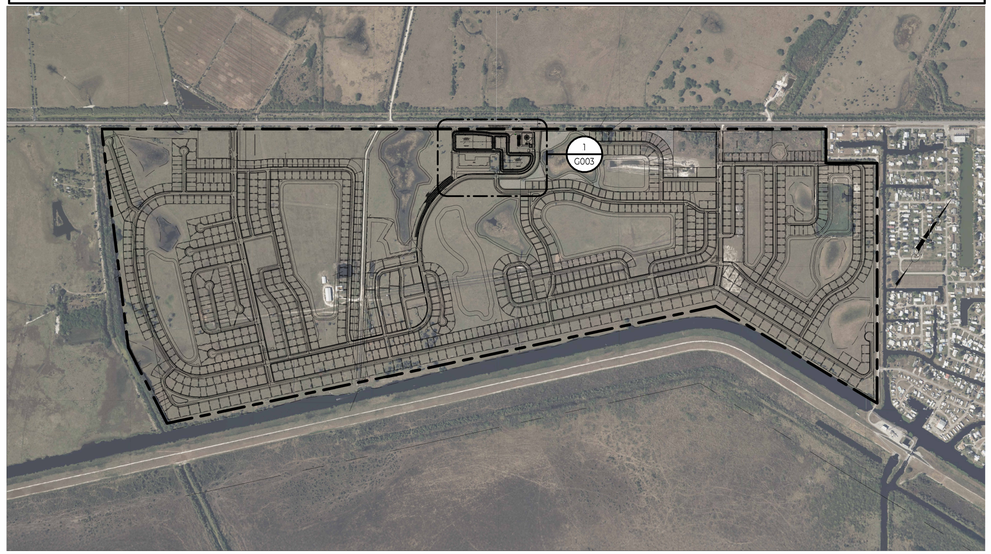
GLADES COUNTY REVIEW PLANS FOR:

LAKEFRONT ESTATES DEVELOPMENT

GLADES COUNTY, FL

POTABLE WATER STORAGE AND PUMPING

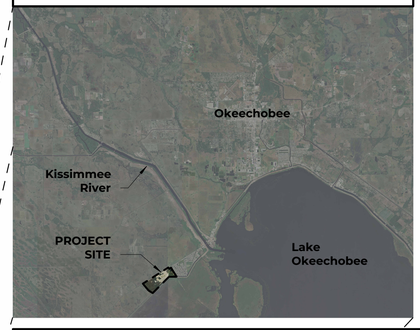
OVERALL SITE PLAN



0 2500' 5000' 10000'
0 8'
1"=825'-0"

NORTH

PROJECT VICINITY MAP



DISCIPLINE CODES

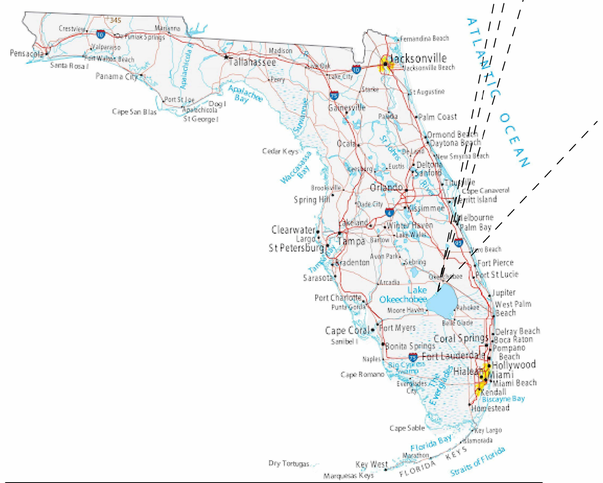
ABBREVIATION	SHEET DISCIPLINE
G	GENERAL
C	CIVIL
PW	POTABLE WATER
E	ELECTRICAL
I	INSTRUMENTATION
M	MECHANICAL
S	STRUCTURAL

DRAWING NUMBERS

000 GENERAL
100 OVERVIEW
200 SCHEMATICS
300 ENLARGED PLANS/SECTIONS/ELEVATIONS
400 DETAILS
500 SPECIFICATIONS
600 DIAGRAMS

DRAWING INDEX

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General	
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G002	GENERAL NOTES
G003	SITE PLAN
G004	GENERAL DESIGNATORS
G005	SYMBOLOGY
G006	ABBREVIATIONS
Civil	
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Potable Water	
PW001	SITE ISOMETRIC
PW101	POTABLE WATER SYSTEM SITE
Structural	
S001	STRUCTURAL GENERAL NOTES & DESIGN CRITERIA
S301	FOUNDATION PADS PLANS & SECTIONS
S401	STRUCTURAL DETAILS
S402	STRUCTURAL DETAILS



PROJECT LOCATION

CONTACT INFORMATION

ENGINEERING FIRM: REGEN, PLLC
ADDRESS: 217 S 11TH STREET, BOISE, ID 83702
PHONE: (208) 297-7712
CONTACT: WALKER NOE, P.E.

OWNER/DEVELOPER: OKEECHOBEE COMMUNITY DEVELOPERS, LLC
ADDRESS: 36 AIRPORT RD, SUITE 402, LAKEWOOD, NJ 08701
PHONE: (863) 333-9400
CONTACT: JEFF AKERMAN

REVIEW AGENCY: FLORIDA DEPARTMENT OF ENVIRONMETAL PROTECTION
ADDRESS: 2295 VICTORIA AVE. #364, FORT MYERS, FL 33901
PHONE: (239) 344-5607
CONTACT:

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217 SOUTH 11TH STREET, BOISE ID 83702

LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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Revision		
No.	Description	Date

Project number	25011
Date	03.11.2026
Drawn by	GB
Checked by	WDN

Agency Review

WALKER NOE LICENSE No 101132 STATE OF FLORIDA PROFESSIONAL ENGINEER 03/12/2026

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COVER SHEET

G001

11/03/2026 08:14:47 p. m.

GENERAL NOTES

GENERAL NOTES

1 THIS SET OF PLANS IS NOT TO BE USED FOR ANY PURPOSE UNLESS ALL SHEETS LISTED IN THE INDEX ARE INCLUDED IN THE SET, SECURELY BOUND AND EACH SHEET PROPERLY CERTIFIED.
2 ANY DEVIATION FROM THESE PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE PROFESSIONAL ENGINEER OF RECORD AND, IF APPLICABLE, FROM THE UTILITY OWNER.
3 THE GENERAL CONTRACTOR FOR THE PROJECT IS HEREBY REQUIRED, AS PART OF THE CONTRACT, TO REVIEW EACH SHEET OF THE SET AND STUDY THEIR CORRELATION PRIOR TO BIDDING & CONSTRUCTION. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND ON THESE PLANS.
4 THE GENERAL CONTRACTOR IS HEREBY REQUIRED TO IMPLEMENT SITE SAFETY AT ALL TIMES PER OSHA.
5 THE GENERAL CONTRACTOR IS HEREBY REQUIRED TO CONTACT ALL PERTINENT UTILITY COMPANIES, FIELD VERIFY THE LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UTILITIES PERTINENT TO THE PROJECT PRIOR TO STARTING CONSTRUCTION.
6 THE CONSTRUCTION SITE SHALL REMAIN FREE OF EXCESS DUST AND DEBRIS AT ALL TIMES. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE. ANY SEDIMENTATION, DUST OR DEBRIS OCCURRING OFF-SITE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CORRECTED WITHIN 24 HOURS OF DISCOVERY.
7 THIS PROJECT FALLS WITHIN THE JURISDICTION OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. CONSTRUCTION SHALL COMMENCE ONLY AFTER APPROVAL OF ALL APPLICABLE PERMITS.
8 ALL WORK TO BE PERFORMED IN SUCH MANNER AS TO ENSURE UNINTERRUPTED OPERATION OF THE SERVICE AREA AND TREATMENT FACILITIES.
9 CHAPTER 556, FLORIDA STATUTES, REQUIRES THE PERMITTEE, PRIOR TO ANY EXCAVATION OR DEMOLITION ACTIVITIES, TO NOTIFY THE ONE-CALL SYSTEM (ALSO CALLED SUNSHINE STATE ONE-CALL). THIS IS TO BE DONE NOT LESS THAN 2, NOR MORE THAN 5, BUSINESS DAYS BEFORE BEGINNING WORK. THE PHONE NUMBER FOR SUNSHINE STATE ONE-CALL, INC. IS 1-800-432-4770.
10 THE CONTRACTOR WILL BE REQUIRED TO SUPPORT POWER POLES WHEN WORKING WITHIN FIVE (5) FEET OF POLES.
11 EROSION CONTROL SHALL BE IN COMPLIANCE WITH NPDES, INSTALLED BEFORE WORK BEGINS, AND SHALL BE INSTALLED ACCORDING TO APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
12 PROJECT ENGINEER, NOR THEIR EMPLOYEES, ARE RESPONSIBLE FOR ON-SITE SAFETY DURING CONSTRUCTION.
13 ALL GROUT FOR PIPE SLEEVES, PATCHING, ETC. TO BE EMBECO NON-SHRINK GROUT OR APPROVED EQUAL.
14 ALL TANKS, TANK SLABS, DIFFUSER ASSEMBLIES, EDUCTORS, ETC. TO BE STANDARD EQUIPMENT FOR THIS PLANT AS FURNISHED BY MANUFACTURERS AND AS INDICATED IN THE CONSTRUCTION NOTES. ALL ITEMS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
15 ONE COMPACTION TEST SHALL BE MADE ON THE PREPARED BASE UNDER EACH TANK PRIOR TO SETTING BASE SECTION. COMPACTION SHALL BE 95 PERCENT OF MAXIMUM DENSITY AT ±2% OPTIMUM MOISTURE CONTENT AS DETERMINED BY LABORATORY STANDARD PROCTOR TEST (ASTM D698-LATEST).
16 LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES SHOWN ON THESE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE PREPARATION OF THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH AND FIELD VERIFY ALL EXISTING UTILITIES, STRUCTURES AND FEATURES AFFECTING THIS WORK, PRIOR TO CONSTRUCTION. ANY DAMAGE TO THE EXISTING FACILITIES WILL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR.
17 ALL CONCRETE WORK TO COMPLY WITH ACI-318, MISC. CONCRETE TO BE A MINIMUM 3,000 PSI @ 28 DAYS. ALL REBAR TO BE A MINIMUM GRADE 60.

DEMOLITION NOTES

1 ALL REMOVED MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER PER LOCAL, STATE AND FEDERAL REGULATIONS.
2 ALL COSTS ASSOCIATED WITH DISPOSAL ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

GENERAL EARTHWORK AND UTILITY INSTALLATION NOTES

1 RECORDED COMPACTION TESTING WILL BE PERFORMED BY THE CONTRACTOR'S GEOTECHNICAL REPRESENTATIVE AND PAID FOR BY THE CONTRACTOR. RESULTS SHALL BE PROVIDED TO THE ENGINEER PRIOR TO INSTALLATION OF ANY STRUCTURES.
2 THE CONTRACTOR MAY PERFORM "NON-RECORD" COMPACTION TESTING AT THEIR OWN EXPENSE.
3 GENERAL FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 12 INCHES (UNCOMPACTED THICKNESS). EACH LIFT SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY PER ASTM D698 (STANDARD PROCTOR, SPD).
4 REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR SUBGRADE PREPARATION REQUIREMENTS.
5 NON-NATIVE FILL MATERIAL SHALL NOT BE USED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
6 STRUCTURAL FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 8 INCHES (UNCOMPACTED THICKNESS). COMPACTION SHALL ACHIEVE 100% OF THE MAXIMUM DRY DENSITY PER ASTM D698 (SPD).
7 SUITABILITY OF ONSITE SUBSURFACE SOILS MUST BE CONFIRMED WITH THE OWNER'S GEOTECHNICAL REPRESENTATIVE.
8 ALL PIPE TRENCHES SHALL COMPLY WITH OSHA 29 CFR 1926.651 AND 1926.652, OR AN OSHA-APPROVED STATE PLAN EQUIVALENT.
9 PIPE BEDDING, TRENCHING AND BACKFILL SHALL BE IN ACCORDANCE WITH ASTM D2321 AND STANDART DETAILS AND ASSOCIATED SPECIFICATION SECTIONS.
10 DEFLECT PIPE AT JOINTS AS NECESSARY TO MEET ELEVATION REQUIREMENTS AND MAINTAIN ALIGNMENT. DO NOT EXCEED MAXIMUM ALLOWABLE DEFLECTION AS SPECIFIED BY THE PIPE MANUFACTURER.
11 ALL BURIED PLASTIC PIPES SHALL INCLUDE 14-GAUGE TRACER WIRE SECURELY FASTENED AT EACH END.
12 ALL PIPELINE ENDS INTENDED FOR FUTURE EXTENSION SHALL BE CAPPED AND PROTECTED PRIOR TO BURIAL.
13 LOCATIONS OF CAPS SHALL BE RECORDED WITH X, Y COORDINATES BASED ON CONSTRUCTION DATUM AND PERMANENTLY MARKED PER PIPE TERMINATION DETAILS.
14 SEPARATION DISTANCES AND PIPE CROSSINGS BETWEEN POTABLE AND NON-POTABLE MAINS SHALL COMPLY WITH THE REQUIREMENTS OF ***F.A.C. 62-610 469(7)(C).***
15 ALL BURIED PIPES SHALL BE PLACED WITH MINIMUM 30" COVER.

SURVEY & STAKING NOTES

1 LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORD INFORMATION.
2 ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO MEAN SEA LEVEL.
3 CONTRACTOR TO SUPPLY ALL NECESSARY CONSTRUCTION STAKING. CONTRACTOR TO COORDINATE WITH OWNER'S SURVEY CONSULTANT PRIOR TO STAKING.

CONSTRUCTION NOTES

1 ALL WATER SYSTEMS AND COMPONENTS WHICH ARE SHOWN TO BE OWNED AND MAINTAINED BY OKEECHOBEE COMMUNITY DEVELOPERS LLC SHALL BE CONSTRUCTED TO THE STANDARDS OF GLADES COUNTY WHERE THOSE STANDARDS EXCEED THOSE SHOWN BELOW.
2 ALL OTHER WATER SYSTEMS AND COMPONENTS SHALL COMPLY WITH THE REQUIREMENTS SHOWN BELOW.
3 PERFORM ALL WORK IN COMPLIANCE WITH STANDARD PLUMBING CODE AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4 MINIMUM STRENGTH FOR ANY CONCRETE ON SITE SHALL BE 3,000 P.S.I. AT 28 DAYS.
5 ALL REINFORCING STEEL SHALL BE A MINIMUM OF #4 DIAMETER REBAR.
6 ALL FLANGED GATE VALVES TO BE O S & Y RISING STEM VALVES COMPLYING WITH AWWA C-509.
7 STEEL PIPE TO BE SCHEDULE 40, GALVANIZED.
8 CLEAN AND SUITABLE MATERIAL SHALL BE USED FOR CONSTRUCTION OF THE TANK FOUNDATION AND SHALL BE COMPACTED TO 98% MAXIMUM DENSITY.
9 PIPE MATERIALS SHALL COMPLY WITH THE REQUIREMENTS AND STANDARDS SHOWN IN THE TABLE OF PIPE AND JOINT SPECIFICATIONS IN IN THESE PLANS.
10 PROVIDE A MINIMUM OF 36" COVER TO TOP OF PIPE FOR ALL FORCEMAIN.
11 GATE VALVES: RESILIENT-SEATED GATE VALVES COMPLYING WITH AWWA C-509.
12 JOIN SOLVENT-WELD PIPE AND FITTINGS IN ACCORDANCE WITH ASTM D2855 MAKING SURE THAT CEMENT IS COMPATIBLE WITH PVC AND FITTINGS SO THAT MATING SURFACES ARE TIGHTLY FUSED.
13 INSTALL RESTRAINING JOINTS AT ALL DIRECTION CHANGES OR DEAD ENDS.
14 ALL PVC PIPE SHALL BE LAID WITH SOLID COPPER WIRE (14-1HFN) ONE (1) FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. A SIX-FOOT (6') PIECE OF 14 GA. WIRE SHALL BE WRAPPED AROUND EACH VALVE NUT AND EXTENDED TO GRADE.
15 ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE SCHEDULES INCLUDED WITHIN THESE PLANS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
16 ANY DISTURBED ON-SITE AREAS SHALL BE RESTORED AND SODDED OR SEEDED AND MULCHED. ALL SODDED AREAS SHALL BE UNDER CUT 2" PRIOR TO INSTALLATION.
17 TEST ALL NEWLY INSTALLED FORCEMAINS IN ACCORDANCE WITH SECTION 4, HYDROSTATIC TESTING OF AWWA C-600 FOR DUCTILE IRON PIPE AND C-605 FOR PVC PIPE. PRESSURE TEST AT 150 PSI MINIMUM FOR A MINIMUM TWO HOUR DURATION.
18 PROVIDE AND KEEP IN OPERATION ENOUGH SUITABLE PUMPING EQUIPMENT (PORTABLE PUMPS AND OR BACK-UP GENERATORS) FOR USE OF THE ENGINEER FOR DEWATERING OF EXCAVATIONS. WHENEVER PIPELAYING IS NOT IN PROGRESS THE PIPE TRENCH SHALL BE LEFT DEWATERED WITH A MINIMUM OF 12" OF WATER. OTHER MEANS APPROVED BY THE ENGINEER. IF THERE IS WATER IN A TRENCH, AND/OR SEWER IN A TRENCH, THE TRENCH WALLS SHOULD BE ALLOWED TO COMPLETELY DRY. TAKE EVERY PRECAUTION TO KEEP WATER OR FOREIGN MATERIAL FROM GETTING INTO THE PIPE WHILE IT IS BEING PLACED IN THE TRENCH.
19 IN THE EVENT THAT ROCK OR OTHER UNSUITABLE MATERIAL IS ENCOUNTERED DURING EXCAVATION, SUCH MATERIAL SHALL BE REMOVED TO A MINIMUM DEPTH OF 6" BELOW THE BOTTOM OF THE PIPE. UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR IN AN APPROPRIATE MANNER. SUITABLE BACKFILL MATERIAL SHALL BE DELIVERED TO THE SITE BY THE CONTRACTOR AND PLACED IN ACCORDANCE WITH THE DETAIL INCLUDED IN THESE PLANS.
20 EXISTING UNDERGROUND FACILITIES SUCH AS TELEPHONE CABLES AND CABLE TV HAVE NOT BEEN LOCATED AND ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CALL FOR UTILITY LOCATORS TO ARRANGE FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY PERCEIVED CONFLICTS BETWEEN PROPOSED AND EXISTING FACILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN SUCH A MANNER AS TO MAINTAIN EXISTING FACILITIES. ANY DAMAGE TO SUCH FACILITIES SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR.
21 ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, INSTALLED UNDER THIS PROJECT WILL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
22 A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE. INSTALLED UNDER THIS PROJECT, BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT DEPTH ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. AND UNSUITABLE SIZE STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS) SHALL BE REMOVED FROM EXCAVATED TRENCHES. IF FREEZE AND GROUND IN TRENCHES SHALL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
23 ALL FORCEMAIN TEES, BENDS, PLUGS, AND VALVES INSTALLED UNDER THIS PROJECT SHALL BE PROVIDED WITH RESTRAINTS SUFFICIENT ENOUGH TO PREVENT MOVEMENT. ALL PVC PIPING SHALL USE CONCRETE THRUST BLOCKING TO PREVENT MOVEMENT.
24 NEW OR ALTERED FORCEMAINS THAT ARE INCLUDED IN THIS PROJECT SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 AND AWWA C605, AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-555.330.

INSPECTION NOTES

1 THE ENGINEER SHALL INSPECT THE SITE AND EVALUATE WEATHER CONDITIONS PRIOR TO THE BEGINNINGOF CONSTRUCTION TO VERIFY THAT THE WEATHER CONDITIONS ARE SUITABLE TO BEGIN CONSTRUCTION. THE SOIL MOISTURE SHALL NOT BE SO HIGH AS TO HAVE THE SOIL SMEAR OR COMPACT DUE TO CONSTRUCTION ACTIVITIES.
2 THE ENGINEER SHALL VERIFY WITH THE CONTRACTOR THE PROPER STAKING OF THE SYSTEM PRIOR TO ANY CONSTRUCTION. THE SYSTEM DETAILS, CONFIGURATION, LOCATION, CONTOUR, ETC. SHALL BE VERIFIED. THE LAYOUT AND STAKING OF THE SYSTEM SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS.
3 THE MAJOR INSPECTION EVENTS ARE AS FOLLOWS:
   1. TANK BEDDING AND BACKFILL
   2. TANK WATER-TIGHTNESS TEST
   3. TRANSPORT PIPING PRESSURE TEST
   4. PUMP CYCLE AND OPERATION TEST
   5. FINAL INSPECTION OF PUMPS, FLOATS, ALARMS, CONTROLS, ETC.
4 ADDITIONAL INTERIM INSPECTIONS MAY BE REQUIRED PRIOR TO COVERING ANY ELEMENTS OF THE SYSTEM, AT THE DISCRETION OF THE ENGINEER AND/OWNER.
5 A FINAL INSPECTION OF THE COMPLETED SYSTEM SHALL BE MADE BY THE ENGINEER, OWNER, MANUFACTURER, SERVICE PROVIDER, AND REGULATORY AGENT. THE ENGINEER SHALL VERIFY, IN WRITING TO THE OWNER, THAT ALL CONSTRUCTION IS IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
6 AN ACCURATE AS-BUILT PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUPPLIED TO THE ENGINEER PRIOR TO FINAL INSPECTION OF THE SYSTEM. THE ENGINEER SHALL FORWARD THE AS-BUILT PLANS WITH HIS APPROVED SIGNATURE, TOGETHER WITH A COPY OF THE FINAL OPERATION AND MAINTENANCE MANUAL, TO THE OWNER AND SERVICE PROVIDER WITHIN 10 DAYS OF PROJECT COMPLETION.

EROSION CONTROL & WEED MANAGEMENT NOTES

1 CONTRACTOR SHALL CLEAN ALL EQUIPMENT PRIOR TO ENTERING THE SITE.
2 IMPORTED FILL SHALL BE OBTAINED FROM A WEED-FREE SOURCE.
3 ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES AND FORBES AND MAINTAINED IN A PREDOMINANTLY WEED-FREE CONDITION PER THE FOLLOWING METHODS:
   1. GRADING: WHERE PRACTICAL, GRADE TO PERMIT THE USE OF EQUIPMENT FOR SEED-BED PREPARATION, SEEDING, AND MAINTENANCE.
   2. APPLY FERTILIZER UNIFORMLY OVER AREA TO BE REVEGETATED.
   3. USE A HARROW TO LOOSEN THE SOIL AND WORK THE FERTILIZER INTO THE SOIL.
   4. BROADCAST THE SPECIFIED SEED MIX ONTO THE PREPARED AREA.
   5. AREA NOT ACCESSIBLE TO EQUIPMENT SHOULD BE HAND-APPLIED USING SIMILAR TECHNIQUES.
   6. DRAG THE SEEDED AREA TO PROVIDE A LIGHT COVER OF SOIL OVER THE SEEDS.
   7. MULCH SEEDED AREA WITH A CERTIFIED WEED-FREE STRAW MULCH AND MULCH TACKIFIER AT A RATE OF 1 1/2 TONES PER ACRE.
   8. WATER THE SEEDED AREA TO PROVIDE INITIAL MOISTURE TO THE SEEDS AND SOIL.
   9. IN AREAS WHERE A CENTRAL WATER SYSTEM IS AVAILABLE, IT IS RECOMMENDED TO WATER THE SEEDED AREAS TO IMPROVE AND ACCELERATE THE SEED GERMINATION.
   10. CONTRACTOR SHALL COMPLY WITH STORMWATER POLLUTION PREVENTION PLAN AND MAINTAIN A COPY ON SITE AT ALL TIMES.

DRY UTILITIES NOTES

1 DRY UTILITIES (ELECTRICITY, TELEPHONE, GAS, CABLE TV) SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY COMPANIES IN THE TIMING, LOCATION, AND INSTALLATION OF UTILITIES.

DRY UTILITIES NOTE:
DRY UTILITIES (ELECTRICITY, TELEPHONE, GAS, CABLE TV) SHOWN HEREON ARE APPROXIMATE. DESIGN SHALL BE BY THE SURVEYORS, AND INSTALLATION PAID FOR BY OWNER. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY COMPANIES IN THE TIMING AND INSTALLATION OF UTILITIES.

CALL 48 HOURS BEFORE YOU DIG IN FLORIDA, IT'S THE LAW.

