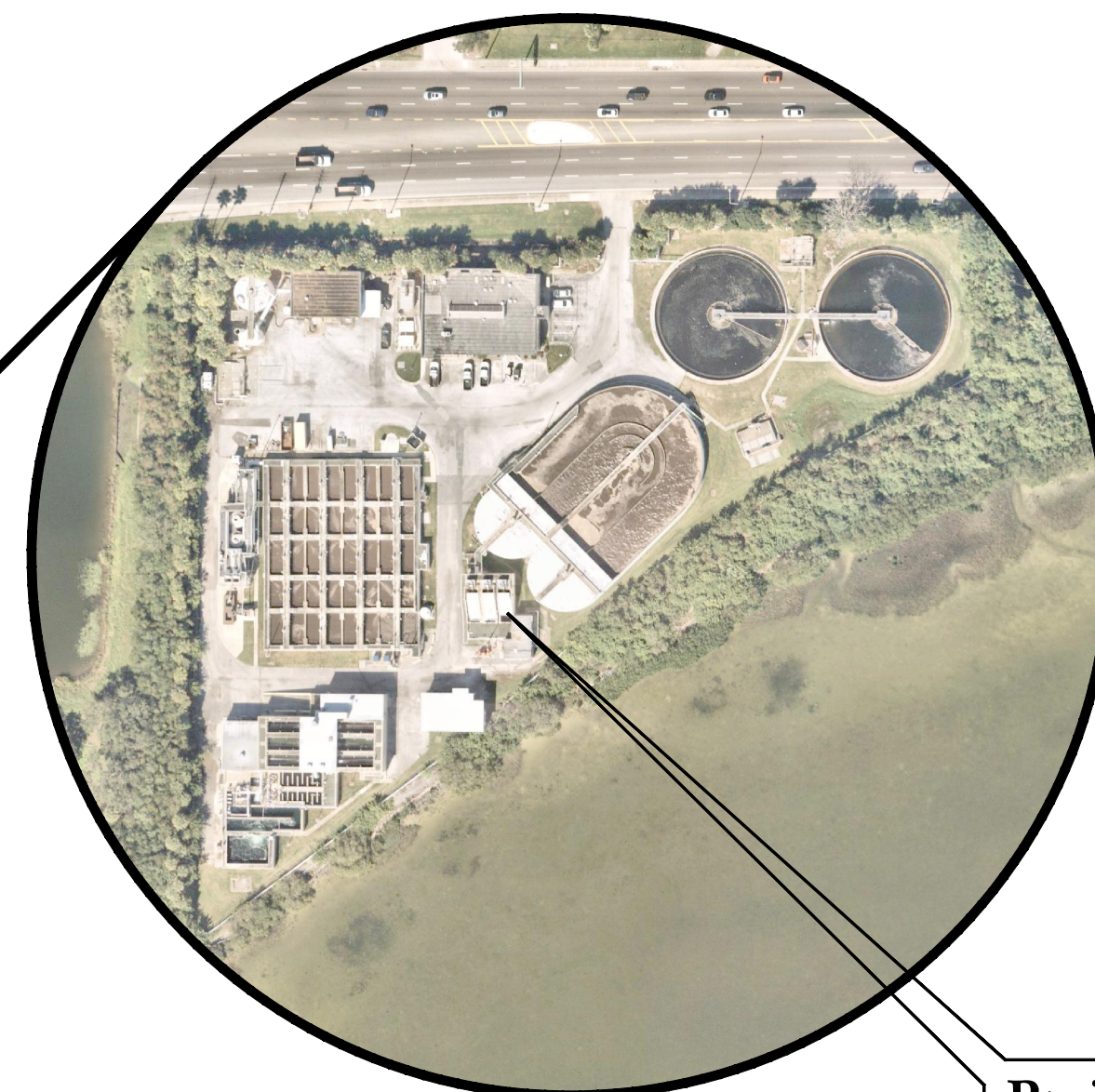
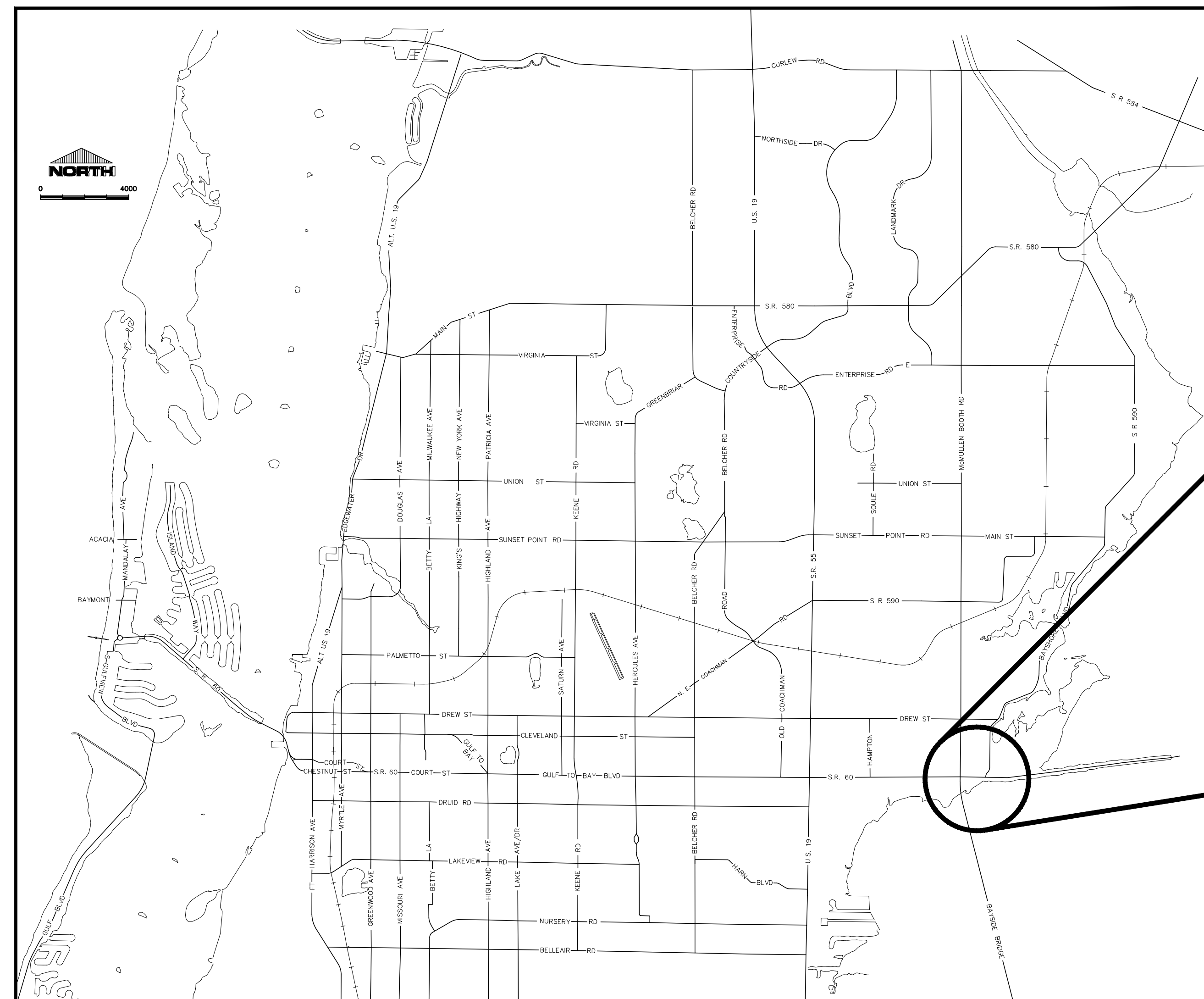




CLEARWATER
BRIGHT AND BEAUTIFUL • BAY TO BEACH



EAST WATER RECLAMATION FACILITY SCREW PUMP REPLACEMENT



Project Location

Address: 3141 FL 60
Clearwater, FL 33759

CITY OFFICIALS

Brian J. Aungst, Sr.
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Kathleen Beckman
David Allbritton
Lina Teixeira
Jennifer Poirrier

Mayor
Councilmember
Councilmember
Councilmember
Councilmember
City Manager

Tara Kivett, P.E.
City Engineer, Public Works

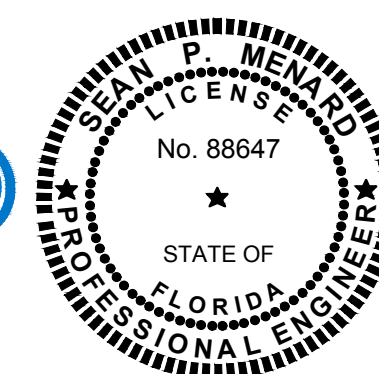
Approved For
Construction

CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611

Date Approved

JonesEdmunds

730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S. HYDE PARK AVE., SUITE 250 TAMPA, FLORIDA 33606 / (813) 258-0703



BID DOCUMENTS
City Project No. 22-0028-UT
City Plan Set No. 2022018
OCTOBER 2023

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GENERAL NOTES

- NO SURVEY WAS PERFORMED EXCLUSIVELY FOR THIS PROJECT. THE SITE INFORMATION IS BASED UPON USING AVAILABLE INFORMATION INCLUDING HISTORICAL AND RECORD DRAWINGS AND FIELD MEASUREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL INFORMATION PRIOR TO CONSTRUCTION.
- ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988. THE HORIZONTAL DATUM IS BASED ON FLORIDA STATE PLANE WEST, NORTH AMERICAN DATUM (NAD) 1983 (2011). SOME RECORD DRAWINGS REFERENCED WERE ON DATUM NGVD '29. THE EXISTING ELEVATIONS PROVIDED IN THESE CONTRACT DRAWINGS WERE APPROXIMATED AS 0.86 FEET BELOW THIS ELEVATION IN ACCORDANCE WITH THE NOAA ORTHOMETRIC HEIGHT CONVERSION FROM NGVD '29 TO NAVD '88 FOR LATITUDE 27° 57' 34.75" AND LONGITUDE -82° 42' 24.53". CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING ELEVATIONS. IF DIMENSIONS ARE NOT PROVIDED, THE DIFFERENCE IN THE TWO ELEVATIONS AS SHOWN ON THE CONTRACT DRAWINGS SHALL BE TAKEN AS MEASUREMENT, NOT NECESSARILY THE LISTED ELEVATION.
- ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
- ALL WORKMANSHIP AND MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE LATEST CITY OF CLEARWATER STANDARDS, CONTRACT DOCUMENTS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION ACTIVITIES MUST CONFORM TO THE LOCAL NOISE ORDINANCE.
- HOURS OF WORK SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 01100, SUMMARY OF WORK.
- CONTRACTOR TO PROVIDE PRODUCT'S MANUFACTURING SPECIFICATIONS TO CITY BUILDING DEPARTMENT FOR APPROVED SUBMITTALS TO ALLOW FOR CONSTRUCTION COORDINATION AND TO ENSURE APPROPRIATE DESIGN PRACTICES ARE REVIEWED AND ENFORCED BY THE CITY AND INSPECTOR.
- THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIALS, CONSTRUCTION DEBRIS, AND OTHER WASTE MATERIALS OFFSITE IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS AT THE CONTRACTOR'S EXPENSE. ALL BACKFILL SHALL BE FREE OF UNSUITABLE MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A HURRICANE PREPARATION PLAN TO THE CITY'S ENGINEERING REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- ANY DAMAGE TO CITY, COUNTY, OR STATE ROADS CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR IN A TIMELY MANNER AND TO THE SATISFACTION OF THE CITY'S ENGINEERING REPRESENTATIVE. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
- THE CONTRACTOR SHALL INSTALL EQUIPMENT IN ACCORDANCE WITH THE APPROVED EQUIPMENT MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS AND APPROVED SUBMITTALS AT THE LOCATIONS SHOWN ON THE DRAWINGS. IF THE EQUIPMENT LOCATION SHOWN ON THE DRAWINGS ARE IN CONFLICT WITH THE MANUFACTURER'S RECOMMENDATIONS OR WILL INTERFERE WITH THE INSTALLATION OF ANY OTHER EXISTING OR INDICATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY APPURTENANCES TO INSTALL THE EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL NOT INSTALL ANY EQUIPMENT AT LOCATIONS NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR APPROVED SUBMITTALS UNLESS AUTHORIZED IN WRITING BY THE ENGINEER AND OWNER.
- THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND/OR ABATING ANY SPILLS OF SCREW PUMP CONTENTS, CLEANING WATER OR OTHER LIQUIDS ONTO THE OWNER'S FACILITY SITE.
- THE CONTRACTOR IS RESPONSIBLE TO MAKE SURE THAT THERE ARE NOT SPILLS OF SEWAGE, RECLAIMED WATER, SLUDGE, OR OTHER REGULATED FLUIDS. CONTRACTOR SHOULD MAKE PROVISIONS SUCH AS CATCHMENTS WHEN OPENING PIPES, DEMOLITION, HYDRAULIC TESTING, ETC.
- SPILLS OF ANY NATURE CAUSED BY THE CONTRACTOR SHALL BE CONTROLLED AND CLEANED IMMEDIATELY. ALL SPILLS ONSITE MUST BE RECORDED WITH VOLUME AND ACTIONS TAKEN TO CLEAN AREA AND REPORTED TO THE OWNER, ENGINEER, AND FDEP.
- CONTRACTOR SHALL COVER AND ISOLATE ALL WORK AREAS WITH DISPOSABLE PLASTIC SHEETING AND STRATEGICALLY PLACED DRIP PANS TO PREVENT POSSIBLE CONTAMINATION AND MINIMIZE SPILLS.

EXISTING CONDITIONS

- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS BUT ARE NOT PURPORTED TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA. CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS, DIMENSIONS, TYPES, AND CONDITIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE DRAWINGS) AFFECTING HIS WORK.
- PRIOR TO SHOP DRAWING PREPARATION AND SUBMITTAL AND PURCHASE OF RELATED MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES (LOCATION, SIZE, MATERIALS OF CONSTRUCTION, OUTSIDE DIAMETER, WALL THICKNESS, ROUNDNESS, ELEVATIONS, ETC.) TO WHICH CONNECTION(S) WILL BE MADE. CONTRACTOR SHALL INCLUDE FIELD MEASUREMENTS ON SHOP DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IN WRITING IMMEDIATELY IF CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED. THE CONTRACTOR SHALL ACCURATELY RECORD ANY SUCH CONFLICTS ON THE RECORD DRAWINGS.
- ANY PROPERTY CORNERS, MONUMENTS, OR BENCH MARKS WITHIN THE PROJECT AREA SHALL BE PROTECTED UNLESS OTHERWISE INDICATED FOR DEMOLITION. IF ANY SUCH ITEMS ARE IN DANGER OF DAMAGE OR HAVE BEEN DAMAGED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY AND REPLACE/RESTORE THESE ITEMS AT NO ADDITIONAL COST TO THE OWNER. IF THE OWNER CHOOSES TO SELF PERFORM THE WORK OR INCURS RELATED EXPENSES, THE COSTS SHALL BE DEDUCTED FROM THE CONTRACT PRICE.
- MATERIALS INTERFERING WITH CONSTRUCTION MAY BE DEMOLISHED IF APPROVED BY THE OWNER AND ENGINEER, AND DISPOSED OF AS DIRECTED BY THE CITY'S ENGINEERING REPRESENTATIVE, UNLESS OTHERWISE NOTED ON PLANS.

UTILITY COORDINATION

- THE CONTRACTOR SHALL PRESERVE AND MAINTAIN EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES WITHIN THE PROJECT AREA. ANY DAMAGE SHALL BE REPAIRED BY AND AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR BRACING, SHORING, OR PROVIDING OTHER MEANS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (EXPOSED OR UNEXPOSED) THAT MAY BE IMPACTED BY HIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL NEWLY CONSTRUCTED UTILITIES IN ACCORDANCE WITH CURRENT STANDARDS OF LOCAL JURISDICTION. THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION AND THE OWNER OR AN AUTHORIZED REPRESENTATIVE AT LEAST FORTY EIGHT (48) HOURS IN ADVANCE OF PERFORMING TESTS.

SAFETY

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE OSHA EXCAVATION SAFETY STANDARDS AND TO ABIDE BY THEM AS COVERED UNDER THE FLORIDA TRENCH SAFETY ACT.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY. SPECIAL PRECAUTIONS MAY BE REQUIRED IN THE VICINITY OF POWER LINES AND OTHER UTILITIES.

RESTORATION

- ALL PAVING, STABILIZED EARTH, DRIVEWAYS, CURBS, SIDEWALKS, FENCES, SOD, LANDSCAPING, CULVERTS, ETC. DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED BY AND AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS
- THE CONTRACTOR SHALL RESTORE EXISTING DRAINAGE PATTERNS DISTURBED BY CONSTRUCTION ACTIVITIES. FINAL GRADING SHALL PROVIDE FOR PROPER DRAINAGE WITH NO PONDING OF WATER.
- A REGISTERED LAND SURVEYOR, AT THE CONTRACTOR'S EXPENSE, SHALL RESET ALL SECTION CORNERS OR PROPERTY CORNERS DISLOCATED OR DISTURBED BY ANY CONSTRUCTION RELATED ACTIVITIES.
- UNLESS NOTED ON THE PLANS, FINAL GRADE IS TO GENERALLY BE THE SAME AS EXISTING GRADE. RESTORE UNIFORMLY AND FOR PROPER YARD DRAINAGE GRADE TOWARD ROADWAY.
- ALL EXCESS SOIL RESULTING FROM CONSTRUCTION ACTIVITIES THAT IS NOT CLAIMED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF BY THE CONTRACTOR.
- ALL DISTURBED LANDSCAPED AND/OR GRASSED AREAS SHALL BE RESTORED UNIFORMLY AND BE GENERALLY AT THE SAME ELEVATION AS EXISTING GRADES.
- ALL DISTURBED AREAS SHALL BE REPLACED WITHIN FIFTEEN (15) DAYS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
- ALL VOIDS AFTER PLACEMENT OF SOD SHALL BE FILLED WITH PREPARED SOIL MIX. THE SOD SHALL BE ROLLED TO MEET THE PROPOSED GRADES. SOD PLACED ON SLOPES 3:1 OR STEEPER SHALL BE PEGGED.
- AREAS OF EXPOSED EARTH RESULTING FROM CONSTRUCTION SHALL BE SODDED IN KIND AS DIRECTED BY THE CITY'S ENGINEERING REPRESENTATIVE UNLESS OTHERWISE NOTED ON PLANS.

ACCESS / MAINTENANCE OF FACILITIES

- THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL EXISTING UTILITIES/FACILITIES AND MAINTAIN UNINTERRUPTED SERVICES THROUGHOUT THE CONTRACT PERIOD.
- THE CONTRACTOR SHALL COORDINATE WITH WRF OPERATOR TO ENSURE FACILITIES REMAIN IN OPERATION. IN THE EVENT FACILITIES MUST BE SHUT DOWN, THE CONTRACTOR SHALL COORDINATE WITH THE WRF OPERATOR IN ACCORDANCE WITH SPECIFICATIONS.

MAINTENANCE OF TRAFFIC

- THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE U.S. DEPARTMENT OF TRANSPORTATION, "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION "DESIGN STANDARDS".
- THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN EFFECTIVE BARRICADES, DANGER SIGNALS, SIGNS AND PEDESTRIAN DETOURS IN ALL AREAS WHERE REQUIRED FOR THE PROTECTION OF THE WORK AND THE SAFETY OF THE PUBLIC.
- MAINTENANCE OF TRAFFIC (MOT): IF IT BECOMES NECESSARY FOR THE CONTRACTOR TO CLOSE ANY STREETS OR PLANT ROADS TO THROUGH TRAFFIC WITHIN THE LIMITS OF CONSTRUCTION, MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE CITY OF CLEARWATER STANDARDS. IF THE CONSTRUCTION OPERATIONS CAUSE TRAFFIC HAZARDS, REPAIR THE ROAD SURFACE, PROVIDE TEMPORARY WAYS, ERECT WHEEL GUARDS OR FENCES, OR TAKE MEASURES FOR SAFETY SATISFACTORY TO THE ENGINEER OR ONSITE DELIVERIES TO STILL TAKE PLACE. DETOURS AROUND THE CONSTRUCTION WILL BE SUBJECT TO THE APPROVAL OF THE OWNER AND ENGINEER.
- DELIVERIES OF CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE SCHEDULED TO OCCUR IN TIMEFRAMES DURING OFF-PEAK HOURS OF THE ROADWAYS NEAR AND AROUND THE WRF SITE.
- CONTRACTOR TO PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLAN IN ACCORDANCE WITH FDOT STANDARDS FOR CONSTRUCTION VEHICLES ENTERING AND EXITING THE WRF ON SR60. CONTRACTOR SHALL COORDINATE WITH FDOT FOR PLACEMENT OF MOT SIGNAGE AND OTHER DEVICES IN THE FDOT ROW AND PROVIDE DOCUMENTATION OF THE COORDINATION. THE MOT PLAN SHALL BE SUBMITTED TO THE OWNER (CITY), CITY BUILDING DEPARTMENT, AND ENGINEER FOR REVIEW.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER AND CHIEF WRF OPERATIONS PERSONNEL FOR DELIVERIES AND OFFLOADING DURING ANTICIPATED OR KNOWN PERIODS WHEN INCOMING, OUTGOING, AND INTERNAL OPERATIONS TRAFFIC IS HIGH TO PREVENT INTERRUPTIONS AND DELAYS OF THE NORMAL OPERATIONS AND MAINTENANCE OF THE WRF.
- CONTRACTOR SHALL FURNISH AND PLACE TEMPORARY DIRECTIONAL AND TRAFFIC SIGNS INSIDE THE WRF TO PROVIDE A ROUTE TO THE CONSTRUCTION SITE FROM THE WRF THAT IS IN COORDINATION WITH THE WRF OPERATION STAFF AND DOES NOT INTERFERE WITH NORMAL OPERATIONS OF THE WRF.

