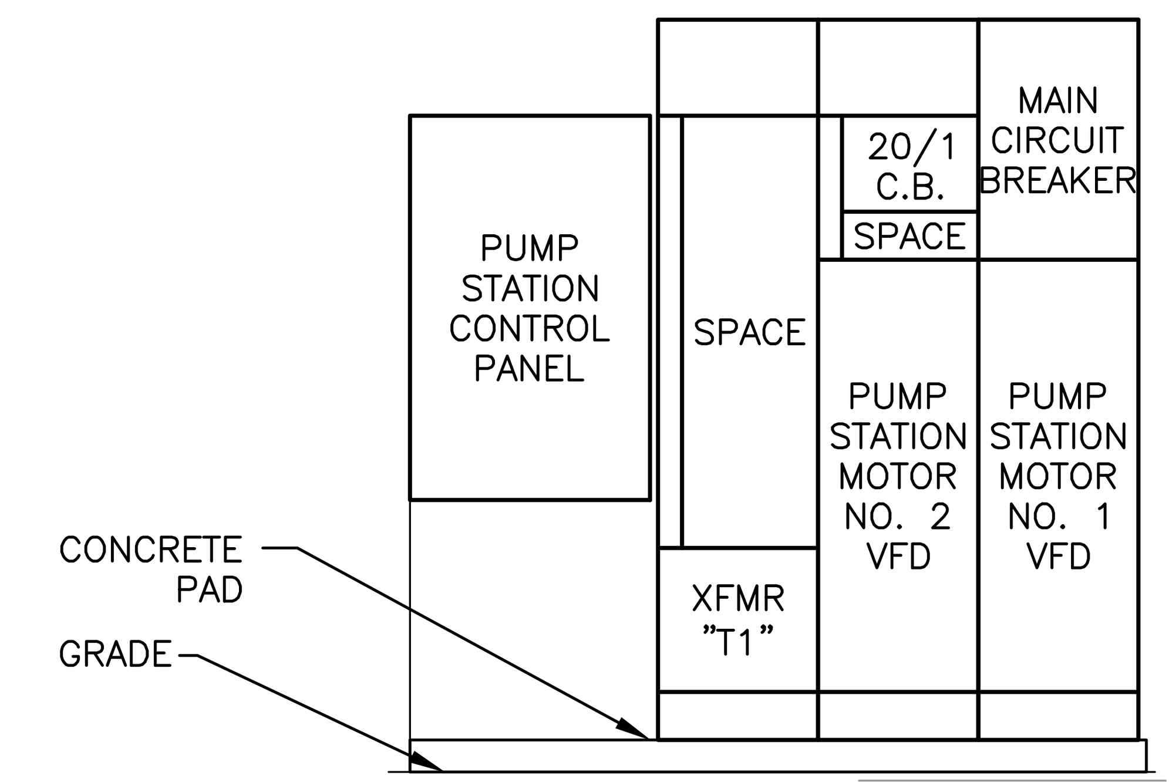
WET WELL CONDUIT DETAIL

SCALE: NOT TO SCALE



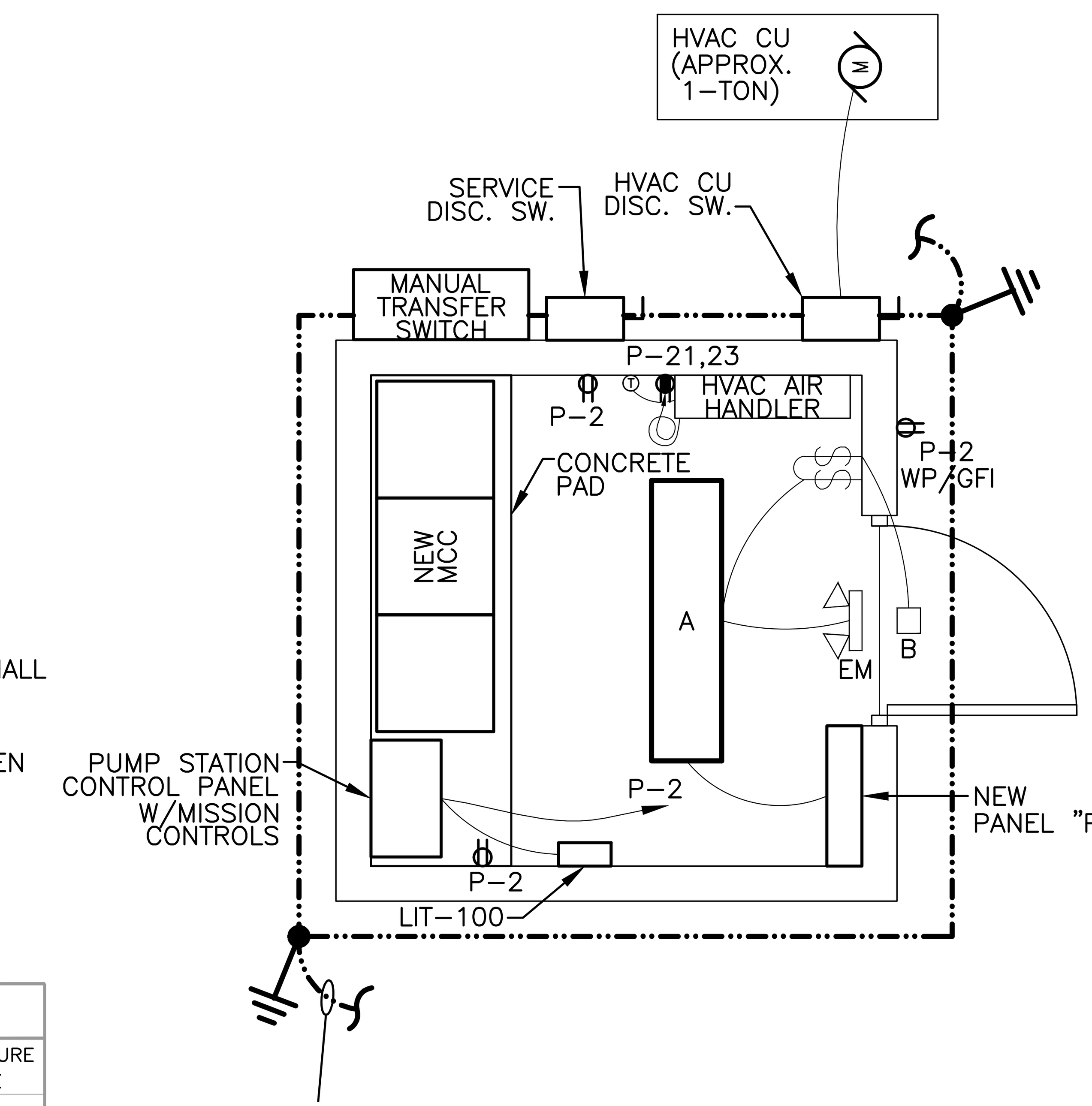
TYPICAL EQUIPMENT MOUNTING RACK

SCALE: 1/2"=1'-0"±



PUMP STATION CONTROL BLDG. MCC ELEVATION

SCALE: NOT TO SCALE