Sunshine811

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LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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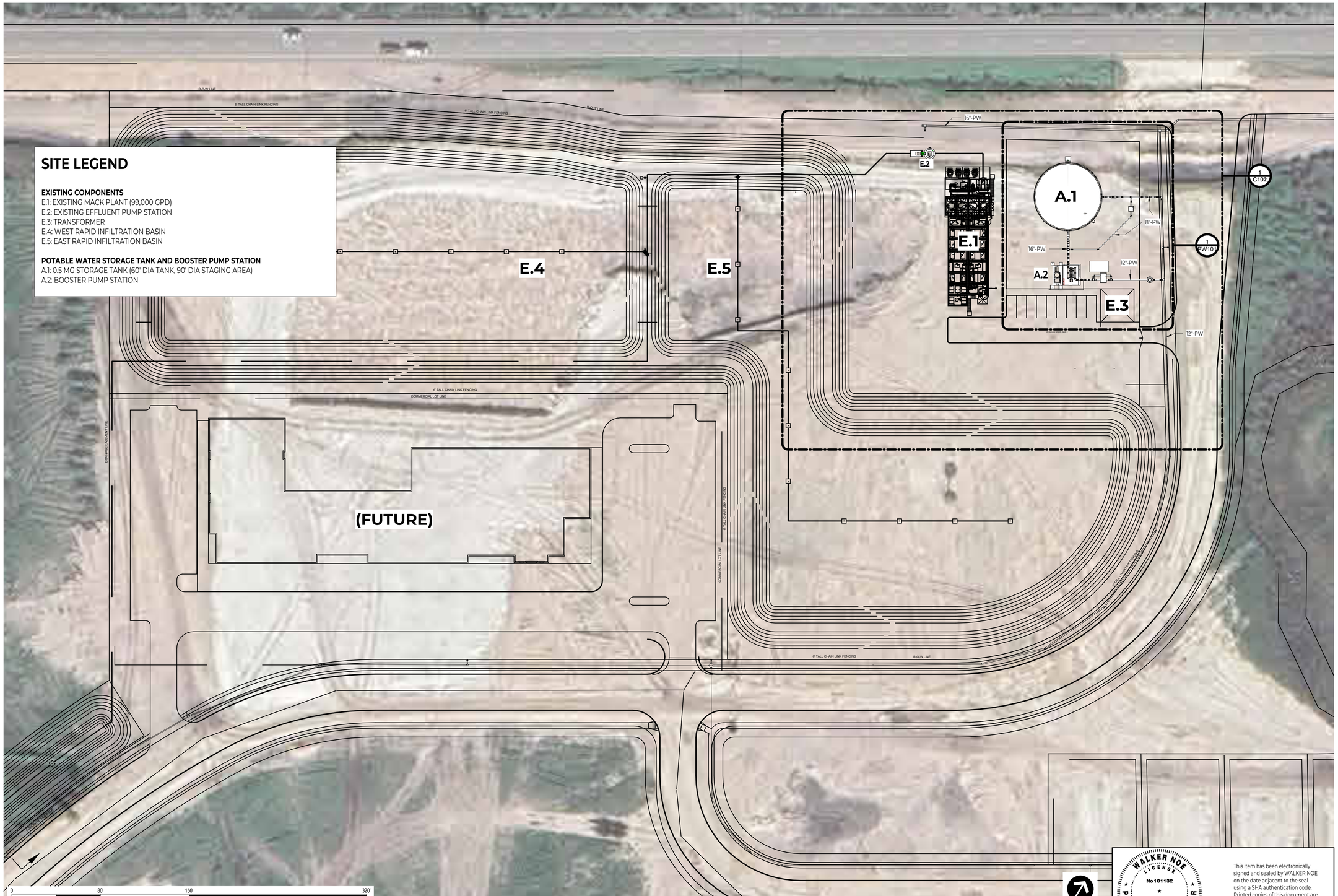
Agency Review

GENERAL NOTES

G002

11/03/2026 08:12:26 p. m.

OVERALL SITE PLAN



SITE LEGEND

EXISTING COMPONENTS
E.1: EXISTING MACK PLANT (99,000 GPD)
E.2: EXISTING EFFLUENT PUMP STATION
E.3: TRANSFORMER
E.4: WEST RAPID INFILTRATION BASIN
E.5: EAST RAPID INFILTRATION BASIN

POTABLE WATER STORAGE TANK AND BOOSTER PUMP STATION
A.1: 0.5 MG STORAGE TANK (60' DIA TANK, 90' DIA STAGING AREA)
A.2: BOOSTER PUMP STATION

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SITE PLAN

G003

11/03/2026 08:12:30 p. m.

GENERAL DESIGNATORS

DAWINGS ARE NUMBERED AS FOLLOWS:

SHEET:

034 (SHEET NUMBER IN SET)

DRAWING:

WP DI 101

- WP — DRAWING NUMBER
- DI — TREATMENT PROCESS AREA CODE (OPTIONAL)
- 101 — DISCIPLINE CODE

DRAWING TAG

P-LS1-001A-1

- P — EQUIPMENT / INSTRUMENT / VALVE DESIGNATOR
- LS — PROCESS AREA DESIGNATOR
- 001 — NUMERICAL IDENTIFIER
- A — DESIGNATOR FOR UNITS IN PARALLEL (OPTIONAL)
- 1 — DESIGNATOR FOR UNITS IN SERIES (OPTIONAL)

EQUIPMENT DESIGNATIONS

NEW PIPING: 6"-PS-PVC4

- 6" — NOMINAL PIPE DIAMETER (IN)
- PS — PIPE SYSTEM
- PVC4 — PIPE SERVICE

EXISTING PIPING: 6"-PS-PVC4

PIPING DESIGNATIONS

PROCESS CODE	PROCESS DESCRIPTION	SUBPROCESS NUMERICAL IDENTIFIERS			SUBPROCESS DESCRIPTION
PW	POTABLE WATER	001	to	100	TANK INTAKE
		101	to	200	POTABLE WATER STORAGE TANK
		201	to	300	BOOSTER PUMP STATION
CL	DISINFECTION	001	to	100	RE-CHLORINATION

DETAIL IDENTIFICATION

- DETAIL NUMBER
- SHEET NUMBER WHERE DETAIL DRAWING IS LOCATED

1 / XXXX

SECTION CALLOUT

- INDICATES MODULE WHERE SECTION IS SHOWN
- ARROW INDICATES DIRECTION OF SECTION CUT
- INDICATES WHERE SECTION IS SHOWN

A / XXXX

SECTION DETAIL

- SECTION/DETAIL IDENTIFIER
- DRAWING FROM WHICH SECTION/ DETAIL IS TAKEN

1 / XXXXX

EXAMPLE

SCALE: NOT TO SCALE

STANDARD DETAILS

- TYPE (IF INCLUDED IN STANDARD DETAIL)
- C-01000[A]
- INDICATES DISCIPLINE CODE AND STANDARD DETAIL NUMBER. EXAMPLE SHOWN IS CIVIL DETAIL

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03/12/2026

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GENERAL DESIGNATORS

G004

11/03/2026 08:12:30 p. m.

SYMBOLOGY

MECHANICAL EQUIPMENT SYMBOLS

- CENTRIFUGAL PUMP OR BLOWER
- SUBMERSIBLE PUMP
- VERTICAL PUMP
- GEAR PUMP
- GRINDER
- ROTARY LOBE PUMP
- PROGRESSIVE CAVITY PUMP
- METERING PUMP
- COMPRESSOR
- LIQUID INTAKE FILTER
- MIXER
- VARIABLE FREQUENCY CONTROLLER
- GENERATOR
- TANK
- GRINDER
- HEATER EXCHANGER
- COOLING COIL
- HEATING COIL
- EYE WASH SHOWER
- SOLID STATE STARTER
- LOUVER
- DAMPER
- HVAC AIR FILTER
- POSITIVE PRESSURE
- NEGATIVE PRESSURE
- MOTOR
- CHEMICAL METERING PUMP
- BIDIRECTIONAL PUMP
- CHEMICAL STORAGE TANK
- UV MODULE

MECHANICAL NOTES:

1. MECHANICAL MATERIAL/EQUIPMENT SHOWN IS FOR SCHEMATIC PURPOSES. CONTRACTOR IS RESPONSIBLE FOR CORRECT QUANTITIES AND DIMENSIONS. CONSULT MANUFACTURER'S DETAIL DRAWINGS FOR DIMENSIONS AND INSTALLATION DETAILS.
2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND ELEVATIONS AND CROSS REFERENCE THESE WITH ALL OTHER EQUIPMENT AND TRADES ASSOCIATED WITH THE WORK TO ENSURE PROPER INSTALLATION, OPERATION, ALIGNMENT, MOUNTING REQUIREMENTS, CONNECTION DETAILS, ETC. SUBMIT MANUFACTURER'S CONNECTION DETAILS AND SHOP DRAWINGS PER THE SPECIFICATIONS.
3. CLEAN, PRIME, AND COAT ALL NEW EXPOSED METAL, PIPING, FITTINGS, AND OTHER EQUIPMENT PER THE SPECIFICATIONS.
4. PIPE SUPPORTS AND HANGERS SHOWN ARE A GENERALIZATION. PIPE SUPPORTS SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED WITH THE PIPING SHOP DRAWINGS. PROVIDE PIPE SUPPORTS AND HANGERS IN ACCORDANCE WITH THE STANDARD DETAILS AND AS REQUIRED TO ADEQUATELY SUPPORT AND STABILIZE THE PIPING.
5. SEE CIVIL PLANS FOR CONTINUATION OF PIPING FROM INDIVIDUAL BUILDINGS AND STRUCTURES.
6. PROVIDE RESTRAINED JOINTS ON ALL EXPOSED PIPING.
7. CONTRACTOR'S ATTENTION IS DIRECTED TO THE P&ID DRAWINGS FOR PROCESS INFORMATION AND EQUIPMENT / INSTRUMENTATION / CONTROL INERACTION. P&ID DRAWINGS ARE NOT INTENDED TO SHOW MECHANICAL PIPING AND FITTING DETAILS UNLESS SPECIFICALLY NOTED AND REFERENCED ELSEWHERE. IN THE CASE OF CONFLICT BETWEEN P&ID AND MECHANICAL, ELECTRICAL, STRUCTURAL, OR ARCHITECTURAL DRAWINGS, THE MOST STRINGENT REQUIREMENT SHALL PREVAIL.

PRIMARY ELEMENT SYMBOLS

- ORIFICE PLATE
- VENTURI OR FLOW TUBE
- AVERAGING PITOT TUBE
- DOPPLER OR ULTRASONIC FLOW METER
- PROPELLER OR TURBINE METER
- MAGNETIC FLOW ELEMENT
- FLUME
- WEIR
- FLOW METER (HYDRONIC)
- VARIABLE AREA FLOWMETER (ROTAMETER)
- RUPTURE DISC
- MANUAL RESET
- DIAPHRAGM SEAL
- ANNULAR SEAL
- TEMPERATURE WELL
- DISPLACER FLOAT SWITCH
- GUIDED FLOAT SWITCH
- VENTED PORT BALL VALVE
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER

PIPE LINE DEVICE SYMBOLS

- SLIDE GATE
- STOP GATE
- WEIR GATE
- INJECTOR
- FILTER OR SEPARATOR
- CAP OR PLUG
- BUND FLANGE
- STRAINER
- BACK FLOW PREVENTER
- OPEN SYSTEM DRAIN
- PIPED TO DRAIN
- VENT
- STEAM TRAP W/BYPASS
- PIPE FLANGE CONNECTION TO TANK
- PULSATION DAMPENER
- PIGTAIL COUPLING
- FLEXIBLE COUPLING
- EXPANSION JOINT
- HEAT TRACING
- QUICK DISCONNECT COUPLING
- CALIBRATION COLUMN
- LIQUID LEVEL
- PRESSURE GAUGE
- ROTAMETER
- SIGHT GLASS
- ULTRASONIC
- RADIO ULTRASONIC

VALVE AND ACTUATOR SYMBOLS

- FLAP GATE
- KNIPE GATE
- THREE-WAY VALVE
- PINCH VALVE
- GLOBE VALVE
- SWING CHECK VALVE
- BALL CHECK VALVE
- NEEDLE VALVE
- TRUE UNION
- COUPLING
- PRESSURE RELIEF VALVE
- VACUUM RELIEF VALVE
- FLOAT VALVE (F.O. - FAIL OPEN, F.C. - FAIL CLOSED)
- PRESSURE REGULATING VALVE
- PRESSURE SUSTAINING VALVE
- SOLENOID OPERATING VALVE
- MOTOR OPERATED VALVE
- MUD VALVE
- MANUAL VALVE OPERATOR
- PISTON OPERATED VALVE
- DIAPHRAGM OPERATED VALVE
- FLOW BALANCING VALVE (HYDRONIC)
- FLOW STRAIGHTENING VALVE
- PRESSURE REGULATOR
- TELESCOPING VALVE
- PNEUMATIC ACTUATED BUTTERFLY VALVE
- AIR RELEASE VALVE

	NORMALLY CLOSED (N.C.)	NORMALLY OPEN (N.O.)
BALL VALVE		
PLUG VALVE		
BUTTERFLY VALVE		
GATE VALVE		
DIAPHRAGM VALVE		

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POTABLE WATER STORAGE AND PUMPING

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SYMBOLOGY

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ABBREVIATIONS

EQUIPMENT ABBREVIATIONS

AB	AERATION BASIN
AC	AIR COMPRESSOR
ACF	ACTIVATED CARBON FILTER
ACU	AIR CONDITIONING UNIT
AER	AERATOR
AHU	AIR HANDLING UNIT
B	BLOWER
BC	BRIDGE CRANE
BFL	BAFFLE
BFP	BELT FILTER PRESS
BLR	BOILER
BTF	BACKTRICKLING FILTER
C	CENTRIFUGE, CYCLONE
CC	CALIBRATION COLUMN
CCU	COMPRESSOR CONDENSING UNIT
CD	CONDENSER
CDM	CATALYTIC DESTRUCT MODULE
CF	CARTRIDGE FILTER
CH	CHILLER
CHL	CHLORINATOR
CIP	CLEAN-IN-PLACE
CL	CLARIFIER
COND	CONDENSATE DRAIN
CONV	CONVEYOR
CORS	CATALYTIC OXYGEN REMOVAL SYSTEM
CR	CRYSTALLIZER
CS	COARSE SCREEN
DAF	DISSOLVED AIR FLOTATION
DMF	DUAL MEDIA FILTER
DMP	DUMPSTER
DR	AIR DRIER
ED	EDUCTOR
EAF	ENTRAPPED AIR FLOTATION
EMO	ELECTRIC MOTOR OPERATOR/ACTUATOR
EUH	ELECTRIC UNIT HEATER
EV	EVAPORATOR
EXF	EXHAUST FAN
F	FAN
FDA	FORCED DRAFT AERATOR DEGASIFIER
FLTR	FILTER
FS	FLOW SWITCH
FSC	FINE SCREEN
GAC	GRANULAR ACTIVATED CARBON
GCH	GRIT CHAMBER
GD	GRAVITY DAMPER
GDW	GRIT DEWATERING
GEN	GENERATOR
GF	GRAVITY FILTER
GUH	GAS UNIT HEATER
GWC	GRIT WASHER/CLASSIFIER
H	HEATER
HB	HOSE BIB
HF	HEPA FILTER
HPD	HYDRAULIC PRESSURE BOOSTER
HST	HOIST
HTR	HEATER
HXR	HEAT EXCHANGER
IAS	INSTRUMENT AIR SUPPLY
IQ	INJECTION QUILL
ICV	INJECTION CHECK VALVE
IE	ION EXCHANGER
LM	LAMP MODULE
M	MOTOR
MABR	MAKEUP AIR UNIT
MAU	MEMBRANE AERATED BIOREACTOR
MBR	MEMBRANE BIOREACTOR
MD	MOTORIZED DAMPER
ME	MISCELLANEOUS EQUIPMENT
MH	MANHOLE
ML	MUFFLER/SILENCER
MMF	MULTIMEDIA FILTER
MOD	MODULE
MOV	MOTOR OPERATED VALVE
MXR	MIXER
OC	OXYGEN CONCENTRATOR
OCF	ODOR CONTROL FAN
OCS	ODOR CONTROL SYSTEM
OZ	OZONATOR
OZG	OZONE GENERATOR
P	PUMP
PXR	PREESURE EXCHANGER
RDT	ROTARY DRUM THICKENER
RP	ROTARY PRESS
RT	RESIN TRAP
SC	SCREENINGS COMPACTOR
SCP	SCREW PRESS
SCR	SCREENINGS COMPACTOR
SFT	SOFTENER
SG	SLIDE/WEIR GATE
SKM	SKIMMER
SMP	SAMPLER
ST	STEAM TRAP
STG	STOP GATE
STK	MEMBRANE STACK
STR	STRAINER
SUF	SUPPLY FAN
TK	TANK
TRB	TURBINE
UV	ULTRAVIOLET
V	VENT
VB	VACUUM BREAKER
VD	VACUUM DEGASIFIER
VFC	VARIABLE FREQUENCY CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
WG	WEIR GATE
WH	WATER HEATER

PIPE SERVICE ABBREVIATIONS

ABDN	ABANDONED
ALP	AIR, LOW PRESSURE
CD	CHEMICAL DRAIN
CE	CHLORINATED EFFLUENT
CL	CHLORINE LIQUID (NEAT)
CLS1	SODIUM HYPOCHLORITE SOLUTION (DISINFECTION)
DR	DRAIN
EQE	EQUALIZATION EFFLUENT
FM	FORCEMAIN
GR	GRIT
MGH	MAGNESIUM HYDROXIDE
MGHS	MAGNESIUM HYDROXIDE SOLUTION
ML	MIXED LIQUOR
NG	NATURAL GAS
NPW	NON-POTABLE WATER
OF	OVERFLOW
PE	PRIMARY EFFLUENT
PI	PRIMARY INFLUENT
POL	POLYMER
PW	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
RAS/WAS	RETURN ACTIVATED SLUDGE AND WASTE ACTIVATED SLUDGE
SBS	SODIUM BISULFITE SOLUTION
SBSN	SODIUM BISULFITE SOLUTION (NEAT)
SCM	SCUM
SE	SECONDARY EFFLUENT
SI	SCREENED INFLUENT
SN	SUPERNATANT
SS	SANITARY SEWER
STRM	STORM DRAIN
TS	TERTIARY SLUDGE
VNT	VENT
WAS	WASTE ACTIVATED SLUDGE
WAS/SCM	WASTE ACTIVATED SLUDGE AND SCUM

PIPE MATERIAL ABBREVIATIONS

AC	ASBESTOS CEMENT
CI	CAST IRON
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE PIPE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
GLDI	GLASS LINED DUCTILE IRON
HDPE	HIGH DENSITY POLYETHYLENE
PE	POLYETHYLENE
PEX	CROSSLINED POLYETHYLENE
PVC	POLYVINYL CHLORIDE
PP	POLYPROPYLENE
RCP	REINFORCED CONCRETE PIPE
SST	STAINLESS STEEL
STL	STEEL
VCP	VITRIFIED CLAY PIPE

VALVE TYPES/ABBREVIATIONS

ARV	AIR RELEASE VALVE
BFV	BUTTERFLY VALVE
BV	BALL VALVE
CB	CIRCUIT BALANCING VALVE
CV	CHECK VALVE
DPV	DIAPHRAGM VALVE
FCV	FLOW CONTROL VALVE
FLV	FLAP VALVE
GL	GLOBE VALVE
GV	RESILIENT SEAT GATE VALVE
KGV	KNIFE GATE VALVE
MV	MUD VALVE
NV	NEEDLE VALVE
PIV	PINCH VALVE
PRV	PRESSURE REGULATING OR PRESSURE RELIEF VALVE
PSV	PRESSURE SUSTAINING VALVE
PV	PLUG VALVE
SGV	SHEAR GATE VALVE
SV	SOLENOID VALVE

COMMONLY USED ABBREVIATIONS

ABC	AGGREGATE BASE CONCRETE
ABDN	ABANDON
ACFM	ACTUAL CUBIC FEET PER MINUTE
ACH	AIR CHANGES PER HOUR
ADF	AVERAGE DAY FLOW
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATM	ATMOSPHERE
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
AWS	AVERAGE WATER SURFACE
BFD	BUTTERFLY DAMPER
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BM	BENCH MARK
BOW	BOTTOM OF WALL
BSW	BACK OF SIDEWALK
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C-C	CENTER TO CENTER
CDF	CONTROLLED DENSITY FILL
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL, C/L	CENTER LINE
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CM	CEMENT MORTAR, CENTIMETER
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT (GRAVITY)
CONC	CONCRETE
COND	CONDENSATE DRAIN
CSBC	CRUSHED SURFACE BASE COURSE
CSTC	CRUSHED SURFACE TOP COURSE
CY	CUBIC YARD
D	DELTA ANGLE
DI	DUCTILE IRON
DIA	DIAMETER
DO	DISSOLVED OXYGEN
DR	DRAIN
DX	DIRECT EXPANSION
EG	EDGE OF GRAVEL, EXISTING GRADE
ELB	ELBOW
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXST	EXISTING
EXT	EXTERIOR
FA	FOUL AIR
FC	FAIL CLOSED
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FL	FLANGE, FLOW LINE
FO	FAIL OPEN
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FT	FEET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
GND	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
HGL	HYDRAULIC GRADE LINE
HMA	HOT MIX ASPHALT
HMI	HUMAN MACHINE INTERFACE
HOA	HAND OFF AUTO
HP	HORSEPOWER, HIGH POINT
HR	HOUR
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
ICFM	INLET CUBIC FEET PER MINUTE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IMP	INSULATED METAL PANELS
IN	INCHES
K	K-VALUE
L	LENGTH
LB	POUND
LF	LINEAR FOOT (FEET)
LP	LIQUID PETROLEUM, LOW POINT
LP	LIQUID PETROLEUM, LOW POINT
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
LWL	LOW WATER LEVEL
MAX	MAXIMUM
MABR	MEMBRANE AERATED BIOREACTOR
MBR	MEMBRANE BIOREACTOR
MCC	MOTOR CONTROL CENTER
MDF	MAXIMUM DAY FLOW
MF	MEMBRAE FILTRATION, MICROFILTRATION
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MG/L	MILLIGRAMS PER LITER
MH	MANHOLE
MIN	MINIMUM, MINUTE
MJ	MECHANICAL JOINT
ML	MILLILITER. MIXED LIQUOR
MLSS	MIXED LIQUOR SUSPENDED SOLIDS
MMF	MULTIMEDIA FILTER, MAX MONTH FLOW
MPT	MALE PIPE THREAD
NC	NORMALLY CLOSED
NF	NANOFILTRATION
NO	NORMALLY OPEN
NPW	NON-POTABLE WATER
NTS	NOT TO SCALE
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OD	OUTSIDE DIAMETER
OF	OVERFLOW
ORP	OXIDATION REDUCTION POTENTIAL
OSA	OUTSIDE AIR
PCF	POUNDS PER CUBIC FOOT
PCO	PRESSURE CLEANOUT
PEMB	PRE-ENGINEERED METAL BUILDING
P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
PG	PROFILE GRADE
PL	PLATE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PSI	POUNDS PER SQUARE INCH
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R/W,	ROWRIGHT OF WAY
RA	RETURN AIR
REV	REVISION
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
RJ	RESTRAINED JOINT
RLS	REFRIGERANT LIQUID SUPPLY
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RSR	REFRIGERANT SUCTION RETURN
RT	RIGHT
SAN	SANITARY
SCFM	STANDARD CUBIC FEET PER MINUTE
SCHD	SCHEDULE
SIM	SIMILAR
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SST	STAINLESS STEEL
STA	STATION
STL	STEEL
SWD	SIDE WATER DEPTH
TA	TREATED AIR
TBC	TOP BACK OF CURB
TBM	TEMPORARY BENCHMARK
TO	TOP OF
TOB	TOP OF BANK
TOC	TOP OF CONCRETE, TOP OF CURB
TOF	TOP OF FOOTING
SOG	TOP OF GRAVEL, TOP OF GRATING
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UD	UNDERDRAIN
UF	ULTRAFILTRATION
UNO	UNLESS NOTED OTHERWISE
UP	UNDERGROUND POWER
UPS	UNINTERRUPTIBLE POWER SUPPLY
UT	UNDERGROUND TELEPHONE / COMMUNICATIONS
UVI	ULTRAVIOLET INTENSITY
UVT	ULTRAVIOLET TRANSMITTANCE
V	VENT
VFC	VARIABLE FREQUENCY CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
W	WATER
WC	WATER COLUMN
WL	WATER LEVEL
WSE	WATER SURFACE ELEVATION
YH	YARD HYDRANT

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Revision

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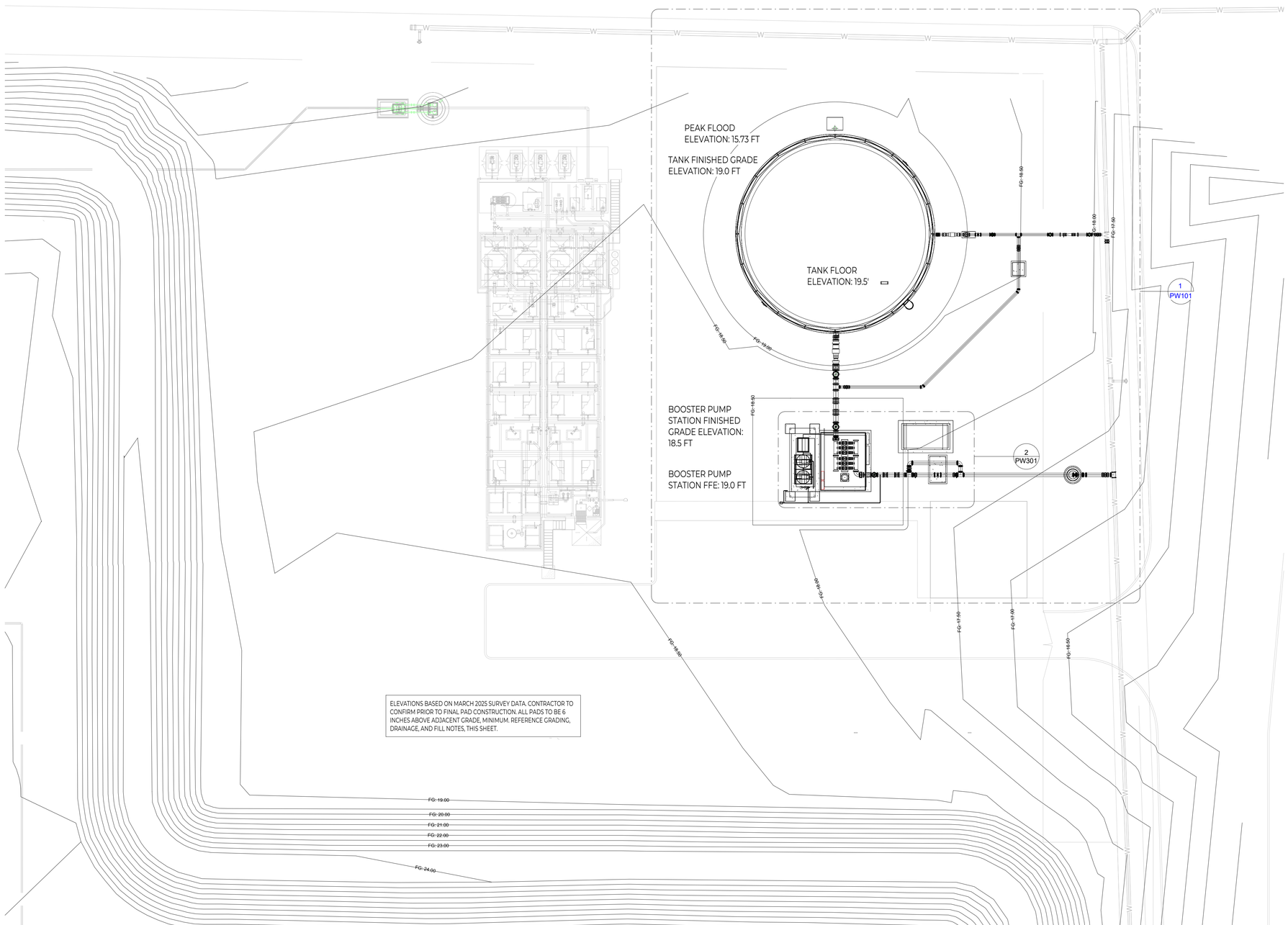
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ABBREVIATIONS

G006

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ELEVATIONS BASED ON MARCH 2025 SURVEY DATA. CONTRACTOR TO CONFIRM PRIOR TO FINAL PAD CONSTRUCTION. ALL PADS TO BE 6 INCHES ABOVE ADJACENT GRADE, MINIMUM. REFERENCE GRADING, DRAINAGE, AND FILL NOTES, THIS SHEET.