EROSION CONTROL AND DRAINAGE

- THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL NEARBY AND POTENTIALLY IMPACTED DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL NEARBY AND IMPACTED DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
- ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED TO RESTORE PRE-CONSTRUCTION DRAINAGE FEATURES. THE AREAS SHALL THEN BE SODDED AS SPECIFIED, FERTILIZED, AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. SOD SHALL MATCH EXISTING TURF. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED AND MULCHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES STATE WATER QUALITY STANDARDS.
- THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL EROSION AND TRANSPORT OF SEDIMENTS WITHIN AND FROM THE PROJECT AREA, SO AS TO PREVENT THE DEGRADATION OF RECEIVING WATERS, DETRIMENTAL EFFECTS ON PUBLIC OR PRIVATE PROPERTY ADJACENT TO THE PROJECT AND DAMAGE WITHIN THE PROJECT AREA. THESE MEASURES WILL INCLUDE THE CONSTRUCTION AND MAINTENANCE OF TEMPORARY AND PERMANENT EROSION CONTROLS.
- MONITORING OF OFFSITE TRACKING OF SEDIMENTS AT THE ENTRANCES IS REQUIRED WHERE SILT FENCE WILL NOT BE PLACED TO ENABLE ACCESS TO THE SITE. IF IT APPEARS THAT SIGNIFICANT AMOUNTS OF SEDIMENT ARE BEING TRACKED OFF THE SITE, THEN THE CONTRACTOR SHALL CONSTRUCT GRAVEL ENTRANCES OR OTHER EQUIVALENT MEASURES TO HELP DISLODGE THE SOIL, SEDIMENT AND DIRT BEFORE THE VEHICLES LEAVE THE SITE.
- AREAS WHERE THE GROUND HAS BEEN DISTURBED AND CONSTRUCTION ACTIVITIES TEMPORARILY WILL CEASE FOR MORE THAN 21 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA WHERE THE GROUND HAS BEEN DISTURBED, THAT AREA SHALL BE STABILIZED WITH SOD OR OTHER SUITABLE STABILIZATION MATERIALS. AFTER THE SITE IS STABILIZED, ALL EXCESS SEDIMENTS AND DEBRIS SHALL BE REMOVED FROM THE PONDS AND STORMWATER CONVEYANCE SYSTEM/STRUCTURES RECEIVING DIRECT RUNOFF FROM THE AREA.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND THE TRANSPORTATION OF SEDIMENT TO SURFACE DRAINS AND OUTFALLS.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) CRITERIA FOR A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) ACTIVITIES PERMIT.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND POLLUTION SHALL BE MINIMIZED. THE SUBMITTED SWPPP SHALL BE COMPLIED WITH. ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS SHALL BE COMPLIED WITH AT ALL TIMES. PLEASE NOTE THAT NO HAY BALES ARE ALLOWED ON CITY OF CLEARWATER PROJECTS.

LAST SAVED: 10/25/2023 10:48 AM JKRAMER DWG LOCATION: Y:\03720-CITY OF CLEARWATER\PROJECTS\062-01 CLEARWATER EAST WRF SCREW PUMP STATION REPLACEMENT\DESIGN&CONSTRUCTION\CAO\GENERAL\0372006201-G02.DWG

| RECORD DRAWINGS | | REVISION | BY | DATE |
|--|-----------|----------|----|------|
| SURVEYED BY: | DRAWN BY: | | | |
| REVIEWED BY: | | | | |
| APPROVED BY: | DATE: | | | |
| CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | | | | |

CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 SOUTH MYRTLE AVENUE
CLEARWATER, FL 33756

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EAST WRF
SCREW PUMP REPLACEMENT
DRAWING INDEX AND
GENERAL NOTES

| | | | |
|---------------------------------|-----------------------------|-------------------------|------------------|
| DWG NAME: 0372006201-G02.DWG | FIELD BOOK: | SURVEYED BY: JKRAMER | SCALE: VERT. |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | HORIZ. |
| JOB NO.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | SHEET NO.: G2 |
| APPROVED FOR CONSTRUCTION | SEAN P. MENARD, PE #88847 | | DATE |

BID DOCUMENTS

| | | | |
|---------|--|----------|--|
| & | AND | D | DRAIN |
| @ | AT | DB | DUCT BANK |
| A | AUTOMATIC | DBI | DITCH BOTTOM INLET |
| AA STD | ALUMINUM ASSOCIATION STANDARD | DC | DIRECT CURRENT |
| AASHTO | AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS | DES | DESIGNATION |
| AC | ASBESTOS CEMENT | DET | DETAIL |
| AC | ALTERNATING CURRENT | DI | DUCTILE IRON |
| AC | AIR CONDITIONER | DIA | DIAMETER |
| ACI | AMERICAN CONCRETE INSTITUTE | DIP | DUCTILE IRON PIPE |
| ADJ | ADJUSTABLE | DIPS | DUCTILE IRON PIPE SIZE |
| AFF | ABOVE FINISHED FLOOR | DIV | DIVISION |
| AFG | ABOVE FINISHED GRADE | DN | DOWN, DAMPER |
| AIP | ABANDONED IN PLACE | DR | DIMENSION RATIO |
| AISI | AMERICAN IRON STEEL INSTITUTE | DR | DRAIN OR DRIVE |
| AIT | ANALYTICAL INDICATING TRANSMITTER | DWG | DRAWING |
| ALT | ALTERNATIVE | DXS | DOUBLE EXTRA STRONG |
| ALUM | ALUMINUM | E | EAST |
| AM | AUTO-MANUAL | E | ELECTRIC ACTUATOR |
| AMPS | AMPERES | EA | EACH |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE | ECC | ECCENTRIC |
| AP | ANALYZER PANEL | EES | EMERGENCY EYEWASH AND SHOWER |
| APP | APPROVE, APPROVED | EF | EACH FACE, EXHAUST FAN |
| APPROX | APPROXIMATE | EG | SUCH AS |
| AR | AIR RELEASE | EJ | EXPANSION JOINT |
| ARV | AIR RELEASE VALVE | EL, ELEV | ELEVATION |
| ASCE | AMERICAN SOCIETY OF CIVIL ENGINEERS | ELB | ELBOW |
| ASD | ADJUSTABLE SPEED DRIVE | ELEC | ELECTRICAL |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS | EOP | EDGE OF PAVEMENT |
| ATS | AUTOMATIC TRANSFER SWITCH | EQ | EQUAL |
| AUTO | AUTOMATIC | ERCP | ELLIPTICAL REINFORCED CONCRETE PIPE |
| AUX | AUXILIARY | EST | ELEVATED STORAGE TANK |
| AVE | AVENUE | ETC | ETCETERA |
| AWG | AMERICAN WIRE GAUGE | EW | EACH WAY |
| AWS | AMERICAN WELDING SOCIETY | EXIST | EXISTING |
| AWWA | AMERICAN WATER WORKS ASSOCIATION | FBC | FLORIDA BUILDING CODE |
| B/ | BOTTOM OF | F, FU | FUSE |
| B/L | BASELINE OF CONSTRUCTION | F/F | FINISHED FLOOR |
| BC | BARE COPPER | FAB | FABRICATED |
| BE | BURIED ELECTRICAL | FAC | FLORIDA ADMINISTRATIVE CODE |
| BF | BLIND FLANGE | FCA | FLANGED COUPLING ADAPTER |
| BFP | BACKFLOW PREVENTER | FCV | FLOW CONTROL VALVE |
| BFV | BUTTERFLY VALVE | FDEP | FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION |
| BKR | BREAKER | FDN | FOUNDATION |
| BLD | BLIND | FDOT | FLORIDA DEPARTMENT OF TRANSPORTATION |
| BLDG | BUILDING | FDR | FEEDER |
| BLVD | BOULEVARD | FE | FLOW ELEMENT |
| BM | BENCH MARK | FF | FINISHED FLOOR |
| BO | BLOW-OFF | FFE | FINISHED FLOOR ELEVATION |
| BT | BURIED TELEPHONE | FG | FINISHED GRADE, FIBERGLASS |
| BTM | BOTTOM | FH | FIRE HYDRANT |
| BTM/ | BOTTOM OF | FIG | FIGURE |
| BV | BALL VALVE | FIN | FINISHED |
| BYP | BYPASS | FIT | FLOW INDICATING TRANSMITTER |
| C | CONDUIT, CONDUCTOR, CLOSE | FJ | FLANGED JOINT |
| C/L, CL | CENTERLINE | FL | FLOOR |
| CAM | COMPUTER-AUTO-MANUAL | FLEX | FLEXIBLE |
| CAT | CATALOGUE | FLG | FLANGE(D) |
| CB | CIRCUIT BREAKER | FND | FOUNDATION |
| CC | CENTER TO CENTER | FNPT | FEMALE NATIONAL PIPE THREAD |
| CCS | CENTRAL CONTROL SYSTEM | FO | FIBER OPTIC CABLE |
| CF | COLUMN FOUNDATION | FOS | FAST-OFF-SLOW |
| CFWE | CABLE FURNISHED WITH EQUIPMENT | FOSA | FAST-OFF-SLOW-AUTO |
| CI | CAST IRON | FOSR | FAST-OFF-SLOW-REMOTE |
| CIP | CAST IN PLACE, CAST IRON PIPE | FP | FULL PENETRATION, FIELD PANEL |
| CISP | CAST IRON SLIP PIECE | FR | FORWARD-REVERSE |
| CJ | CONSTRUCTION/CONTRACTION JOINT | FREQ | FREQUENCY |
| CLF | CHAIN LINK FENCE | FRP | FIBER REINFORCED PLASTIC |
| CLR | CLEAR | FS | FLORIDA STATUTES, FAR SIDE, FLOW SWITCH |
| CM | COMPUTER-MANUAL | FT | FOOT |
| CMP | CORRUGATED METAL PIPE | G | GROUND |
| CMU | CONCRETE MASONRY UNIT | GAL | GALLON |
| CO | CLEANOUT | GALV | GALVANIZED |
| CO | COMPANY | GEN | GENERATOR |
| COL | COLUMN | GFCI | GROUND FAULT CIRCUIT INTERRUPTER |
| COM | COMMUNICATION | GND | GROUND |
| CON | CONCENTRIC | GPM | GALLONS PER MINUTE |
| CONC | CONCRETE | GR | GRADE |
| CONSTR | CONSTRUCTION | GRTG | GRATING |
| CONT | CONTINUOUS | GS | GALVANIZED STEEL |
| CORP | CORPORATION | GSP | GALVANIZED STEEL PIPE |
| CP | CONTROL PANEL | GST | GROUND STORAGE TANK |
| CPT | CONTROL POWER TRANSFORMER | GV | GATE VALVE |
| CRE | CORROSION RESISTANT | H | HIGH |
| CRSI | CONCRETE REINFORCING STEEL INSTITUTE | HD | HAND |
| CS | CARBON STEEL | HDD | HORIZONTAL DIRECTIONAL DRILL |
| CT | CURRENT TRANSFORMER, CABLE TRAY | HDNS | HARDNESS |
| CTR | CENTERED | HDPE | HIGH DENSITY POLYETHYLENE |
| CV | CHECK VALVE | HHWL | HIGH HIGH WATER LEVEL |
| | | HK | HOOK |

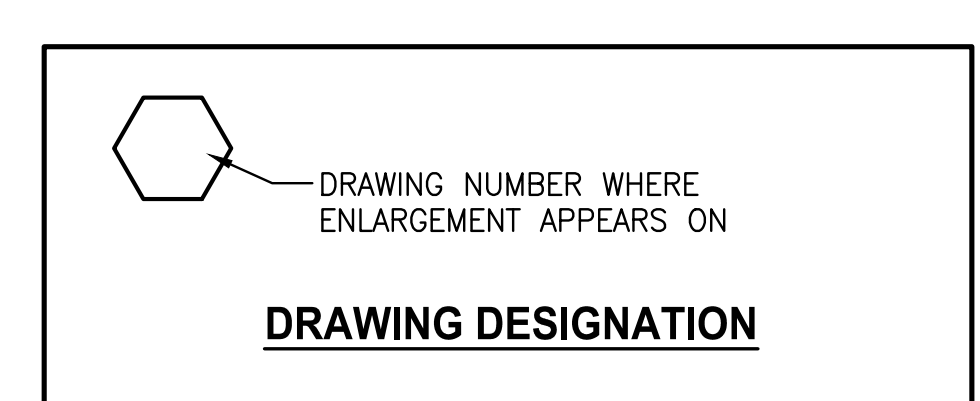
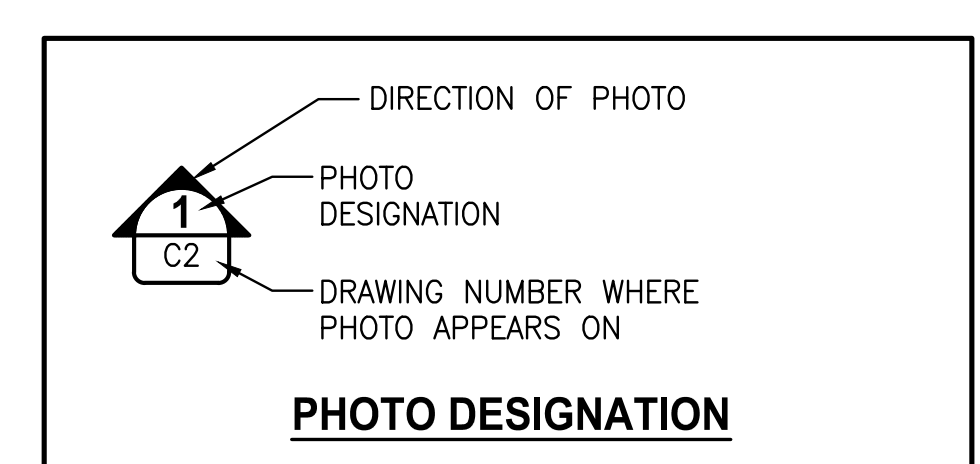
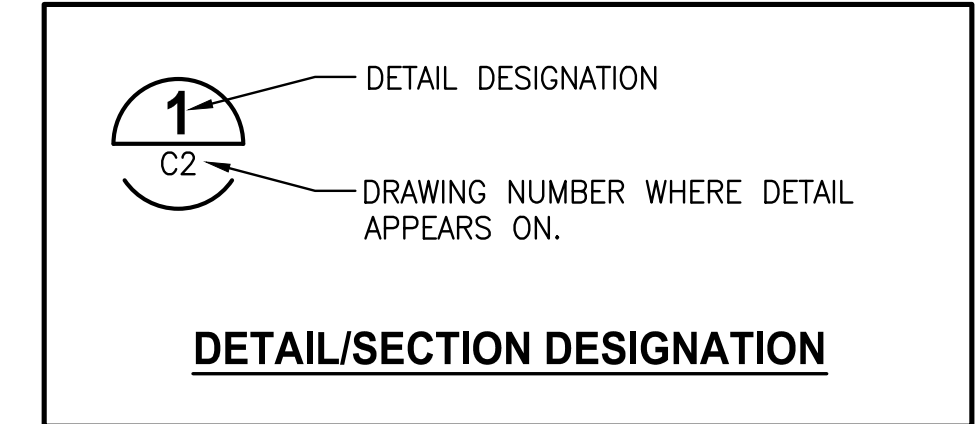
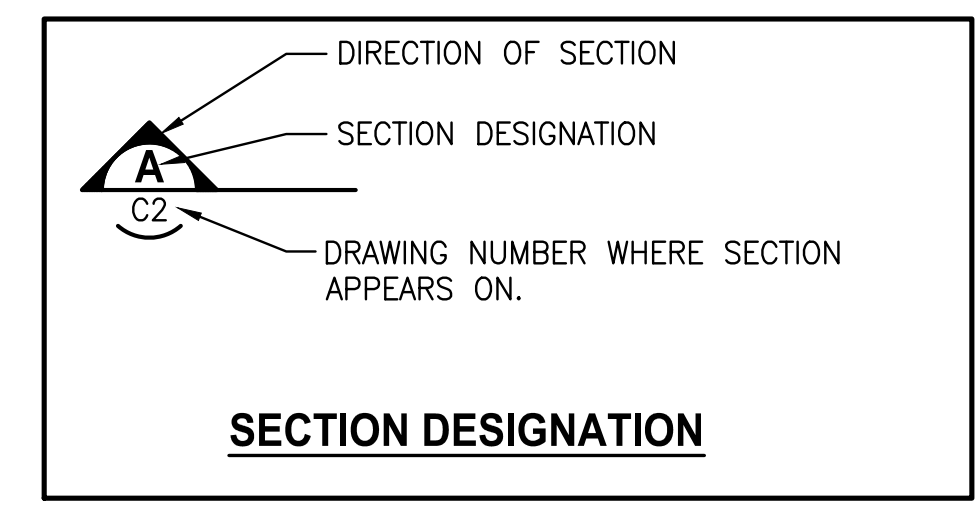
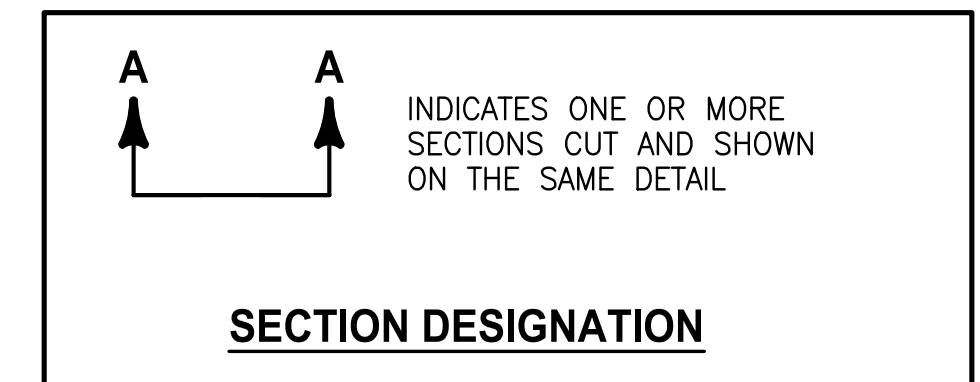
STANDARD ABBREVIATIONS