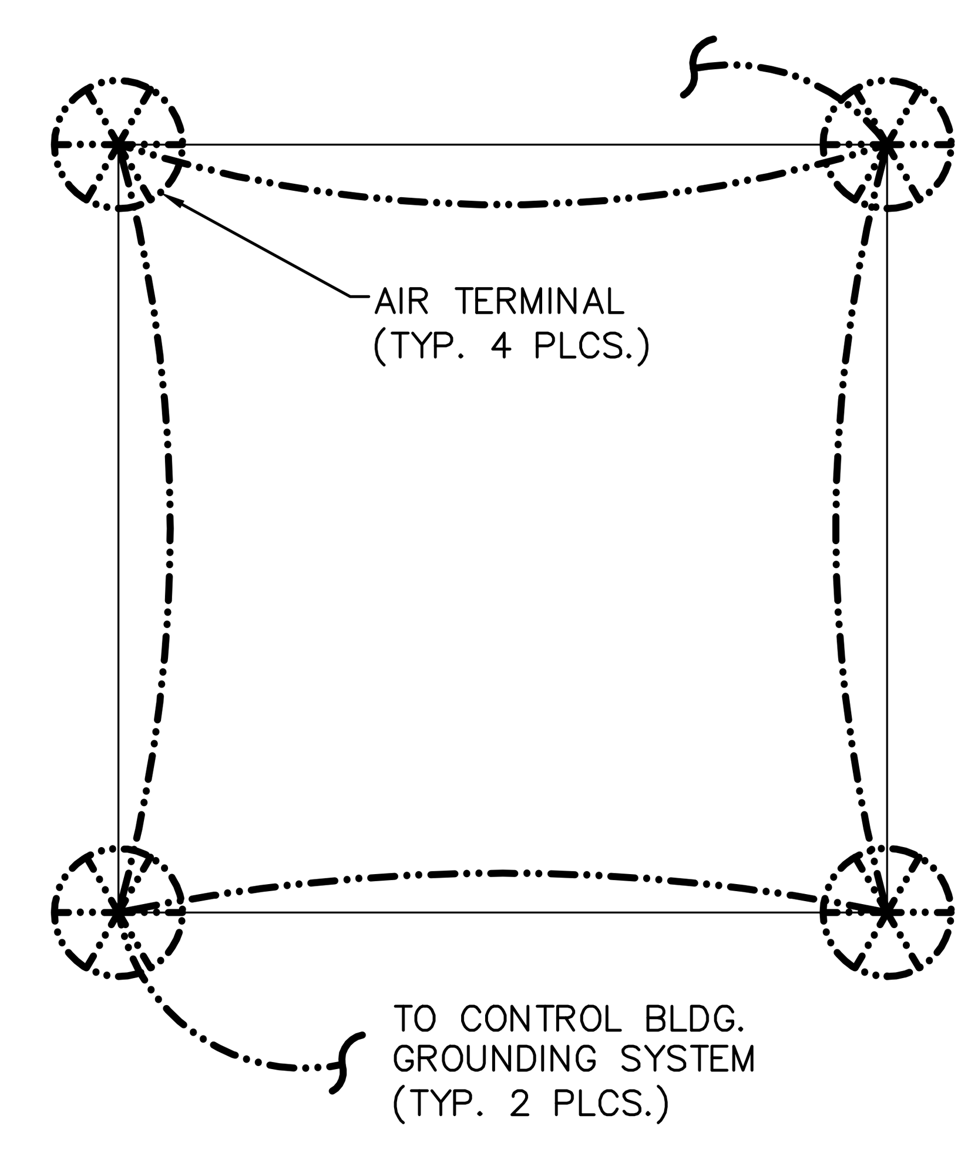


PUMP STATION CONTROL BLDG. FLOOR PLAN

SCALE: NOT TO SCALE

KEYNOTES:

1. THE VARIABLE FREQUENCY DRIVES, MCC AND CIRCUIT BREAKERS SHALL BE COORDINATED AS REQUIRED BY THE SPECIFICATIONS TO ENSURE THAT THE EQUIPMENT IS PROPERLY SIZED AND FULLY COMPATIBLE.
2. THE CONDUIT SEALS SHALL BE INSTALLED ON THE CONDUIT BETWEEN THE DISCONNECT SWITCHES AND THE CONTROL BUILDING.
3. AIR GAP JUNCTION BOX WITH A WIRE MESH FACE PLATE. THE JUNCTION AND WIRE MESH FACE PLATE SHALL BE ALUMINUM.