PROJECT IS LOCATED IN FEMA FLOOD ZONE "X" PER FIRM PANELS 12043C0070D & 12043C0250D PER ERP APPLICATION BY SLD ENGINEERING, FLOOD ELEVATIONS FOR PHASE 1 OF THE PROJECT (INCLUDING TANK AND BOOSTER STATION SITE) ARE AS FOLLOWS:

1. 100-YEAR, 72-HOUR STORM (11.0") PEAK STAGE ELEVATION = 15.73 FT (NAVD88)
2. 25-YEAR, 72-HOUR STORM (9.0") PEAK STAGE ELEVATION = 15.29 FT (NAVD88)

TANK AND BOOSTER SITE FINISHED GRADE IS APPROXIMATELY 19.0 FT (NAVD88)

0 32' 64' 128'
0 8'
1/16" = 1'-0"

NORTH

SITE PLAN AND GRADING NOTES

GENERAL REQUIREMENTS & SITE PREPARATION

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS, CONSTRAINTS, AND UTILITY LOCATIONS PRIOR TO BIDDING OR CONSTRUCTION.
2. SUBSURFACE CONDITIONS ARE BASED ON THE GEOTECHNICAL INVESTIGATION BY ATLAS TECHNICAL CONSULTANTS (PROJECT NO. 2552080001) DATED OCTOBER 7, 2021. THE CONTRACTOR SHALL REVIEW THE FULL REPORT PRIOR TO MOBILIZATION.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION, AND FOR ALL SAFETY PRECAUTIONS.
4. THE CONTRACTOR SHALL CLEAR AND GRUB THE TANK AND BOOSTER STATION FOOTPRINT PLUS A MINIMUM 10-FOOT MARGIN. REMOVE ALL VEGETATION, ROOTS, TOPSOIL, DEBRIS, AND ASPHALT/CONCRETE FROM THE SURFACE.
5. THE GEOTECHNICAL REPORT INDICATES THE POTENTIAL PRESENCE OF "GATOR MUCK" (ORGANIC SOILS UP TO 3 FEET DEEP). IF ENCOUNTERED, ALL MUCK MUST BE EXCAVATED AND REPLACED WITH CLEAN, FREE-DRAINING GRANULAR FILL.
6. THIN LAYERS OF HARD WEATHERED LIMESTONE WERE ENCOUNTERED IN BORINGS AT APPROXIMATELY 2.0 FEET BELOW LAND SURFACE. THE CONTRACTOR SHALL ANTICIPATE POTENTIAL DIFFICULTY IN EXCAVATION.

GRADING, DRAINAGE, AND FILL

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ESTABLISHING AND MAINTAINING POSITIVE DRAINAGE ACROSS THE SITE AT ALL TIMES. DO NOT ALLOW WATER TO POND AGAINST FOUNDATIONS OR WITHIN EXCAVATIONS.
2. FINISH GRADE SHALL SLOPE AWAY FROM THE TANK AND BOOSTER STATION FOUNDATIONS AT A MINIMUM OF 5% (5/8 INCH PER FOOT) FOR THE FIRST 10 FEET, AND 2% THEREAFTER, OR AS SHOWN ON THE PLAN.
3. DUE TO SHALLOW GROUNDWATER, THE GEOTECHNICAL ENGINEER RECOMMENDS THE SITE BE RAISED UP TO 2 FEET WITH FILL.
4. PRIOR TO PLACING FILL, THE EXPOSED NATURAL GROUND SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK OR VIBRATORY ROLLER (MINIMUM 3 PASSES) IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER.
5. ANY AREAS EXHIBITING "PUMPING" OR "YIELDING" DURING PROOF ROLLING SHALL BE UNDERCUT AND REPLACED WITH COMPACTED STRUCTURAL FILL.
6. STRUCTURAL FILL SHALL BE CLEAN, NON-PLASTIC, FINE-TO-MEDIUM SAND OR GRANULAR MATERIAL, FREE OF ORGANICS AND DEBRIS, ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
7. FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS (OR 6 INCHES IF USING HAND-OPERATED EQUIPMENT).

COMPACTION AND FOUNDATIONS

1. IN GENERAL FILL AREAS, STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OBTAINED IN ACCORDANCE WITH ASTM D-1557.
2. THE SUBGRADE BENEATH STRUCTURE AND PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM DEPTH OF 12 INCHES AND TO A MINIMUM DENSITY OF 98% OF THE MAXIMUM DRY DENSITY (ASTM D-1557).
3. FOUNDATIONS FOR THE TANK AND BOOSTER STATION ARE DESIGNED BASED ON A MAXIMUM NET ALLOWABLE SOIL BEARING PRESSURE OF 2,500 PSF.
4. TOTAL SETTLEMENT IS ANTICIPATED TO BE LESS THAN 1 INCH, WITH DIFFERENTIAL SETTLEMENT LESS THAN 3/4 INCH OVER 30 FEET.

GROUNDWATER CONTROL AND UTILITIES

1. GROUNDWATER LEVELS WERE ENCOUNTERED BETWEEN 1.0 AND 2.0 FEET BELOW LAND SURFACE.
2. THE CONTRACTOR SHALL PROVIDE DEWATERING AS NECESSARY TO MAINTAIN GROUNDWATER LEVELS AT LEAST 2.0 FEET BELOW THE LOWEST WORKING AREA (EXCAVATION BOTTOMS AND COMPACTION SURFACES).
3. DEWATERING IS ANTICIPATED FOR MOST EXCAVATIONS. NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR DEWATERING EFFORTS REQUIRED TO ACHIEVE PROPER COMPACTION.
4. IF LIMEROCK BASE IS USED, A MINIMUM SEPARATION OF 18 TO 24 INCHES MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE BASE AND THE SEASONAL HIGH GROUNDWATER LEVEL.
5. IF CRUSHED CONCRETE BASE IS USED, A MINIMUM SEPARATION OF 12 TO 18 INCHES MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE BASE AND THE SEASONAL HIGH GROUNDWATER LEVEL.
6. THE CONTRACTOR SHALL RELOCATE ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA PRIOR TO GRADING. ABANDONED CONDUITS MUST BE REMOVED OR PLUGGED TO PREVENT SUBSURFACE EROSION.

GROUND STORAGE TANK SUBGRADE PREPARATION SPECIFICATIONS

1. SITE CLEARING AND STRIPPING
THE GC SHALL CLEAR THE SITE OF ALL VEGETATION, ORGANIC MATERIALS, RUBBISH, DEBRIS, AND OTHER FOREIGN OR OBJECTIONABLE MATERIALS ABOVE THE GROUND SURFACE.
REMOVE ALL STUMPS, LARGE ROOTS, BURIED LOGS, AND UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA.
GATOR MUCK WARNING: THE GEOTECHNICAL REPORT INDICATES THE POTENTIAL PRESENCE OF "GATOR MUCK" (ORGANIC SOIL) ON SITE. IF ENCOUNTERED, THIS MATERIAL MUST BE EXCAVATED AND REPLACED WITH CLEAN, FREE-DRAINING GRANULAR FILL.
2. DEWATERING AND GROUNDWATER CONTROL
GROUNDWATER LEVELS WERE ENCOUNTERED BETWEEN 1.0 AND 2.0 FEET BELOW LAND SURFACE.
DEWATERING WILL LIKELY BE REQUIRED. GROUNDWATER MUST BE MAINTAINED AT LEAST 2.0 FEET BELOW THE LOWEST WORKING AREA TO FACILITATE PROPER MATERIAL PLACEMENT AND COMPACTION.

3. PROOF ROLLING AND SUBGRADE CERTIFICATION
PRIOR TO THE PLACEMENT OF FILL, THE STRIPPED NATURAL GROUND SHALL BE PROOF-ROLLED TO LOCATE SOFT OR YIELDING SOILS.
PROOF-ROLLING SHALL CONSIST OF THREE (3) PASSES OF A 10-TON ROLLER OR A FULLY LOADED TANDEM AXLE DUMP TRUCK.
CERTIFICATION: THE SOIL BENEATH THE ENTIRE TANK FOUNDATION MUST BE INSPECTED AND CERTIFIED BY A LICENSED GEOTECHNICAL ENGINEER PRIOR TO CONCRETE CONSTRUCTION. THE SUBGRADE MUST DEMONSTRATE A MINIMUM ALLOWABLE BEARING CAPACITY OF 2,500 PSF.
IF "PUMPING" OR "YIELDING" IS OBSERVED, THE UNSTABLE SOILS MUST BE UNDERCUT AND REPLACED WITH COMPACTED STRUCTURAL FILL.

4. STRUCTURAL FILL AND COMPACTION
FILL MATERIAL: STRUCTURAL FILL USED TO RAISE THE GRADE SHALL CONSIST OF GRANULAR MATERIAL (SAND), FREE OF ORGANICS, DEBRIS, AND OTHER UNSUITABLE MATERIAL.
PLACEMENT: FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES (6 INCHES IF USING HAND-OPERATED COMPACTION EQUIPMENT).
COMPACTION REQUIREMENT: STRUCTURAL FILL BENEATH THE TANK FOUNDATION SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY PER ASTM D1557 (MODIFIED PROCTOR).

5. TESTING FREQUENCY
FIELD DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF AT LEAST ONE TEST PER 2,500 SQUARE FEET FOR EACH 1-FOOT THICKNESS OF COMPACTED SOIL. THE GEOTECHNICAL ENGINEER MUST BE PRESENT DURING PROOF ROLLING AND FOUNDATION EXCAVATIONS.

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LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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Agency Review

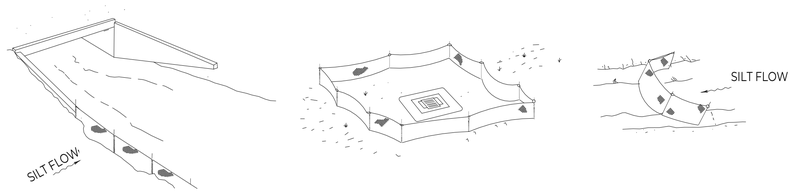
SITE PLAN & FINAL GRADING

C101

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GENERAL NOTES FOR SOIL EROSION, SEDIMENT CONTROL, AND TREE PROTECTION:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
3. PERMANENT VEGETATION TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
4. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, SECTIONS 104, 570, 575 AND 980 TO 986.
5. UNFILTERED DEWATERING IS NOT PERMITTED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER.
6. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATION COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
7. ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY WILL BE REMOVED IMMEDIATELY.
8. ANY AREAS USED FOR THE CONTRACTOR'S STAGING, INCLUDING BUT NOT LIMITED TO, TEMPORARY STORAGE OF STOCKPILED MATERIALS (E.G. CRUSHED STONE, QUARRY PROCESS STONE, SELECT FILL, EXCAVATED MATERIALS, ETC.), SHALL BE ENTIRELY PROTECTED BY A SILT FENCE ALONG THE LOW ELEVATION SIDE TO CONTROL SEDIMENT RUNOFF.
9. ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED, DURING ANY PHASE OF DEVELOPMENT, AT THE DISCRETION OF THE TOHO WATER AUTHORITY APPOINTED CONSTRUCTION INSPECTOR.
10. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIRED. ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED, DURING ANY PHASE OF DEVELOPMENT, AT THE DISCRETION OF THE TOHO WATER AUTHORITY APPOINTED CONSTRUCTION INSPECTOR.
11. THE CONTRACTOR SHALL ENSURE THAT A FOREMAN OR SUPERVISOR WHO HAS BEEN CERTIFIED UNDER FLORIDA STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR TRAINING PROGRAMS AVAILABLE IN PERSON OR BY PHONE AT ALL TIMES DURING THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DESIGNATE THAT PERSON OR PERSONS AT THE PRE-CONSTRUCTION MEETING AND THAT PERSON OR PERSONS MUST ATTEND THE PRE-CONSTRUCTION MEETING.
12. EROSION CONTROL MEASURES DEPICTED IN THE PLANS ARE LIMITED TO INLET PROTECTION AND SILT FENCES. THE INLET PROTECTION SHALL BE LIMITED TO INLETS WITHIN THE ACTIVE CONSTRUCTION LIMITS AND A MINIMUM OF TWO INLETS DOWNSTREAM OF THE ACTIVE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL MONITOR THE EFFECTIVENESS OF SUCH INLET PROTECTION AND PROVIDE ADDITIONAL PROTECTION IF WARRANTED. NO SEDIMENTS ARE INTENDED TO ENTER THE CURB INLETS. THE CONTRACTOR SHALL CONDUCT AND MAINTAIN THE WORK IN SUCH CONDITION TO PROVIDE ADEQUATE DRAINAGE AT ALL TIMES AND SHALL MONITOR THE PERFORMANCE OF THE STORM WATER INLETS WHILE IMPEDED BY THE INLET PROTECTION. STREET FLOODING IS NOT TO BE INTRODUCED AS A RESULT OF THE INLET PROTECTION. SAFETY OF THE TRAVELING PUBLIC, AS RELATED TO THE ADEQUACY OF THE DRIVING SURFACE AS A RESULT OF STANDING STORMWATER RUNOFF CREATED BY THE INTRODUCTION OF INLET PROTECTION, IS THE RESPONSIBILITY OF THE CONTRACTOR.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CLEAN WORK ZONE TO LIMIT THE RELEASE OF SEDIMENTS INTO STORMWATER COLLECTION SYSTEMS AND TO LIMIT THE TRACKING OF MATERIALS BEYOND THE ACTIVE WORK LIMITS. THE CONTRACTOR IS REQUIRED TO MECHANICALLY SWEEP THE ACTIVE CONSTRUCTION LIMITS TO REMOVE SEDIMENTS AND LIKE MATERIALS FROM THE CORRIDOR AT THE END OF EACH WORKDAY. ADDITIONAL OR MORE FREQUENT SWEEPING MAY BE REQUIRED BY THE TOHO APPOINTED CONSTRUCTION INSPECTOR.
14. ALL DISTURBED AREAS, EXCEPT FOR AREAS THAT ARE LANDSCAPED, PAVED, OR OTHERWISE DESIGNATED, ARE TO BE SEEDED OR SODDED. EXISTING GRASSED AREAS THAT ARE DISTURBED WILL BE SEEDED OR SODDED WITH THE SAME GRASS TYPE AS EXISTING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SEEDED WHERE SOD IS PLACED ON SLOPES OF 2:1 OR STEEPER, AN EROSION MAT WILL BE INSTALLED BENEATH THE SOD, AND THE SOD WILL BE STAKED. AREAS THAT ARE SODDED SHALL BE FERTILIZED AT AN APPLICATION RATE OF 450 LBS. /AC AND WILL BE WATERED AT A RATE OF 5,000 GAL/AC. NO SEPARATE PAYMENT WILL BE MADE AND ALL COSTS FOR FERTILIZING, WATERING, STAKING, AND FURNISHING AND INSTALLING EROSION MAT SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS IN THE CONTRACT.
15. A DEWATERING PLAN IS REQUIRED AND SHALL DETAIL THE MEASURES TO BE EMPLOYED TO LOWER THE GROUNDWATER TABLE AND/OR TO DIVERT SURFACE WATER DURING EXCAVATION AND CONSTRUCTION INCLUDING THE INSTALLATION AND MAINTENANCE OF ALL DEVICES TO BE USED DURING EACH PHASE OF CONSTRUCTION TO CONTROL EROSION AND THE TRANSPORTATION OF ERODED MATERIALS OFF SITE. TRENCH SHEETING AND BRACING SHALL BE ADEQUATE TO PREVENT CAVE-IN OF TRENCH WALLS, SUBSIDENCE OF AREAS ADJACENT TO THE TRENCH, DAMAGE TO UTILITIES, AND SLOUGHING OF THE BASE OF THE EXCAVATION DUE TO WATER SEEPAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL DEWATERING ACTIVITIES ADHERE TO ALL LOCAL, STATE AND FEDERAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE ADEQUACY OF ANY SHEETING AND BRACING. THE COST OF DEWATERING, SHEETING AND BRACING IS CONSIDERED INCIDENTAL TO THE PAY ITEMS IN THE CONTRACT. NO SEPARATE PAYMENT WILL BE
16. IDENTATION PAYMENT FOR PREPARING AND SUBMITTING THE DEWATERING PLAN IS CONSIDERED INCIDENTAL TO THE PAY ITEMS IN THE CONTRACT. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.



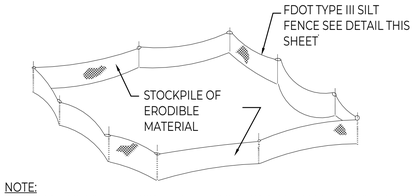
TYPE III SILT FENCE

TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

TYPE III SILT FENCE

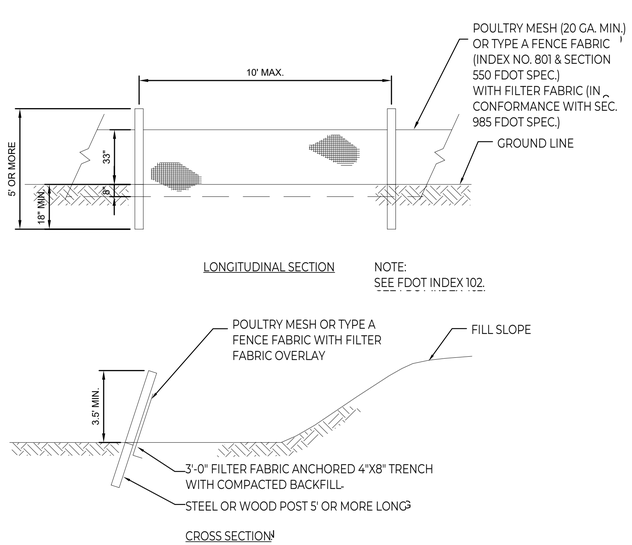
A- SILT FENCE APPLICATIONS
NTS

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

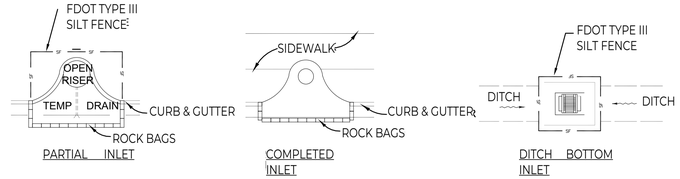


NOTE:
THE STORAGE OF ALL MATERIAL SHALL BE OUTSIDE THE 100-YEAR FLOOD PLAIN.

B- MATERIAL STOCKPILE DETAIL
NTS



C- TYPE III SILT FENCE
NTS



D- INLET PROTECTION
NTS

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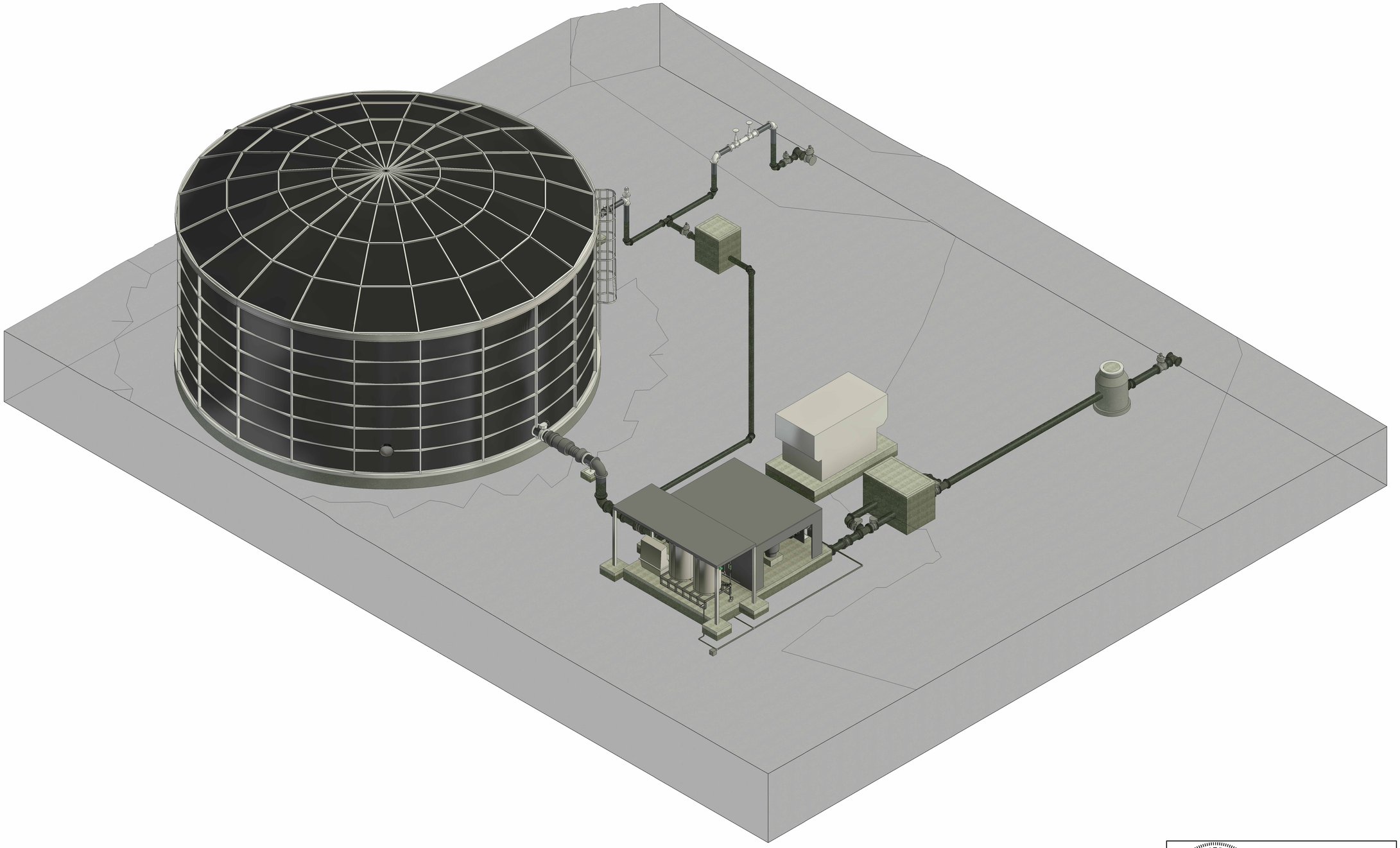
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EROSION & SEDIMENT CONTROL PLAN

C103

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LAKEFRONT ESTATES DEVELOPMENT

GLADES COUNTY, FL

POTABLE WATER STORAGE AND PUMPING

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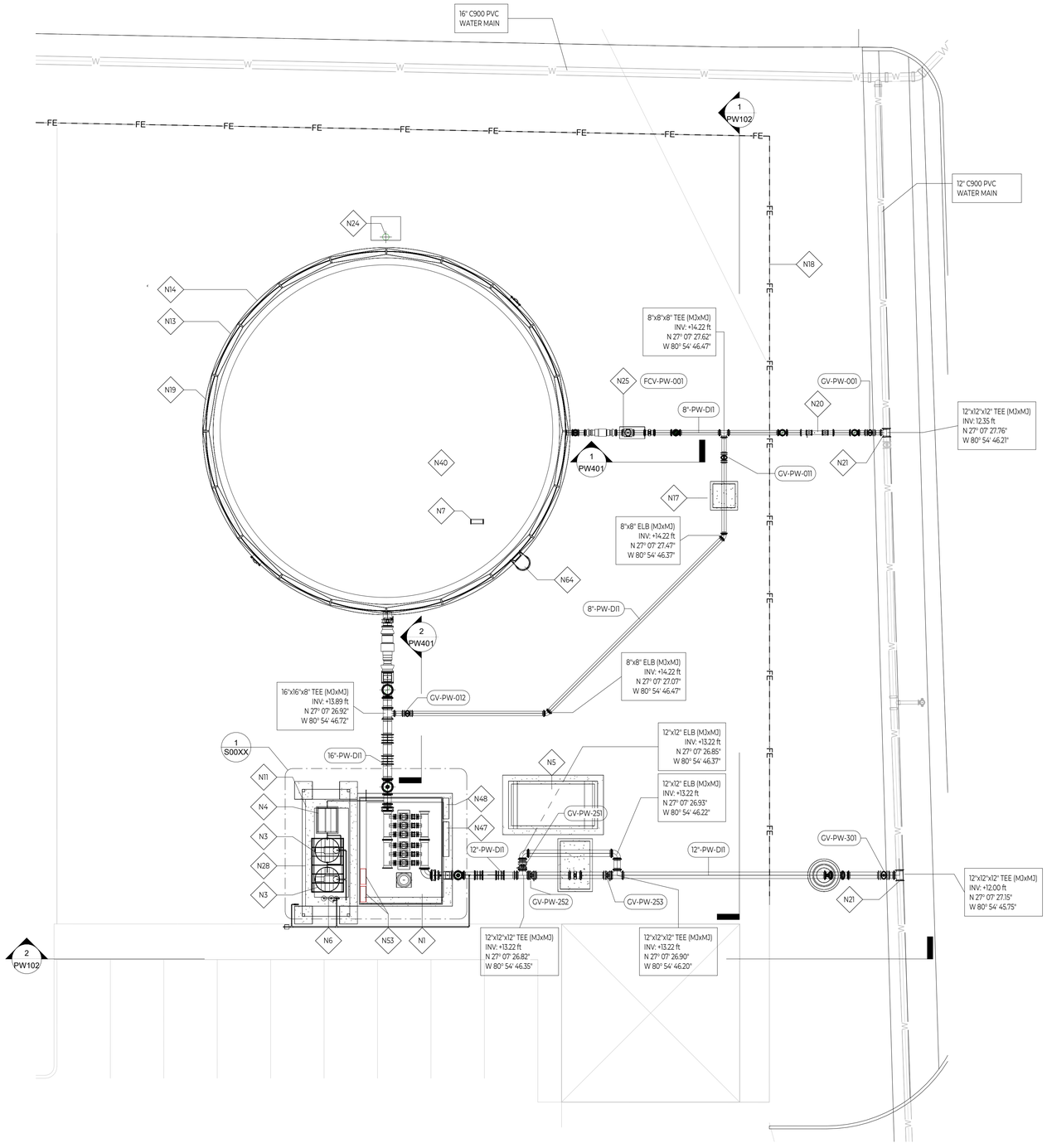
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PW001

11/03/2026 08:12:49 p. m.