| | | | |
|---------|--|----------|---|
| HOA | HAND-OFF-AUTO | NTS | NOT TO SCALE |
| HOR | HAND-OFF-REMOTE | NW | NORTH WEST |
| HORIZ | HORIZONTAL | OC | ON CENTER(S), OPEN-CLOSE(D) |
| HP | HORSEPOWER | OCA | OPEN-CLOSE-AUTO |
| HPS | HIGH PRESSURE SODIUM | OCR | OPEN-CLOSE-REMOTE |
| HR | HANDRAIL | OD | OUTSIDE DIAMETER |
| HSPS | HIGH SERVICE PUMP STATION | OFL | OVERFLOW |
| HT | HEIGHT | OO | ON-OFF |
| HWL | HIGH WATER LEVEL | OOA | ON-OFF-AUTO |
| I&C | INSTRUMENTATION AND CONTROL | OOR | ON-OFF-REMOTE |
| IC | INTERRUPTING CAPACITY | OPP | OPPOSITE |
| ID | INSIDE DIAMETER | OS&Y | OUTSIDE STEM AND YOKE |
| ID | IDENTIFICATION | OSC | OPEN-STOP-CLOSE |
| IE | INVERT ELEVATION | OSHA | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION |
| IEEE | INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS | P&ID | PIPING AND INSTRUMENTATION DIAGRAM |
| IF | INSULATED FLANGE | P/L | PROPERTY LINE |
| IJ | ISOLATION JOINT | PB | PULL BOX |
| INC | INCORPORATED | PCCP | PRESTRESSED CONCRETE CYLINDER PIPE |
| IPS | IRON PIPE SIZE | PCV | PRESSURE CONTROL VALVE |
| J, JB | JUNCTION BOX | PE | PLAIN END, POLYETHYLENE |
| JT | JOINT | PET | POLYETHYLENE TUBING |
| KA | KILOAMPERES | PF | POWER FACTOR |
| KB | KNEE BRACE | pH | HYDROGEN ION CONCENTRATION |
| KCMIL | THOUSAND CIRCULAR MILS | PH | PHASE |
| KV | KILOVOLT | PI | PRESSURE INDICATOR/GAUGE |
| KVA | KILOVOLT AMPERES | PID | PROPORTIONAL INTEGRAL DERIVATIVE |
| KW | KILOWATTS | PIT | PRESSURE INDICATING TRANSMITTER |
| KWH | KILOWATT HOUR | PIV | POST INDICATOR VALVE |
| L | LOWER | PL | PLATE |
| LB, LBS | POUND(S) | PLC | PROGRAMMABLE LOGIC CONTROLLER |
| LE | LEVEL ELEMENT | PLCS | PLACES |
| LEL | LOWER EXPLOSIVE LIMIT | POC | POINT OF CONNECTION |
| LF | LINEAR FEET | POE | POINT OF ENTRY |
| LG | LONG | POJ | PUSH ON JOINT |
| LIT | LEVEL INDICATING TRANSMITTER | PP | POWER POLE |
| LIU | LIGHT INTERFACE UNIT | PPE | PERSONAL PROTECTIVE EQUIPMENT |
| LLH | LONG LEG HORIZONTAL | PRV | PRESSURE REDUCING VALVE |
| LLV | LONG LEG VERTICAL | PSF | POUNDS PER SQUARE FOOT |
| LLWL | LOW LOW WATER LEVEL | PSI | POUNDS PER SQUARE INCH |
| LOS | LOCKOUT STOP | PSIA | POUNDS PER SQUARE INCH ABSOLUTE |
| LR | LONG RADIUS, LOCAL-REMOTE | PSID | POUNDS PER SQUARE INCH DIFFERENTIAL |
| LS | LIFT STATION | PSIG | POUNDS PER SQUARE INCH GAUGE |
| LSIG | LONG SHORT INSTANTANEOUS GROUND | PSV | PRESSURE SUSTAINING VALVE |
| LWL | LOW WATER LEVEL | PT | PRESSURE TREATED, POTENTIAL TRANSFORMER |
| M | MANUAL | PV | PLUG VALVE |
| M/F | MALE/FEMALE | PVC | POLYVINYL CHLORIDE |
| MAX | MAXIMUM | PVMT | PAVEMENT |
| MC | MODULATE-CLOSE | PWR | POWER |
| MCC | MOTOR CONTROL CENTER | R | RADIUS |
| MCJ | MASONRY CONTROL JOINT | R/W, ROW | RIGHT-OF-WAY |
| MECH | MECHANICAL | RCP | REINFORCED CONCRETE PIPE |
| MES | MITERED END SECTION | RCPT | RECEPTACLE |
| MFR | MANUFACTURER | RD | ROAD |
| MG | MILLION GALLON(S) | RED | REDUCER |
| MH | MANHOLE | REF | REFERENCE |
| MIN | MINIMUM | REINF | REINFORCEMENT, REINFORCING |
| MISC | MISCELLANEOUS | REQ, | REQUIRED |
| MJ | MECHANICAL JOINT | REQ'D | REQUIRED |
| MNPT | MALE NATIONAL PIPE THREAD | RGS | RIGID GALVANIZED STEEL |
| MO | MOTOR OPERATOR | RJ | RESTRAINED JOINT |
| MOT | MAINTENANCE OF TRAFFIC | RM | REMOTE MULTIPLEXING MODULE |
| MP | METERING PUMP | RMS | ROOT MEAN SQUARE |
| MPH | MILES PER HOUR | RPZ | REDUCED PRESSURE ZONE |
| MS | MOTOR STARTER | RT | RIGHT |
| MSC | MANUFACTURER SUPPLIED CABLE | RTU | REMOTE TELEMETRY UNIT |
| MT, MTD | MOUNT(ED) | S | SOUTH |
| MTL | METAL | SARV | SURGE ANTICIPATOR RELIEF VALVE |
| MV | MEDIUM VOLTAGE | SBC | STANDARD BUILDING CODE |
| N | NORTH(ING), NEUTRAL, NORMAL | SCH | SCHEDULE |
| N/A | NOT APPLICABLE | SCJ | SAW CUT JOINT |
| NAD | NORTH AMERICAN DATUM | SDI | STEEL DECK INSTITUTE |
| NAVD | NORTH AMERICAN VERTICAL DATUM | SE | SOUTH EAST |
| NC | NORMALLY CLOSED | SEC | SECOND |
| NE | NORTH EAST | SF | SLOWER-FASTER, SQUARE FOOT |
| NEC | NATIONAL ELECTRICAL CODE | SHEC | SHOULDERED-END COUPLING |
| NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION | SHT | SHEET |
| NEUT | NEUTRAL | SIM | SIMILAR |
| NGVD | NATIONAL GEODETIC VERTICAL DATUM | SJI | STEEL JOINT INSTITUTE |
| NIC | NOT IN CONTRACT | SM | STATIC MIXER |
| No. | NUMBER | SP | SPACING, SPACED |
| NO | NORMALLY OPEN | SPD | SURGE PROTECTIVE DEVICE |
| NOM | NOMINAL | SQ | SQUARE |
| NPDES | NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM | SR | STATE ROAD, SURGE RELIEF |
| NPT | NATIONAL PIPE THREAD | SRV | SURGE RELIEF VALVE |
| NRS | NONRISING STEM | SS | START-STOP |
| NS | NEAR SIDE | SS, SST | STAINLESS STEEL |
| NSF | NATIONAL SANITATION FOUNDATION | SSC | SUPERVISORY SET POINT CONTROL |
| | | SSRV | SOLID STATE REDUCED VOLTAGE |

| | |
|---------|---------------------------------------|
| ST | SHUNT TRIP |
| ST | STREET |
| STA | STATION |
| STD | STANDARD |
| STL | STEEL |
| STS | STORMWATER SEWER |
| SW | SOUTH WEST, SWITCH |
| SWD | SIDE WATER DEPTH |
| SWJ | SOLVENT WELD JOINT |
| SWPPP | STORM WATER POLLUTION PREVENTION PLAN |
| SY | SQUARE YARD |
| T, THK | THICK |
| T/ | TOP OF |
| T/B,T&B | TOP AND BOTTOM |
| TBM | TEMPORARY BENCHMARK |
| TEMP | TEMPERATURE |
| TGS | THREADED GALVANIZED STEEL |
| TGSP | THREADED GALVANIZED STEEL PIPE |
| TH | TOTAL HEAD |
| THD | THREADED |
| TJB | TERMINAL JUNCTION BOX |
| TK | TANK |
| TOC | TOP OF CONCRETE |
| TOS | TOP OF STEEL |
| TOSJ | TOP OF STEEL JOIST |
| TOW | TOP OF WALL |
| TS | TUBULAR STEEL |
| TSF | THICKENED SLAB FOOTING |
| TSP | TWISTED SHIELDED PAIR |
| TURB | TURBIDITY |
| TYP | TYPICAL |
| UG | UNDERGROUND |
| UL | UNDERWRITER'S LABORATORIES |
| ULC | ULTRASONIC LEVEL CONTROLLER |
| UNO | UNLESS NOTED OTHERWISE |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| V | VOLTAGE, VOLTS |
| VERT | VERTICAL |
| VFD | VARIABLE FREQUENCY DRIVE |
| VH | VAPOR HEATER |
| VIB | VIBRATION |
| VIF | VERIFY IN FIELD |
| VP | VAPORIZER |
| W | WIDE, WATT |
| W/ | WITH |
| W/O | WITHOUT |
| WCJ | WALL CONTROL JOINT |
| WF | WALL FOOTING |
| WGT | WEIGHT |
| WP | WORK POINT, WEATHERPROOF |
| WSE, | WATER SURFACE ELEVATION |
| WSEL | |
| WT | WEIGHT |
| WV | WATER VALVE |
| WWF | WELDED WIRE FABRIC |
| XFMR | TRANSFORMER |
| XS | EXTRA STRONG |

CUSTOM ABBREVIATIONS

| | |
|-----|----------------------------|
| PS | PUMP STATION |
| WRF | WATER RECLAMATION FACILITY |



BID DOCUMENTS

| RECORD DRAWINGS | |
|--|-----------|
| SURVEYED BY: | DRAWN BY: |
| REVIEWED BY: | |
| APPROVED BY: | DATE: |
| CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | DATE: |
| REVISION | |
| BY: | DATE: |

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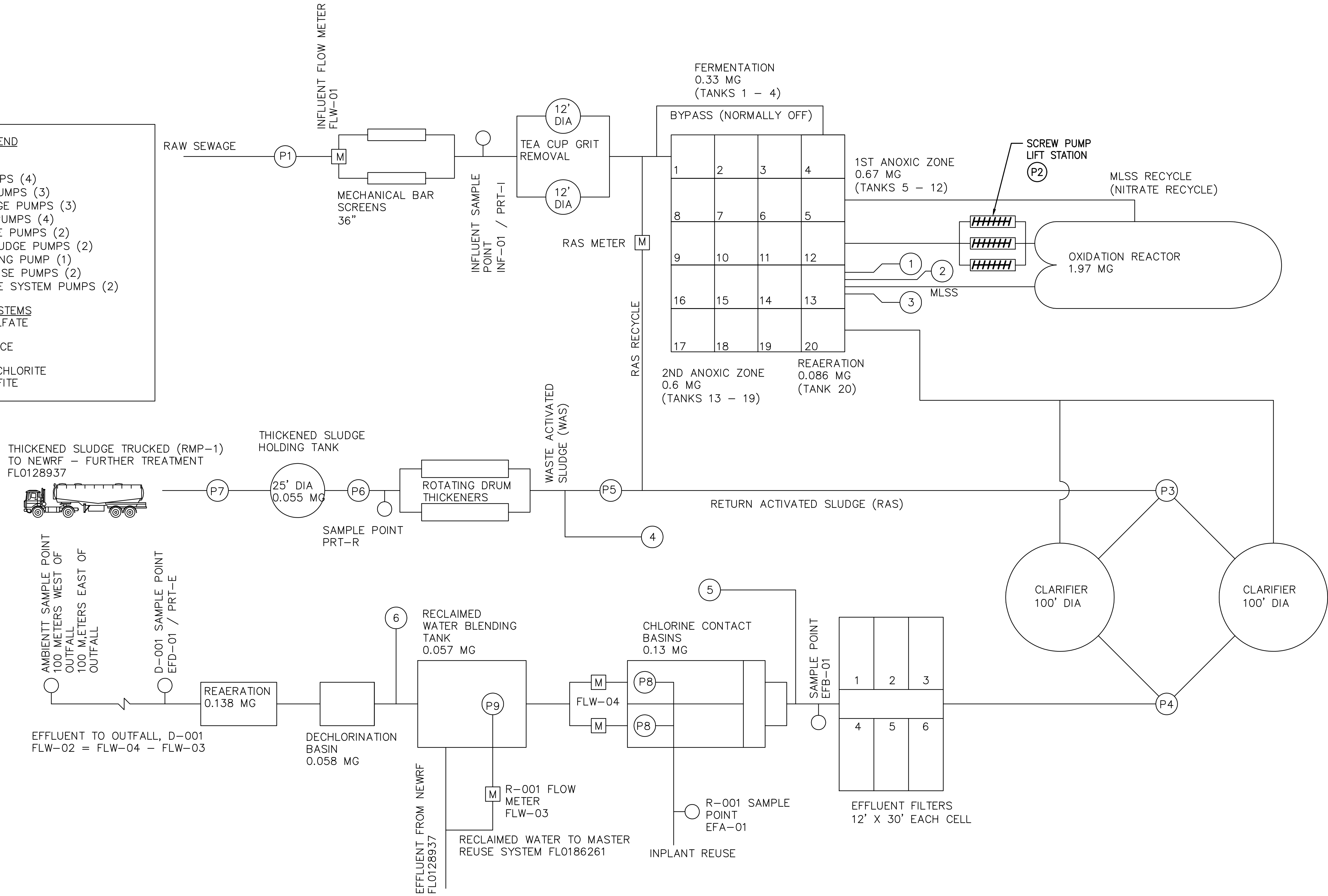
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EAST WRF
SCREW PUMP REPLACEMENT
ABBREVIATIONS AND
DESIGNATIONS

| | | | |
|---------------------------------|-----------------------------|------------------------|------------------|
| DWG NAME: 0372006201-G03.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | VERT.: |
| JOB NO.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | HORIZ.: |
| APPROVED FOR CONSTRUCTION | | | SHEET NO.: G3 |
| SEAN P. MENARD, PE #88647 | | | |

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| LEGEND | |
|------------------------------|-------------------------------|
| PUMP STATIONS | |
| P1 | INFLUENT PUMPS (4) |
| P2 | SCREW LIFT PUMPS (3) |
| P3 | RETURN SLUDGE PUMPS (3) |
| P4 | FILTER FEED PUMPS (4) |
| P5 | WASTE SLUDGE PUMPS (2) |
| P6 | THICKENED SLUDGE PUMPS (2) |
| P7 | SLUDGE LOADING PUMP (1) |
| P8 | IN-PLANT REUSE PUMPS (2) |
| P9 | MASTER REUSE SYSTEM PUMPS (2) |
| CHEMICAL FEED SYSTEMS | |
| 1 | ALUMINUM SULFATE |
| 2 | TR-50 |
| 3 | CARBON SOURCE |
| 4 | POLYMER |
| 5 | SODIUM HYPOCHLORITE |
| 6 | SODIUM BISULFITE |



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| RECORD DRAWINGS | | REVISION | BY | DATE |
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| SURVEYED BY: | DRAWN BY: | | | |
| REVIEWED BY: | PROJECT ENGINEER | | | DATE |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | | | DATE |

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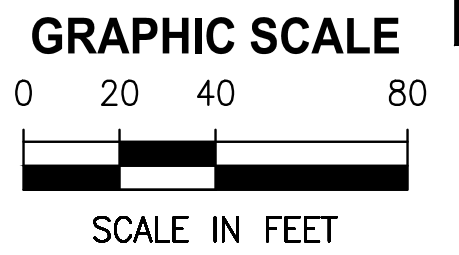
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EAST WRF
 SCREW PUMP REPLACEMENT
PROCESS FLOW DIAGRAM

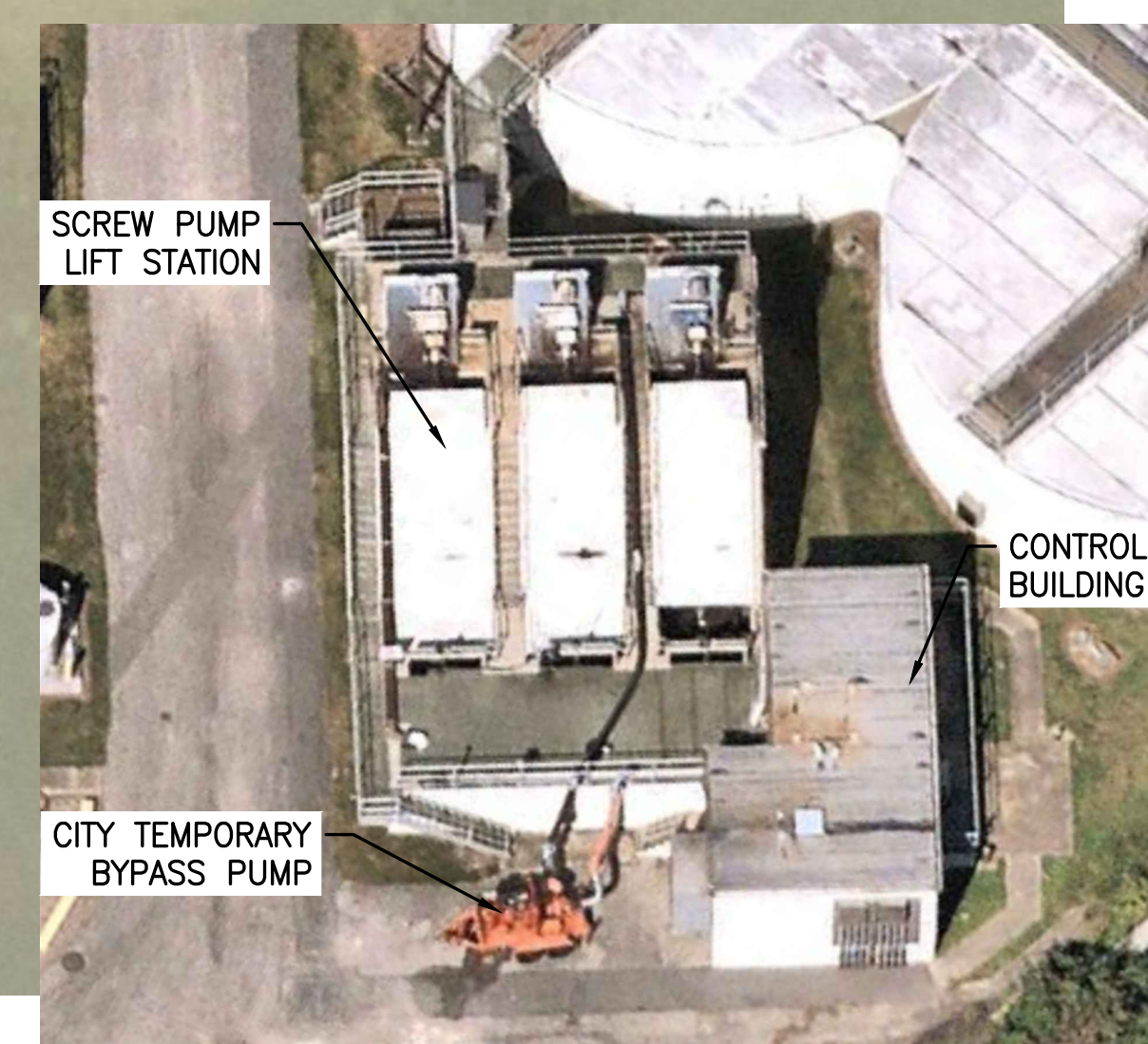
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| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | VERT.: |
| JOB NO.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | HORIZ.: |
| APPROVED FOR CONSTRUCTION: | SEAN P. MENARD, PE #88847 | | SHEET NO.: G4 |

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KEY MAP
1" = 40'



ENLARGED MAP
NTS

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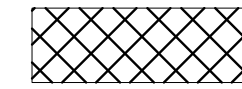
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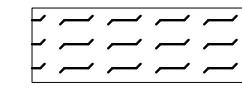
EAST WRF
SCREW PUMP REPLACEMENT
KEY MAP

| | | | |
|---------------------------------|-----------------------------|---------------------------|-------------------------|
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| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | VERT.: |
| JOB NO.: | DESIGNED BY: ZSPLOYT | CHECKED BY: AHOLMES | HORIZ. SHEET NO.: G5 |
| APPROVED FOR CONSTRUCTION | | SEAN P. MENARD, PE #88647 | |

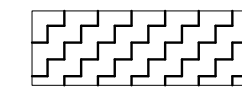
LEGEND:



DEMOLISH AND REMOVE



TO BE PROTECTED AND/OR RELOCATED

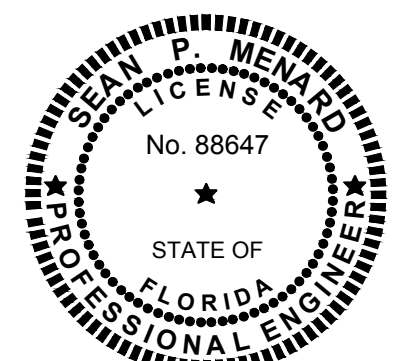


TO BE REFURBISHED

DEMOLITION NOTES:

1. ALL DEMOLISHED STRUCTURES, EQUIPMENT, ELECTRICAL, PIPING, CONCRETE AND OTHER APPURTENANCES ARE TO BE REMOVED FROM SITE AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
2. CONTRACTOR TO COORDINATE DEMOLITION WITH CONTRACT DOCUMENTS IN GENERAL AND SPECIFICALLY SECTION 01100, SUMMARY OF WORK; SECTION 01815, MAINTENANCE OF PLANT OPERATION AND SEQUENCE OF CONSTRUCTION; AND SECTION 02200, DEMOLITION AND MODIFICATIONS.
3. UNLESS OTHERWISE NOTED, ALL DEMOLISHED BUILDINGS, STRUCTURE, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. CONFIRM THAT REGULATED TOXIC/HAZARDOUS WASTES OR MATERIALS ARE NOT PRESENT OR WILL BE PROPERLY MANAGED DURING THE DEMOLITION PROCESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
4. THE DEFINITION OF DEMOLITION SHALL INCLUDE REMOVAL AND PROPER DISPOSAL OF FACILITIES, UTILITIES, STRUCTURES, AND THEIR ASSOCIATED APPURTENANCES. DEMOLITION SHALL NOT BE CONSIDERED TO INCLUDE ABANDON-IN-PLACE. ITEMS TO BE ABANDONED-IN-PLACE WILL BE INDICATED AS SUCH.
5. DEMOLITION MATERIALS SHALL INCLUDE ALL DEBRIS, MATERIALS, GRIT, MUD, SLUDGE, AND WATER. THE CONTRACTOR SHALL COLLECT AND HAUL OFF ALL DEMOLITION MATERIALS FOR PROPER DISPOSAL OFF-SITE.
6. NOT ALL UTILITIES MAY BE SHOWN IN THE DRAWINGS. THE CONTRACTOR SHALL BE COGNIZANT OF OBSTRUCTIONS/UTILITIES THAT AFFECT WORK. UTILITY LOCATES SHALL BE PERFORMED WITHIN FIVE FEET OF ALL AREAS TO BE DISTURBED AND CONTINUOUSLY WITHIN FIVE FEET OF ALL BUILDINGS AND STRUCTURES TO BE DEMOLISHED. CONTRACTOR SHALL NOTIFY ENGINEER IF VARYING SITE CONDITIONS ARE FOUND.
7. DIMENSIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE; HOWEVER, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ALL MATERIAL QUANTITIES PRIOR TO BIDDING.
8. CONTRACTOR SHALL NOT COMMENCE DEMOLITION WORK UNTIL ALL UTILITIES HAVE BEEN VERIFIED TO BE DISCONNECTED AND ISOLATED. COORDINATE WITH ENGINEER AND OWNER FOR VERIFICATION OF LOCKOUT TAG OUT AND DISCONNECTION OF ALL SYSTEMS. DO NOT DEMOLISH ANY ELECTRICAL AND COMMUNICATION EQUIPMENT UNTIL IT HAS BEEN DE-ENERGIZED COMPLETELY, DISCONNECTED AND VERIFIED DE-ENERGIZED. UTILITIES TO REMAIN IN SERVICE UNLESS INTERRUPTION IS UNAVOIDABLE MAY TEMPORARILY BE TAKEN OUT OF SERVICE BY OBTAINING PRIOR APPROVAL FROM OWNER.
9. FACILITIES AND IMPROVEMENTS TO REMAIN SHALL BE CLEANED OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO PRE-CONSTRUCTION CONDITIONS BY PROJECT COMPLETION.
10. THE CONTRACTOR SHALL PROTECT EXISTING EQUIPMENT, SURFACES AND STRUCTURES TO REMAIN INSIDE AND OUTSIDE THE LIMITS OF DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING TO PRE-DEMOLITION CONDITIONS ANY DAMAGE TO EXISTING EQUIPMENT, SURFACES, UTILITIES, STRUCTURES, AND OTHER FEATURES CAUSED BY DEMOLITION ACTIVITIES, AT NO ADDITIONAL COST TO THE OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING, SHORING, OR PROVIDING OTHER MEANS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES AND STRUCTURES DURING CONSTRUCTION/DEMOLITION.
12. CONTRACTOR SHALL PREVENT THE DISCHARGE OF SEDIMENT INTO DRAINAGE DITCHES OR TRENCHES DUE TO DEMOLITION OPERATIONS. APPROVED EROSION CONTROL DEVICES SHALL BE INSTALLED TO PREVENT DISCHARGE OF SEDIMENT INTO A DRY OR WET WATERCOURSE. EROSION CONTROL SHALL CONSIST OF MULCH AND NETTING, FILTER CLOTH BARRIERS OR OTHER EROSION CONTROL METHODS APPROVED BY THE COUNTY.
13. ALL CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE REMOVED FROM THE PROJECT SITES BY THE CONTRACTOR WITHIN ONE WEEK OF REMOVAL FROM THE STRUCTURE OR ORIGINAL PLACE OF ORIGIN, UNLESS OTHERWISE APPROVED BY THE COUNTY.

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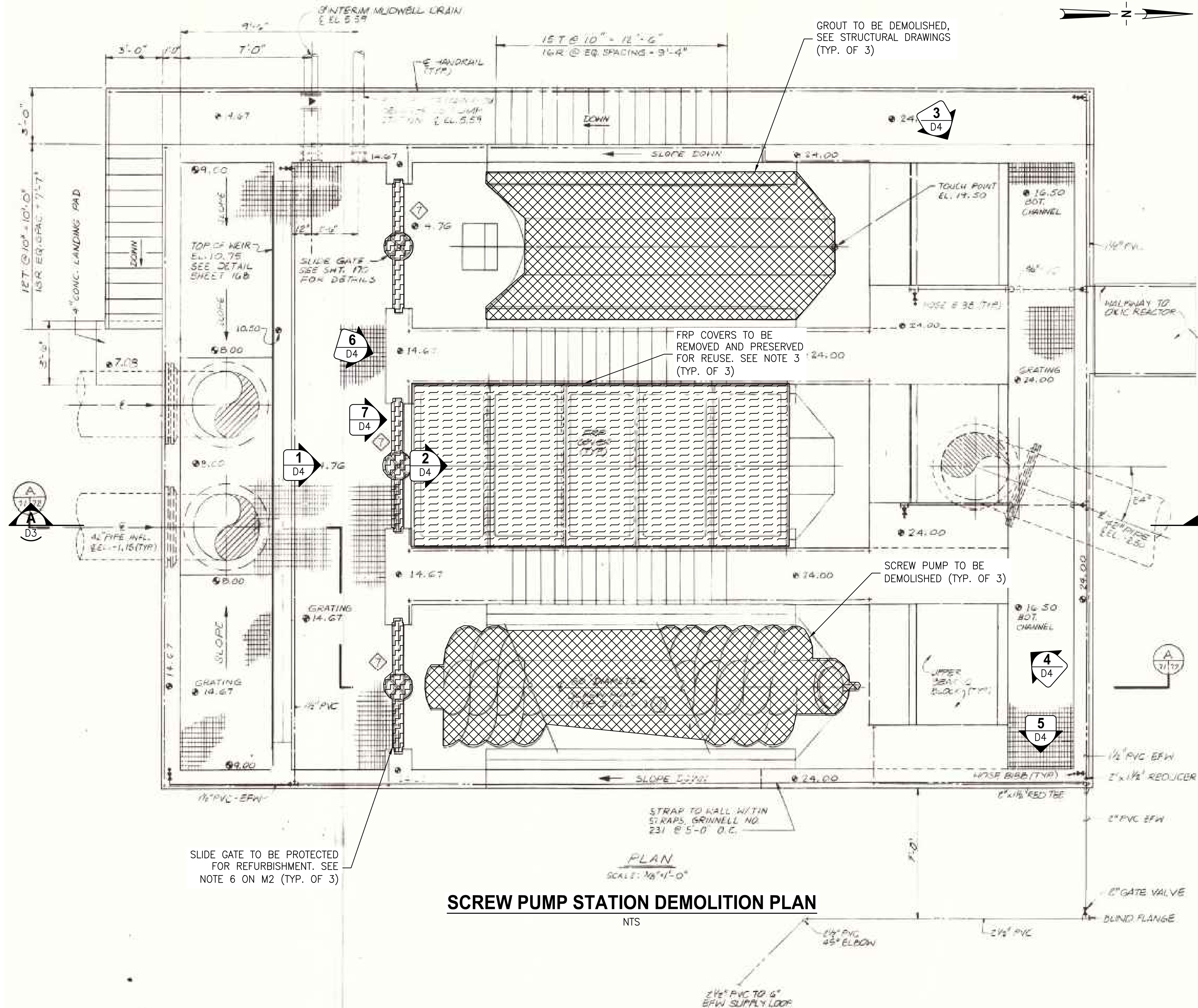


BID DOCUMENTS

| | | | | | | | | | | | | |
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| SURVEYED BY: | DRAWN BY: | | | | CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | HORIZ.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | SHEET NO.: | D1 |
| REVIEWED BY: | PROJECT ENGINEER | | | | DATE: | | | | | | | |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | | | | DATE: | | | | | | | |
| REVISION | | BY | DATE | | | DEMOLITION NOTES AND LEGEND | | APPROVED FOR CONSTRUCTION | | SEAN P. MENARD, PE #88647 | | |

DEMOLITION NOTES:

1. THE PLAN VIEW SHOWS THREE DIFFERENT LEVELS INCLUDING THE BOTTOM CHANNEL, FRP COVER, AND SCREW PUMP. ALL THREE COMPONENTS ARE TYPICAL FOR EACH CHANNEL.
2. DEMOLISH THE EXISTING SCREW PUMPS, DRIVE ASSEMBLIES, BEARINGS, DEFLECTION PLATES, AND SUPPORT BRACKETS.
3. PROTECT THE FRP COVERS FOR REUSE. CONTRACTOR SHALL TAKE AND SUBMIT PHOTOS TO THE ENGINEER AND OWNER BEFORE AND AFTER THE REMOVAL OF THE FIBERGLASS COVERS FOR DOCUMENTATION AND STORE THE FRP COVERS IN A LOCATION THAT IS APPROVED BY THE OWNER AND ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE COVERS, UP TO REPLACEMENT IF BEYOND REASONABLE REPAIR, AS DETERMINED BY THE OWNER.
4. PROTECT THE SLIDE GATES FOR REFURBISHMENT.
5. CONCRETE CHANNELS FOR SCREW PUMPS TO REMAIN.
6. CONTRACTOR TO REFER TO PHOTO DETAIL 3 ON SHEET D4 FOR THE DEMOLITION OF THE MOUNTED DRIVE ASSEMBLY.



SCREW PUMP STATION DEMOLITION PLAN

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

NTS

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| RECORD DRAWINGS | | DATE | BY |
|-----------------|--|------|----|
| SURVEYED BY: | DRAWN BY: | | |
| REVIEWED BY: | PROJECT ENGINEER | DATE | |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | DATE | |
| REVISION | BY | DATE | |

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ENGINEERING DEPARTMENT
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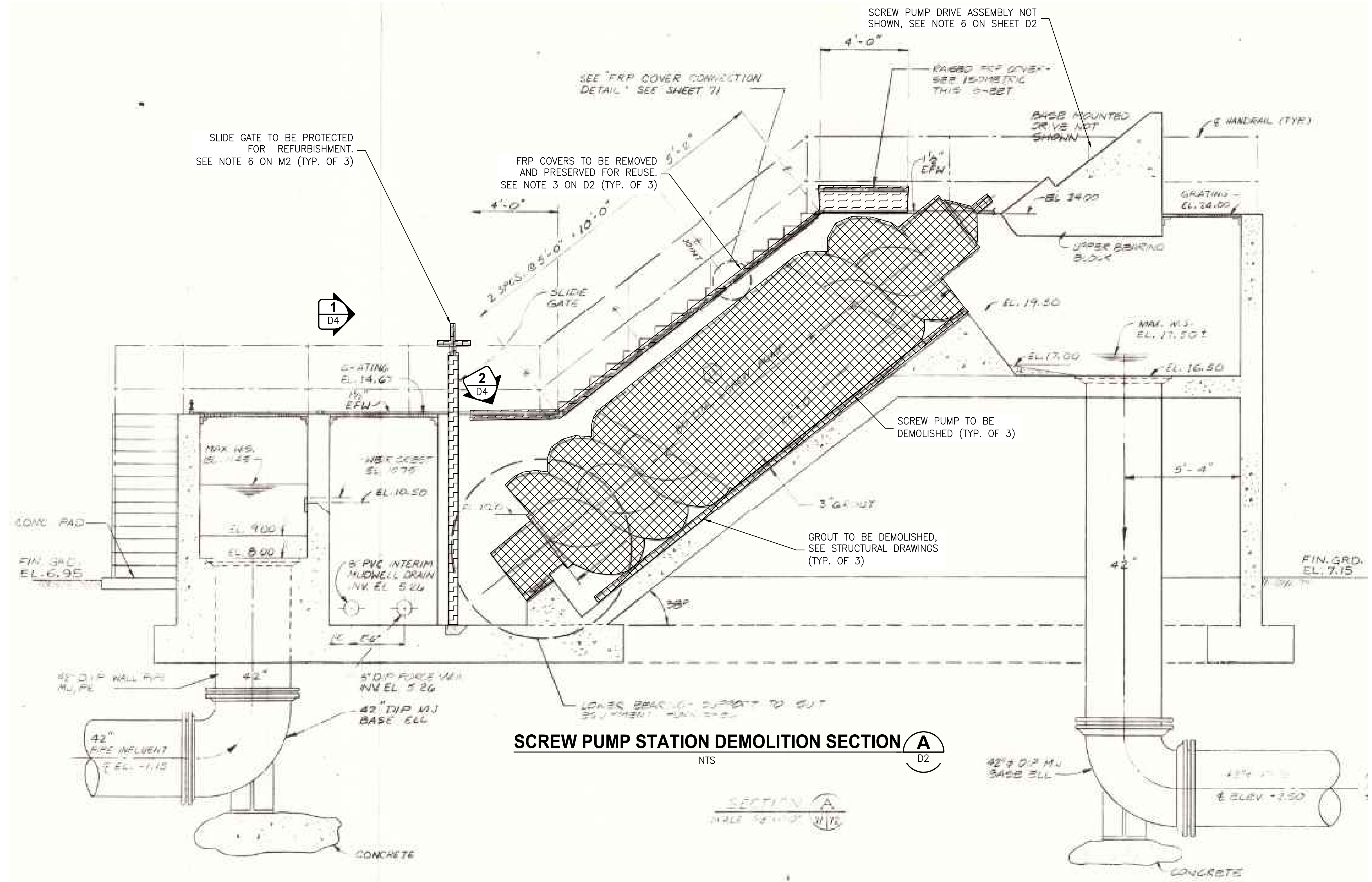
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EAST WRF
SCREW PUMP REPLACEMENT
DEMOLITION PLAN

| | | | |
|---------------------------------|-----------------------------|-------------------------|------------------|
| DWG NAME: 0372006201-D02.DWG | FIELD BOOK: | SURVEYED BY: JKRAMER | SCALE: VERT. |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | HORIZ. |
| JOB NO.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | SHEET NO.: D2 |
| APPROVED FOR CONSTRUCTION | SEAN P. MENARD, PE #88647 | DATE | |

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SCREW PUMP STATION DEMOLITION SECTION A
NTS

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BID DOCUMENTS

| | | | | | | | | | | | | | |
|--|--|--|--|--|--|---|--|--|--|--|--|--|--|
| RECORD DRAWINGS SURVEYED BY: _____ DRAWN BY: _____ REVIEWED BY: _____ PROJECT ENGINEER _____ DATE _____ APPROVED BY: _____ CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 _____ DATE _____ | | CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 SOUTH MYRTLE AVENUE CLEARWATER, FL 33756 | | CALL 811 SUNSHINE STATE ONE CALL OF FLORIDA www.sunshine11.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE | | JonesEdmunds 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 324 S. HYDE PARK AVE., SUITE 250 TAMPA, FLORIDA 33606 / (813) 256-0703 | | EAST WRF SCREW PUMP REPLACEMENT DEMOLITION SECTION | | DWG NAME: 0372006201-D03.DWG CONTRACT NO.: _____ JOB NO.: _____ APPROVED FOR CONSTRUCTION: SEAN P. MENARD, PE #88847 _____ DATE _____ | | FIELD BOOK: _____ DATE DRAWN: OCTOBER 2023 DESIGNED BY: ZSPLAYT SURVEYED BY: _____ DRAWN BY: JKRAMER CHECKED BY: AHOLMES SCALE: VERT. _____ HORIZ. _____ SHEET NO.: D3 | |
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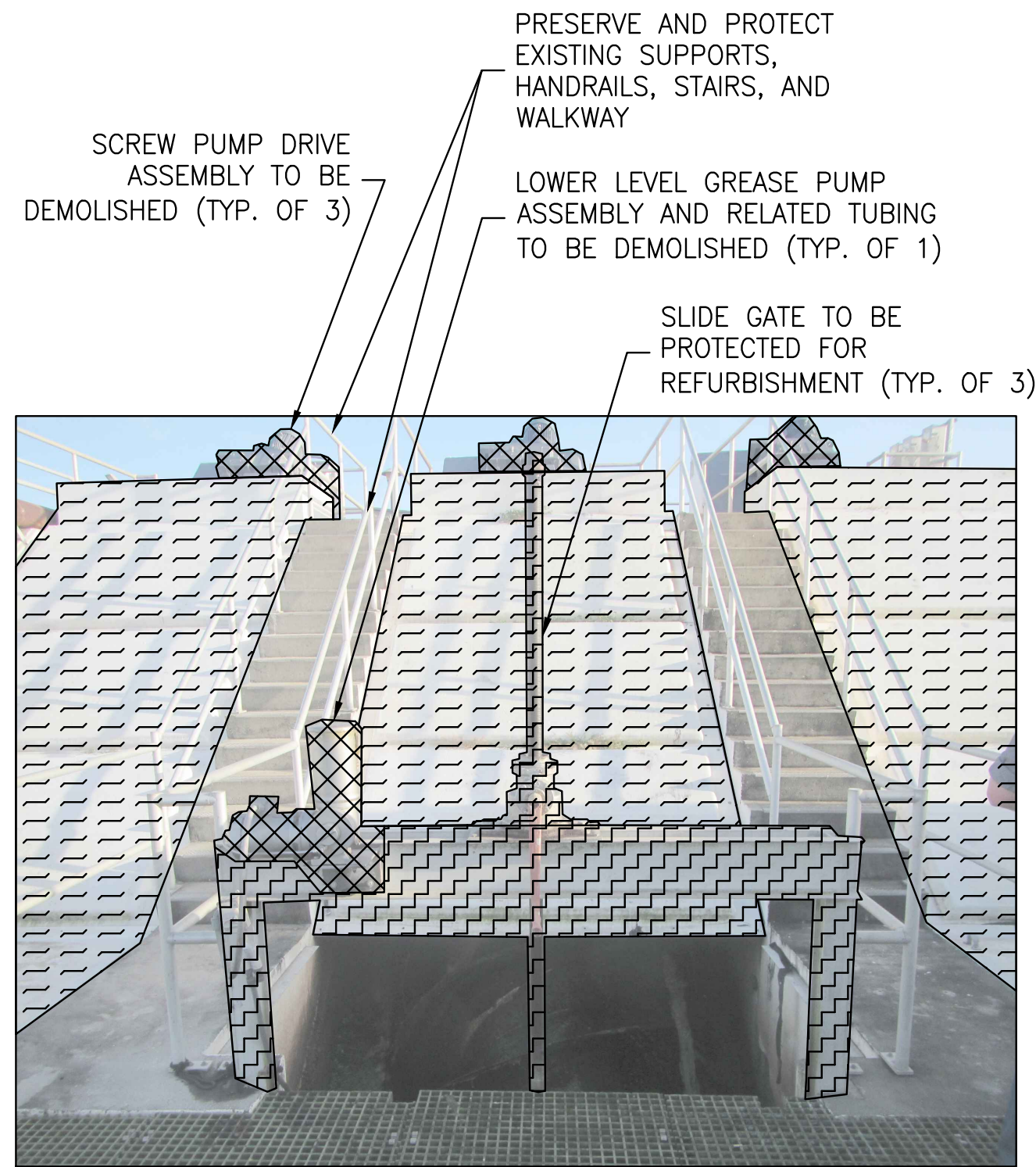


PHOTO DETAIL 1
NTS (D2,D3)