PUMP STATION CONTROL BLDG. ROOF TOP

SCALE: NOT TO SCALE

DISCONNECT SWITCH SCHEDULE

SERVICE	AMPERE	VOLTAGE	NO. POLES	FUSE TYPE	ENCLOSURE TYPE
PUMP MOTOR NO. 1	200	480	3	NON	NEMA 3R
PUMP MOTOR NO. 2	200	480	3	NON	NEMA 3R

NOTE: CONTRACTOR SHALL COORDINATE EXACT SIZES WITH ACTUAL EQUIPMENT BEING INSTALLED.

LIGHT FIXTURE SCHEDULE

NEW TYPE	MANUFACTURER	CATALOG NUMBER	MOUNTING	LAMPS NO.	LAMPS TYPE
A	KENALL	S711DPPDB42P1DVEL	SURFACE	1	42W FLUORESCENT
B	KENALL	METELHC-48N-MW-2-12H-DT	SURFACE	2	12W INCANDESCENT
EM	KENALL	METELHC-48N-MW-2-12H-DT	SURFACE	2	12W INCANDESCENT

NOTE: ALL FIXTURES AND ACCESSORIES SHALL BE APPROVED BY THE ARCHITECT, ENGINEER AND OWNER.

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PUMP STATION AND FORCE MAIN IMPROVEMENTS

PUMP STATION DETAILS

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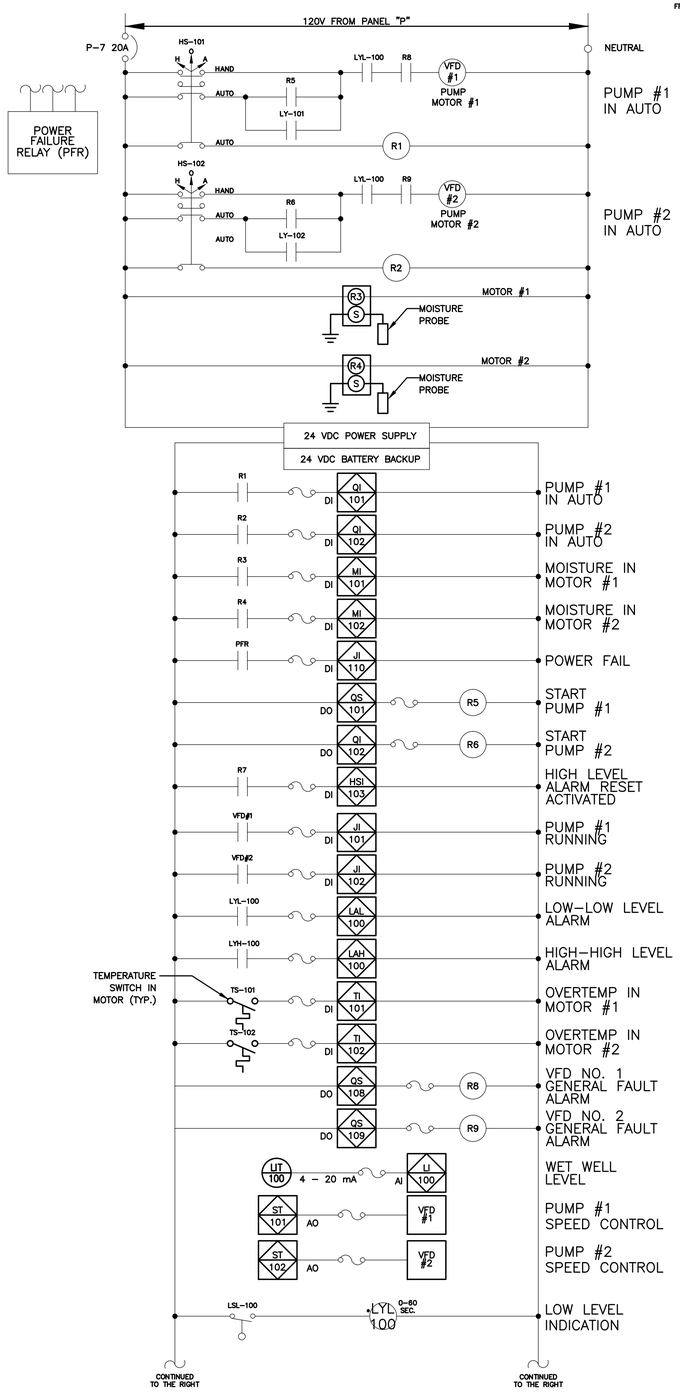
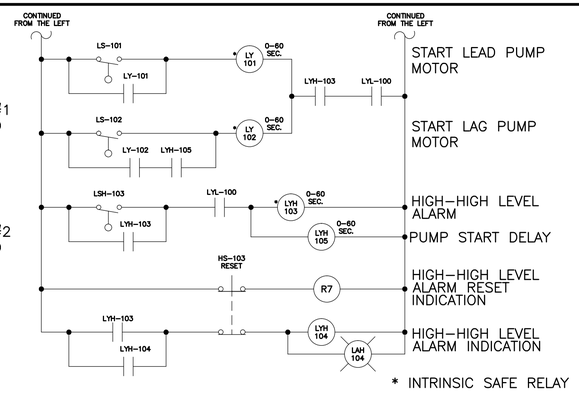