POTABLE WATER SYSTEM GENERAL NOTES

1 SEE SHEET G007 FOR PUMP STATION DESIGN CRITERIA.
2 SEE SHEET PWS01 FOR EQUIPMENT SCHEDULE AND SPECIFICATIONS.
3 SEE SHEET PWS02 FOR PIPE SCHEDULE. SEE SHEET PWS04 FOR PIPE SPECIFICATIONS.
4 SEE SHEET PWS03 FOR VALVE SCHEDULE. SEE SHEET PWS05 FOR VALVE SPECIFICATIONS.
5 SEE SHEET I501 FOR INSTRUMENT SCHEDULE AND SPECIFICATIONS.
6 OBTAIN ALL REQUIRED FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMITS AND OTHER APPLICABLE PERMITS FOR CONSTRUCTION AND OPERATION PRIOTO STARTING WORK.
7 ALL COMPONENTS, MATERIALS, COATINGS, PAINTS, LINERS, SEALANTS, PIPES, FITTINGS, VALVES, PUMPS, PROCESS MEDIA, AND CHEMICAL FEED EQUIPMENT THAT WILL COME INTO CONTACT WITH POTABLE WATER OR DRINKING WATER TREATMENT CHEMICALS MUST BE CERTIFIED TO NSF 61 PER F.A.C. RULE 62-555.320(3).
8 ALL COMPONENTS CONVEYING OR DISPENSING WATER FOR HUMAN CONSUMPTION MUST COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT (SDWA) DEFINITION OF "LEAD FREE." THIS MEANS THE WETTED SURFACES OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES MUST CONTAIN A WEIGHTED AVERAGE OF NOT MORE THAN 0.25% LEAD. SOLDER AND FLUX MUST CONTAIN NOT MORE THAN 0.2% LEAD. COMPLIANCE SHALL BE DEMONSTRATED BY CERTIFICATION TO NSF 372. DRINKING WATER SYSTEM COMPONENTS - LEAD CONTENT (OR BY PRODUCTS CERTIFIED TO NSF 61 WHICH INCORPORATE THE LEAD CONTENT REQUIREMENTS).
9 THE CONTRACTOR SHALL SUBMIT THIRD-PARTY CERTIFICATION DOCUMENTATION FOR ALL WATER-CONTACTING COMPONENTS BEFORE INSTALLATION.
10 PUMPS AND MOTORS MUST BE CAPABLE OF MEETING ALL SYSTEM HYDRAULIC CONDITIONS WITHOUT OVERLOADING MOTORS. SUBMIT HEAD CAPACITY CURVES TO ENGINEER.
11 AFTER CONSTRUCTION, THE TANK AND ALL NEW PIPING MUST BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651 AND C652 AND MUST PASS REQUIRED BACTERIOLOGICAL TESTING BEFORE BEING PLACED INTO SERVICE.
12 "PIPING TO AND FROM THE HIGH-SERVICE PUMPS SHALL BE DUCTILE IRON PIPE. ALL BELOW-GRADE BURIED PIPING SHALL BE MECHANICAL JOINT. ALL BURIED FITTINGS SHALL BE MECHANICALLY RESTRAINED. ALL ABOVE-GRADE PIPING AND PIPING IN TRENCHES SHALL BE FLANGED."
13 WRAP ALL BURIED DUCTILE IRON PIPING WITH V-BIO POLYETHYLENE ENCASEMENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
14 TANK DESIGN SHOWN IS SCHEMATIC ONLY. THE DESIGN, FABRICATION, AND CONSTRUCTION OF THE GLASS-FUSED-TO-STEEL BOLTED STORAGE TANK AND ITS SPECIFIC CONCRETE FOUNDATION RING WALL ARE DETAILED SEPARATELY IN THE SUBMITTAL PROVIDED BY FLORIDA AQUASTORE.
15 THE GENERAL CONTRACTOR (GC) IS RESPONSIBLE FOR ALL SITE PREPARATION, DEWATERING, EXCAVATION, SUBGRADE IMPROVEMENTS, BACKFILL, AND COMPACTION TO PROVIDE A CERTIFIED BUILDING PAD CAPABLE OF SUPPORTING THE LOADS SPECIFIED BY THE TANK MANUFACTURER.
16 ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY ATLAS TECHNICAL CONSULTANTS, LLC (PROJECT NO. Z5520800I, DATED OCT 7, 2021).
17 ALL BURIED ISOLATION VALVES TO HAVE VALVE BOX AND COLLAR PER OUA STANDARD DETAIL D12, WITH COVER STAMPED "WATER".
18 ALL BURIED PIPING TO BE INSTALLED PER OUA STANDARD TRENCH DETAILS.



1 G003 YARD PIPING PLAN
1" = 10'-0"

0 20' 40' 80'
0 8'
1" = 10'-0"

NORTH

KEYED NOTES

N1 PRE-PACKAGED BOOSTER PUMP STATION BY PUMP STATION SUPPLIER. GC TO INSTALL SKID AND ENCLOSURE ON CONCRETE PAD AND CONNECT SUCTION AND DISCHARGE PIPING WITH PROCO 240 FLEXIBLE COUPLINGS. COUPLINGS SHALL INCLUDE STAINLESS STEEL CONTROL ROD ASSEMBLIES TO PREVENT ELONGATION. INSTALLATION PER PUMP STATION SUPPLIER'S RECOMMENDATIONS. SHELTER ANCHORAGE PROVIDED AND INSTALLED BY GC PER STRUCTURAL NOTES SHEET PW101.

N3 GC TO FURNISH AND INSTALL 500-GALLON CHEMICAL STORAGE TANKS. INSTALL ON MANUFACTURER STANDS ANCHORED TO PAD. CONNECT OUTLET PIPING WITH FLEXIBLE CONNECTORS AND ISOLATION VALVES.

N4 DUPLEX SODIUM HYPOCHLORITE DOSING PUMP SKID BY PUMP STATION SUPPLIER. GC TO INSTALL INSIDE FRP ENCLOSURE PROVIDED BY SUPPLIER. GC TO ROUTE SUCTION LINES IN DOUBLE CONTAINMENT AND CONNECT DISCHARGE TO INJECTION POINTS.

N5 GC TO PROVIDE STANDBY GENERATOR AND INSTALL ON CONCRETE PAD. COORDINATE CONDUIT STUB-UPS WITH ELECTRICAL PLANS. CONNECT FUEL TANK LEAK SENSOR TO SCADA.

N6 GC TO PROVIDE AND INSTALL ANSI Z358.1 COMPLIANT COMBINATION SAFETY SHOWER AND EYEWASH STATION. MOUNT TO SLAB. CONNECT TO POTABLE WATER SUPPLY VIA 1 1/4" PRV (SET TO 45 PSI) AND THERMAL SCALD VALVE SET TO BLEED AT 95 DEGREES FAHRENHEIT. INSULATE EXPOSED RISER WITH 1" CLOSED-CELL ELASTOMERIC INSULATION WITH UV-RESISTANT PVC JACKET. GC SHALL PERFORM 15-MINUTE FLOW TEST IN ACCORDANCE WITH ANSI Z358.1 AND PROVIDE CERTIFICATION TAG.

N7 GC TO PROVIDE AND INSTALL SUBMERSIBLE TANK MIXER, SET ON TANK FLOOR PER MFR INSTRUCTIONS. SECURE CABLE TO TANK INTERIOR WALL CLIPS. GC SHALL ENSURE THE MIXER POWER CABLE HAS SUFFICIENT SLACK AT THE TANK FLOOR TO ALLOW FOR SLIGHT MIXER MOVEMENT BUT IS TIGHT ENOUGH ON THE VERTICAL RISE TO PREVENT ENTANGLEMENT WITH THE FLOAT SWITCHES OR INLET PIPING. SECURE CABLE EVERY 5 FEET ALONG TANK WALL.

N11 GC TO PROVIDE AND INSTALL EQUIPMENT PAD: 4,000 PSI CONCRETE. REFER TO STRUCTURAL NOTES.

N13 3" GRAVEL BACKFILL BY TANK SUPPLIER.

N14 TANK SUBGRADE PREPARATION BY GC, PER GEOTECHNICAL REPORT RECOMMENDATIONS.

N17 GC TO PROVIDE AND INSTALL METER VAULT: PRECAST CONCRETE (H-20). INSTALL ANTI-FLOTATION RING. SEAL PENETRATIONS WITH LINK-SEALS.

N18 6' HIGH FENCE, EXISTING.

N19 FOUNDATION BY TANK SUPPLIER. SUBGRADE PREPARATION BY GC.

N20 GC TO PROVIDE AND INSTALL WATER SERVICE ASSEMBLY PER OUA STANDARDS. INSTALL 6" SENSUS OMNI C2 TURBINE WATER METER WITH INTEGRATED STRAINER. UNIT SHALL INCLUDE TRPL (PRESSURE/LOG) AND TRC (TOUCHREAD CONNECTOR) OPTIONS AND BE NSF-61 COMPLIANT. INSTALL 6" AMES COLT MODEL 400 REDUCED PRESSURE ZONE (RPZ) ASSEMBLY. MOUNT UNIT 12" ABOVE FINISHED GRADE ON A CONCRETE PAD. INSTALL DEDICATED SAMPLING POINT (ECLIPSE NO. 88 OR APPROVED EQUAL) DOWNSTREAM OF BPP PER OUA STANDARD DETAIL D7. UNIT SHALL BE NON-FREEZING WITH ALUMINUM ENCLOSURE AND LOCKABLE COVER.

N21 GC TO CONNECT 12" PVC AND 12" DIP TO MJ x MJ TEE. RESTRAIN ALL JOINTS. RESTRAIN PVC WITH EBAA 2000PV MEGALUG, DUCTILE WITH EBAA 1100 MEGALUG. INSTALL WITH STANDARD MJ GASKETS AND BOLTS PER MANUFACTURER RECOMMENDATIONS.

N24 SUCTION PIPING SHALL SLOPE CONTINUOUSLY UPWARD TOWARD PUMP.

N25 GC TO PROVIDE AND INSTALL TANK INLET FLOW CONTROL VALVE. INSTALL ON PIPE SUPPORTS. ROUTE PILOT TUBING TO FLOAT INSIDE TANK. SEE VALVE SCHEDULE.

N28 PRE-ENGINEERED ALUMINUM CANOPY, OPEN ON ALL SIDES. COLUMNS SHALL BE ANCHORED TO SPREAD FOOTING. ROOF DECK SHALL BE ALUMINUM STANDING SEAM. CANOPY SHALL BE DESIGNED BY FL P.E. TO WITHSTAND 170 MPH WIND LOADS. MINIMUM CLEARANCE PER PLAN. GC TO PROVIDE AND INSTALL. PROVIDE FIXED ARCHITECTURAL ALUMINUM LOUVERED SCREEN OR PERFORATED METAL PANEL ON THE WEST ELEVATION OF THE CHEMICAL CANOPY. SCREEN SHALL EXTEND FROM ROOF DECK DOWN TO 24" ABOVE GRADE. DESIGN SCREEN FRAMING TO WITHSTAND 170 MPH WIND LOADS. FINISH TO MATCH CANOPY. CANOPY TO PROVIDE CLEAR SPACE 24" OVER TOP OF TANKS.

N40 GC TO PROVIDE AND INSTALL ONE (1) ULTRASONIC LEVEL TRANSMITTER AND TWO (2) MECHANICAL FLOAT SWITCHES (HIGH/LOW ALARM). SUSPEND FLOATS FROM STAINLESS STEEL BRACKET NEAR HATCH. ENSURE SENSORS ARE SPACED TO PREVENT ENTANGLEMENT WITH MIXER POWER CABLE. CABLES SHALL ROUTE TO TERMINAL BOX (NEMA 4X) MOUNTED ON TANK HANDRAIL BEFORE TRANSITIONING TO CONDUIT. SEE INSTRUMENT SCHEDULE. COORDINATE WITH TANK SUPPLIER.

N47 BUILDING HVAC.

N48 BUILDING ELECTRICAL DISCONNECT.

N53 STATION CONTROL PANELS BY PUMP STATION SUPPLIER. PROVIDE 36" WORKING SPACE CLEARANCE IN FRONT OF PANELS.

N64 TANK LADDER INSTALLED BY FLORIDA AQUASTORE. LOCATION IS PRELIMINARY AND WILL BE CONFIRMED IN FIELD.

SEE SHEET C101 FOR SITE NOTES AND REQUIREMENTS.

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POTABLE WATER SYSTEM SITE

PW101

11/03/2026 08:12:51 p. m.

STRUCTURAL GENERAL NOTES & SPECIFICATIONS

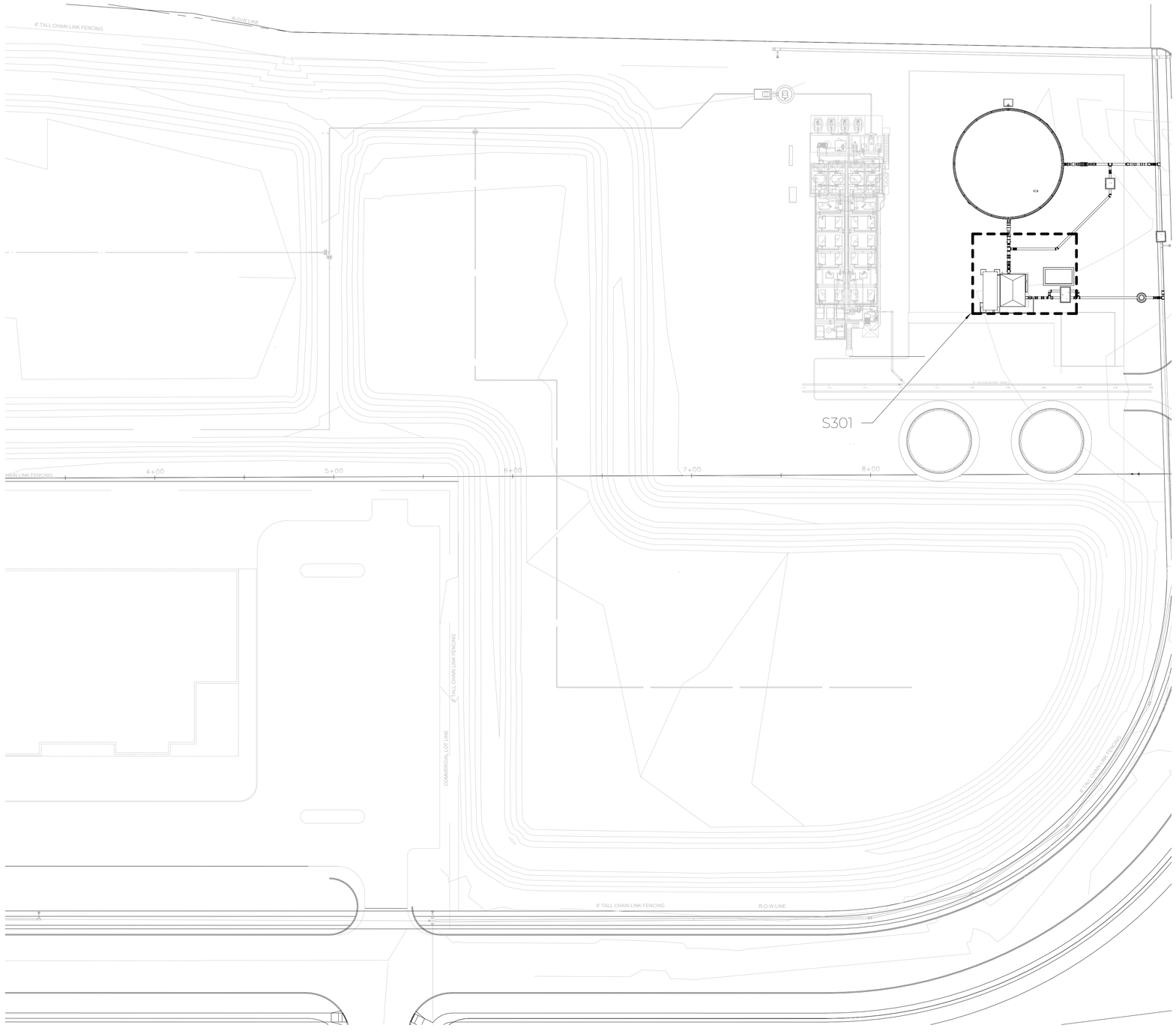
1. GENERAL DESIGN CRITERIA
- CODE: FLORIDA BUILDING CODE (FBC), 8TH EDITION (2023).
- RISK CATEGORY: RISK CATEGORY IV (ESSENTIAL FACILITY - FIRE SUPPRESSION).
- WIND DESIGN: FBC 2023 / ASCE 7-22, 170 MPH (ULTIMATE), EXPOSURE CATEGORY C, TOPOGRAPHIC FACTOR (KZT) = 1.0.
- SEISMIC DESIGN: IBC 2021 / ASCE 7-22, SEISMIC SITE CLASS D, SS = 0.052, S1 = 0.024, TL = 8, IMPORTANCE FACTOR (IE) = 1.5. SEISMIC DESIGN CATEGORY A (NO SPECIFIC SEISMIC DETAILING REQUIRED).
- ALLOWABLE SOIL BEARING CAPACITY: 2,500 PSF MINIMUM.
- LIVE LOADS: 100 PSF UNIFORM ON INTERIOR SLABS.
- DESIGN DEAD LOADS (D):
  1. Superstructure:
     - A. FRP Shelter Enclosure (14'x18'): 3,700 LBS
     - B. Aluminum Canopy: 3.0 PSF (Uniform)
  2. Equipment (Operating Weights):
     - A. Grundfos Booster Pump Skid (6-Pump): 7,000 LBS
     - B. Grundfos Control Panels: 250 LBS (Each)
     - C. Standby Generator & Sub-base Fuel Tank (Estimated Wet Weight): 12,000 LBS
     - D. Sodium Hypochlorite Tanks (500-Gal): 6,000 LBS (Each)
     - E. Metering Pump Skid + FRP Cabinet: 1,500 LBS (Total Assembly)
     - F. HVAC System (2-Ton Mini-Split): 250 LBS (Total)
     - G. Diaphragm Tank (132-gal capacity): 1,500 LBS (Full)
- WIND LOADS (W) - 170 MPH ULTIMATE:
  1. FRP Shelter Enclosure:
     - A. Windward Wall Pressure: 46.0 PSF
     - B. Leeward Wall Pressure: 32.3 PSF
     - C. Roof Net Uplift Pressure: 47.2 PSF
     - D. Base Perimeter Uplift Tension: 497.2 PLF (Pounds per Linear Foot)
  2. Aluminum Canopy:
     - A. Roof Net Uplift Pressure: 70.0 PSF (to be confirmed by canopy supplier)
- LOAD COMBINATIONS NOTE: All deferred submittals and delegated designs (including Canopy and Shelter Enclosure anchorages) shall utilize the applicable ASCE 7-22 Allowable Stress Design (ASD) load combinations. Wind uplift and overturning resistance shall strictly be verified using the appropriate load combination.

2. DELEGATED DESIGN (DEFERRED SUBMITTALS)
- PRE-ENGINEERED ENCLOSURE/CANOPY: CANOPY SUPERSTRUCTURE, COLUMNS, AND INDEPENDENT COLUMN FOOTINGS ARE DEFERRED TO THE CANOPY MANUFACTURER. DESIGN, DETAILING, AND ANCHORAGE SHALL BE SIGNED AND SEALED BY A SPECIALTY STRUCTURAL ENGINEER (FLORIDA P.E.) FOR THE 170 MPH RISK CATEGORY IV DESIGN WIND LOAD. CANOPY COLUMNS SHALL BE ANCHORED INTO INDEPENDENT CONCRETE FOOTINGS PER MANUFACTURER SPECIFICATIONS AND SHALL NOT BEAR ON OR BE DOWELED INTO THE CHEMICAL TANK SLAB.
- DELEGATED ENGINEERS SHALL UTILIZE THE 0.6D + 0.6W LOAD COMBINATION FOR ALL OVERTURNING AND WIND UPLIFT RESISTANCE CALCULATIONS IN ACCORDANCE WITH FBC 2023 AND ASCE 7-22.
- CHEMICAL TANKS: TANK TIE-DOWNS, CLIPS, AND ANCHORAGES ARE DEFERRED TO THE TANK SUPPLIER. ANCHORAGE SHALL BE DESIGNED BY A SPECIALTY STRUCTURAL ENGINEER (FLORIDA P.E.) TO RESIST OVERTURNING AND SLIDING FROM 170 MPH DESIGN WINDS.
- GROUND STORAGE TANK: TANKS ARE DESIGNED PER NFPA 22-2023 / AWWA D103-19. FOUNDATION DESIGN IS BY FLORIDA AQUASTORE.

3. SECTION 31 20 00 - EARTH MOVING (SHORT FORM)
- SITE PREPARATION: CLEAR THE SITE OF ALL VEGETATION, ROOT SYSTEMS, AND UNSUITABLE MATERIALS. DEWATERING WILL BE REQUIRED IF EXCAVATIONS EXTEND BELOW THE WATER TABLE, ENCOUNTERED AT APPROXIMATELY 1.0 TO 5.9 FEET BELOW LAND SURFACE.
- PROOF ROLLING: THE SUBGRADE SURFACE SHALL BE PROOF-ROLLED BY A MINIMUM OF THREE PASSES OF A 10-TON ROLLER. ANY SOFT, "PUMPING", OR YIELDING SOILS MUST BE OVER-EXCAVATED AND REPLACED WITH COMPACTED STRUCTURAL FILL.
- STRUCTURAL FILL: IMPORT FILL SHALL BE GRANULAR, FREE OF ORGANIC/DELETERIOUS MATERIAL, WITH LESS THAN 12% PASSING THE NO. 200 SIEVE.
- COMPACTION: COMPACT STRUCTURAL FILL AND SUBGRADE IN MAXIMUM 12-INCH LOOSE LIFTS (6-INCH LIFTS IF USING HAND-OPERATED EQUIPMENT). COMPACT TO A MINIMUM OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) PRIOR TO POURING CONCRETE.
- AGGREGATE SUBBASE: PROVIDE A MINIMUM 6-INCH THICK LAYER OF COMPACTED 3/4"-MINUS CRUSHED CONCRETE OR LIMEROCK BENEATH ALL SLABS AND PADS. BASE MATERIAL SHALL ACHIEVE A MINIMUM LIMEROCK BEARING RATIO (LBR) OF 100 AND BE GRADED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 204.
- GRADING AT PADS: FINISHED GRADE SHALL SLOPE AWAY FROM THE EDGES OF ALL CONCRETE PADS AT A MINIMUM OF 5% (1/2 INCH PER FOOT) FOR A MINIMUM HORIZONTAL DISTANCE OF 10 FEET, BEYOND THE 10-FOOT OFFSET, PERMANENT SOIL SLOPES TYING INTO EXISTING GRADE SHALL BE CONSTRUCTED NO STEEPER THAN 2.5H:1.0V.

4. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE (SHORT FORM)
- CONCRETE MATERIALS: CONCRETE SHALL BE FDOT CLASS II, ACHIEVING A MINIMUM COMPRESSIVE STRENGTH OF F'C = 4,000 PSI @ 28 DAYS. CEMENT SHALL BE TYPE I/II. MAXIMUM W/C RATIO SHALL BE 0.45.
- REINFORCEMENT SPECS: * ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- PROVIDE 3" CLEAR COVER FOR CONCRETE CAST AGAINST EARTH, AND 2" CLEAR COVER FOR FORMED SURFACES EXPOSED TO EARTH OR WEATHER.
- LAP SPLICES SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- FORMING & FINISHING: PROVIDE A 3/4" CHAMFER ON ALL EXPOSED EDGES AND CORNERS TO PREVENT CHIPPING. EXTERIOR SLABS SHALL RECEIVE A MEDIUM BROOM FINISH; INTERIOR SLABS UNDER EQUIPMENT SHALL RECEIVE A STEEL TROWEL FINISH. ENSURE THE PERIMETER EDGE OF THE MAIN SLAB IS FLAT AND LEVEL (WITHIN 1/8" TOTAL TOLERANCE) TO RECEIVE THE SHELTER ENCLOSURE FLANGE.
- FLOOR DRAINAGE: THE INTERIOR FLOOR OF THE PUMP STATION SHALL BE SLOPED 1/8" PER FOOT TO THE SUMP.
- EXPANSION / ISOLATION JOINTS & SEALANTS: PROVIDE FULL-DEPTH, 1/2-INCH WIDE ISOLATION JOINTS BETWEEN ALL INDEPENDENT SLABS AND EQUIPMENT PADS (E.G., SEPARATING THE BOOSTER PUMP SLAB FROM THE CHEMICAL TANK PAD). ABSOLUTELY NO REINFORCING STEEL, DOWELS, OR RIGID MATERIALS SHALL CROSS ISOLATION JOINTS.
- JOINT FILLER: 1/2-INCH THICK PREFORMED, COMPRESSIBLE, ASPHALT-IMPREGNATED FIBERBOARD CONFORMING TO ASTM D1751. INSTALL THE FILLER FOR THE FULL DEPTH OF THE CONCRETE EDGE, LEAVING THE TOP 1/2-INCH TO 3/4-INCH OPEN FOR SEALANT.
- BACKER ROD: PROVIDE A FLEXIBLE, CLOSED-CELL POLYETHYLENE FOAM BACKER ROD, SIZED APPROPRIATELY AND RECESSED INTO THE TOP OF THE JOINT TO CONTROL SEALANT DEPTH AND PREVENT THREE-SIDED ADHESION.
- JOINT SEALANT: SEAL THE TOP OF THE JOINT WITH A SELF-LEVELING, MULTI-COMPONENT POLYURETHANE ELASTOMERIC JOINT SEALANT (SIKAFLEX-2C SL, MASTERSEAL SL 2, OR APPROVED EQUAL). SEALANT SHALL BE INSTALLED FLUSH WITH THE TOP OF THE CONCRETE SLAB TO PREVENT WATER INTRUSION AND THE ACCUMULATION OF INCOMPRESSIBLE DEBRIS.
- EQUIPMENT HOUSEKEEPING PADS: PROVIDE 12" HIGH CONCRETE PADS UNDER BOOSTER SKID AND CONTROL PANELS. PADS SHALL EXTEND A MINIMUM OF 6" BEYOND THE EQUIPMENT FOOTPRINT ON ALL SIDES. MECHANICALLY ROUGHEN (SCABBLE) MAIN SLAB SURFACE TO 1/4" AMPLITUDE AND APPLY BONDING AGENT (SIKALATEX OR EQUAL) PRIOR TO POURING. #4 L-SHAPED DOWELS EMBEDDED IN MAIN SLAB AT 24" O.C. (4" MIN. EMBEDMENT INTO HOUSEKEEPING PAD). REINFORCE PAD WITH #3 BARS @ 12" O.C. EACH WAY, CENTERED VERTICALLY.
- POST-INSTALLED ANCHORS: * *PUMP SKID ANCHORAGE:* 3/4" DIA. TYPE 316 STAINLESS STEEL ADHESIVE ANCHORS (HILTI HIT-RE 500 V3 OR APPROVED EQUAL) WITH 6" MINIMUM EMBEDMENT INTO THE HOUSEKEEPING PAD.
- *SHELTER ENCLOSURE ANCHORAGE:* 1/2" DIA. TYPE 316 STAINLESS STEEL EXPANSION ANCHORS (HILTI KWIK BOLT 3 OR APPROVED EQUAL) AT 12" O.C. ALONG PERIMETER FLANGE, OR AS REQUIRED BY ENCLOSURE MANUFACTURER'S SIGNED/SEALED ENGINEERED DRAWINGS.
- ANCHOR PLACEMENT: ALL PERIMETER EXPANSION AND ADHESIVE ANCHORS RESISTING WIND UPLIFT SHALL BE INSTALLED SQUARELY ALONG THE CENTERLINE OF THE 12-INCH WIDE THICKENED EDGE TO GUARANTEE A MINIMUM OF 6 INCHES OF CONCRETE EDGE DISTANCE.
- EQUIPMENT BEARING (SKIDS): TO PREVENT LOCALIZED CONCRETE PUNCHING OR CRUSHING, STEEL SKIDS FOR CHEMICAL TANKS AND BOOSTER PUMPS SHALL BEAR ON CONTINUOUS 1/2" THICK NEOPRENE ISOLATION PADS OR BE FULLY SUPPORTED BY NON-SHRINK STRUCTURAL GROUT (MINIMUM 5,000 PSI).

5. STATEMENT OF SPECIAL INSPECTIONS
- SPECIAL INSPECTIONS ARE REQUIRED PER FBC CHAPTER 17 FOR RISK CATEGORY IV STRUCTURES.
- SOILS/EARTHWORK: CONTINUOUS INSPECTION DURING PROOF-ROLLING AND FILL PLACEMENT. PERIODIC FIELD DENSITY TESTING REQUIRED PER 2,500 SQ. FT. PER LIFT IN BUILDING AREAS.
- CONCRETE CONSTRUCTION: PERIODIC INSPECTION OF REINFORCING STEEL PLACEMENT, CONCRETE COVER, AND FORMWORK. CONTINUOUS INSPECTION DURING CONCRETE PLACEMENT, INCLUDING SLUMP, TEMPERATURE, AND CYLINDER SAMPLING.
- POST-INSTALLED ANCHORS: CONTINUOUS INSPECTION OF ADHESIVE ANCHOR INSTALLATION (HOLE DRILLING, CLEANING, AND EPOXY INJECTION) FOR CHEMICAL TANKS, PUMP SKIDS, AND CANOPY COLUMNS.



1 / S001 EXPANDED SITE
1" = 30'-0"

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LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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Project number	25011
Date	03.11.2026
Drawn by	FM
Checked by	WDN

Agency Review

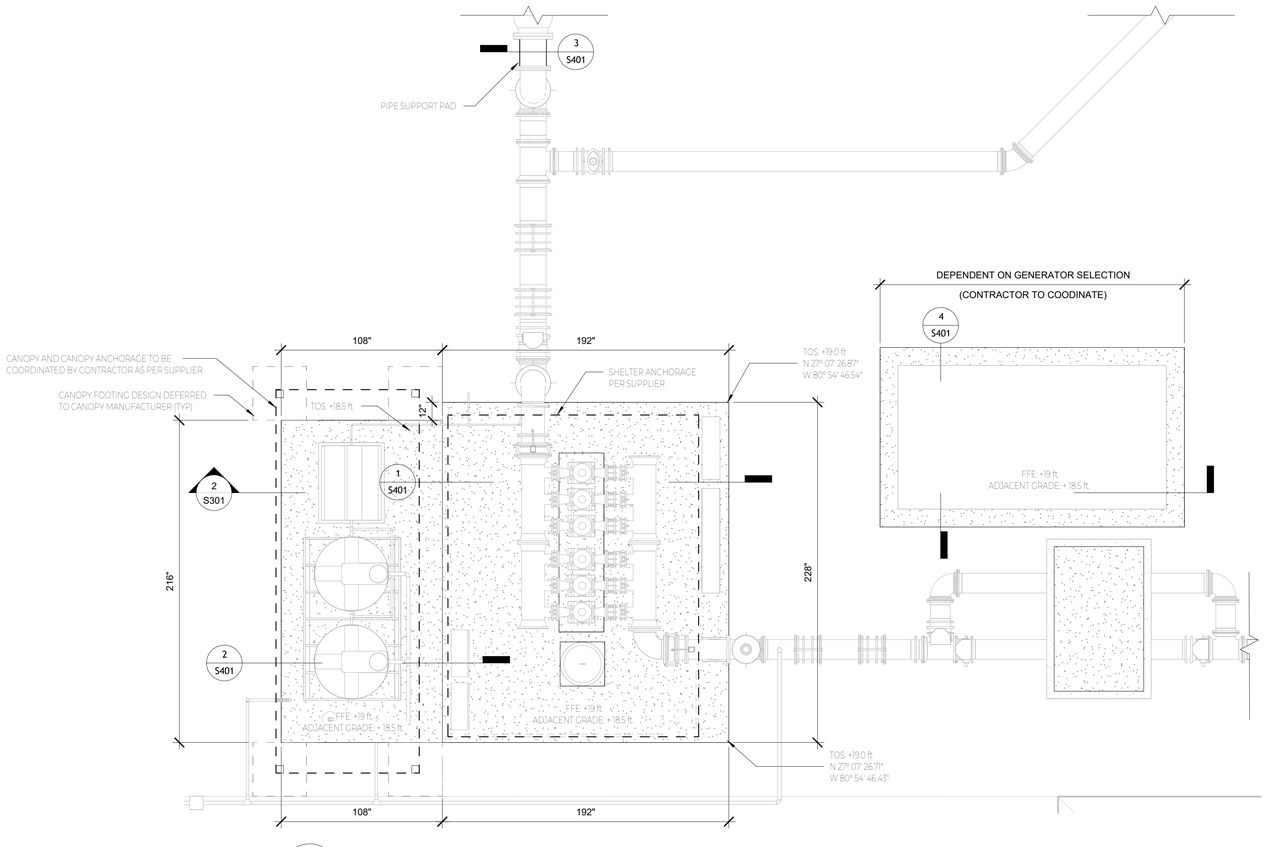
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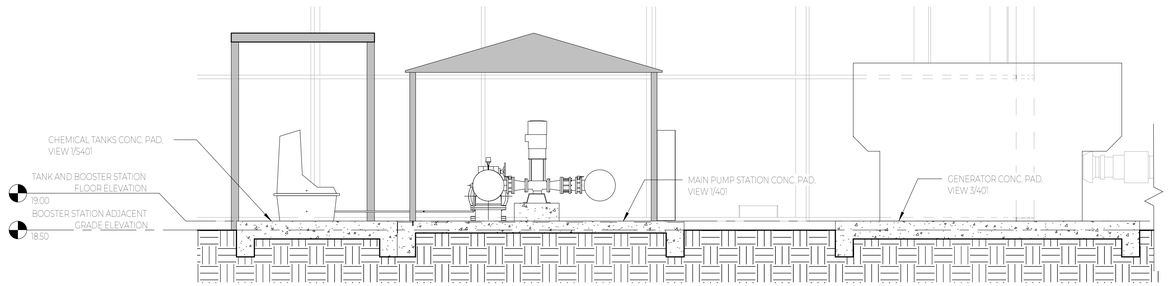
STRUCTURAL GENERAL NOTES & DESIGN CRITERIA

S001

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1 S301 MAIN SLAB
1/4" = 1'-0"



2 S301 PAD SECTION
1/4" = 1'-0"

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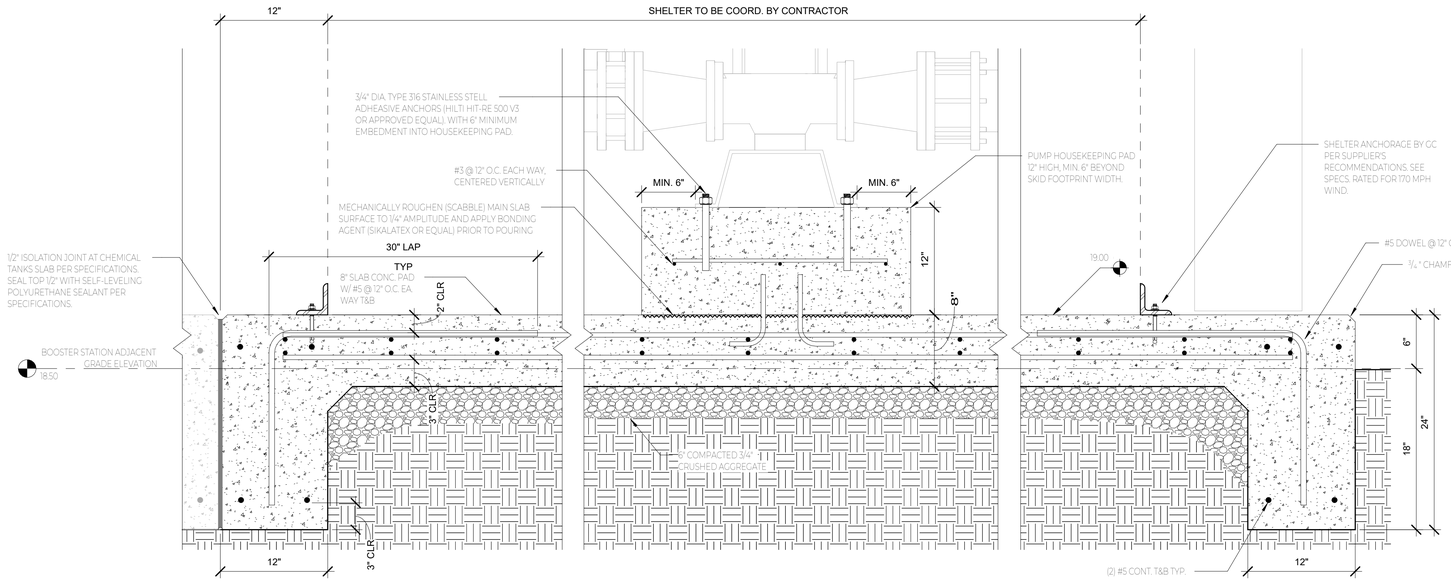
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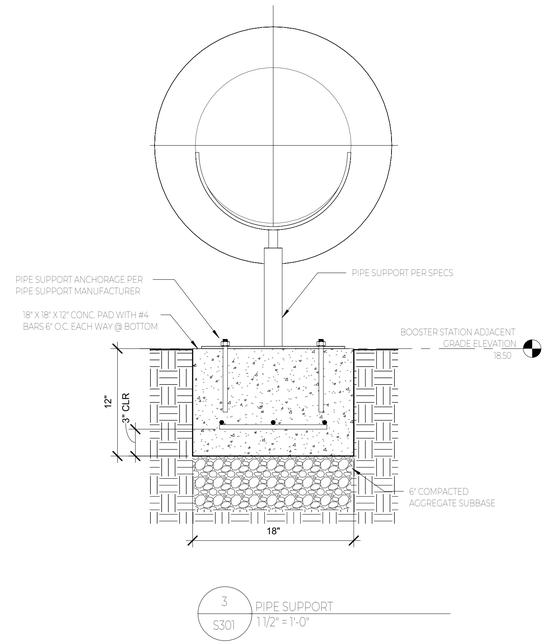
FOUNDATION PADS PLANS & SECTIONS

S301

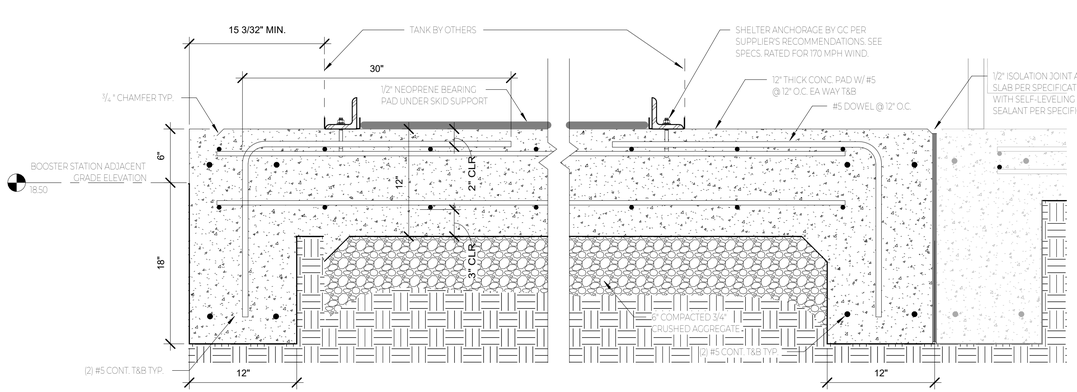
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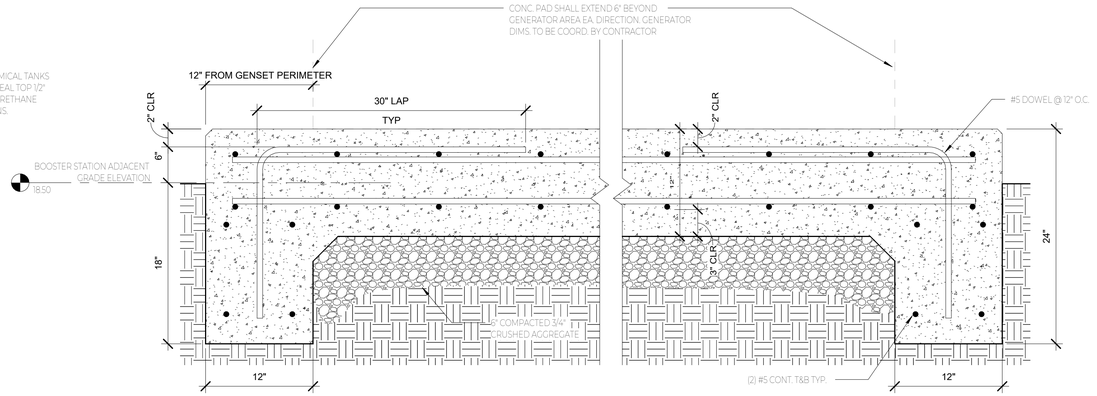
1 S301 MAIN PUMP STATION CONC. PAD1
1 1/2" = 1'-0"



3 S301 PIPE SUPPORT
1 1/2" = 1'-0"



2 S301 CHEMICAL TANK CONC. PAD
1 1/2" = 1'-0"



4 S301 GENERATOR CONC. PAD
1 1/2" = 1'-0"

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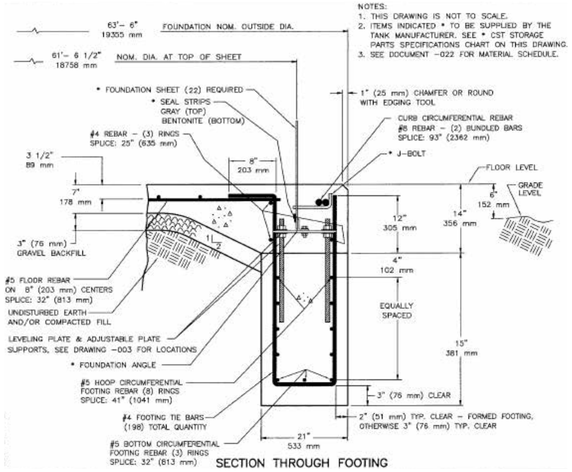
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STRUCTURAL DETAILS

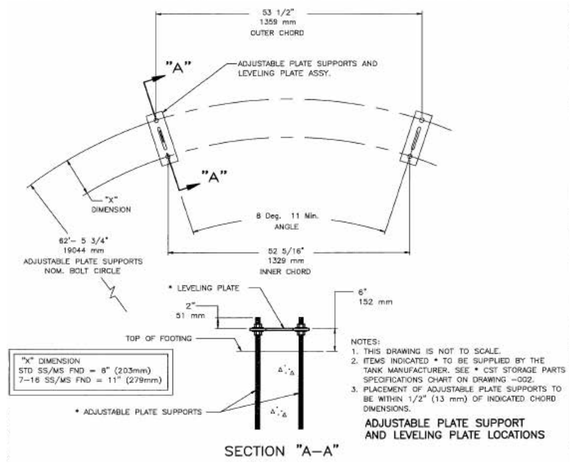
S401

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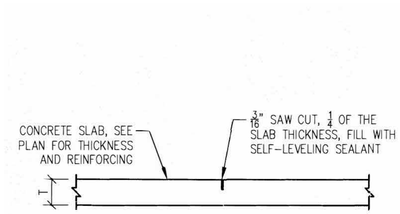
NOTE: STRUCTURAL DESIGN DETAIL PER FLORIDA AQUASTORE. INCLUDED FOR CLARITY.

1 SECTION THROUGH FOOTING
NTS



NOTE: STRUCTURAL DESIGN DETAIL PER FLORIDA AQUASTORE. INCLUDED FOR CLARITY.

2 ADJUSTABLE PLATE SUPPORT
NTS



CONTROL JOINTS

CONTROL JOINT NOTES:
1. Control joints shall be field located by the contractor.
2. Control joints shall be located to limit the frequency and width of random cracks in the concrete slab.
3. Locate and install control joints in accordance with ACI 360R "Design of Slabs on Ground" and the details shown.
4. Maximum spacing of joints shall be per the table below.
5. Saw cuts should be made as soon as possible.

MAXIMUM SPACING OF CONTROL JOINTS

Slab thickness (T), in.	Slump 4 in. to 6 in.	
	Maximum–size aggregate less than 3/4 in.	Maximum–size aggregate 3/4 in. and larger
4	8 ft.	10 ft.
5	10 ft.	13 ft.
6	12 ft.	15 ft.
7	14 ft.	18 ft.
8	16 ft.	20 ft.

3 CONTROL JOINTS
NTS

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STRUCTURAL DETAILS

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ELECTRICAL SPECIFICATIONS

PART 1- GENERAL

1.1 SCOPE OF WORK

FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT AND PROVIDE ALL LABOR REQUIRED AND NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND ALL OTHER WORK AND MISCELLANEOUS ITEMS, NOT SPECIFICALLY MENTIONED, BUT REASONABLY INFERRED FOR A COMPLETE INSTALLATION, INCLUDING ALL ACCESSORIES AND APPURTENANCES REQUIRED FOR TESTING THE SYSTEM. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT ALL SYSTEMS BE COMPLETE AND READY FOR OPERATION. THIS PROJECT INCLUDES ELECTRICAL SERVICE, GENERAL POWER, LIGHTING, AND COMMUNICATIONS SYSTEM RACEWAY.

1.2 CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL COMPLY WITH LATEST RULES, CODES AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO OSHA, THE NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING AND FIRE CODES, NFPA, AND OTHER APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS. CODE COMPLIANCE IS MANDATORY. NOTHING IN THESE DRAWINGS AND SPECIFICATIONS PERMITS WORK NOT CONFORMING TO THESE CODES. WHERE WORK IS SHOWN TO EXCEED MINIMUM CODE REQUIREMENTS, COMPLY WITH DRAWINGS AND SPECIFICATIONS.

1.3 LICENSE, FEES AND PERMITS

ARRANGE FOR REQUIRED INSPECTIONS AND PAY ALL LICENSE, PERMIT AND INSPECTION FEES.

1.4 CONDITIONS AT SITE

VISIT TO SITE IS REQUIRED OF ALL BIDDERS PRIOR TO SUBMISSION OF BID. ALL WILL BE HELD TO HAVE FAMILIARIZED THEMSELVES WITH ALL DISCERNIBLE CONDITIONS AND NO EXTRA PAYMENT WILL BE ALLOWED FOR WORK REQUIRED BECAUSE OF THESE CONDITIONS, WHETHER SPECIFICALLY MENTIONED OR NOT. LINES OF OTHER SERVICES THAT ARE DAMAGED AS A RESULT OF THIS WORK SHALL PROMPTLY BE REPAIRED AT NO EXPENSE TO THE OWNER TO COMPLETE SATISFACTION OF THE OWNER.

1.5 SAFETY

THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.

1.6 GUARANTEE

GUARANTEE THE INSTALLATION FREE FROM DEFECTS OF WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER DATE OF CERTIFICATE OF FINAL PAYMENT AND PROMPTLY REMEDY ANY DEFECTS DEVELOPING DURING THIS PERIOD, WITHOUT CHARGE.

1.7 SUBSTITUTIONS

WHEREVER POSSIBLE, MORE THAN ONE MANUFACTURER HAS BEEN LISTED FOR VARIOUS ITEMS OF EQUIPMENT, ANY ONE OF WHICH WILL BE ACCEPTABLE. BASE THE BID ON USE OF MATERIALS SPECIFIED. IF, AFTER AWARD OF THE CONTRACT, A SUBSTITUTE IS PROPOSED, THE REQUEST FOR PERMISSION TO SUBSTITUTE SHALL BE ACCOMPANIED WITH A STATEMENT OF THE AMOUNT OF MONEY TO BE RETURNED TO THE CONTRACT IF THE SUBSTITUTION IS PERMITTED. THE ENGINEER IS THE SOLE JUDGE OF ACCEPTABILITY OF PROPOSED SUBSTITUTIONS, IF A SUBSTITUTE TEM IS PERMITTED, AND ANY REDESIGN EFFORT IS THEREBY NECESSITATED, THE REQUIRED REDESIGN SHALL BE AT THE CONTRACTOR'S EXPENSE.

1.8 SHOP DRAWINGS AND MATERIALS LISTS

SUBMIT TO THE ENGINEER SEVEN (7) COPIES OF COMPLETE SHOP DRAWINGS AND MATERIALS LISTS FOR REVIEW WITHIN THIRTY (30) DAYS AFTER AWARD OF CONTRACT, ALL PROPOSED DEVIATIONS FROM SPECIFICATIONS MUST BE CLEARLY LISTED UNDER A PROMINENT HEADING ENTITLED "DEVIATIONS".

1.9 WORKMANSHIP

ONLY QUALITY WORKMANSHIP WILL BE ACCEPTED. HAPHAZARD OR POOR INSTALLATION PRACTICE WILL BE CAUSE FOR REJECTION OF WORK.

1.10 COORDINATION

COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO PROVIDE CORRECT ROUGH-IN AND CONNECTION FOR EQUIPMENT FURNISHED UNDER OTHER TRADES THAT REQUIRE ELECTRICAL CONNECTIONS. VERIFY EQUIPMENT DIMENSIONS AND REQUIREMENTS WITH PROMOTIONS SPECIFIED UNDER THIS SECTION. CHECK ACTUAL JOB CONDITIONS BEFORE FABRICATING WORK. REPORT NECESSARY CHANGES IN TIME TO PREVENT NEEDLESS WORK.

1.11 CUTTING AND PATCHING

ALL CUTTING AND PATCHING REQUIRED FOR WORK OF THIS DIVISION IS INCLUDED HEREIN. COORDINATION WITH GENERAL CONTRACTOR AND OTHER TRADES IS IMPERATIVE.

1.12 SITE CLEANUP

A. AFTER ALL OTHER WORK HAS BEEN ACCOMPLISHED, CLEAN ALL EXPOSED CONDUIT, FIXTURES, EQUIPMENT AND SUPPORTS. TOUCH UP PAINT ON ANY EQUIPMENT SCRAPED, SCRATCHED OR DAMAGED DURING CONSTRUCTION.

B. LEAVE ALL AREAS INVOLVING ELECTRICAL WORK IN A CONDITION SATISFACTORY TO THE OWNER. REMOVE ALL CRATES, CARDBOARD, PACKING MATERIAL WASTE MATERIAL, AND OTHER DEBRIS LEFT OVER FROM CONSTRUCTION.

PART 2- PRODUCTS

2.1 MATERIAL APPROVAL

ALL MATERIALS MUST BE NEW AND BEAR U.L LABEL. MATERIALS THAT ARE NOT COVERED BY UL TESTING STANDARDS SHALL BE TESTED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY OF A GOVERNMENTAL AGENCY APPROVED BY THE AUTHORITY HAVING JURISDICTION.

2.2 WIRES AND CABLES

A. CONDUCTORS FOR 600V SYSTEMS AND BELOW SHALL BE STRANDED COPPER, #12 AWG MINIMUM.

B. INSULATION SHALL BE THWN FOR WET LOCATIONS AND THHN FOR DRY LOCATIONS.

2.3 OUTLET BOXES, JUNCTION AND PULLBOXES

A. OUTLET BOXES: HOT-DIPPED, GALVANIZED OR SHERADIZED. SIZE AS REQUIRED WTH 4" SQUARE MINIMUM, FOR FLUSH MOUNTED DEVICES AND LIGHTING FIXTURES.

B. JUNCTION AND PULL BOXES: HOT DIPPED, GALVANIZED OR SHERADIZIED, SIZED ACCORDING TO CODE. LARGER JUNCTION AND PULL BOXES SHALL BE FABRICATED FROM SHEET STEEL SIZED ACCORDING TO CODE, WITH SCREW-ON COVERS, FINISHED GRAY BAKED ENAMEL.