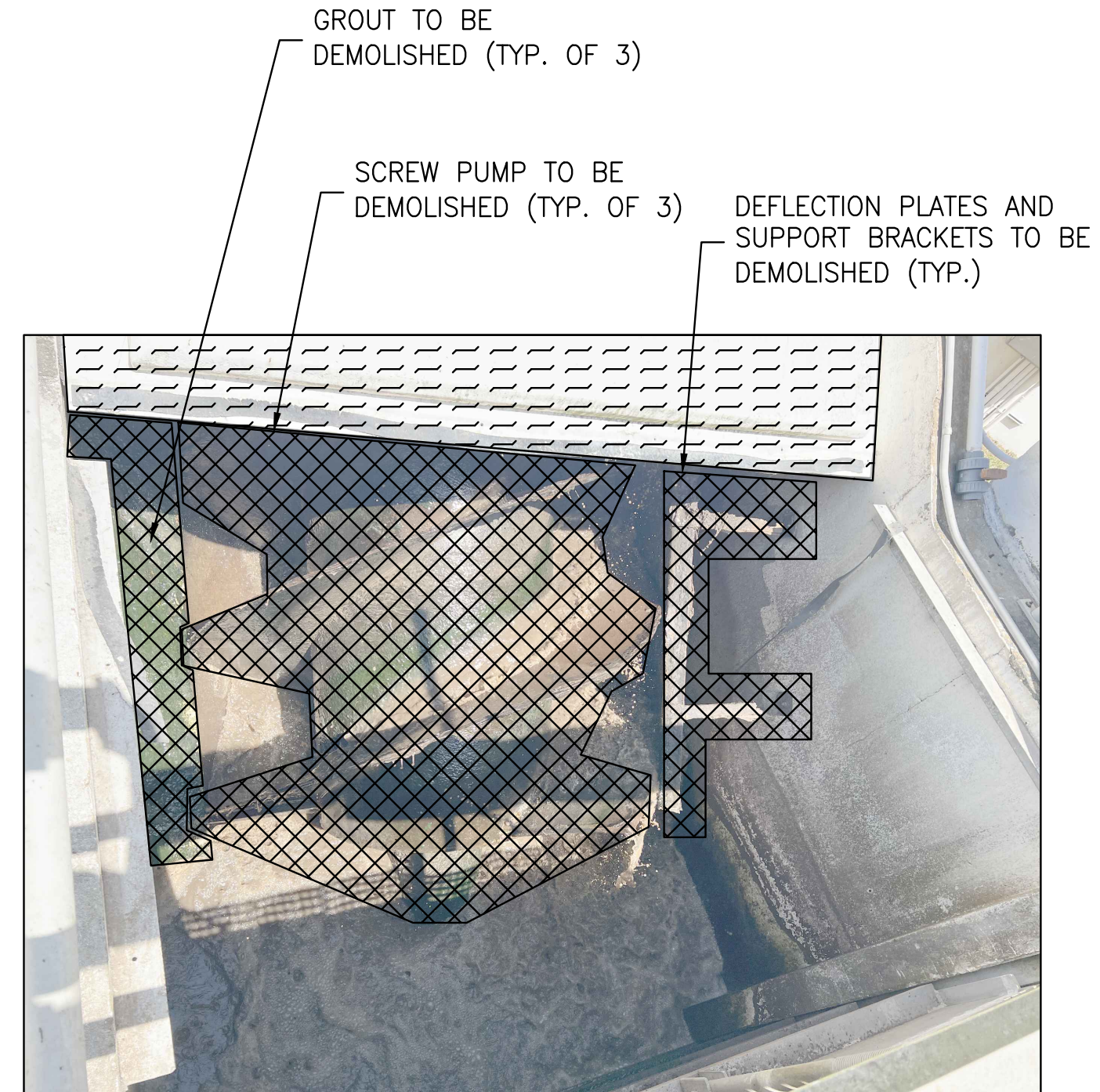


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NTS (D2,D3)

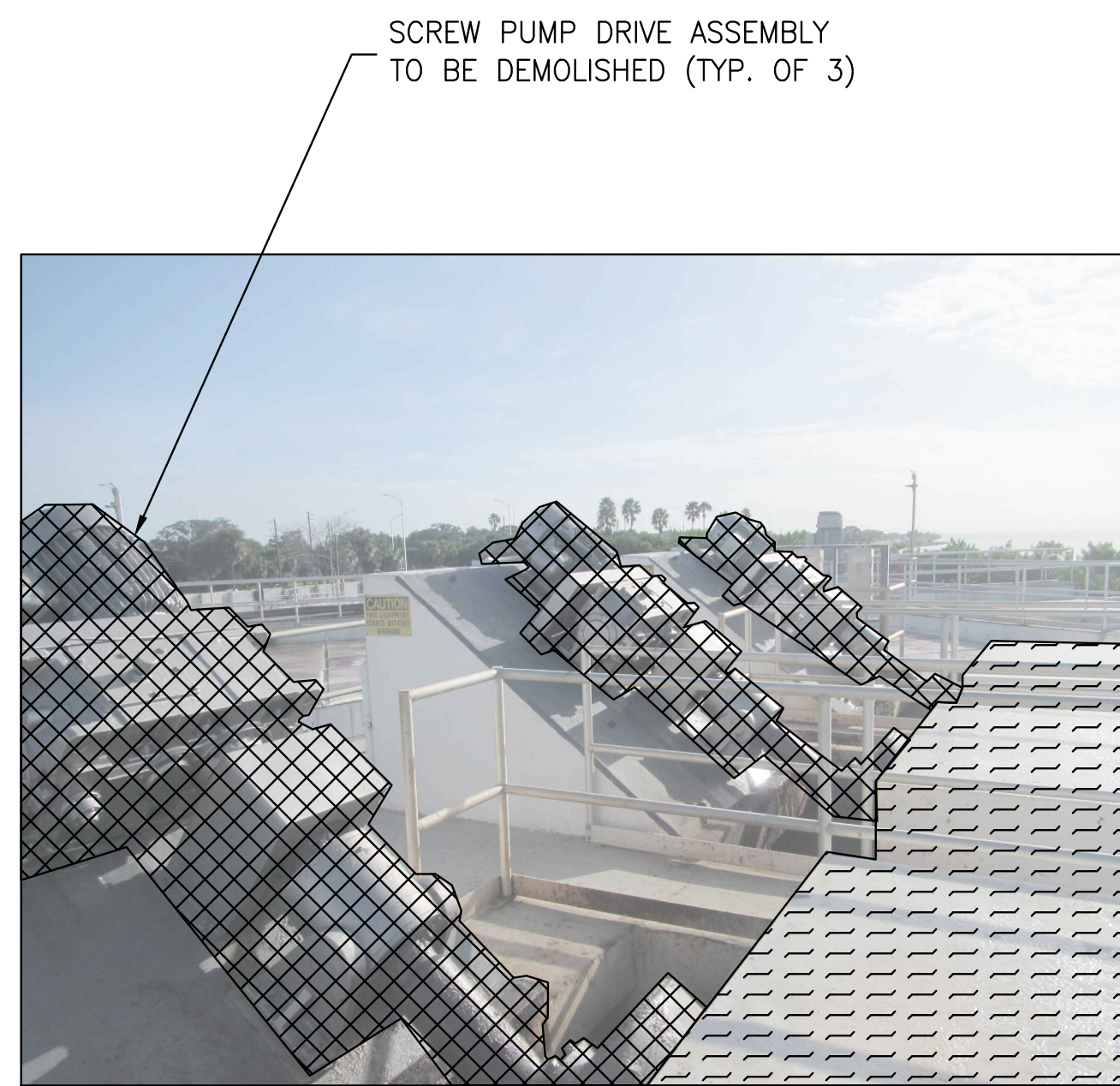


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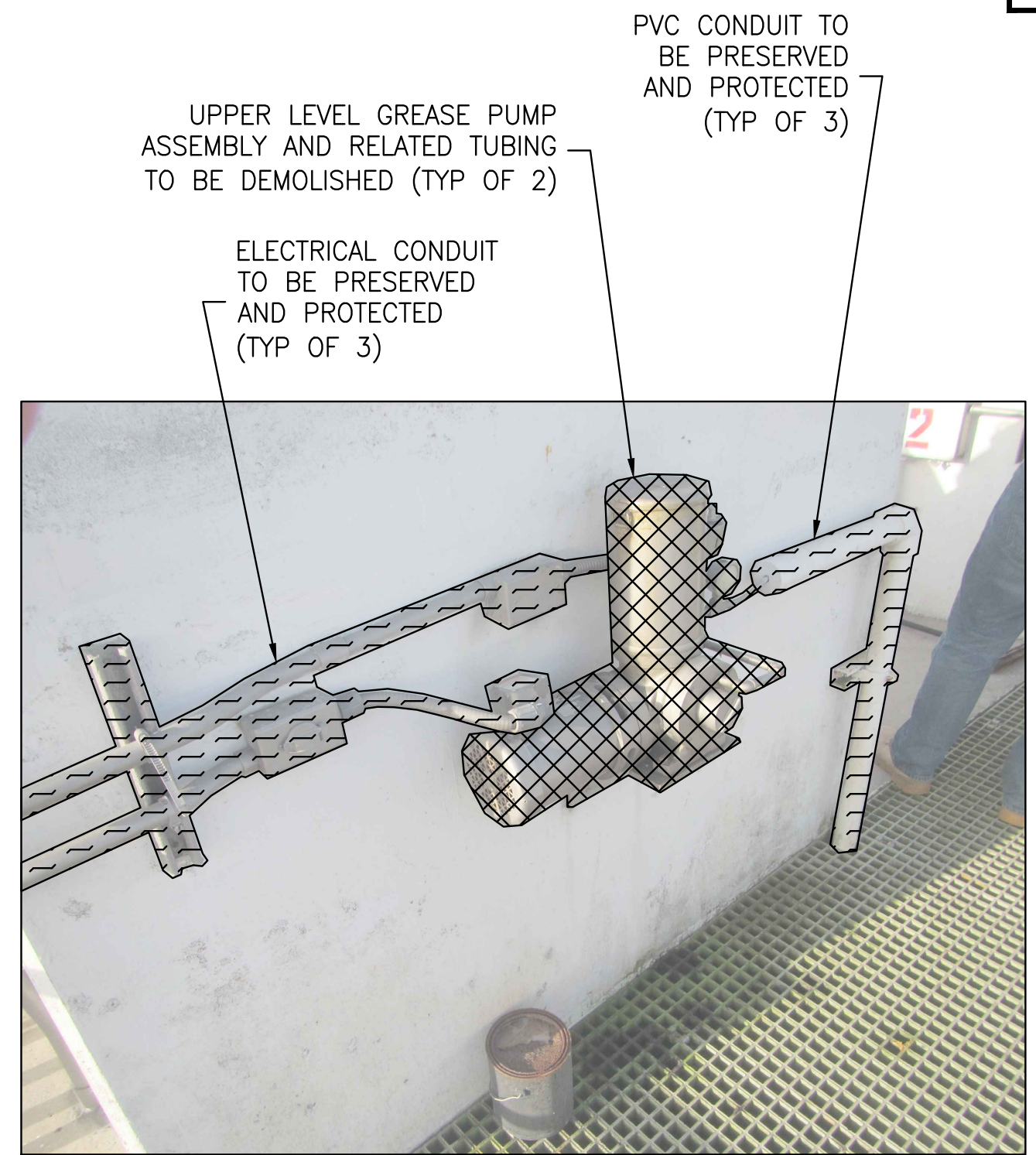


PHOTO DETAIL 4
NTS (D2)



PHOTO DETAIL 5
NTS (D2)

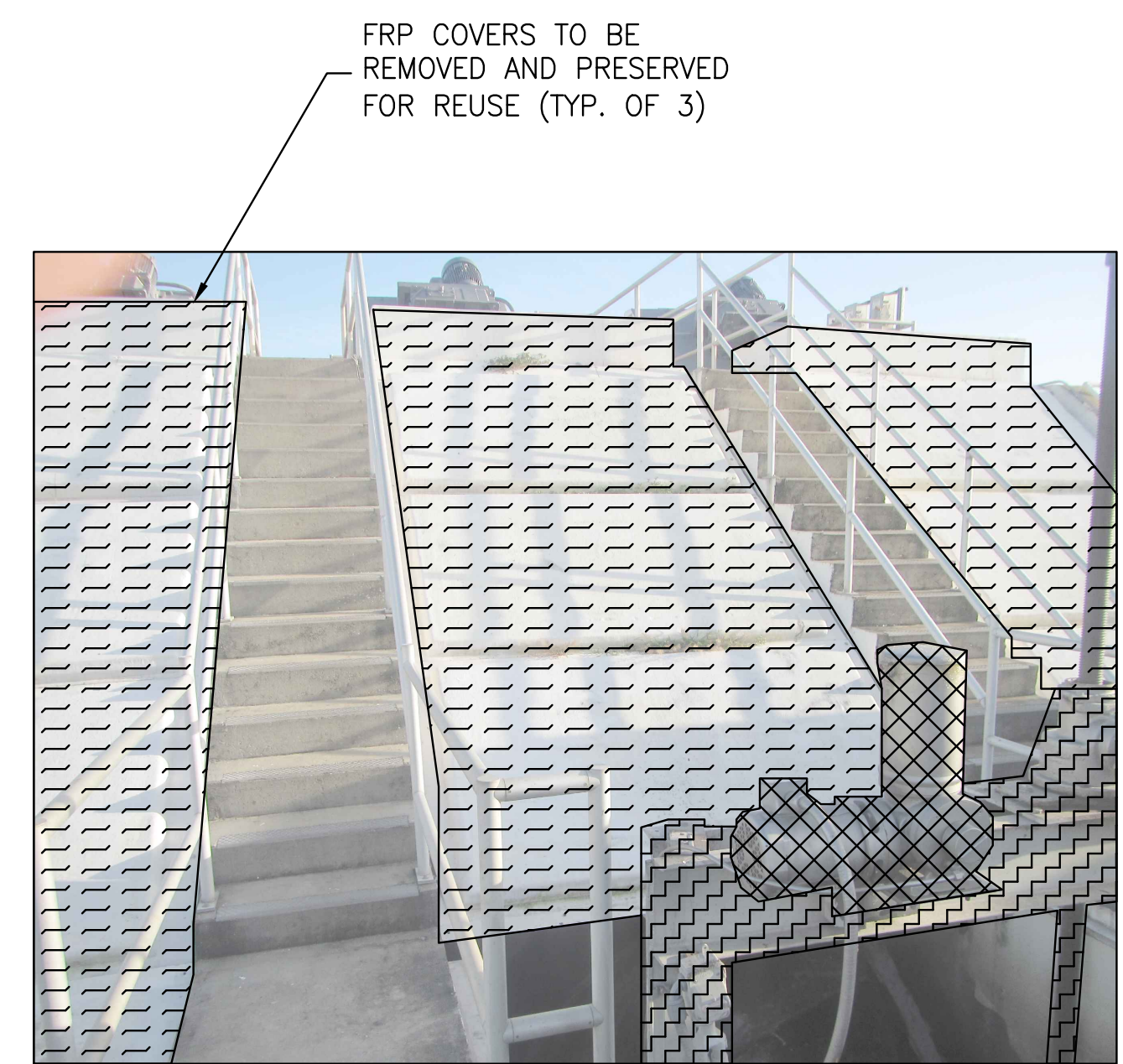


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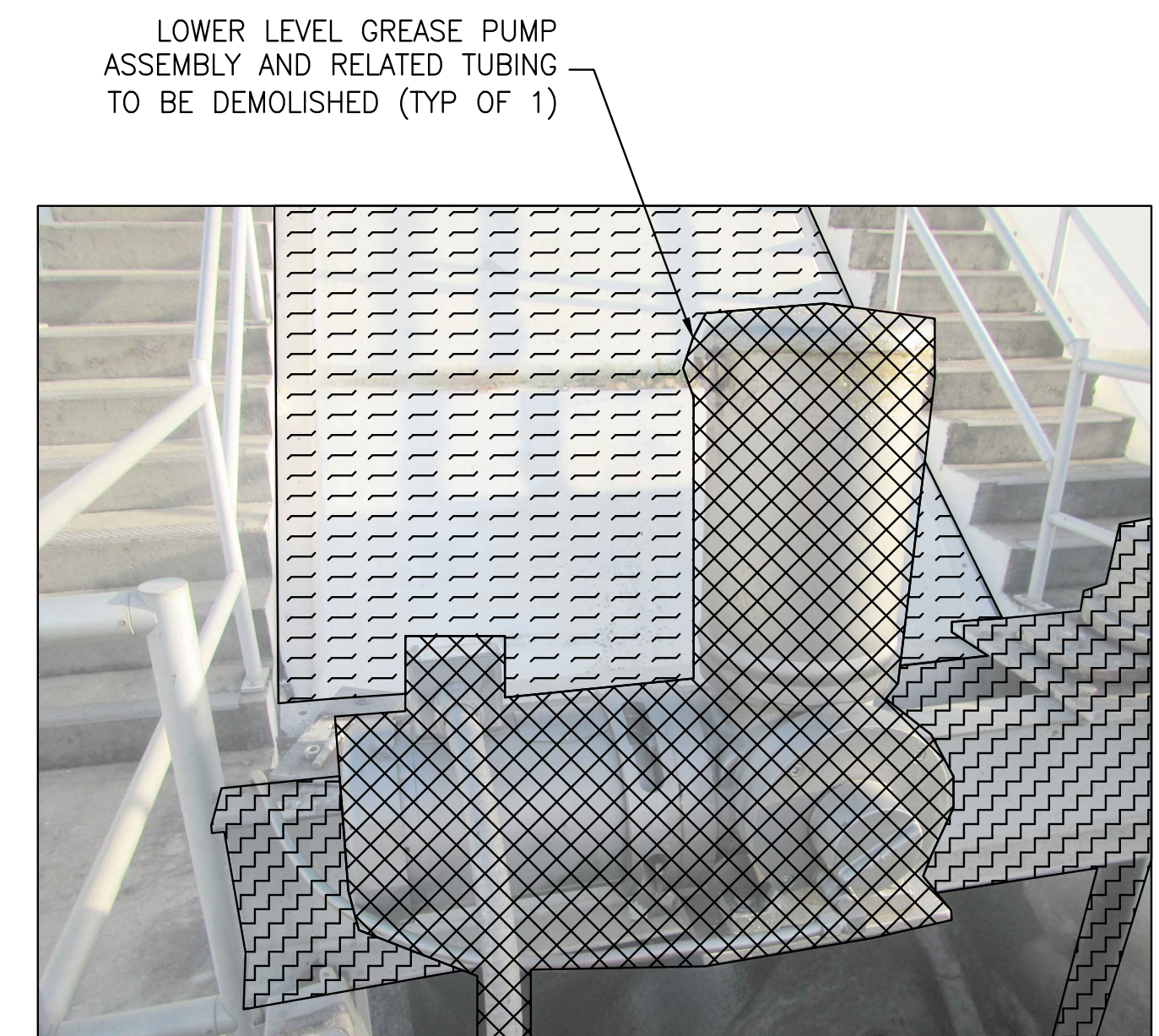


PHOTO DETAIL 7
NTS (D2)

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|-----------------|--|
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| REVIEWED BY: | PROJECT ENGINEER |
| DATE: | DATE: |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 |

| REVISION | BY | DATE |
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EAST WRF
SCREW PUMP REPLACEMENT
DEMOLITION PHOTOS

| | | | |
|------------------------------|--------------------------|---------------------------|----------------------|
| DWG NAME: 0372006201-D04.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | VERT.: |
| JOB NO.: | DESIGNED BY: ZSPLAYT | CHECKED BY: AHOLMES | HORIZ. SHEET NO.: D4 |
| APPROVED FOR CONSTRUCTION | | SEAN P. MENARD, PE #88647 | |

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GENERAL STRUCTURAL NOTES

GENERAL CONDITIONS

- ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE MECHANICAL, CIVIL, ELECTRICAL, AND SHOP DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE WORK DEPICTED ON THE DRAWINGS. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.
- FOR ALL ITEMS EMBEDDED IN OR PASSING THROUGH CONCRETE, THE CONTRACTOR SHALL INITIALLY REFER TO MECHANICAL DRAWINGS FOR TYPE, SIZE, LOCATION, AND SPECIAL INSTALLATION REQUIREMENTS FOR THESE ITEMS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT EXISTING STRUCTURES FROM DAMAGE WHEN WORKING IN AND AROUND EXISTING STRUCTURES PERFORMING WORK SUCH AS DEMOLITION, FOUNDATION EXCAVATIONS, AND OTHERS.
- SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- ANY EQUIPMENT THAT MAY INDUCE VIBRATION TO THE STRUCTURE SHALL BE ADEQUATELY ISOLATED FROM THE STRUCTURE.
- ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

DESIGN CRITERIA

BUILDING CODES AND REFERENCES:

- 2020 FLORIDA BUILDING CODE (FBC), SEVENTH EDITION
- REINFORCED CONCRETE:
 - WATER RETAINING ENVIRONMENTAL STRUCTURES: ACI 350-20 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"
 - ALL OTHER STRUCTURES: ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
- STRUCTURAL STEEL: AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION
- ALUMINUM: ADM1-2015, ALUMINUM DESIGN MANUAL

WATERTIGHTNESS OF REINFORCED CONCRETE WATER RETAINING STRUCTURES

- HYDROSTATICALLY TEST REINFORCED CONCRETE STRUCTURES WHICH WILL CONTAIN WATER PER SPECIFICATIONS AND IN ACCORDANCE TO ACI 350.1-TIGHTNESS TESTING OF ENVIRONMENTAL ENGINEERING STRUCTURES. ALL REPAIRS AND RETESTING OF TANKS SHALL BE ACCOMPLISHED AT NO ADDITIONAL COST TO THE OWNER.