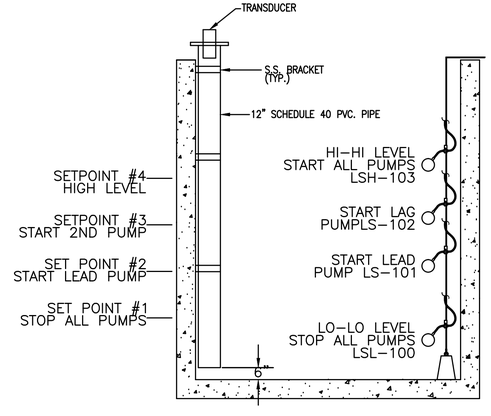


MAIN CONTROL PANEL

	SITUATION	FIELD ACTION		PLC/SCADA ACTION	ALRM
1.	24-VOLT POWER SUPPLY OFF	POWER SUPPLY PROVIDES LOSS OF POWER INDICATION TO PLC.	A.	PROVIDE OUTPUT TO SCADA TO ACTIVATE THE ALARM MESSAGE "MAIN POWER SUPPLY OFF".	YES
2.	24-VOLT BACKUP POWER SUPPLY IN SERVICE	AUTOMATIC SWITCHES OVER TO BACKUP POWER SUPPLY.	A.	PROVIDE OUTPUT TO SCADA TO ACTIVATED THE ALARM MESSAGE "BACKUP POWER SUPPLY ACTIVATED"	YES
3.	GENERAL ALARM AT PLC	PLC PROVIDE OUTPUT TO SCADA.	A.	PROVIDE OUTPUT TO SCADA TO ACTIVATE THE MESSAGE "GENERAL ALARM IN RTU" (FROM SELF DIAGNOSTICS)	YES
4.	POWER OR PHASE LOSS	POWER FAILURE RELAY DEACTIVATES AND PFR CONTACT OPENS TO DE-ACTIVATE RELAY PFR AND CONTACTS PFR	A. B.	PROVIDE OUTPUT TO SCADA AND RTU TO ACTIVATE ALARM MESSAGE "POWER FAILURE OR PHASE LOSS" STOP OR PREVENT ALL PUMP MOTORS FROM STARTING UNTIL ALARM IS RESET/CLEARED.	YES
5.	POWER OR PHASE LOSS CLEARED	POWER FAILURE RELAY ACTIVATES AND PFR CONTACT CLOSES TO ACTIVATE RELAY PFR AND CONTACTS PFR	A.	RESET THE VFD GENERAL FAULT ALARM AND ROTATE LEAD PUMP.	
6.	HIGH MOISTURE IN PUMP NO. 1 MOTOR	R3 RELAY ACTIVATES TO CLOSE CONTACT R3	A.	CONTACT R3 CLOSES TO PROVIDE ALARM MESSAGE "HIGH MOISTURE MOTOR NO. 1"TO PLC.	YES
7.	HIGH MOISTURE IN PUMP NO. 2 MOTOR	R4 RELAY ACTIVATES TO CLOSE CONTACT R4	A.	CONTACT R4 OPENS TO PROVIDE ALARM MESSAGE "HIGH MOISTURE MOTOR NO. 2"TO PLC.	YES
8.	MOTOR NO. 1 OVERHEATS	TEMPERATURE SWITCH TS-101 OPENS AND DE-ENERGIZE RELAY R5	A. B.	CONTACTS R5 CLOSES. PROVIDE ALARM MESSAGE "OVER TEMPERATURE ON MOTOR NO. 1" TO PLC. STOP PUMP MOTOR UNTIL ALARM IS RESET/CLEARED BY OPERATOR AND START NEXT AVAILABLE PUMP MOTOR WITH HOA SELECTOR SWITCH IN AUTO.	YES NO
9.	MOTOR NO. 2 OVERHEATS	TEMPERATURE SWITCH TS-102 OPENS AND DE-ENERGIZE RELAY R6	A. B.	CONTACTS R6 OPENS. PROVIDE ALARM MESSAGE "OVER TEMPERATURE ON MOTOR NO. 2" TO PLC. STOP PUMP MOTOR UNTIL ALARM IS RESET/CLEARED BY OPERATOR AND START NEXT AVAILABLE PUMP MOTOR WITH HOA SELECTOR SWITCH IN AUTO.	YES NO
10.	RISING WATER IN WELL REACHES LEVEL SETPOINT NO. 1	LEVEL SETPOINT NO. 1 IS ACTIVATED	A. B.	START TIME MODULE T1. IF TIMER T1 HAS TIMED OUT THEN PROVIDE PERMISSIVE TO CONTROL LOGIC TO ALLOW ALL PUMPS WITH HOA SWITCH IN "AUTO" POSITION TO RUN.	NO NO