2.4 WIRING DEVICES

A. ALL WIRING DEVICES OF ANY ONE GENERAL TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL MATCH THROUGHOUT.

B. WIRING DEVICES SHALL BE AS MANUFACTURED BY HUBBELL GE, LEVITON, P & S, OR BRYANT. NO SUBSTITUTIONS.

C. COVER PLATES SHALL BE AS MANUFACTURED BY ARROW HART, SIERRA, LEVITON OR MULLBURRY. WHITE FINISH.

D. WHERE INDICATED, PROVIDE GENERAL-DUTY, DUPLEX RECEPTACLES, GROUND-FAULT CIRCUIT INTERRUPTERS: GROUNDING TYPE UL-RATED CLASS A, GROUP 1, 20 AMPERES RATING, 120 VOLTS, 60HZ: WITH SOLID-STATE GROUND FAULT SENSING AND SIGNALING: WITH 5 MILL-AMPERES GROUND FAULT TRIP LEVEL: WHITE FINISH.

E. SWITCHES SHALL BE FLUSH WALL TYPE, WHITE FINISH

F. CONVENIENCE RECEPTACLES SHALL BE, FLUSH WALL TYPE, WHITE FINISH.

2.5 WIRE CONNECTORS

A. FOR WIRE SIZES 8 AWG AND SMALLER: INSULATED PRESSURE TYPE (WITH LVE SPRING) RATED 105C, 600V, FOR BUILDING WIRING AND 1000V IN FIXTURES, SCOTCHLOK OR IDEAL.

B. FOR WIRE SIZES #6 AWG AND LARGER: T&B OR EQUIVALENT COMPRESSION TYPE WITH 3M #33+ OR PLYMOUTH "SLIPKNOT GREY" TAPE INSULATION.

2.6 PANELBOARD

PANELBOARDS SHALL BE AS MANUFACTURED BY SQUARE D, EATON (CUTLER-HAMMER), SIEMENS, OR CUTLER HAMMER. PROVIDE PANELBOARDS AS INDICATED ON SCHEDULES, WITH THE FOLLOWING FEATURES: HARD-DRAWN COPPER BUS (98 PERCENT CONDUCTIVITY), MECHANICAL-TYPE MAIN AND NEUTRAL LUGS, NEUTRAL BUS RATED 100 PERCENT OF PHASE BUS, GROUND BUS BONDED TO ENCLOSURE, BOLT-ON MOLDED-CASE THERMAL-MAGNETIC BREAKERS.

2.7 SWITCHBOARD

SWITCHBOARD SHALL BE AS MANUFACTURED BY SQUARE D, EATON (CUTLER-HAMMER), OR SIEMENS. NO SUBSTITUTIONS PERMITTED. SWITCHBOARD SHALL BE RATED FOR THE SERVICE VOLTAGE, AVAILABLE FAULT CURRENT, AND CONTINUOUS AMPERAGE AS REQUIRED FOR THE PUMP STATION ELECTRICAL LOADS. SWITCHBOARDS SHALL BE FRONT-ACCESSIBLE ONLY. GROUND-FAULT PROTECTION SHALL BE PROVIDED ON THE MAIN DEVICE AND ON ALL FEEDERS RATED 1000A AND LARGER, OR AS OTHERWISE REQUIRED BY NEC AND THE SERVING UTILITY. PROVIDE TIN-PLATED COPPER BUS. HORIZONTAL BUS SHALL NOT BE REDUCED. MAIN DEVICES SHALL BE INDIVIDUALLY MOUNTED. DISTRIBUTION AND FEEDER DEVICES SHALL BE GROUP-MOUNTED. ALL FEEDER DEVICES SHALL BE MOLDED-CASE CIRCUIT BREAKERS UNLESS OTHERWISE NOTED ON THE PLANS. PROVIDE A MINIMUM OF FIVE PERCENT (5%) SPARE CAPACITY, INCLUDING SPACE PROVISIONS FOR FUTURE CIRCUIT BREAKERS AND ASSOCIATED BUS CONNECTIONS. PROVIDE AN AMMETER, VOLTMETER, AND WATT-HOUR DEMAND METER FOR THE MAIN SERVICE.

2.8 RACEWAYS

A. OUTDOORS:

EXPOSED: RIGID STEEL OR INTERMEDIATE METAL CONDUIT
CONCEALED: RIGID STEEL OR INTERMEDIATE METAL CONDUIT
UNDERGROUND: RIGID NON-METALLIC CONDUIT
TO VIBRATING EQUIPMENT: LIQUID-TIGHT FLEXIBLE METAL CONDUIT

B. INDOORS

EXPOSED: ELECTRICAL METALLIC TUBING, RIGID STEEL CONDUIT, PVC-COATED RIGID STEEL CONDUIT
CONCEALED: ELECTRIC METALLIC TUBING, METAL CLAD, NM (WHERE ALLOWED BY LOCAL AHU)
DAMP OR WET LOCATIONS: RIGID STEEL CONDUIT
TO VIBRATING EQUIPMENT: FLEXIBLE METAL CONDUIT

2.9 FAULT PROTECTION AND COORDINATION STUDY

A. THE FAULT PROTECTION AND COORDINATION STUDY SHALL INCLUDE THE FOLLOWING, AS WELL AS ANY RELATED DATA REQUIRED FOR SUBSTANTIATION AND CLARIFICATION OF THE STUDY:

1. COMPLETE FAULT CURRENT AND SYSTEM PROTECTIVE DEVICE COORDINATION DATA INCLUDING THE SHORT CIRCUIT AND GROUND FAULT DUTIES ON THE PRIMARY VOLTAGE.
2. COMPLETE SET OF TIME-CURRENT COORDINATION CURVES, STARTING WITH DEVICES PROTECTING THE SERVICE DOWN THROUGH AND INCLUDING ALL FEEDER, SUB-FEEDER AND SECONDARY MAIN AND BRANCH CIRCUIT PROTECTIVE DEVICES.
3. A COMPLETE SET OF MOTOR STARTING TIME-CURRENT CURVES FOR MOTORS EXCEEDING 50 HORSEPOWER BASED ON THE WK2 INERTIA OF THE DRIVEN LOAD.
4. A COMPLETE SET OF TRANSFORMER INRUSH AND THERMAL WITHSTAND CURVES.
5. A TABULATION OF ALL RECOMMENDED RELAY SETTINGS, INCLUDING GROUND FAULT RELAY SETTINGS, FUSE CATALOG NUMBER.
6. A TABULATION OF ANY CASES WHERE SELECTIVE COORDINATION IS UNOBTAINABLE AND OF THE CONSEQUENCES OF A DOWNSTREAM FAULT ON UPSTREAM CONTINUITY OF SUPPLY.
7. COMPLETE DATA ON GENERATOR SHORT-CIRCUIT TRANSIENT AND SUSTAINING CURRENTS, GROUND FAULT CURRENT, AND AUTO-TRANSFER SWITCHING TIME.

B. THE FINAL SELECTION AND SETTING OF ALL PROTECTIVE DEVICES SHALL BE BASED ON THE APPROVED STUDY.

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ELECTRICAL

ELECTRICAL SPECIFICATIONS SHEET 1

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E001

ELECTRICAL SPECIFICATIONS CONT.

C. THIS STUDY SHALL BE SUBMITTED PRIOR TO SUBMISSION OF SHOP DRAWINGS FOR ANY SERVICE, DISTRIBUTION,

PART 3 - EXECUTION

3.1 - GENERAL

A. ELECTRIC SYSTEM LAYOUTS INDICATED ON THE DRAWINGS ARE GENERALLY DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER TRADES WILL PERMIT.

B. CONSULT ALL OTHER DRAWINGS. VERIFY SCALES AND REPORT ANY DIMENSIONAL DISCREPANCIES OR OTHER CONFLICTS TO ARCHITECT BEFORE SUBMITTING BID.

C. ALL HOME RUNS ARE INDICATED AS STARTING FROM THE DEVICE NEAREST THE PANEL AND CONTINUING IN THE GENERAL DIRECTION OF THAT PANEL. CONTINUE SUCH CIRCUIT TO THE PANEL AS THOUGH THE ROUTES WERE COMPLETELY INDICATED.

D. AVOID CUTTING AND BORING HOLES THROUGH STRUCTURE OR STRUCTURAL MEMBERS WHEREVER POSSIBLE. OBTAIN PRIOR APPROVAL OF ARCHITECT AND CONFORM TO ALL STRUCTURAL REQUIREMENTS WHEN CUTTING OR BORING THE STRUCTURE IS NECESSARY AND PERMITTED.

3.2- ELECTRICAL GROUNDING

GROUND ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC. IN ADDITION PROVIDE A SEPARATE GROUND WIRE FOR ALL FEEDERS AND BRANCH CIRCUITS.

3.3 - ELECTRICAL EQUIPMENT INSTALLATION

A. HEAD ROOM MAINTENANCE: IF MOUNTING HEIGHTS OR OTHER LOCATION CRITERIA ARE NOT INDICATED, ARRANGE AND INSTALL COMPONENTS AND EQUIPMENT TO PROVIDE THE MAXIMUM POSSIBLE HEADROOM.

B. MATERIALS AND COMPONENT'S: INSTALL LEVEL, PLUMB, AND PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, UNLESS OTHERWISE INDICATED.

C. EQUIPMENT: INSTALL TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT FOR EASE OF DISCONNECTING, WITH MINIMUM INTERFERENCE WITH OTHER INSTALLATIONS.

D. RIGHT OF WAY: COORDINATE INSTALLATION OF ELECTRICAL DEVICES WITH OTHER TRADES.

3.4 RACEWAY AND CABLE INSTALLATION

A. ABOVE GRADE: RIGID STEEL OR IMC IN WET LOCATIONS, WHERE SUBJECT TO MECHANICAL DAMAGE AND IN CONCRETE OR BLOCK WALLS, ENT IN OTHER LOCATIONS WHERE PERMITTED BY CODE METAL CLAD OR NM CABLE WITHIN UNITS, ONLY WHERE ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION.

B. CONCEAL RACEWAYS AND CABLES WITHIN FINISHED WALLS, CEILINGS, AND FLOORS, UNLESS OTHERWISE INDICATED.

C. INSTALL RACEWAYS AND CABLES AT LEAST SIX (6) INCHES AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT-WATER PIPES. LOCATE HORIZONTAL RACEWAY RUNS ABOVE WATER AND STEAM PIPING.

D. USE TEMPORARY RACEWAY CAPS TO PREVENT FOREIGN MATTER FROM ENTERING.

E. MAKE CONDUIT BENDS AND OFFSETS SO INSIDE DIAMETER IS NOT REDUCED. KEEP LEGS OF BENDS IN THE SAME PLANE AND STRAIGHT LEGS OFFSETS PARALLEL UNLESS OTHERWISE INDICATED.

F. USE RACEWAY FITTINGS AND CABLE FITTINGS COMPATIBLE WITH RACEWAYS AND CABLES AND SUITABLE FOR THIS APPLICATION AND LOCATION.

G. INSTALL RACEWAYS EMBEDDED IN SLABS IN MIDDLE THIRD OF SLAB THICKNESS WHERE PRACTICAL, AND LEAVE AT LEAST 1-INCH OF CONCRETE COVER.

1. SECURE RACEWAYS TO REINFORCING RODS TO PREVENT SAGGING OR SHIFTING DURING CONCRETE PLACEMENT.
2. SPACE RACEWAYS LATERALLY TO PREVENT VOIDS IN CONCRETE.
3. INSTALL CONDUIT LARGER THAN 1-INCH TRADE SIZE PARALLEL TO OR AT RIGHT ANGLES TO MAIN REINFORCEMENT. WHERE CONDUIT IS AT RIGHT ANGLES TO REINFORCEMENT, PLACE CONDUIT CLOSE TO SLAB SUPPORT.
4. TRANSITION FROM NONMETALLIC TUBING TO RIGID STEEL CONDUIT, OR IMC BEFORE RISING ABOVE FLOOR.

H. MAKE EXPOSED BENDS OR BANKED RUNS FROM SAME CENTERLINE IN ORDER THAT BENDS ARE PARALLEL USE FACTORY ELBOWS ONLY WHERE ELBOWS CAN BE INSTALLED PARALLEL: OTHERWISE, PROVIDE FIELD BENDS FOR EXPOSED PARALLEL RACEWAYS.

I. INSTALL PULL WIRES IN EMPTY RACEWAYS. USE NO. 14 AWG ZINC-COATED STEEL OR MONOFILAMENT PLASTIC UNE WITH NOT LESS THAN 200-LB TENSILE STRENGTH. LEAVE AT LEAST 12-INCHES OF SLACK AT EACH END OF PULL WIRE.

J. INSTALL TELEPHONE AND SIGNAL SYSTEM RACEWAYS, 2-INCH TRADE SIZE AND SMALLER, N MAXIMUM LENGTHS OF 150 FEET (45 M) AND WITH A MAXIMUM OF TWO 90-DEGREE BENDS OR EQUIVALENT. SEPARATE LENGTHS WITH PULL OR JUNCTION BOXES WHERE NECESSARY TO COMPLY WITH THESE REQUIREMENTS,IN ADDITION TO REQUIREMENTS ABOVE.

K. CONNECT MOTORS AND EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT WITH A MAXIMUM OF 72-INCH FLEXIBLE CONDUIT. INSTALL LFMC IN WET OR DAMP LOCATIONS. INSTALL A SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.

L. SET FLOOR BOXES LEVEL AND TRIM AFTER INSTALLATION TO FIT FLUSH TO FINISHED FLOOR SURFACE.

M. CONDUCTORS: TYPE THHN/THWN INSULATED CONDUCTORS IN RACEWAY.

N. INSTALL SPICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPUCED CONDUCTORS.

O. INSTALL WIRING AT OUTLETS WITH AT LEAST 12 INCHES OF SLACK CONDUCTOR AT EACH OUTLET.

P. CONNECT OUTLET AND COMPONENT CONNECTIONS TO WIRING SYSTEMS AND TO GROUND. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A.

3.5 IDENTIFICATION

A. PROVIDE ENGRAVED 3 LAYER LAMINATE PLASTIC NAMEPLATES FOR PANELBOARDS, DISCONNECT SWITCHES AND ALL SIMILAR DEVICES.

B. COLOR-CODE 208Y/120-VOLT SYSTEM SECONDARY SERVICE, FEEDER, AND BRANCH-CIRCUIT CONDUCTORS THROUGHOUT THE SECONDARY ELECTRICAL SYSTEM AS FOLLOWS:

1. PHASE A: BLACK
2. PHASE B: RED
3. PHASE C: BLUE
4. NEUTRAL: WHITE
5. GROUND: GREEN

C. COLOR-CODE 480Y/277-VOLT SYSTEM SECONDARY SERVICE, FEEDER, AND BRANCH- CIRCUIT CONDUCTORS THROUGHOUT THE SECONDARY ELECTRICAL SYSTEM AS FOLLOWS:

6. PHASE A: BROWN
7. PHASE B: ORANGE
8. PHASE C: YELLOW
9. NEUTRAL: WHITE OR GRAY
10. GROUND: GREEN

3.6 STARTUP SERVICES

CONTRACTOR SHALL ALLOT A MINIMUM OF 2 HOURS FOR STARTUP SERVICES. START AND OPERATE ALL SYSTEMS AS REQUIRED BY THE OWNER. INSTRUCT OWNER'S REPRESENTATIVE ON THE PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT.

3.7 OPERATING AND MAINTENANCE INSTRUCTIONS (0+M MANUAL)

PREPARE THREE (3) COPIES FOR ALL EQUIPMENT.

3.8 RECORD AS-BUILTS

PROVIDE (1) CLEAN, LEGIBLE COPY OF DRAWINGS TO ENGINEER INDICATING ALL DEVIATIONS FROM INITIAL DESIGN (AS-BUILT

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ELECTRICAL

ELECTRICAL SPECIFICATIONS SHEET 2

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DMB MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

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LINE IS 1-INCH AT FULL SIZE
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DRAWING: E002

SINGLE LINE DIAGRAM

NEW	DESCRIPTION
	CIRCUIT BREAKER
100AT / 125AF	TRIP AMPS / FRAME SIZE
	COMBINATION MOTOR STARTER AND BREAKER
30	MOTOR (HP AS SHOWN)
VFD / 30	VFD DRIVE W/ MOTOR
VFD	VFD DRIVE
	EMERGENCY STOP MUSHROOM SWITCH (RED)
A	METER A - AMMETER V - VOLTMETER W - WATTMETER
	TRANSFORMER
	SAFETY DISCONNECT SWITCH
	SURGE CAPACITOR
	LIGHTNING ARRESTER
	DELTA CONNECTION
	WYE CONNECTION
	GROUND CONNECTION
E / N / L	TRANSFER SWITCH
SPD	SURGE PROTECTION DEVICE
M	UTILITY METER
	MOTOR STARTER, INDIVIDUAL - NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
	COMBINATION MOTOR STARTER - NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
100	DISCONNECT, NON-FUSED. 30A, 3 POLE UON. 100A, 3P RATING INDICATED.
100L OR F 100L	FUSED DISCONNECT: 3 POLE, RATING AS SHOWN
CB	ENCLOSED CIRCUIT BREAKER
	FIELD INSTRUMENT
	CONTROL STATION. CONFIGURATION ACCORDING TO CONTROL DRAWINGS

GROUNDING

NEW	DESCRIPTION
G	BARE COPPER CONDUCTOR EMBEDDED IN CONCRETE OR BURIED
	MECHANICAL CONNECTION
	GROUND ROD 3/4" X 10'-0, COPPERCLAD, UON.
	GROUND ROD AND WELL
	GROUND CONNECTION
G	GROUND PLATE

LIGHTING FIXTURES

NEW	DESCRIPTION
Ma,#3	FLUORESCENT FIXTURE, 2x4 SURFACE TROFFER TYPE FIXTURE (M) SWITCH (a) CIRCUIT (3)
	FLUORESCENT FIXTURE, STRIP, OPEN REFLECTOR, ENCLOSED OR WRAPAROUND TYPE
	EXIT SIGN, WALL MOUNTED SHADING INDICATES SIGN FACE
	REMOTE EMERGENCY LIGHTING 1 OR 2 LAMP HEADS
	POLE MOUNTED SITE LIGHT
	INCANDESCENT/CFS FIXTURE
A2 / 10'-0" AFF	FIXTURE TYPE IDENTIFIER. TYPE APPLIES TO FIXTURE OF THE SAME SHAPE WITHIN A ROOM OR AN AREA, UON. REFER TO LIGHTING FIXTURE SCHEDULE. DIMENSIONS TO BOTTOM OF FIXTURE
	RECESSED, SURFACE OR PENDANT CAN LIGHT
	WALL MOUNTED
	POLE-MOUNTED AREA LIGHT. ONE POLE AND TWO FIXTURES SHOWN.
	EMERGENCY LIGHTING UNIT, SELF-CONTAINED.
	BOLLARD LIGHT FIXTURE
	IN-GRADE UP LIGHT
	RECESSED FIXTURE
	SURFACE MOUNTED FIXTURE
	SUSPENDED/PENDANT MOUNTED FIXTURE
	WALL MOUNTED FIXTURE
3a, N / A	LIGHTING CIRCUIT IDENTIFIER: INDICATES CIRCUIT NUMBER AND ASSOCIATED SWITCH. FOR EXAMPLE, 3a INDICATES A FIXTURE POWERED FROM CIRCUIT 3 AND SWITCHED a. N SIGNIFIES AN UNSWITCHED POWERED SOURCE. 'E' PRECEEDING THE CIRCUIT NUMBER INDICATES AN EMERGENCY CIRCUIT. INDIVIDUAL FIXTURE TYPE IDENTIFIER.

EXIT SIGNS DARK QUADRANTS INDICATE FACES ILLUMINATED:

NEW	DESCRIPTION
	EXIT SIGN, SURFACE ON CEILING
	EXIT SIGN, WALL MOUNTED. DIRECTIONAL ARROW SHOWN.

NOTES:

LIGHTING SHAPES AND SCALE ARE REPRESENTED WHERE POSSIBLE. THE EXAMPLES SHOWN BELOW ARE TYPICAL APPLICATIONS.

DETAIL CALL OUT

1 / E-001 — REFER TO DETAIL NUMBER; SHEET NUMBER DETAIL IS ON.

WIRING

NEW	DESCRIPTION
	WIRING, CONCEALED IN FINISHED AREAS, EXPOSED WHERE PERMITTED BY SPECIFICATIONS
	WIRING INSTALLED IN OR BELOW FLOOR SLAB
E	ELECTRICAL DUCT BANK
T	TELEPHONE UTILITY DUCT BANK
P	PRIMARY ELECTRIC UTILITY SERVICE DUCT BANK
LP1-2	HOME RUN TO PANEL (CKT. NO. AS SHOWN)
P101	HOME RUN (NO. REFERS TO CONDUIT & WIRE SCHEDULE)
3#12, #12G, 3/4"C	CONDUIT AND WIRE
	CONDUIT DOWN
	CONDUIT UP

WIRING DEVICE SYMBOLS

NEW	DESCRIPTION
CKT# / WP	20 AMP RECEPTACLE: SINGLE STROKE - SINGLE DOUBLE STROKE - DUPLEX RECEPTACLE MODIFIERS: 3 = CIRCUIT NUMBER C = CLOCK HANGER GF = GROUND FAULT CIRCUIT INTERRUPTER IG = ISOLATED GROUND F = FOURPLEX WP = WEATHER PROOF
$ 6a / WP	CIRCUIT SUPERSCRIPT MODIFIER. LOWER CASE LETTER INDICATES CIRCUIT CONTROLLED - a,b,c, ETC. COMBINED WITH CIRCUIT NUMBER. EXAMPLE 1a, 4b, ETC. SWITCH SUBSCRIPT MODIFIER. UPPER CASE LETTER OR NUMBER: 2 = DOUBLE POLE 3 = THREE WAY 4 = FOUR WAY OS = OCCUPANCY SENSOR, DUAL TECHNOLOGY, LEGRAND WATTSTOPPER LMDW-100 SERIES. DS = DIMMING SWITCH, LOW VOLTAGE, LEGRAND WATTSTOPPER LMDW-101 OR EQUAL. MS = MANUAL (MOTOR) STARTER OR SWITCH R = RHEOSTAT (DIMMER, SPEED CONTROL) L = LOCKABLE LV = LOW VOLTAGE AS = ASTRONOMICAL IT = INTERVAL TIMER MD = MOTION DETECTOR
	SECURITY CAMERA
	SPEAKER
H	AUDIBLE HORN
B	STROBE LIGHT (BLUE SHOWN)
SD	SMOKE DETECTOR

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AI	ANALOG INPUT (PLC)
AIC	AMPERE INTERRUPTING CAPACITY
AO	ANALOG OUTPUT (PLC)
AR	AS REQUIRED
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CP	CONTROL PANEL
CR	CONTROL RELAY
C.O.	CONDUIT ONLY
CPT	CONTROL POWER TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DI	DIGITAL INPUT (PLC)
DO	DIGITAL OUTPUT (PLC)
DS	DISCONNECT SWITCH
EC	ELECTRICAL CONTRACTOR
EHH	ELECTRICAL HAND HOLE
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF CL I DIV 1 GR D
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
ES	EMERGENCY STOP
EX	EXTERIOR
EXTG	EXISTING
FBO	FURNISHED BY OTHERS
FDS	FUSED DISCONNECT SWITCH
FE	FLOW ELEMENT
FIT	FLOW INDICATOR TRANSMITTER
FNR	FORWARD NON-REVERSE
FS	FLOW SWITCH
FU	FUSE
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
FWE	FURNISHED WITH EQUIPMENT
GND	GROUND
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
ISR	INTRINSICALLY SAFE RELAY
JB	JUNCTION BOX
K	KILO
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
L	LOCAL
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LE	LEVEL ELEMENT
LI	LEVEL INDICATOR
LIT	LEVEL INDICATOR TRANSMITTER
LP	LIGHTING PANEL
LS	LEVEL SWITCH L=LOW, H=HIGH, LL=LOW LOW, HH=HIGH HIGH
LT	LEVEL TRANSMITTER
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MLO	MAIN LUG ONLY
MS	MOTOR STARTER
MTD	MOUNTED
NC	NORMALLY CLOSED
NEG	NEGATIVE
NEU	NEUTRAL
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
P	POLE
PB	PUSHBUTTON
PE	PRESSURE ELEMENT
PF	POWER FACTOR
PH	PHASE
PIT	PRESSURE INDICATOR TRANSMITTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PRI	PRIMARY
PT	PRESSURE TRANSMITTER
PVC	POLYVINYL CHLORIDE
R	REMOTE
RGS	RIGID GALVANIZED STEEL CONDUIT
RSC	RIGID STEEL CONDUIT
S	SURFACE
SEC	SECONDARY
SHLD	SHIELDED CABLE
SI	SPEED INDICATOR
SN	SOLID NEUTRAL
SP	SPARE
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SYM	SYMMETRICAL
T	TRANSFORMER
TB	TERMINAL BLOCKS
TDR	TIME DELAY RELAY
TE	TEMPERATURE ELEMENT
TIT	TEMPERATURE INDICATING TRANSMITTER
TL	TEMPERATURE LOW
TRX	TRANSFORMER
TS	TEMPERATURE SWITCH
TWS,TWSP	TWISTED SHIELDED CABLE
V	VOLT
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
XLP	CROSS LINKED POLYETHYLENE
XFMR	TRANSFORMER
ZSC	LIMIT SWITCH CLOSED
ZSO	LIMIT SWITCH OPEN

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ELECTRICAL

SYMBOLS AND ABBREVIATIONS

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POTABLE WATER STORAGE AND RECLAIM PUMPS

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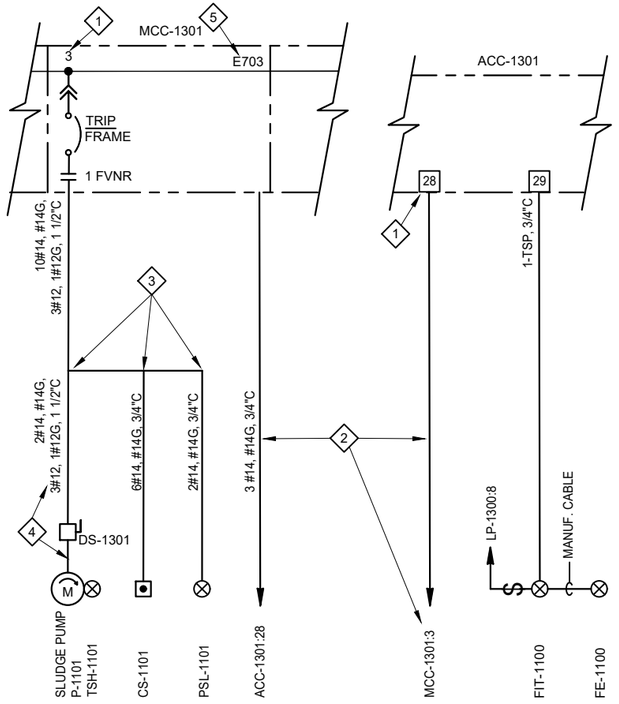
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SHEET:	### OF ###

DRAWING: E003

ONE LINE DIAGRAM PRESENTATION (TYPICAL)



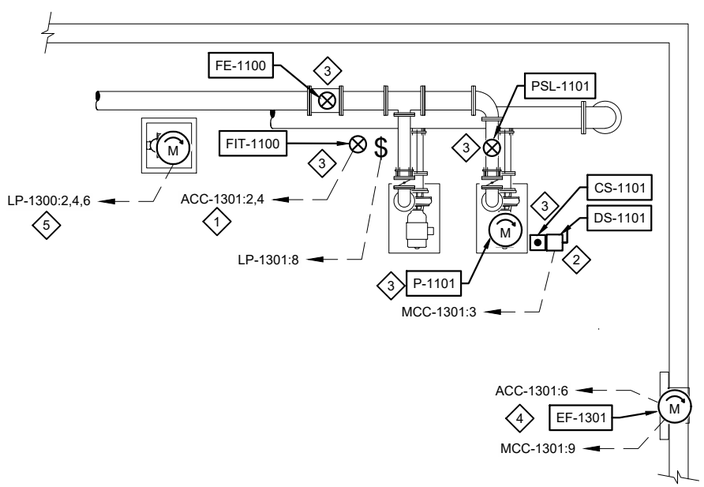
MOTOR CONTROL CENTER (TYPICAL)

AREA CONTROL CENTER (TYPICAL)

KEY NOTES:

1. SEQUENTIAL CIRCUIT DESIGNATOR.
2. CIRCUIT REQUIREMENTS INDICATED ON REFERENCED ONE LINE DIAGRAM.
3. DIAGRAMMATIC REPRESENTATION OF RACEWAY REQUIREMENTS. DRAWINGS DO NOT NECESSARILY DEPICT PHYSICAL RELATIONSHIPS OR INTERFACES WITH OTHER EQUIPMENT OR TRADES. PROVIDE ALL OFFSETS, TRANSITIONS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED TO FORM A COMPLETE RACEWAY SYSTEM.
4. CIRCUIT REQUIREMENTS UNCHANGED FROM UPSTREAM CIRCUIT REQUIREMENTS.
5. CONTROL DIAGRAM APPLICABLE TO EQUIPMENT SERVED FROM THIS LOCATION.