STRUCTURAL ABBREVIATIONS

| | | | | | |
|----------|-----------------------|-------|---------------------------|---------|------------------------|
| & | AND | EMBED | EMBEDMENT | OD | OUTSIDE DIAMETER |
| @ | AT | EQ | EQUAL | OH | OPPOSITE HAND |
| # | NUMBER | EW | EACH WAY | OPNG | OPENING |
| ADDTL | ADDITIONAL | EXIST | EXISTING | PCS | PIECES |
| AFF | ABOVE FINISHED | EXP | EXPANSION | PEMB | PRE-ENGINEERED |
| ALUM | FLOOR | FE | FIRE EXTINGUISHER | | METAL BUILDING |
| AEWS | ALUMINUM | FF | FAR FACE, FINISHED | PERP | PERPENDICULAR |
| | AUTOMATIC END | FG | FINISHED GRADE | PL | PLATE |
| | WELDED STUD(S) | FRP | FIBER REINFORCED | PLF | POUND PER LINEAR |
| ALT | ALTERNATE | | PLASTIC | | FOOT |
| APROX | APPROXIMATE(LY) | FT | FOOT | PT | PRESSURE TREATED |
| BLD | BUILDING | FTG | FOOTING | PROJ | PROJECTION |
| BM | BEAM | FV | FIELD VERIFY | PSF | POUNDS PER SQUARE |
| BOT | BOTTOM | GA | GAGE | | FOOT |
| CJ | CONTROL JOINT | GALV | GALVANIZED | PSI | POUNDS PER SQUARE |
| CL | CENTER LINE | HK | HOOK | | INCH |
| CLR | CLEAR | HORIZ | HORIZONTAL | PVC | POLYVINYL CHLORIDE |
| CMU | CONCRETE MASONRY UNIT | HSS | HOLLOW STRUCTURAL SECTION | R | RADIUS |
| COL | COLUMN | HP | HIGH POINT | REINF | REINFORCING |
| CONC | CONCRETE | ID | INSIDE DIAMETER | REQD | REQUIRED |
| CONN | CONNECTION | JT | JOINT | RO | ROUGH OPENING |
| CONST JT | CONSTRUCTION JOINT | LB(S) | POUND(S) | SCHED | SCHEDULE(D) |
| CONT | CONTINUOUS | LONG | LONGITUDINAL | SIMILAR | SIMILAR |
| CTR | CENTER | LP | LOW POINT | SJ | SAWCUT JOINT |
| DIA | DIAMETER | MANUF | MANUFACTURER | SMS | SHEET METAL SCREW |
| DIM | DIMENSION | MATL | MATERIAL | SPECS | SPECIFICATIONS |
| DEG | DEGREE(S) | MAX | MAXIMUM | SQ | SQUARE |
| DO | DITTO | MECH | MECHANICAL | SS | STAINLESS STEEL |
| DWG | DRAWING | MFR | MANUFACTURER | STD | STANDARD |
| DWL | DOWEL(S) | MIN | MINIMUM | STL | STEEL |
| (E) | EXISTING | MISC | MISCELLANEOUS | T/ | TOP OF |
| EA | EACH | MO | MASONRY OPENING | T&B | TOP AND BOTTOM |
| EF | EACH FACE | MTL | METAL | THK | THICK |
| EJ | EXPANSION JOINT | NO | NUMBER | THRU | THROUGH |
| EL | ELEVATION | NTS | NOT TO SCALE | TOC | TOP OF CONCRETE |
| ELEC | ELECTRICAL | OC | ON CENTER | TOS | TOP OF STEEL |
| | | | | TYP | TYPICAL |
| | | | | UNO | UNLESS NOTED OTHERWISE |
| | | | | VERT | VERTICAL |
| | | | | WT | WEIGHT |
| | | | | WWF | WELDED WIRE FABRIC |

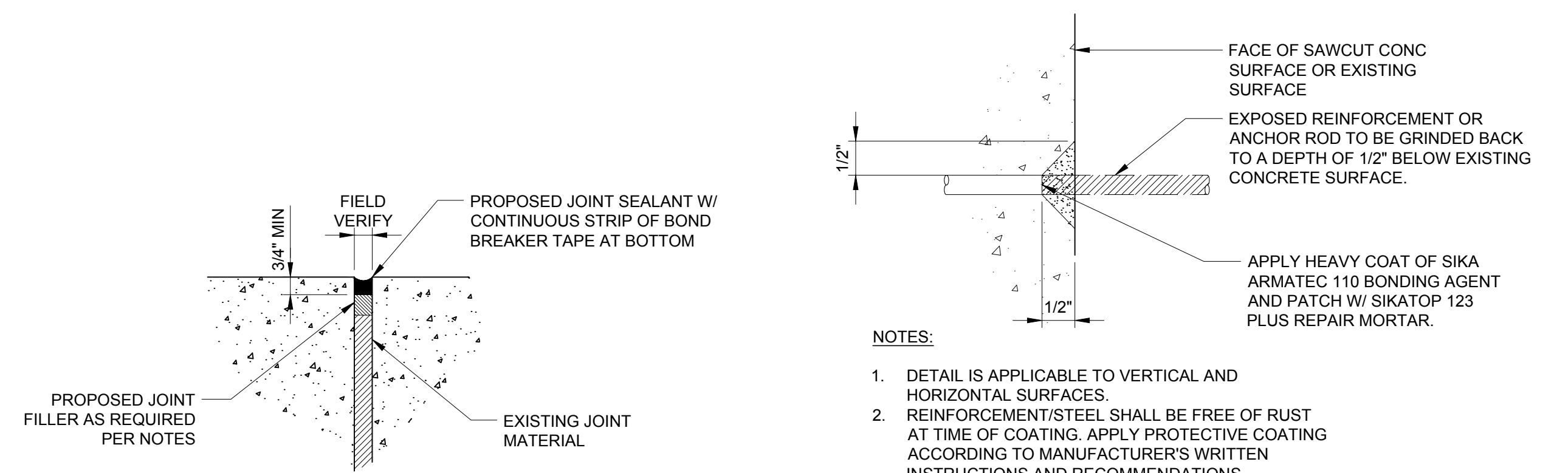
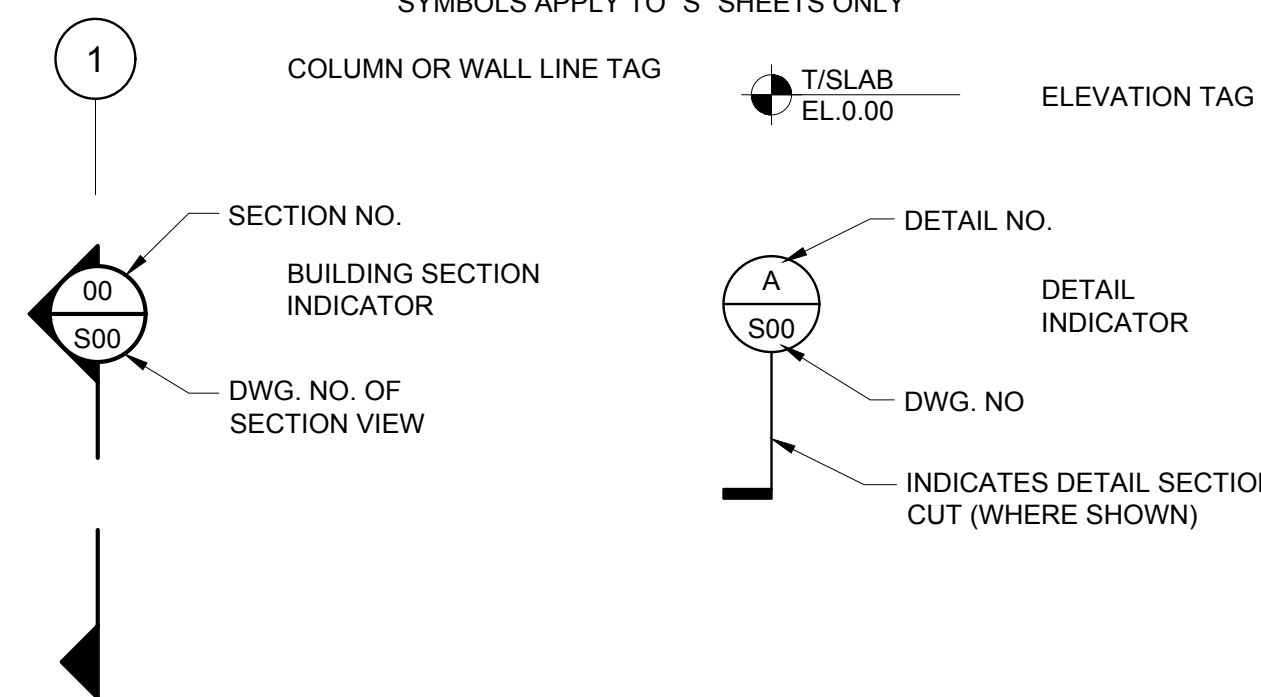
LEGEND

STRUCTURAL LEGEND APPLIES TO "S" SHEETS ONLY

| | | | |
|--|--------------------------|--|-------------------|
| | EARTH FILL | | CONCRETE |
| | UNDISTURBED EARTH | | EXISTING CONCRETE |
| | COMPACTED GRANULAR FILL | | DEMOLITION |
| | GROUT OR SAND (AS NOTED) | | STEEL |
| | GRATING | | ALUMINUM |

SYMBOLS

SYMBOLS APPLY TO "S" SHEETS ONLY



EXPANSION JOINT REPAIR - SLAB OR WALL

DETAIL A
NTS

NOTES:

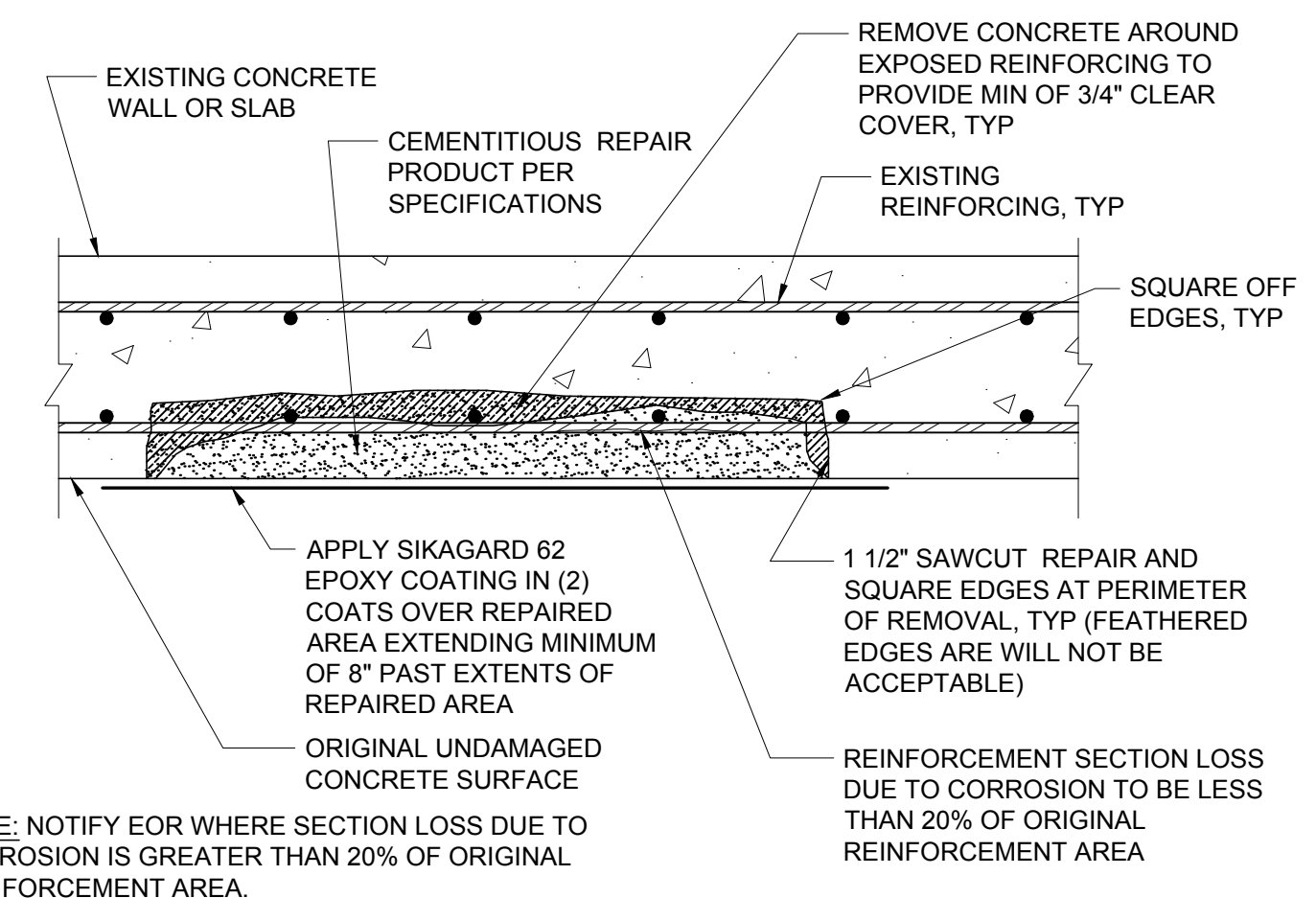
- PROVIDE JOINT FILLER MATERIAL BEHIND JOINT SEALANT TO REPLACE EXISTING JOINT MATERIAL WHICH IS NOT SUITABLE TO REMAIN. COORDINATE DEPTH OF PROPOSED JOINT FILLER TO MAINTAIN A MINIMUM DEPTH OF SEALANT AS SHOWN ON DETAILS OR AS REQUIRED BY THE SEALANT MANUFACTURER. JOINT FILLER MATERIAL SHALL BE PRE-MOLDED SELF-EXPANDING CORK CONFORMING TO ASTM D1752, TYPE II OR III OR EQUAL. SEALANT SHALL BE BASF MASTERSSEAL NP 2 WITH PRIMER OR EQUAL.
- PREPARE ALL SURFACES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL PRODUCTS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- PAINT ALL AFFECTED SURFACES TO MATCH EXISTING.

NOTES:

- DETAIL IS APPLICABLE TO VERTICAL AND HORIZONTAL SURFACES.
- REINFORCEMENT/STEEL SHALL BE FREE OF RUST AT TIME OF COATING. APPLY PROTECTIVE COATING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.

CONCRETE REPAIR AT ANCHORS OR REINF

DETAIL C
NTS



NOTE: NOTIFY EOR WHERE SECTION LOSS DUE TO CORROSION IS GREATER THAN 20% OF ORIGINAL REINFORCEMENT AREA.

NOTES:

- SAWCUT DEPTHS SHALL BE LIMITED TO PREVENT DAMAGE TO EXISTING REINFORCING STEEL.
- REPAIR DEPTH IS DEFINED AS DEPTH OF REMOVAL OF UNSOUND CONCRETE AFTER SURFACE BLASTING HAS BEEN PERFORMED.
- ALL AREAS OF UNSOUND CONCRETE SHALL BE MARKED BY THE CONTRACTOR ONCE EXISTING SURFACES HAVE BEEN CLEANED FOR THE OWNER/ENGINEER'S REVIEW PRIOR TO PROCEEDING WITH REPAIRS.
- CONCRETE SURFACE PREPARATION SHALL BE A MINIMUM OF SSPC-SPC13/NACE NO.6 COMMERCIAL BLAST CLEANING AND AS REQUIRED BY COATING SYSTEM MANUFACTURER. A SURFACE PROFILE EQUAL TO ICRI CSP 5 OR GREATER SHALL BE ESTABLISHED.
- ALL EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED FREE OF RUST PRIOR TO PLACEMENT OF CEMENTITIOUS REPAIR MATERIAL OR BONDING AGENT. THE REINFORCING STEEL SHALL BE ABRASIVE BLASTED TO WHITE METAL CONDITION IN CONFORMANCE WITH SSPC-SP5/NACE NO.1.
- ANY ACTIVE INFILTRATION SHALL BE INJECTED PRIOR TO APPLICATION OF COATINGS.

CONCRETE REPAIRS AT WALL AND SLAB SURFACES

DETAIL B
NTS



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| REVIEWED BY: | PROJECT ENGINEER | | | DATE |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86811 | | | DATE |

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CLEARWATER, FL 33756

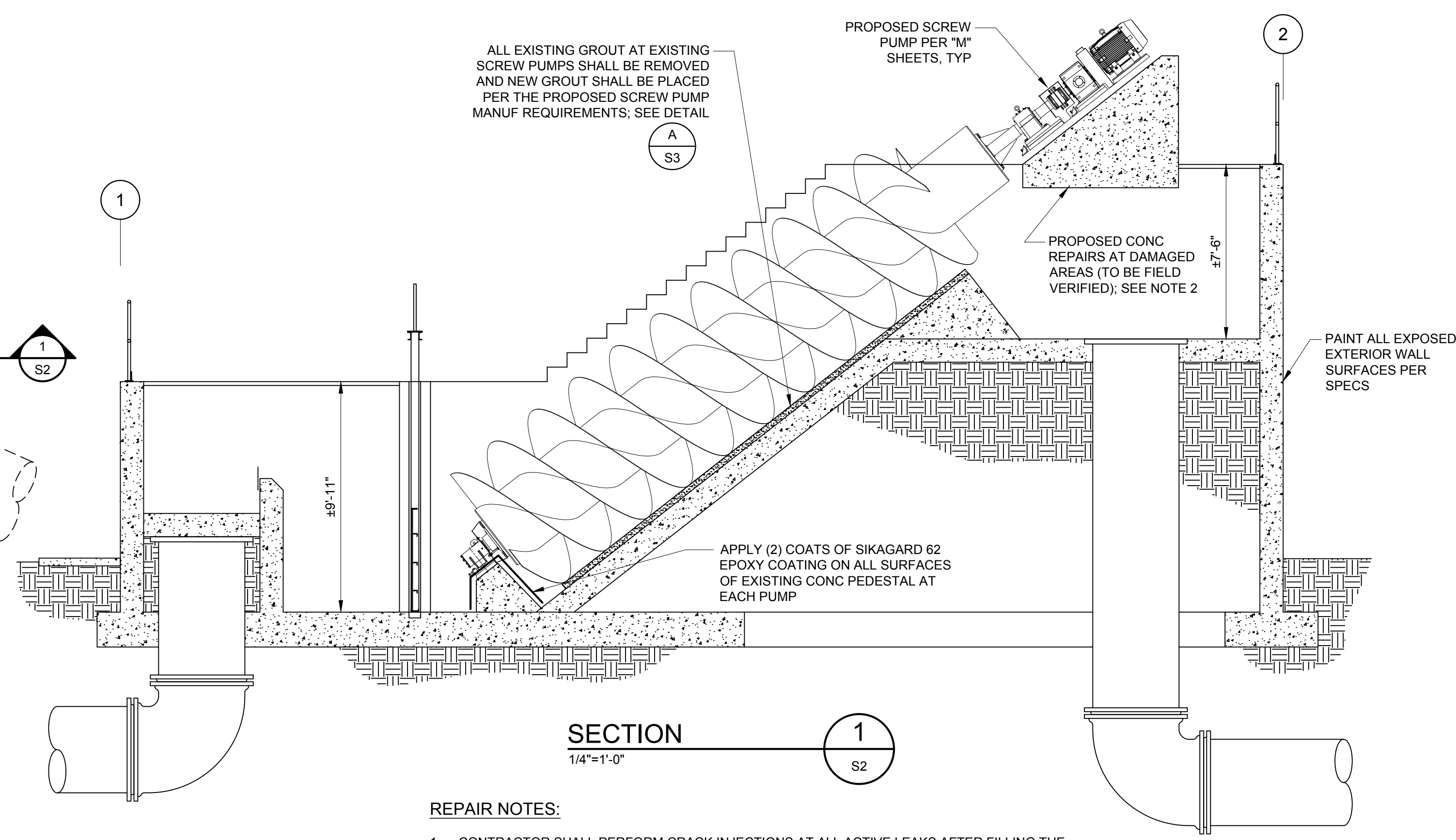
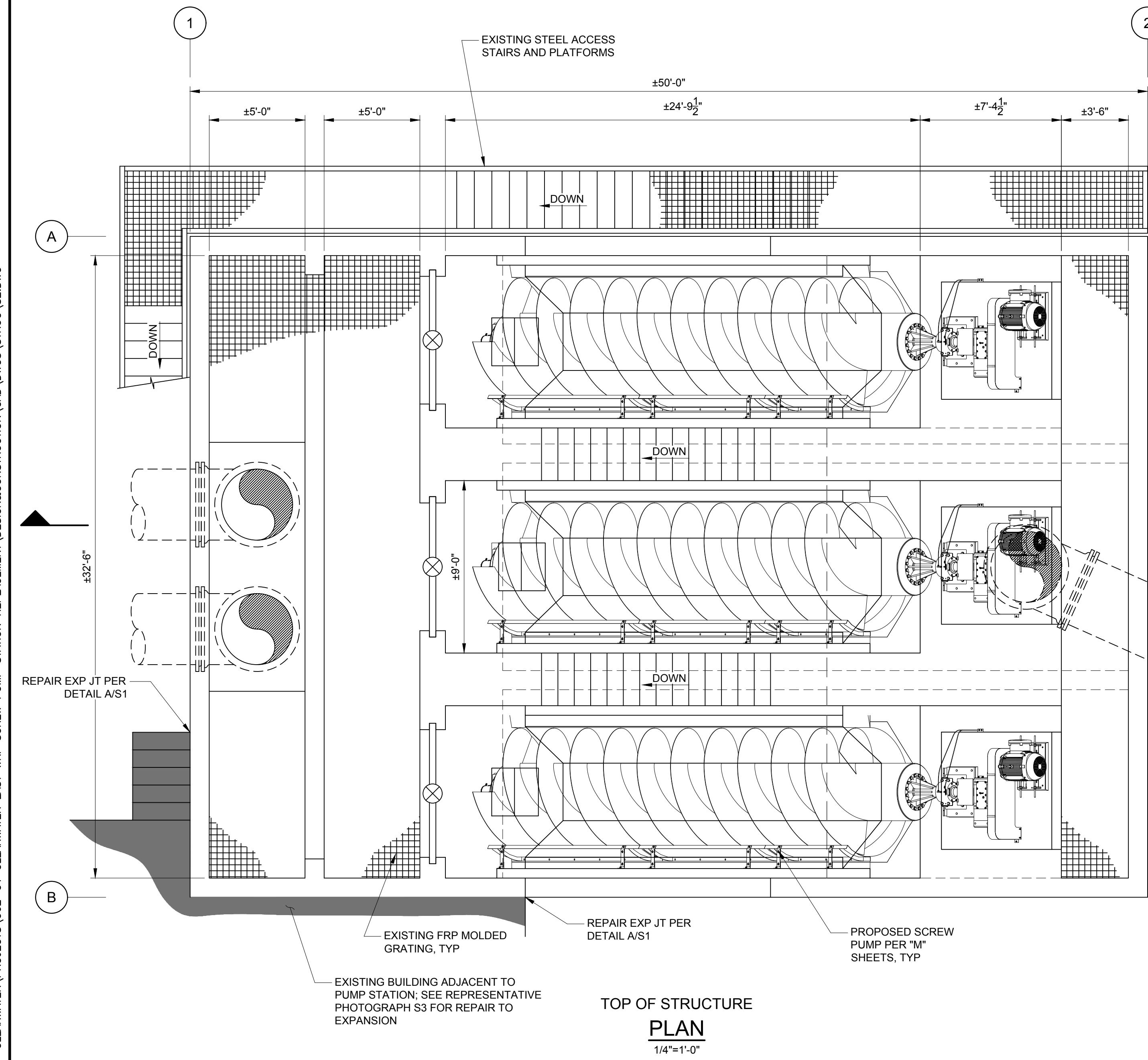
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EAST WRF
SCREW PUMP REPLACEMENT
**STRUCTURAL NOTES, LEGEND,
SYMBOLS AND ABBREVIATIONS**

| | | | |
|----------------------------|------------------------------------|----------------------------------|-------------------------|
| DWG NAME: S1.DWG | FIELD BOOK: | SURVEYED BY: J. MORRIS | SCALE: VERT. |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: J. MORRIS | HORIZ. |
| JOB NO.: | DESIGNED BY: J. SOB CZAK | CHECKED BY: D. MORRIS | SHEET NO.: S1 |
| APPROVED FOR CONSTRUCTION | JOHN V. SOB CZAK, PE #17407 | | |