11.	FALLING WATER IN WELL GOES BELOW LEVEL SETPOINT NO. 1	LEVEL SETPOINT NO. 1 IS DE-ACTIVATED	A. B.	START TIME MODULE T2. IF TIMER T2 HAS TIMED OUT THEN STOP ALL PUMPS WITH HOA SW. IN "AUTO" POSITION.	NO NO
12.	RISING WATER IN WELL REACHES LEVEL SETPOINT NO. 2	LEVEL SETPOINT NO. 2 IS ACTIVATED.	A. B. C.	START TIME MODULE T3. IF TIMER T3 HAS TIMED OUT THEN START "LEAD" PUMP MOTOR AT MINIMUM SPEED INCREASE LEAD PUMP MOTOR SPEED TO MAINTAIN LEVEL SETPOINT NO. 1	NO NO NO
13.	FALLING WATER IN WELL GOES BELOW LEVEL SETPOINT NO. 2	LEVEL SETPOINT NO. 2 IS DE-ACTIVATED.	A.	MAINTAIN PUMP MOTOR(S) SPEED TO KEEP WATER LEVEL DECREASING	NO
14.	RISING WATER IN WELL REACHES LEVEL SETPOINT NO. 3	LEVEL SETPOINT NO. 3 IS ACTIVATED.	A. B. C.	START TIME MODULE T4. IF TIMER T4 HAS TIMED OUT THEN START "LAG" PUMP MOTOR AT MINIMUM SPEED SLOWLY REDUCE LEAD PUMP MOTOR SPEED AND RAMP UP LAG PUMP MOTOR SPEED UNTIL SPEEDS ARE IDENTICAL, THEN RAMP BOTH PUMP MOTOR SPEEDS TO MAINTAIN A FALLING WATER LEVEL	NO NO NO
15.	FALLING WATER IN WELL GOES BELOW LEVEL SETPOINT NO. 3	LEVEL SETPOINT NO. 3 IS DE-ACTIVATED.	A.	MAINTAIN PUMP MOTOR(S) SPEED TO KEEP WATER LEVEL DECREASING	NO
16.	RISING WATER IN WELL REACHES LEVEL SETPOINT NO. 4	LEVEL SETPOINT NO. 4 IS ACTIVATED.	A. B.	START TIME MODULE T5. IF TIMER T5 HAS TIMED OUT AND LEVEL SETPOINT STILL ACTIVATED PROVIDE ALARM MESSAGE TO SCADA "HIGH WET WELL LEVEL "	NO YES
17.	FALLING WATER IN WELL GOES BELOW LEVEL SETPOINT NO. 4	LEVEL SETPOINT NO. 4 IS DE-ACTIVATED.	A.	CLEAR OR PREVENT ALARM MESSAGE TO SCADA "HIGH LEVEL"	NO
18.	MOTOR NO. 1 HOA SWITCH PLACED IN AUTO POSITION	HS-101 IS ACTIVATED, CLOSES CONTACT HSI-101 AND RELAY R1 IS ACTIVATED TO CLOSE CONTACT R1	A.	NOTIFY PLC LOGIC THAT PUMP MOTOR NO. 1 IS AVAILABLE	NO
19.	H-O-A SWITCH FOR PUMP MOTOR NO. 1 IS PLACED IN HAND POSITION	HS-101 IS DE-ACTIVATED, OPENS CONTACT HSI-101, RELAY R1 IS DE-ACTIVATED AND VFD RUN STATUS IS ACTIVATED. VFD SHALL RUN AT DEFAULT SPEED SETTING UNTIL LEVEL SETPOINT NO. 1 OR LSL-100 IS DE-ACTIVATED.	A.	NOTIFY SCADA THAT PUMP MOTOR NO. 1 IS "RUNNING IN MANUALLY".	NO