PLAN REPRESENTATION (TYPICAL)



KEY NOTES:

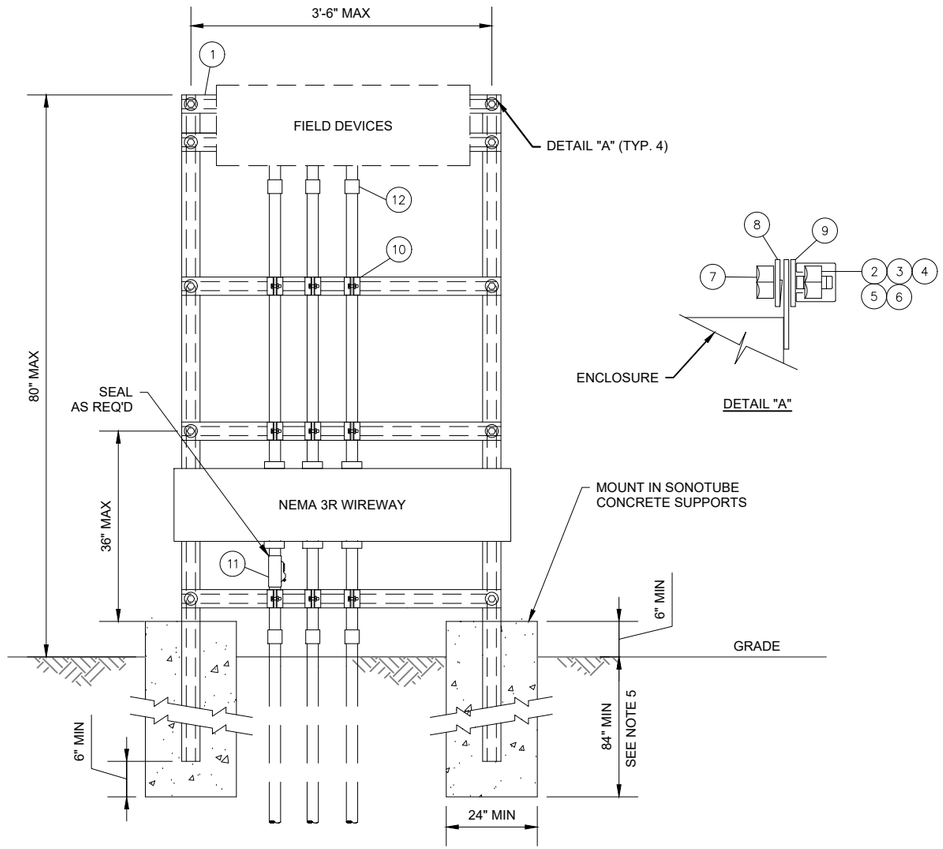
1. HOMERUN CIRCUIT DESIGNATION, MULTIPLE CIRCUITS IN SINGLE CONDUIT. REFER TO REFERENCED ONE LINE DIAGRAM FOR CABLE AND RACEWAY REQUIREMENTS.
2. REFER TO MOTOR FEED INSTALLATION DETAILS FOR SUPPORT SYSTEM REQUIREMENTS.
3. PLAN DRAWING DEPICTS APPROXIMATE SPATIAL RELATIONSHIP OF ASSOCIATED EQUIPMENT AND DEVICES. REFER TO ONE LINE DIAGRAMS FOR INTERCONNECTING CIRCUIT REQUIREMENTS. REFER TO TYPICAL ONE LINE DIAGRAM PRESENTATION AS SHOWN ABOVE.
4. HOMERUN CIRCUIT DESIGNATION, PROVIDE SEPARATE CONDUIT FOR EACH CIRCUIT.
5. HOMERUN CIRCUIT DESIGNATION, MULTIPLE CIRCUITS FEEDING ONE PIECE OF EQUIPMENT.

GENERAL DETAILS

ITEM	QTY.	UNIT	DESCRIPTION
01	A/R	EA	FRAMING CHANNEL, 1 5/8" X 1 5/8", STRUT MEMBER
02	A/R	EA	3/8 " - 1 5/8" STRUT SPRING NUT
03	A/R	EA	SCREW, HEX HEAD CAP, 3/8" DIA X 3/4" LONG
04	A/R	EA	WASHER, FLAT
05	A/R	EA	NUT, 3/8"
06	A/R	EA	NUT, WITH SPRING, 3/8"
07	A/R	EA	3/8 " - 16 x 1 1/2 " LONG HEX HEAD BOLT
08	A/R	EA	3/8 " SPLIT LOCK WASHER
09	A/R	EA	1 5/8 " x 1 5/8, NO TWIST SQUARE WASHER 9/16 " HOLE
10	A/R	EA	CLAMP, SIZE AS REQ'D
11	A/R	EA	SEAL FITTING, (SIZE PER PLAN DWG.) MALE & FEMALE HUB
12	A/R	EA	COUPLING, SIZE AS REQ'D

GENERAL NOTES:

1. ALL METAL COMPONENTS USED FOR FIELD SUPPORT STRUCTURES SHALL BE OF THE SAME MATERIAL. MIXED METALS ARE NOT PERMITTED. FIELD SUPPORT STRUCTURE SHALL BE CONSTRUCTED ENTIRELY OF STAINLESS STEEL OR HOT-DIP GALVANIZED STEEL.
2. SEE PLAN DRAWINGS FOR ENCLOSURE INFORMATION.
3. SEE PLAN DRAWING FOR GROUNDING DETAILS.
4. ENCLOSURE SHALL BE GROUNDED AND TIED INTO SUPPORT GROUND.
5. MAXIMUM WEIGHT FOR ENCLOSURE SUPPORT IS 1000 POUNDS.
6. IF LOCATED IN THE FREEZING AREA, THE DEPTH SHALL NOT BE LESS THAN THE FROST LINE.
7. MAXIMUM SIZE ENCLOSURE SHALL BE 36"H X 30"W X 10" DEEP. ONE ENCLOSURE PER SIDE.



1 TYPICAL FIELD ENCLOSURE SUPPORT
NO SCALE

Bankhead Electrical Solutions
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ELECTRICAL

GENERAL NOTES AND INSTALLATION DETAILS

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

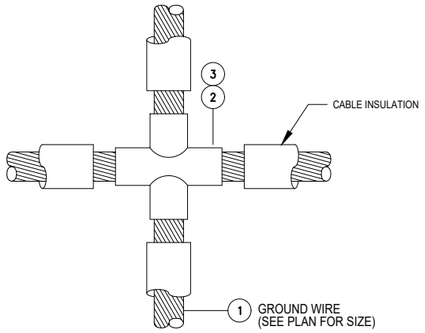
VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E004

ITEM	QTY.	UNIT	DESCRIPTION
01	A/R	FT.	WIRE, GND, 600V, THWN, #4/0 AWG. STRANDED COPPER, GREEN
02	1	EA.	MOLD, GND, CONNECTOR, #4/0-#4/0
03	1	EA.	CARTRIDGE, GROUNDING

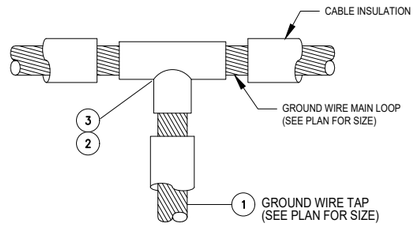
NOTES:
1. MOLDS ARE CADWELD HEAVY DUTY TYPE.
2. CADWELD MOLDS ARE GOOD FOR APPROXIMATELY 50 CONNECTIONS.



1 GROUND CABLE "X" SPLICE (COMPRESSION)
NO SCALE

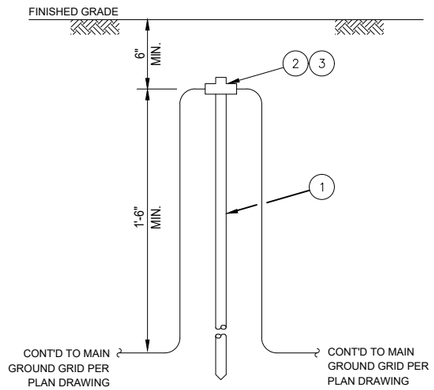
ITEM	QTY.	UNIT	DESCRIPTION
01	A/R	FT.	WIRE, GND, 600V, THWN, #4/0 AWG. STRANDED COPPER, GREEN
02	1	EA.	MOLD, GND, CONNECTOR, #4/0-#4/0 TEE
03	1	EA.	CARTRIDGE, GROUNDING

NOTES:
1. MOLDS ARE CADWELD HEAVY DUTY TYPE.
2. CADWELD MOLDS ARE GOOD FOR APPROXIMATELY 50 CONNECTIONS.



2 GROUND CABLE "T" SPLICE (COMPRESSION)
NO SCALE

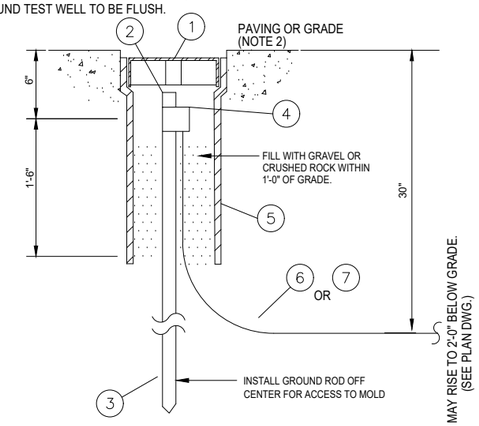
ITEM	QTY.	UNIT	DESCRIPTION
01	1	EA	GROUND ROD, COPPER CLAD, 3/4"Ø X 10'-0" LONG
02	1	EA	MOLD, CADWELD (SEE MOLD CHART)
03	1	EA	GROUND ROD, 3/4 " DIA. x 10'-0" LONG, BLACKBURN #7510



3 GROUND ROD (EXOTHERMIC)
NO SCALE

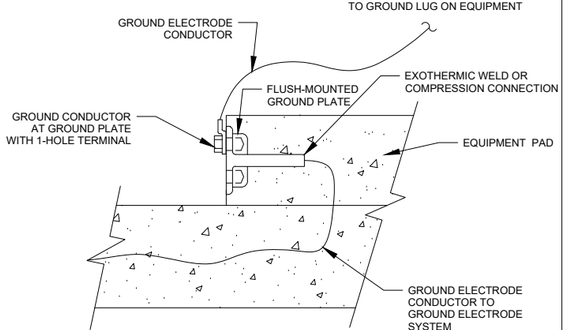
ITEM	QTY.	UNIT	DESCRIPTION
01	1	EA	12" x 2", CONCRETE COVER WITH 1" HOLE
02	1	EA	DRIVING SLEEVE (INSTALLATION USAGE ONLY)
03	1	EA	3/4" x 10'-0", GROUND ROD (COPPER)
04	1	EA	MOLD, GND, ROD TO CABLE, 3/4" - 4/0
05	1	EA	GROUND WELL, 20 1/2" X 13 1/2" X 18"
06	A/R	EA	2/0 AWG, BARE STRANDED COPPER WIRE
07	A/R	EA	4/0 AWG, BARE STRANDED COPPER WIRE

NOTES:
1. COVER MAY BE PURCHASED OR FABRICATED IN THE FIELD.
2. TOP OF WELL TO BE SET AT 1" BELOW COMPACTED FILL OR PAVING
3. TOP OF GROUND TEST WELL TO BE FLUSH.



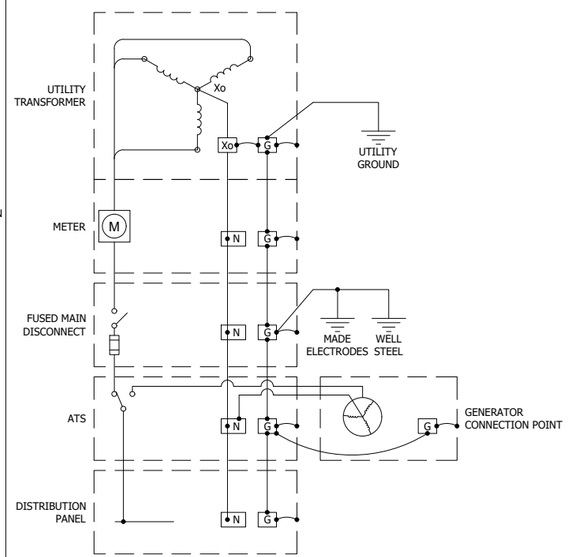
4 GROUND WELL (EXOTHERMIC)
NO SCALE

NOTES:
1. REQUIRED AT ELECTRICAL EQUIPMENT.



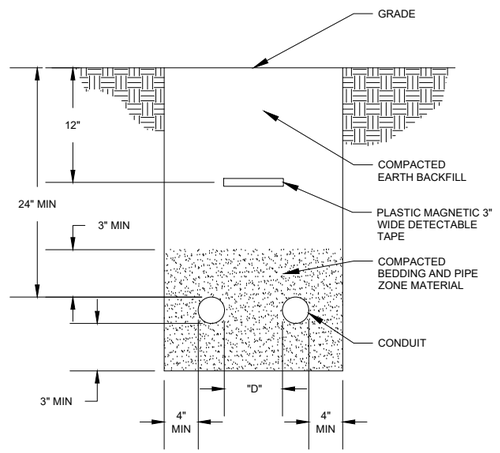
5 EQUIPMENT GROUNDING GROUND PLATE IN SLAB
NO SCALE

NOTES:
1. ALL GROUNDING CONNECTIONS SHALL COMPLY WITH NEC.
2. GROUNDING CONNECTIONS FOR UTILITY TRANSFORMER SHALL COMPLY WITH UTILITY STANDARDS AND REQUIREMENTS.



6 GROUNDING DIAGRAM
NO SCALE

NOTES:
1. NUMBER OF CONDUITS VARIES.
2. ALL TRENCHED AREA SHALL BE BACKFILLED TO MATCH EXISTING GRADE. ALL SURFACES AT GRADE SHALL BE RESTORED TO EXISTING CONDITIONS.



DIMENSION NOTES:
D = 3" MIN FOR 2" AND LARGER CONDUIT
D = 2" MIN FOR 1-1/2" AND SMALLER CONDUIT
D = 12" MIN BETWEEN SIGNAL AND POWER CONDUITS

7 TRENCHING DETAIL
NO SCALE

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ELECTRICAL

GENERAL INSTALLATION DETAILS

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

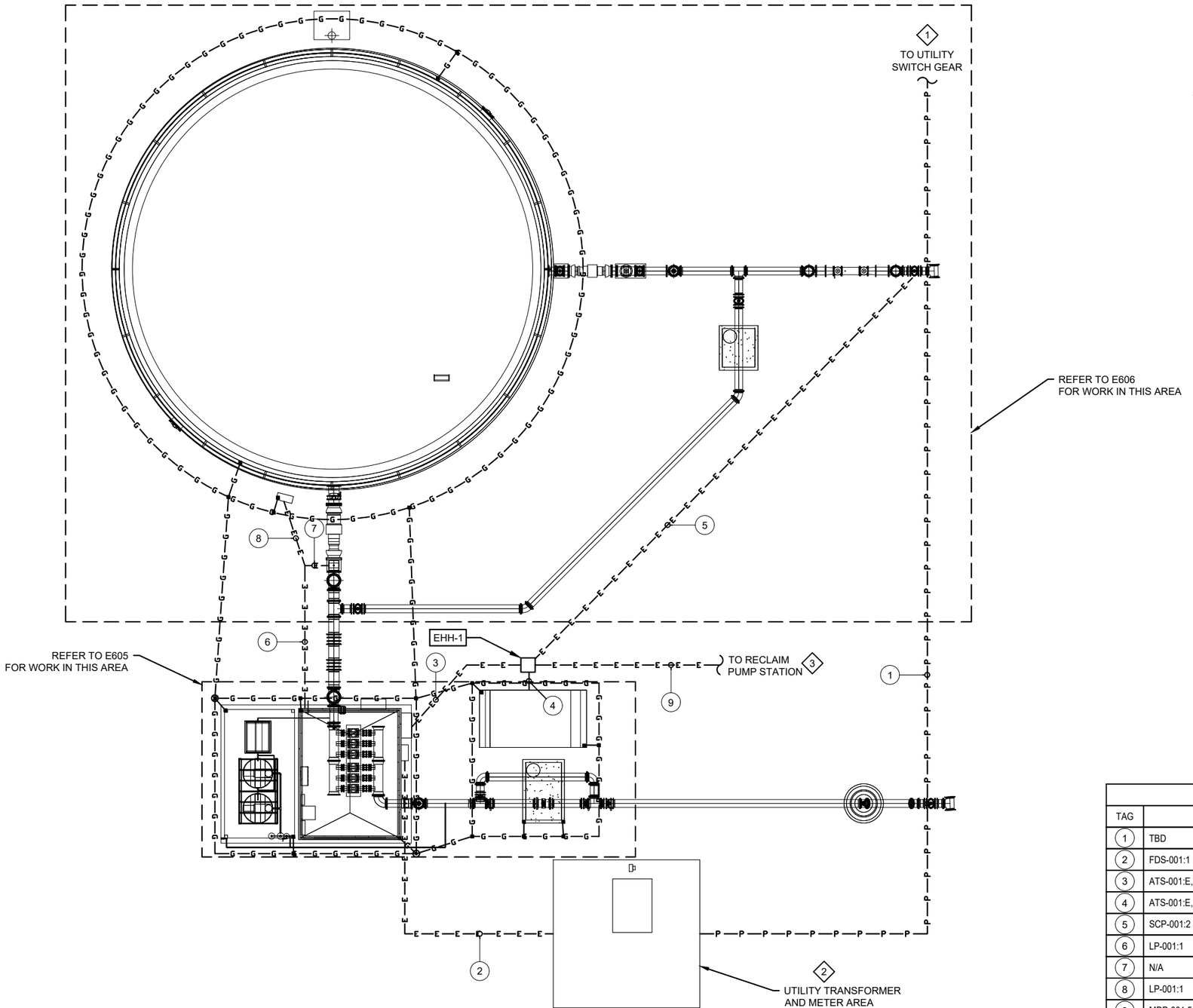
DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER
3/16/26

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH
AT FULL SIZE
(IF NOT 1"-SCALE
ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E005



1 SITE PLAN
SCALE: 1"=16'

GENERAL NOTES:

1. ALL EQUIPMENT IS SHOWN WITH BEST KNOW INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT PRIOR TO INSTALLATION.
2. CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO STARTING ANY SITE WORK.
3. ALL CONDUIT ENTERING AND LEAVING THE PUMP HOUSE SHALL BE BELOW GRADE.
4. ALL GROUNDING CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC, WITH A MINIMUM SIZE OF #2/0 AWG COPPER UNLESS OTHERWISE NOTED.

KEY NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT ONLY AND SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SERVING UTILITY PROVIDER FOR PRIMARY POWER ROUTING AND CONDUIT SIZING.
2. TRANSFORMER PAD TO BE PROVIDED BY UTILITY. CONTRACTOR SHALL COORDINATE LOCATION AND SITE REQUIREMENTS WITH UTILITY.
3. LOCATION OF RECLAIM PUMP STATION TO BE DETERMINED AT A FUTURE DATE. CONTRACTOR TO COORDINATE CONDUIT ROUTING DURING CONSTRUCTION.

CONDUIT/CABLE SCHEDULE

TAG	POWER	CONTROL	KEY NOTES:
1	TBD	N/A	1
2	FDS-001:1	N/A	
3	ATS-001:E, LP-001:9,11, MDP-001:5, SCP-001:2	ATS-001:1, SCP-001:1, SCP-001:18, SCP-001:27	
4	ATS-001:E, LP-001:9,11,	ATS-001:1, SCP-001:18	
5	SCP-001:2	SCP-001:1	
6	LP-001:1	SCP-001:5, SCP-001:6, SCP-001:7, SCP-001:16	
7	N/A	SCP-001:7	
8	LP-001:1	SCP-001:5, SCP-001:6, SCP-001:16	
9	MDP-001:5	SCP-001:27	3

CONDUIT/CABLE SCHEDULE NOTES:

1. REFER TO SINGLE LINE DIAGRAMS AND PANE SCHEDULE FOR CONDUIT AND CABLE REQUIREMENTS.

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ELECTRICAL

SITE OVERALL PLAN

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

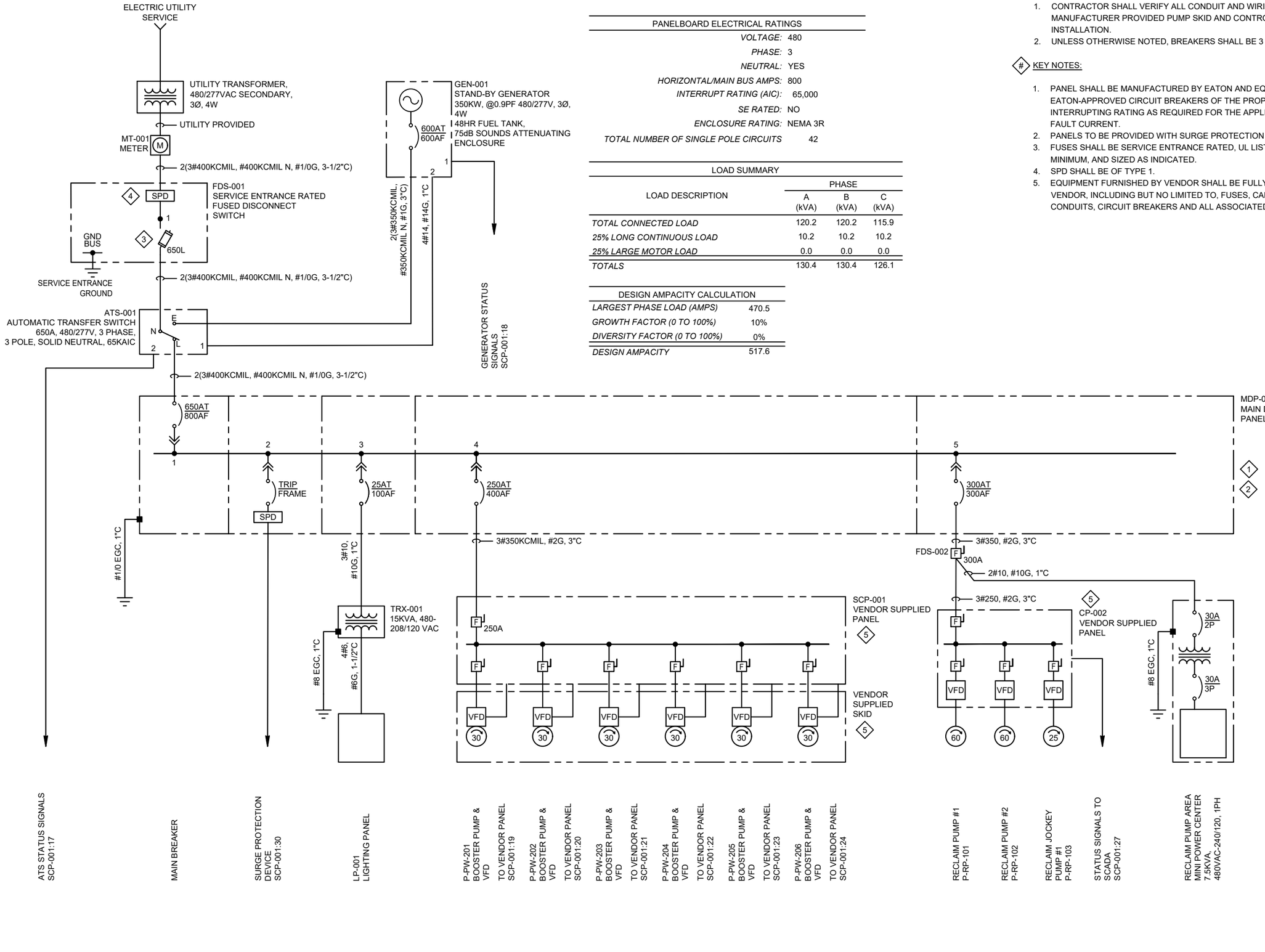
DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E601



PANELBOARD ELECTRICAL RATINGS	
VOLTAGE:	480
PHASE:	3
NEUTRAL:	YES
HORIZONTAL/MAIN BUS AMPS:	800
INTERRUPT RATING (AIC):	65,000
SE RATED:	NO
ENCLOSURE RATING:	NEMA 3R
TOTAL NUMBER OF SINGLE POLE CIRCUITS	42

LOAD SUMMARY	PHASE		
LOAD DESCRIPTION	A (kVA)	B (kVA)	C (kVA)
TOTAL CONNECTED LOAD	120.2	120.2	115.9
25% LONG CONTINUOUS LOAD	10.2	10.2	10.2
25% LARGE MOTOR LOAD	0.0	0.0	0.0
TOTALS	130.4	130.4	126.1

DESIGN AMPACITY CALCULATION	
LARGEST PHASE LOAD (AMPS)	470.5
GROWTH FACTOR (0 TO 100%)	10%
DIVERSITY FACTOR (0 TO 100%)	0%
DESIGN AMPACITY	517.6

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL CONDUIT AND WIRING TO/FROM MANUFACTURER PROVIDED PUMP SKID AND CONTROL PANEL PRIOR TO INSTALLATION.
2. UNLESS OTHERWISE NOTED, BREAKERS SHALL BE 3 POLE.