BID DOCUMENTS



REPAIR NOTES:

1. CONTRACTOR SHALL PERFORM CRACK INJECTIONS AT ALL ACTIVE LEAKS AFTER FILLING THE STRUCTURE. IT SHALL BE ASSUMED THAT A MINIMUM OF 200 LF OF CRACKS SHALL BE INJECTED. CRACKS TO BE INJECTED SHALL BE FIELD VERIFIED AND COORDINATED WITH THE EOR. CRACK REPAIRS INTENDED TO PRODUCE WATERTIGHT WALLS OR SLABS SHALL BE INJECTED USING A POLYURETHANE INJECTION PRODUCT. INJECTION PRODUCT SHALL BE MASTERINJECT 1335 BY MASTER BUILDERS SOLUTIONS OR EQUAL. THE PRODUCT SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. REPAIR DAMAGED, DEGRADED AND SPALLED SURFACES PER DETAIL B ON S1. IT SHALL BE ASSUMED THAT THIS AREA IS A MINIMUM OF 10SF. THE EOR SHALL BE NOTIFIED WHEN THE STRUCTURE IS OUT OF SERVICE AND EQUIPMENT HAS BEEN REMOVED TO VIEW THE CONDITION OF THE STRUCTURE AND LOCATE THE AREAS TO BE REPAIRED PER DETAIL B.
3. ALL PROPOSED ANCHORS FOR EQUIPMENT SHALL BE REPLACED WITH SS TYPE 316 ANCHORS. COORDINATE WITH THE MANUFACTURER REGARDING ANCHOR DIAMETER, LOCATION, AND EMBEDMENT. THE PROPOSED ANCHORS SHALL BE DRILLED AND EPOXIED IN PLACE USING AN EPOXY ADHESIVE SYSTEM SUCH AS HILTI RE 600 SD OR APPROVED EQUAL. ALL EXISTING ANCHORS SHALL BE CORED AND REMOVED. THE ANCHOR HOLE SHALL BE FILLED W/ EPOXY GROUT. WHERE EXISTING ANCHORS ARE IN ACCEPTABLE CONDITION AND LOCATED SUCH THAT THE PROPOSED EQUIPMENT CAN BE MOUNTED TO THE ANCHORS THEN THE EOR SHALL BE NOTIFIED AND SHALL CONFIRM THE ACCEPTANCE OF THE EXISTING ANCHOR TO BE REUSED. ADDITIONALLY, THE EQUIPMENT MANUFACTURER SHALL PROVIDE WRITTEN ACCEPTANCE ON THE REUSE OF THE ANCHORS. IT SHALL BE ASSUMED THAT NO ANCHORS CAN BE REUSED.
4. ALL ANCHORS FOR THE EXISTING COVERS SHALL BE REMOVED AND REPLACED WITH SS TYPE 316 ANCHORS. THE CONTRACTOR SHALL COORDINATE WITH THE EXISTING COVERS IN THE FIELD TO VERIFY THE QUANTITY, LOCATION AND TYPE OF EXISTING ANCHORS.



| RECORD DRAWINGS | | REVISION | |
|-----------------|--|----------|-------|
| SURVEYED BY: | DRAWN BY: | BY: | DATE: |
| REVIEWED BY: | PROJECT ENGINEER | | |
| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86811 | | |

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EAST WRF
SCREW PUMP REPLACEMENT
SCREW LIFT STATION PLAN
AND SECTION

| | | | |
|---------------------------|-----------------------------|--------------------------|------------------|
| DWG NAME: S2.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: J. MORRIS | VERT.: |
| JOB NO.: | DESIGNED BY: J. SOB CZAK | CHECKED BY: D. MORRIS | HORIZ.: |
| APPROVED FOR CONSTRUCTION | JOHN V. SOB CZAK, PE #71407 | | SHEET NO.: S2 |

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PIPING TO BE SUPPORTED BY OTHERS PRIOR TO CONSTRUCTION IN ACCORDANCE WITH FBC 2020 SECTION 1601 AND 1603

PROVIDE CRACK INJECTION PER REPAIR NOTES ON S2, TYP

PROVIDE CRACK INJECTION PER REPAIR NOTES ON S2, TYP

PHOTOGRAPH #1



PROVIDE CRACK INJECTION PER REPAIR NOTES ON S2, TYP

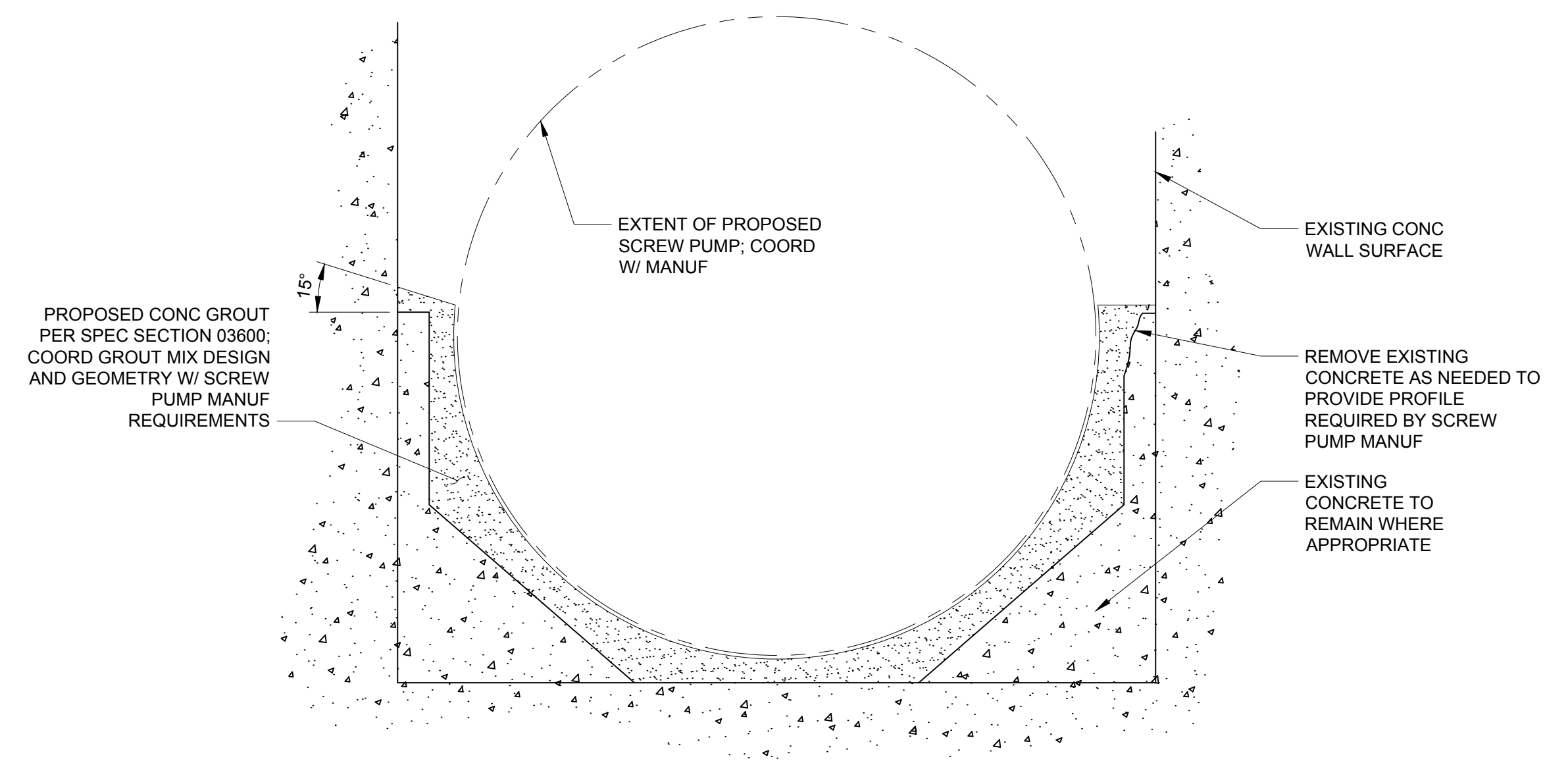
REPAIR EXPANSION JOINT PER DETAIL A ON S1

PHOTOGRAPH #2



PROVIDE CRACK INJECTION PER REPAIR NOTES ON S2, TYP

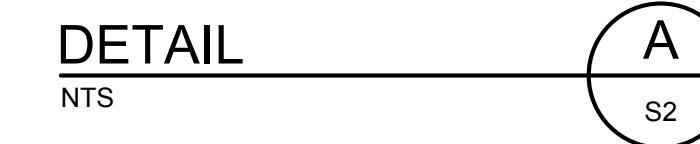
PHOTOGRAPH #3



REPAIR NOTES:

1. THE EXISTING GROUT IS NOT SHOWN IN ITS EXISTING CONDITION ENTIRELY IN THIS DETAIL. IT SHALL BE ASSUMED THAT THE EXISTING GROUT IS TO BE REMOVED A MINIMUM OF 3" DEEP ON ALL SIDES OF THE PROPOSED SCREW PUMP TO ALLOW FOR INSTALLATION OF THE PROPOSED EQUIPMENT.

GROUT REPAIRS AT SCREW PUMPS



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EAST WRF
SCREW PUMP REPLACEMENT
SCREW LIFT STATION REPAIR
PHOTOGRAPHS

| | | | |
|---------------------------|-----------------------------|--------------------------|------------------|
| DWG NAME: S2.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: J. MORRIS | VERT.: |
| JOB NO.: | DESIGNED BY: J. SOBCEK | CHECKED BY: D. MORRIS | HORIZ.: |
| APPROVED FOR CONSTRUCTION | JOHN V. SOBCEK, PE #71407 | | SHEET NO.: S3 |

BID DOCUMENTS

MECHANICAL LEGEND

PIPING SYMBOLS

| DOUBLE LINE | SINGLE LINE | |
|-------------|-------------|--|
| | | PIPE |
| | | WELDED PIPE |
| | | FLANGED JOINT |
| | | MECHANICAL JOINT OR RESTRAINED PUSH-ON JOINT |
| | | FLEXIBLE COUPLING ADAPTER |
| | | EXPANSION JOINT |
| | | HUB & SPIGOT JOINT |
| | | BALL JOINT |
| | | FLANGED COUPLING ADAPTER W/ THRUST TIES |
| | | FLEXIBLE COUPLING WITH THRUST TIES |
| | | BLIND FLANGE |
| | | ELBOW UP |
| | | ELBOW DOWN |
| | | TEE UP |
| | | TEE DOWN |
| | | FEMALE QUICK DISCONNECT FITTING |
| | | MALE QUICK DISCONNECT FITTING |

NOTE:
EXISTING PIPE AND EQUIPMENT IS SHOWN IN THE DRAWINGS AS LIGHT-LINED AND/OR SCREENED. PROPOSED PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS HEAVY-LINED. ABOVE GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS SOLID-LINED. BELOW GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS DASHED-LINED. SEE BELOW EXAMPLES:

| | | |
|--|--|-----------------------------|
| | | EXISTING PIPE (ABOVE GRADE) |
| | | NEW PIPE (BELOW GRADE) |

| DOUBLE LINE | SINGLE LINE | |
|-------------|-------------|---------------------|
| | | LATERAL UP |
| | | LATERAL DOWN |
| | | CONCENTRIC REDUCER |
| | | ECCENTRIC REDUCER |
| | | UNION |
| | | CAP |
| | | ANCHOR |
| | | WYE |
| | | TEE |
| | | CROSS |
| | | ELBOW, 90 DEGREE |
| | | ELBOW, 45 DEGREE |
| | | ELBOW, 22.5 DEGREE |
| | | ABANDON IN PLACE |
| | | DEMOLISH AND REMOVE |

VALVE SYMBOLS

| | |
|--|----------------------------------|
| | GATE |
| | SEATED SIDE PLUG |
| | BUTTERFLY |
| | BALL |
| | CHECK |
| | DIAPHRAGM |
| | NEEDLE |
| | PRESSURE RELIEF |
| | AIR RELEASE AND/OR VACUUM RELIEF |
| | REGULATED SIDE |
| | HYDRAULIC CONTROL VALVE |

ACTUATOR SYMBOLS

| | |
|--|------------------|
| | ELECTRIC MOTOR |
| | ELECTROHYDRAULIC |
| | PNEUMATIC |
| | HYDRAULIC |
| | SOLENOID |
| | MANUAL |

NOTE:
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)
XX: FO = FAIL OPEN
FC = FAIL CLOSED
FLP = FAIL TO LAST POSITION

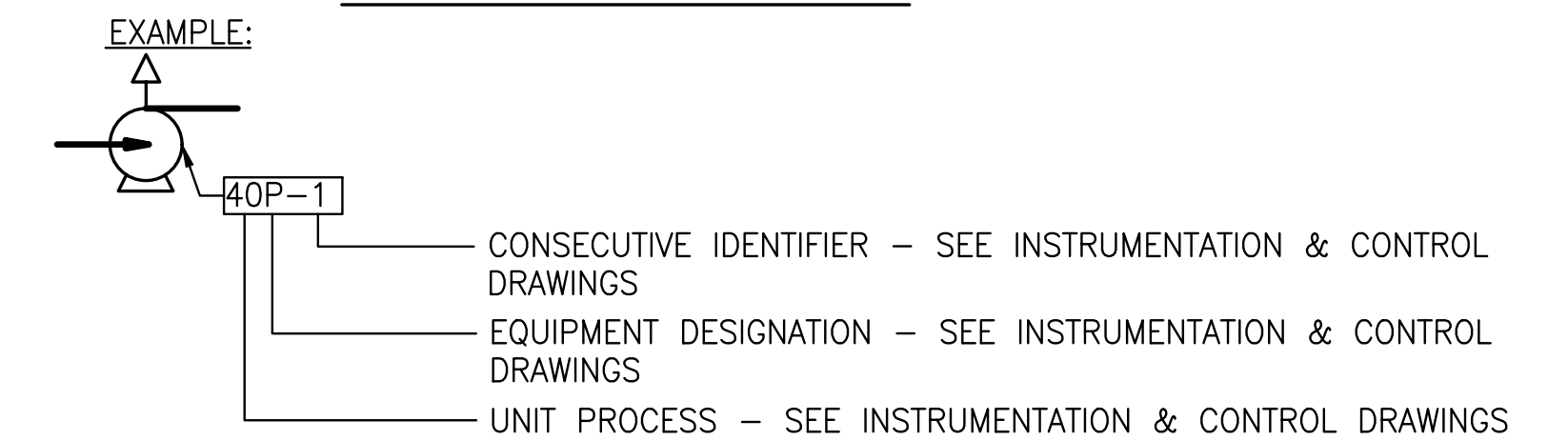
EQUIPMENT SYMBOLS

| | |
|--|------------|
| | SLIDE GATE |
|--|------------|

PIPE SUPPORT SYMBOLS

| | |
|--|------------------------------------|
| | FLANGED PIPE SUPPORT |
| | U-SHAPED PIPE SUPPORT |
| | PIPE SUPPORT W/ AXIAL LOAD SUPPORT |

EQUIPMENT DESIGNATION



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| APPROVED BY: | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | | | |

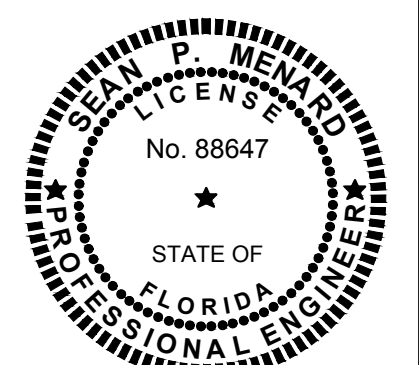
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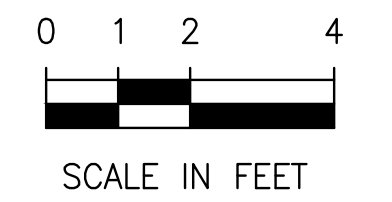
EAST WRF
SCREW PUMP REPLACEMENT
MECHANICAL NOTES, LEGEND,
AND ABBREVIATIONS

| | | | |
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| DWG NAME: 0372006201-M01.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JKRAMER | VERT.: |
| JOB NO.: | DESIGNED BY: ZSPLATT | CHECKED BY: AHOLMES | HORIZ.: |
| APPROVED FOR CONSTRUCTION: | SEAN P. MENARD, PE #88647 | SHEET NO.: | M1 |

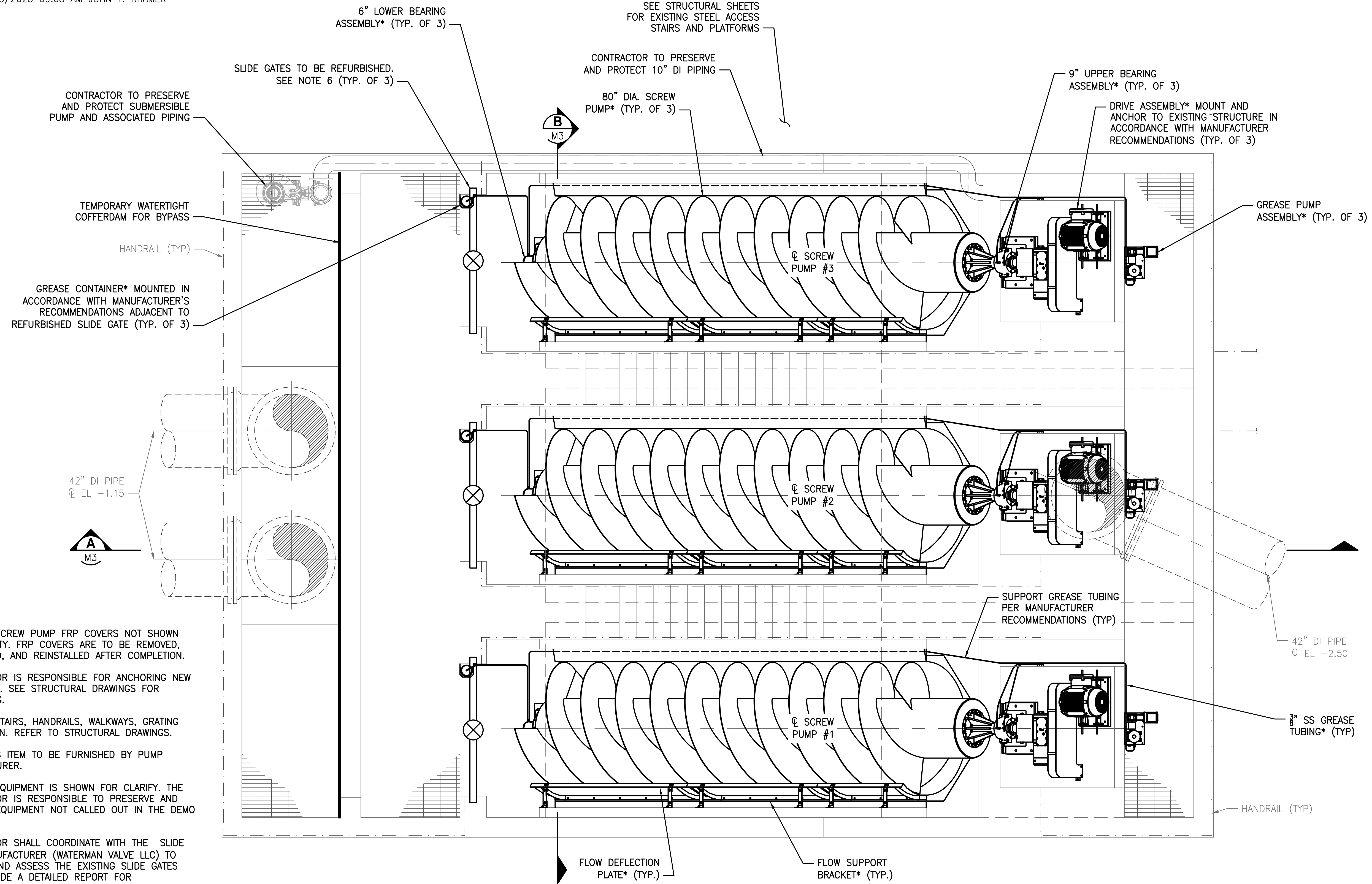
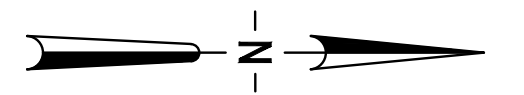