20.	H-O-A SWITCH FOR PUMP MOTOR NO. 1 IS PLACED IN OFF POSITION	HS-101 IS DE-ACTIVATED AND OPENS CONTACT HSI-101	A. B.	NOTIFY SCADA THAT PUMP MOTOR NO. 1 IS "OFF OR OUT OF SERVICE". CONTROL LOGIC SHALL REMOVE PUMP FROM CONTROL SEQUENCE AND CONTROL ALL AVAILABLE PUMP MOTORS WITH SELECTOR SWITCH IN THE AUTO POSITION	NO NO
21.	MOTOR NO. 2 HOA SWITCH PLACED IN AUTO POSITION	HS-102 IS ACTIVATED, CLOSES CONTACT HSI-102 AND RELAY R2 IS ACTIVATED TO CLOSE CONTACT R2	A.	NOTIFY PLC LOGIC THAT PUMP MOTOR NO. 2 IS AVAILABLE	NO
22.	H-O-A SWITCH FOR PUMP MOTOR NO. 2 IS PLACED IN HAND POSITION	HS-102 IS DE-ACTIVATED, OPENS CONTACT HSI-102, RELAY R2 IS DE-ACTIVATED AND VFD RUN STATUS IS ACTIVATED. VFD SHALL RUN AT DEFAULT SPEED SETTING UNTIL LEVEL SETPOINT NO. 1 OR LSL-100 IS DE-ACTIVATED.	A.	NOTIFY SCADA THAT PUMP MOTOR NO. 2 IS "RUNNING IN MANUALLY".	NO
23.	H-O-A SWITCH FOR PUMP MOTOR NO. 2 IS PLACED IN OFF POSITION	HS-102 IS DE-ACTIVATED AND OPENS CONTACT HSI-102	A. B.	NOTIFY SCADA THAT PUMP MOTOR NO. 2 IS "OFF OR OUT OF SERVICE". CONTROL LOGIC SHALL REMOVE PUMP FROM CONTROL SEQUENCE AND CONTROL ALL AVAILABLE PUMP MOTORS WITH SELECTOR SWITCH IN THE AUTO POSITION	NO NO
24.	PUMP MOTOR NO. 1 IS STARTED	VFD NO. 1 RUN CONTACT IS ACTIVATED AND ENGERGIZES CONTACT VFD #1.	A. B.	NOTIFY SCADA THAT MOTOR NO. 1 IS RUNNING START MOTOR TOTALIZE RUN TIMER "T7"	NO NO
25.	PUMP MOTOR NO. 2 IS STARTED	VFD NO. 2 RUN CONTACT IS ACTIVATED AND ENGERGIZES CONTACT VFD #2	A. B.	NOTIFY SCADA THAT MOTOR NO. 2 IS RUNNING START MOTOR TOTALIZE RUN TIMER "T8"	NO NO
26.	GENERAL VFD NO. 1 ALARM	VFD NO. 1 GENERAL FAULT ALARM CONTACT (QS-108) CLOSES AND ACTIVATES RELAY R8	A. B.	PROVIDE TO PLC AND SCADA THE ALARM MESSAGE "VFD NO. 1 GENERAL FAULT ALARM ACTIVATED". STOP OR PREVENT PUMP MOTOR NO. 1 START COMMAND AND START NEXT PUMP MOTOR WITH HOA IN AUTO POSITION.	YES NO
27.	GENERAL VFD NO. 2 ALARM	VFD NO. 2 GENERAL FAULT ALARM CONTACT CLOSES (QS-109) AND ACTIVATES RELAY R9	A. B.	PROVIDE TO PLC AND SCADA THE ALARM MESSAGE "VFD NO. 2 GENERAL FAULT ALARM ACTIVATED". STOP OR PREVENT PUMP MOTOR NO. 1 START COMMAND AND START NEXT PUMP MOTOR WITH HOA IN AUTO POSITION.	YES NO