(#) KEY NOTES:

1. PANEL SHALL BE MANUFACTURED BY EATON AND EQUIPPED WITH EATON-APPROVED CIRCUIT BREAKERS OF THE PROPER TYPE, FRAME, AND INTERRUPTING RATING AS REQUIRED FOR THE APPLICATION AND AVAILABLE FAULT CURRENT.
2. PANELS TO BE PROVIDED WITH SURGE PROTECTION DEVICES.
3. FUSES SHALL BE SERVICE ENTRANCE RATED, UL LISTED FOR 600 VOLTS MINIMUM, AND SIZED AS INDICATED.
4. SPD SHALL BE OF TYPE 1.
5. EQUIPMENT FURNISHED BY VENDOR SHALL BE FULLY SIZED BY THE VENDOR, INCLUDING BUT NO LIMITED TO, FUSES, CABLE/CONDUCTORS, CONDUITS, CIRCUIT BREAKERS AND ALL ASSOCIATED PROTECTIVE DEVICES.

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ELECTRICAL

POWER ONE-LINE DIAGRAM

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E602

Panel Schedule - LP-001

Location:	BOOSTER STATION BUILDING			Mounting:	Surface			Fed From:	TRX-001				
Voltage:	208/120	Phase: 3	Wire: 4	Bus Amp:	100			Main OCP:	MLO			Interrupt Rating (AIC):	22,000

Load Description	P	Wire Size	Cct Bkr	Cnd Size	Cct No	Phase		Cnd Size	Cct Bkr	Wire Size	P	Load Description
MX-PW-111 TANK SUBMERSIBLE MIXER (5HP)	1	12	20G	3/4	1	A	2	3/4	15	12	1	BUILDING LIGHTING
LCP-001 SODIUM HYPOCHLORITE DOSING PUMPS	1	12	15	3/4	3	B	4	3/4	20	12	1	INDOOR REC.
HVAC	2	12	20	3/4	5	C	6	3/4	15G	12	1	OUTDOOR REC
					7	A	8	3/4	15G	12	1	??SITE LIGHTING
GEN-E-001 STANDBY DIESEL GENERATOR	2	10	30	1	9	B	10					SPACE
					11	C	12					SPACE
SPARE	1		20		13	A	14					SPACE
SPARE	1		20		15	B	16					SPACE
SPACE					17	C	18					SPACE

NOTES

1. CIRCUIT BREAKER DESIGNATION SUFFIXES:
   G: GFIC TYPE BREAKER SHALL BE PROVIDED.
2. PANEL TO BE PROVIDED WITH SPD.

LOAD SUMMARY

LOAD DESCRIPTION	PHASE A (kVA)	PHASE B (kVA)	PHASE C (kVA)
TOTAL CONNECTED LOAD	1.94	2.60	2.82
25% LONG CONTINUOUS LOAD	0.00	0.60	0.45
25% LARGE MOTOR LOAD	0.28	0.00	0.00
RECEPTACLE DEMAND DERATING	0.00	0.00	0.00
TOTALS	2.22	3.20	3.27

DESIGN AMPACITY CALCULATION	
LARGEST PHASE LOAD (AMPS)	27.2
GROWTH FACTOR (0 TO 100%)	10%
DIVERSITY FACTOR (0 TO 100%)	0%
DESIGN AMPACITY	30.0

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ELECTRICAL

LOW VOLTAGE PANEL SCHEDULES

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

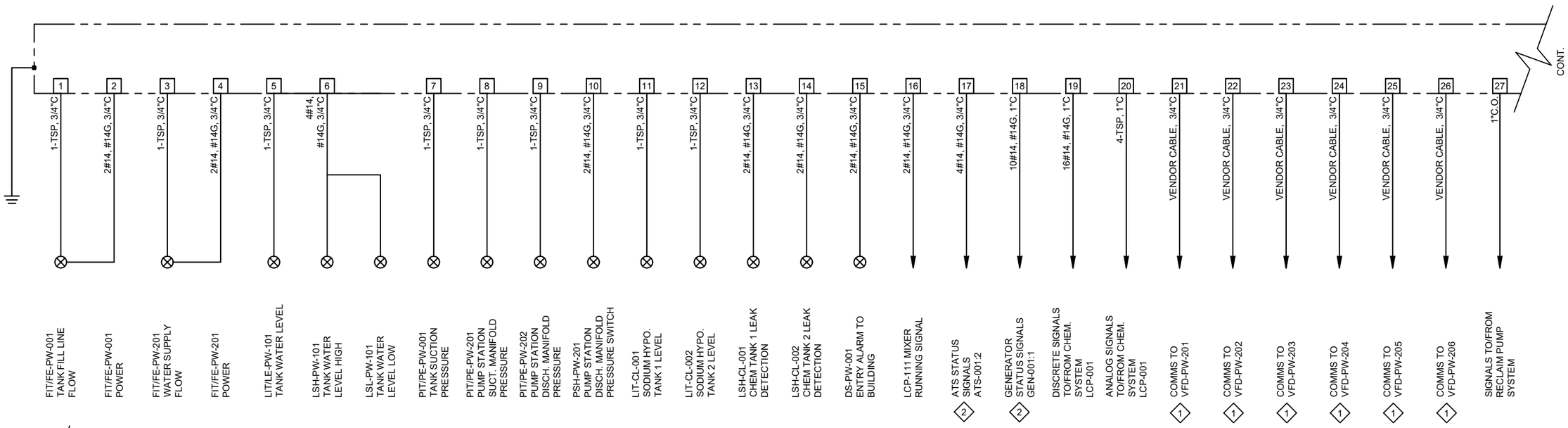
DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER 3/10/26

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E603



SIGNAL SOURCE	SIGNAL DESCRIPTION	LOCATION	TYPE	DI	DO	AI	AO	DEVICE POWER	DESTINATION	Notes
FIT-PW-001	TANK FILL LINE	TANK AREA	FIT	0	0	1	0	120VAC	SCP-001	DEVICE WILL BE POWERED FROM SCP-001
FIT-PW-201	WATER SUPPLY FLOW	VAULT	FIT	0	0	1	0	120VAC	SCP-001	DEVICE WILL BE POWERED FROM SCP-001
LIT-PW-201	TANK LEVEL	TANK	LIT	0	0	1	0	LOOP POWERED	SCP-001	
LSH-PW-101	TANK LEVEL HIGH	TANK	FS	1	0	0	0	N/A	SCP-001	
LSL-PW-101	TANK LEVEL LOW	TANK	FS	1	0	0	0	N/A	SCP-001	
PIT-PW-001	TANK SUCTION PRESSURE	TANK AREA	PIT	0	0	1	0	LOOP POWERED	SCP-001	
PIT-PW-201	PS SUCTION MANIFOLD PRESSURE	BLD	PIT	0	0	1	0	LOOP POWERED	SCP-001	
PIT-PW-202	PS DISCHARGE MANIFOLD PRESSURE	BLD	PIT	0	0	1	0	LOOP POWERED	SCP-001	
PSH-PW-201	PS DISCHARGE MANIFOLD PRESSURE SWITCH	BLD	PS	1	0	0	0	N/A	SCP-001	
LIT-CL-001	SODIUM HYPO. TANK 1 LEVEL	BLD	LIT	0	0	1	0	LOOP POWERED	SCP-001	
LIT-CL-002	SODIUM HYPO. TANK 2 LEVEL	BLD	LIT	0	0	1	0	LOOP POWERED	SCP-001	
LSH-CL-001	CHEM. TANK 1 LEAK DETECTION	CHEM. TANKS	FS	1	0	0	0	N/A	SCP-001	
LSH-CL-002	CHEM. TANK 2 LEAK DETECTION	CHEM. TANKS	FS	1	0	0	0	N/A	SCP-001	
DS-PW-001	ENTRY ALARM TO BUILDING	BLD	DS	1	0	0	0	N/A	SCP-001	
MS-PW-111	TANK MIXER RUNNING	TANK AREA	DC	1	0	0	0	N/A	SCP-001	THIS PANEL WILL BE POWERED FROM LP-001
ATS-001	ATS POWER STATUS W/ SPARE	ATS	DC	2	0	0	0	N/A	SCP-001	
GEN-001	GENERATOR STATUS W SPARE	GEN	DC	6	0	0	0	N/A	SCP-001	
LCP-001	SIGNALS FROM CHEM CONTROL PANEL	CHEM. AREA	CP	6	4	2	2	120VAC	SCP-001	THIS PANEL WILL BE POWERED FROM LP-001
AIT-PW-201	WATER SUPPLY ANALYZER W/ SPARE	BLD	AIT	0	0	3	0	120VAC	SCP-001	
MDP-001	SURGE PROTECTION DEVICE	BLD	DC	1	0	0	0	N/A	SCP-001	
DS-PW-002	ENTRY ALARM TO TANK	TANK	DS	1	0	0	0	N/A	SCP-001	
			TOTALS:	**23**	**4**	**13**	**2**			

KEY	
FIT	FLOW TRANSMITTER
LIT	LEVEL TRANSMITTER
PIT	PRESSURE TRANSMITTER
AIT	ANALYZER TRANSMITTER
FS	FLOW SWITCH
PS	PRESSURE SWITCH
DS	DOOR SWITCH
DC	DRY CONTACT
VLV	VALVE ACTUATOR
CP	CONTROL PANEL
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
AI	ANALOG INPUT
AO	ANALOG OUTPUT

1 PLC I/O COUNT
NO SCALE

GENERAL NOTES:

1. STATION CONTROL PANEL (SCP-001) WILL BE PROVIDED BY PUMP SKID MANUFACTURER. CONTRACTOR SHALL COORDINATE ALL SIGNALS TO AND FROM PANEL AS WELL AS LANDING LOCATIONS FOR EACH SIGNAL WITH PUMP SKID MANUFACTURER.
2. PANEL GROUNDING REQUIREMENTS SHALL BE PROVIDED BY PANEL MANUFACTURER.

(#) KEY NOTES:

1. CONTRACTOR TO VERIFY CONDUIT SIZE AND FILL WITH PUMP SKID MANUFACTURER PRIOR TO INSTALLING.
2. CONTRACTOR TO VERIFY CABLE AND CONDUIT REQUIREMENTS TO AND FROM ATS-001 AND GEN-001 WITH STATION CONTROL PANEL MANUFACTURER.

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ELECTRICAL

STATION CONTROL PANEL SCP-001

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB
2	02/26/26	UPDATED PER DESIGN REVIEW	DMB

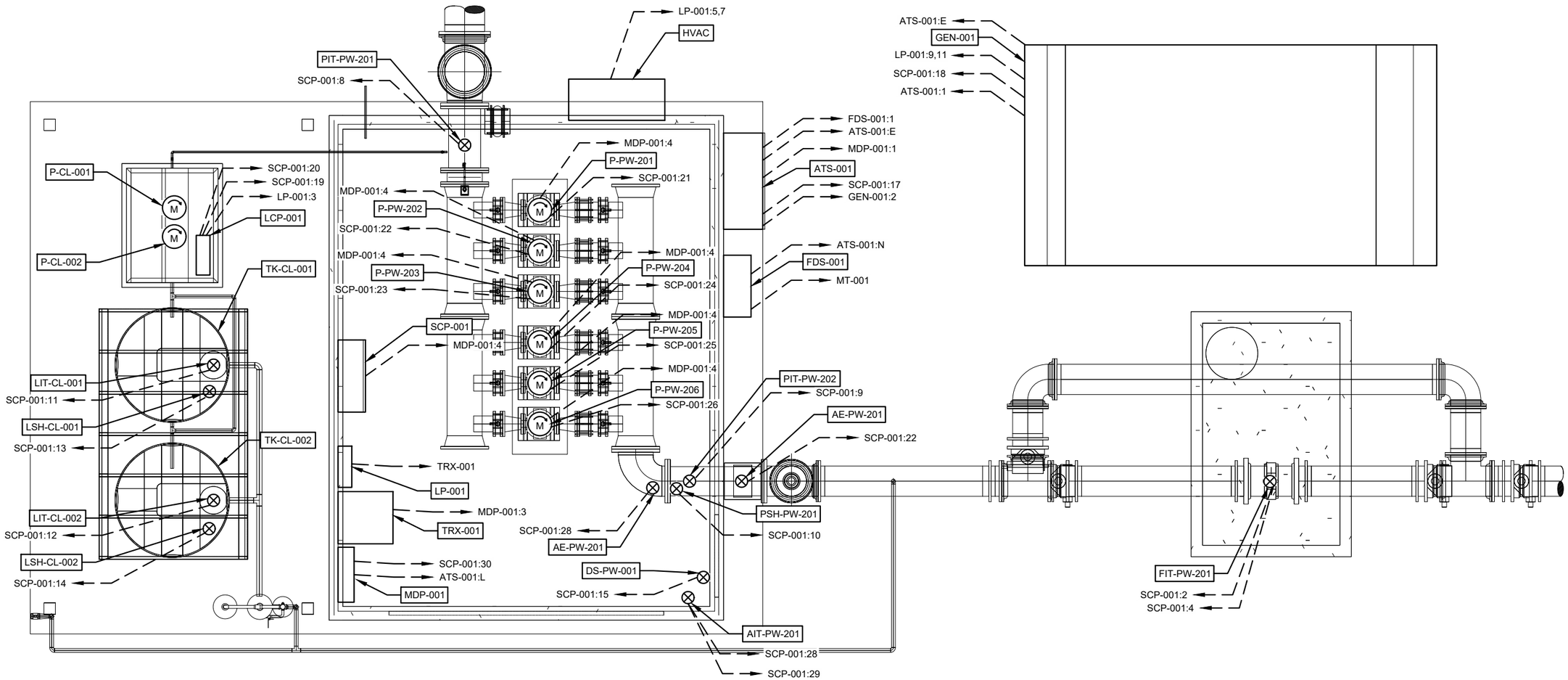
VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E604

GENERAL NOTES:

1. ALL EQUIPMENT IS SHOWN WITH BEST KNOW INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT PRIOR TO INSTALLATION.
2. ALL CONDUIT ENTERING AND LEAVING THE PUMP HOUSE SHALL DO SO BELOW GRADE.
3. MOTOR AND VFD ARE ONE UNIT. CONTRACTOR TO COORDINATE WITH PUMP SKID MANUFACTURE ON CABLE AND CONDUIT REQUIREMENTS.



1 POWER AND EQUIPMENT PLAN
SCALE: 1"=4'

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ELECTRICAL

BOOSTER PUMP STATION AND GENERATOR AREA

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

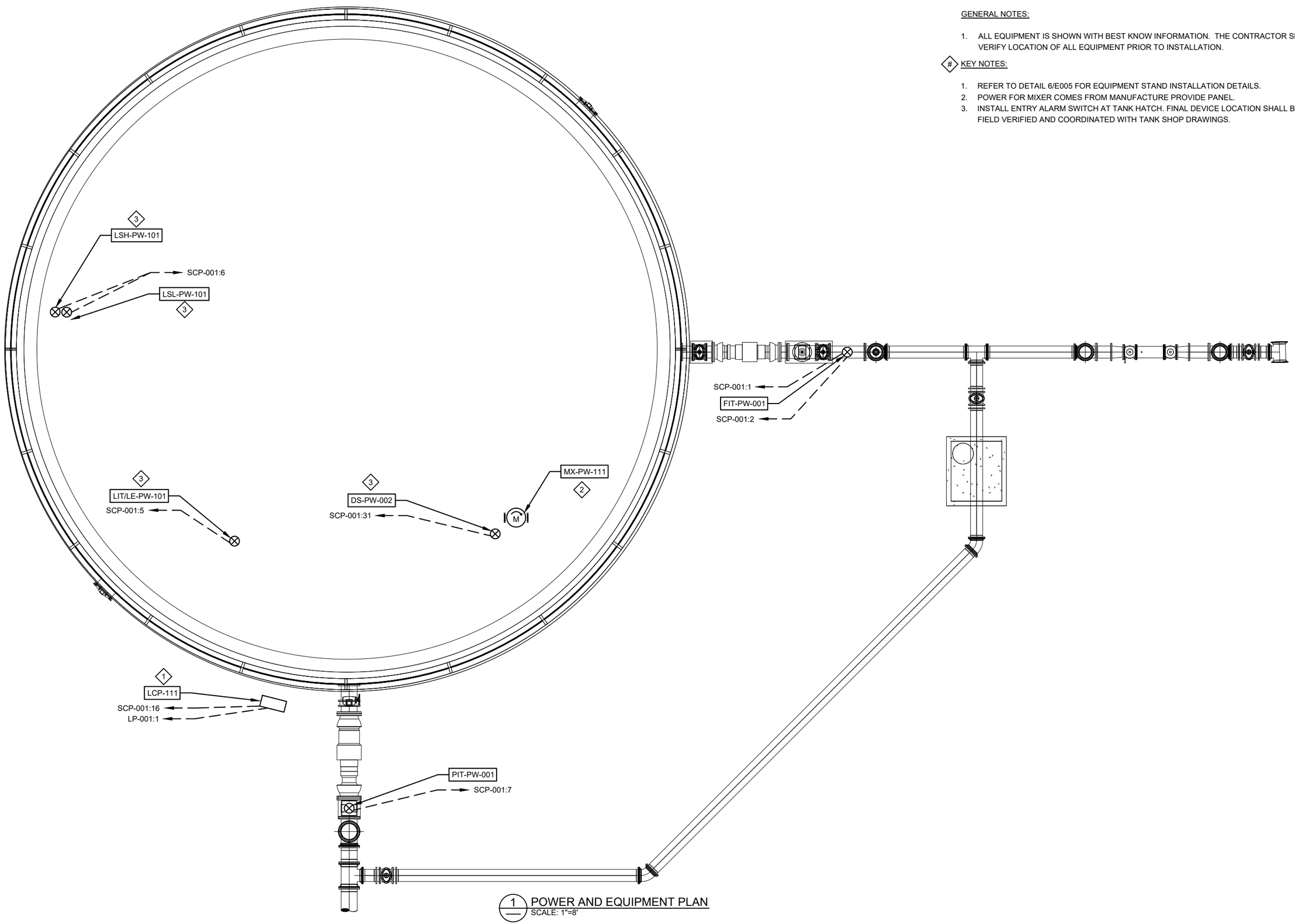
DRAWING: E605

GENERAL NOTES:

1. ALL EQUIPMENT IS SHOWN WITH BEST KNOW INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT PRIOR TO INSTALLATION.

KEY NOTES:

1. REFER TO DETAIL 6/E005 FOR EQUIPMENT STAND INSTALLATION DETAILS.
2. POWER FOR MIXER COMES FROM MANUFACTURE PROVIDE PANEL.
3. INSTALL ENTRY ALARM SWITCH AT TANK HATCH. FINAL DEVICE LOCATION SHALL BE FIELD VERIFIED AND COORDINATED WITH TANK SHOP DRAWINGS.



1 POWER AND EQUIPMENT PLAN
SCALE: 1"=8'

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ELECTRICAL

BOOSTER TANK AND METERING AREA

LAKEFRONT ESTATES DEVELOPMENT

POTABLE WATER STORAGE AND RECLAIM PUMPS

DAVID MICHAEL BANKHEAD LICENSE No 102821 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
1	01/12/26	90% DESIGN REVIEW	DMB
2	02/26/26	UPDATED PER DESIGN REVIEW	DMB

VERIFY SCALES
LINE IS 1-INCH AT FULL SIZE
(IF NOT 1"-SCALE ACCORDINGLY)

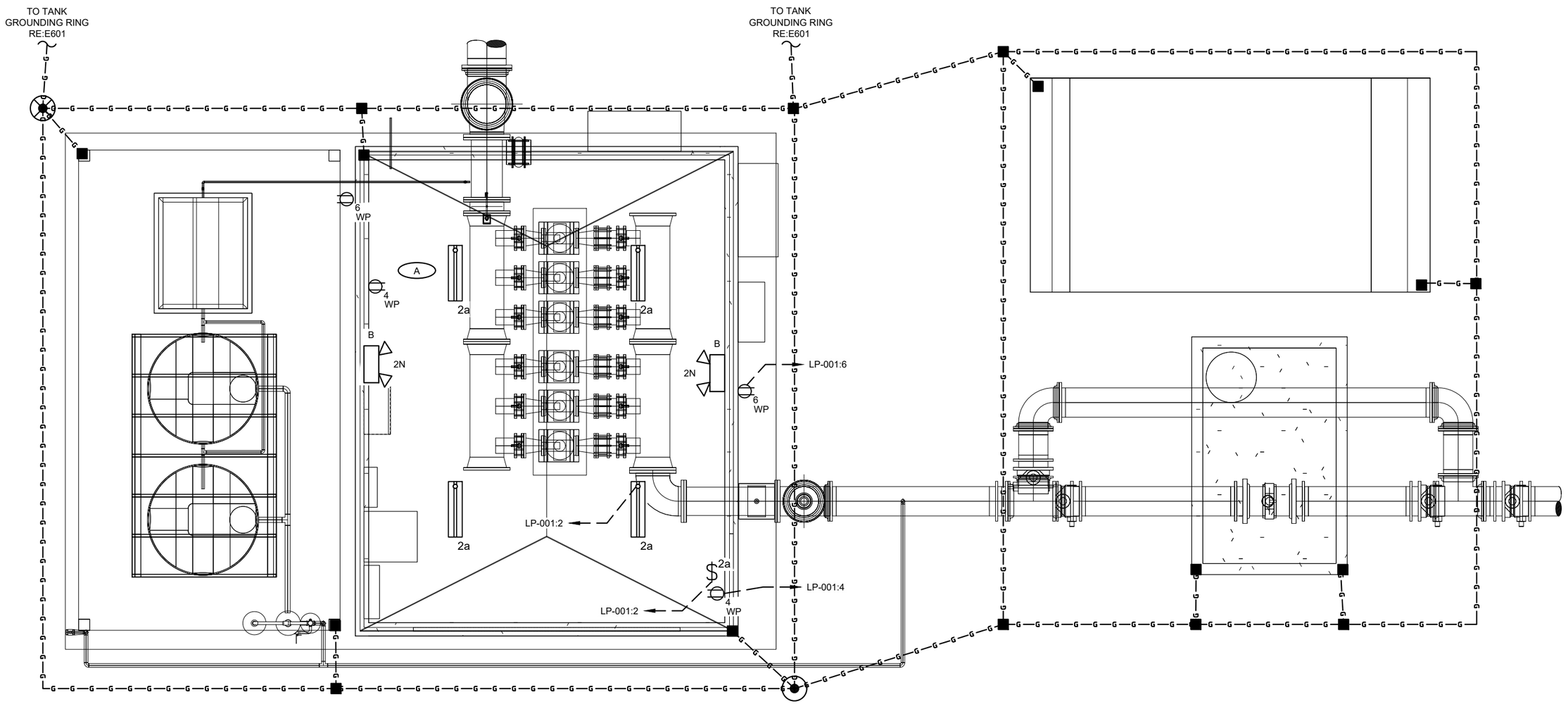
PROJECT NO:	011-2502
DRAWN BY:	DMB
DESIGNED BY:	DMB
APPROVED BY:	DMB
SHEET:	### OF ###

DRAWING: E606

FIXTURE SCHEDULE								
TYPE	WATTS	TYPE	LUMENS	VOLT.	MOUNT. TYPE & HEIGHT	CATALOG NO.	NOTES	DESCRIPTION
A	20	LED	3000	120/277	9' AFF	LITHONIA LIGHTING - FEM L24 3000LM IMAFL WD MVOLT 30K 80CRI	ORDER WITH ANGLE BRACKETS - ANGBKT	2 FT, LED FIXTURE, SUITABLE FOR WET LOCATIONS
B	6.6	LED	640	120/277	8' AFF	LITHONIA LIGHTING - INDL SP640L UVOLT LTP SDRT	ORDER WITH ANGLE BRACKETS - ANGBKT	EMERGENCY LIGHTING UNIT, SUITABLE FOR WET LOCATIONS

GENERAL NOTES:

1. ALL GROUNDING CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC, WITH A MINIMUM SIZE OF #2/0 AWG COPPER UNLESS OTHERWISE NOTED.



1 LIGHTING, RECEPTACLE, AND GROUNDING PLAN
SCALE: 1"=4'

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ELECTRICAL

BOOSTER PUMP STATION AND GENERATOR AREA

LAKEFRONT ESTATES DEVELOPMENT

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