NOTES:

1. ALL INSTRUMENT TAG NUMBERS ARE ARBITRARILY ASSIGNED FOR CLARITY ONLY. IT SHALL BE THE CONTROL SYSTEM PROGRAMMER WHO SHALL BE RESPONSIBLE FOR ASCERTAINING THE ACTUAL EXISTING INSTRUMENT TAG NUMBERS AND THE AVAILABLE NUMBERS REQUIRED TO REPROGRAM THE EXISTING CONTROL SYSTEM TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL EFFLUENT PUMP STATION CONTROL SYSTEM.



SECTION THRU WET WELL

SCALE: NOT TO SCALE

REVISION NO.	DESCRIPTION	DATE	BY:
A	90% SUBMITTAL	12/20/21	NRE
B	ISSUED FOR CONSTRUCTION	2/9/22	NRE
C	REVISED SITE PLAN	3/23/22	NRE

ALABAMA REGISTERED Nicholas Ryan Everett PROFESSIONAL ENGINEER
STAMP VALID ONLY IF SIGNED & DATED

CITY OF FAIRHOPE UTILITIES
FAIRHOPE, ALABAMA

thompson ENGINEERING
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MOBILE, ALABAMA 36606
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FAX: (251) 666-6422

PUMP STATION AND FORCE MAIN IMPROVEMENTS

CONTROL DIAGRAM AND LOGIC

SCALE:	PLOT SCALE:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE :	JOB NO. :	DRAWING NO.	REVISION NO. :
	1:1	NRE	DLU	MCR	DECEMBER 2021	21-1101-0257	E103	C