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GRAPHIC SCALE



SCALE IN FEET



NOTES:

1. EXISTING SCREW PUMP FRP COVERS NOT SHOWN FOR CLARITY. FRP COVERS ARE TO BE REMOVED, PRESERVED, AND REINSTALLED AFTER COMPLETION.
2. CONTRACTOR IS RESPONSIBLE FOR ANCHORING NEW EQUIPMENT. SEE STRUCTURAL DRAWINGS FOR ANCHORING.
3. NOT ALL STAIRS, HANDRAILS, WALKWAYS, GRATING ARE SHOWN. REFER TO STRUCTURAL DRAWINGS.
4. * DENOTES ITEM TO BE FURNISHED BY PUMP MANUFACTURER.
5. NOT ALL EQUIPMENT IS SHOWN FOR CLARITY. THE CONTRACTOR IS RESPONSIBLE TO PRESERVE AND PROTECT EQUIPMENT NOT CALLED OUT IN THE DEMO SHEETS.
6. CONTRACTOR SHALL COORDINATE WITH THE SLIDE GATE MANUFACTURER (WATERMAN VALVE LLC) TO INSPECT AND ASSESS THE EXISTING SLIDE GATES AND PROVIDE A DETAILED REPORT FOR REFURBISHMENT OR REPLACEMENT INCLUDING AN ITEMIZED LIST WITH COSTS OF PARTS AND INSTRUCTIONS. CONTRACTOR SHALL SUBMIT THIS REPORT TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL. IF THE COST OF REFURBISHMENT OF THE SLIDE GATES IS GREATER THAN DEMOLITION OF EXISTING AND FURNISH AND INSTALLING NEW SLIDE GATES, THEN THE CONTRACTOR SHALL INDICATE THAT IN THE REPORT.

SCREW PUMP LIFT STATION PLAN

3/8" = 1'-0"

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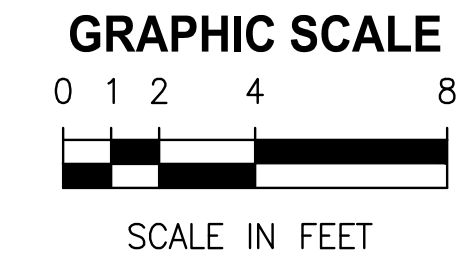
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EAST WRF
 SCREW PUMP REPLACEMENT
 SCREW PUMP LIFT STATION PLAN

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| APPROVED FOR CONSTRUCTION | | SEAN P. MENARD, PE #88847 | |

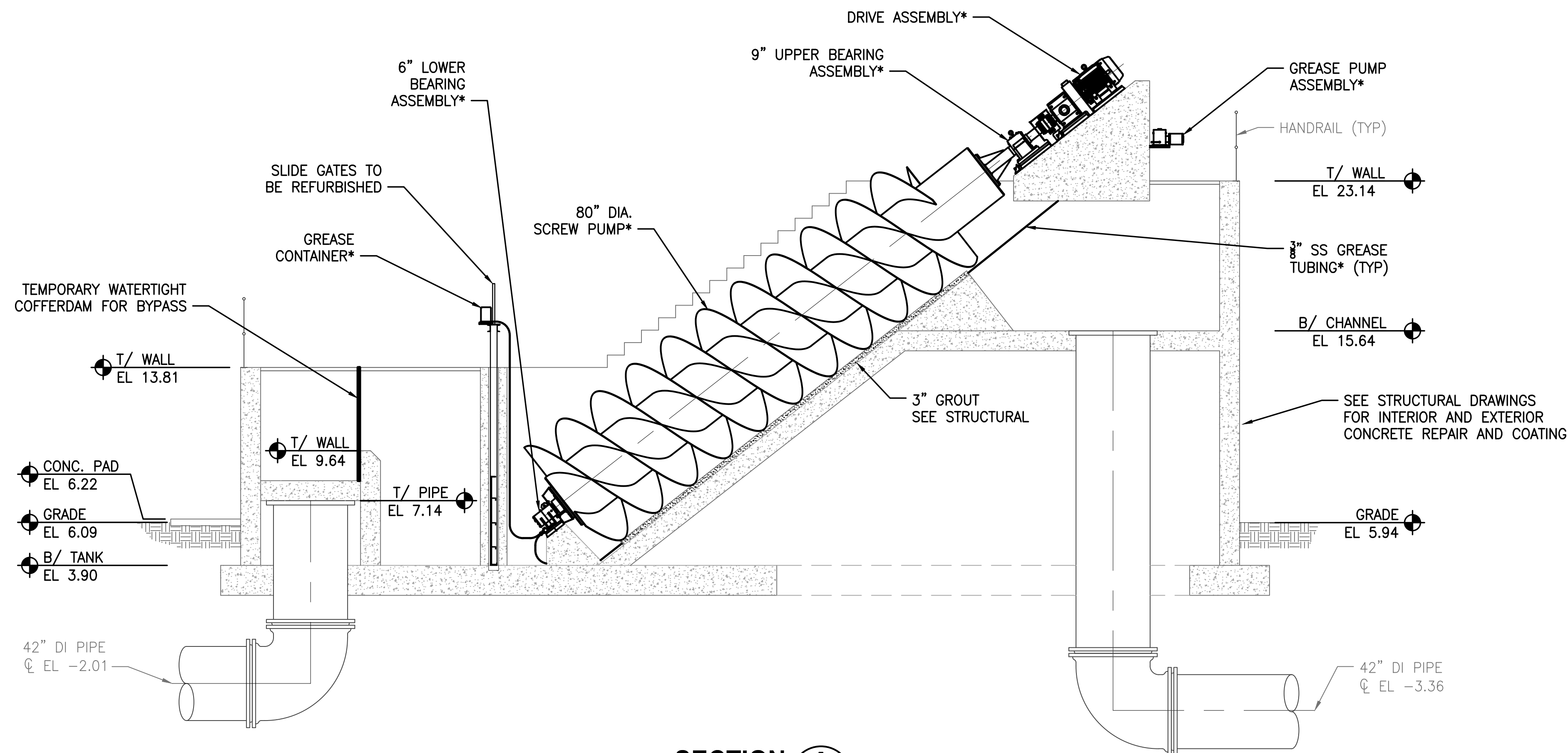
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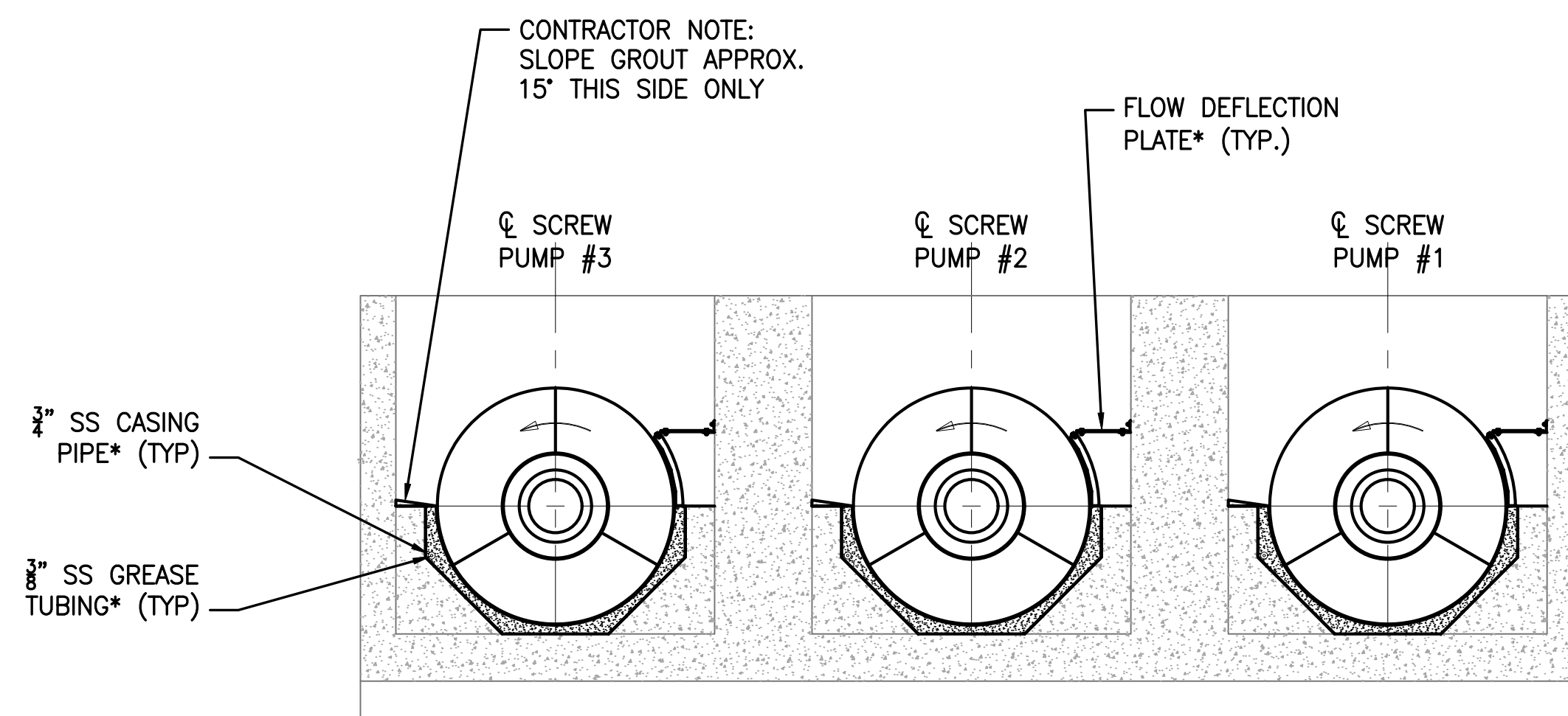


NOTES:

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SECTION A
1/4" = 1'-0" M2



SECTION B
1/4" = 1'-0" M2

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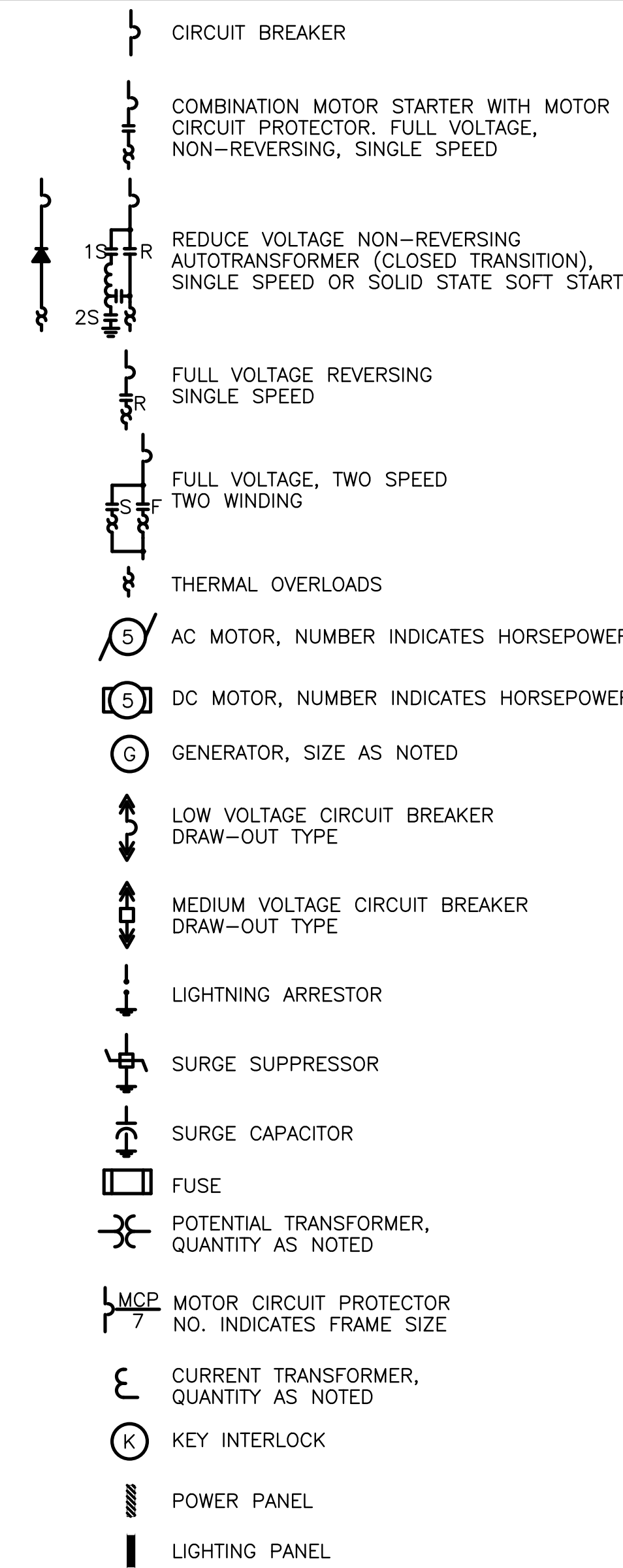
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EAST WRF
SCREW PUMP REPLACEMENT
SCREW PUMP LIFT STATION
SECTIONS

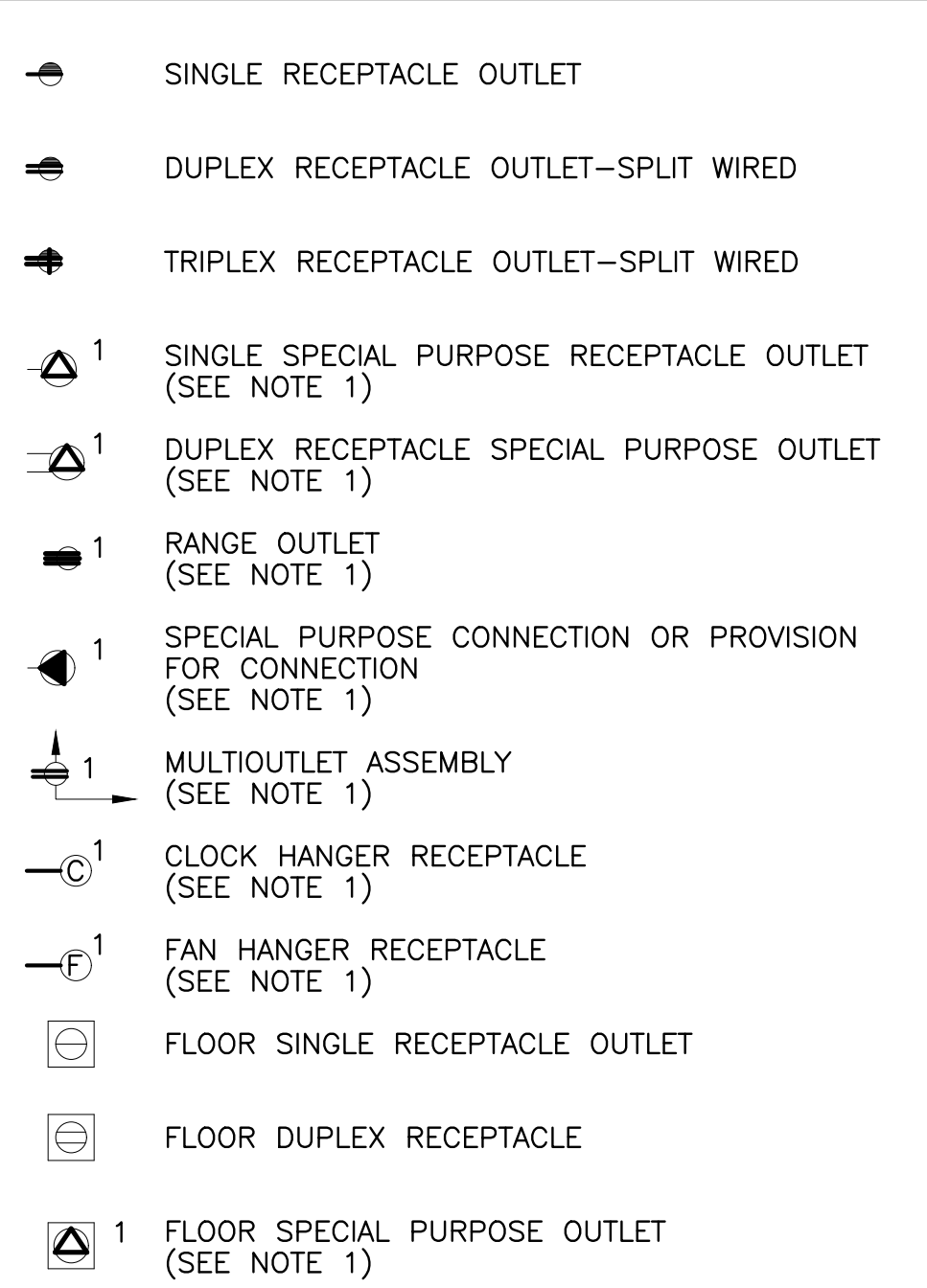
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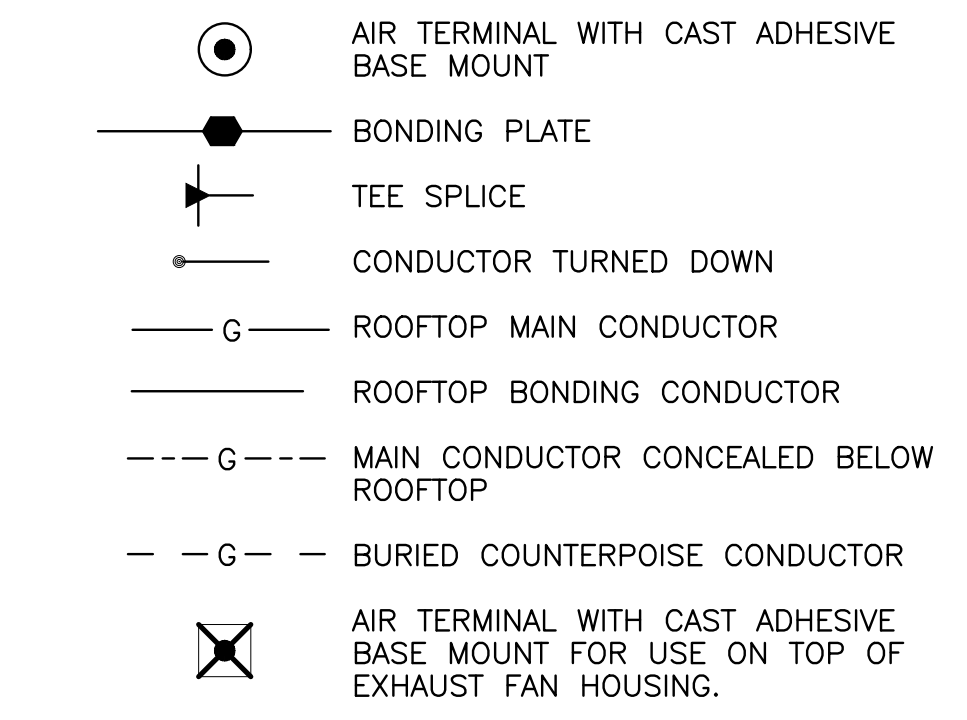
SINGLE LINE POWER DIAGRAM



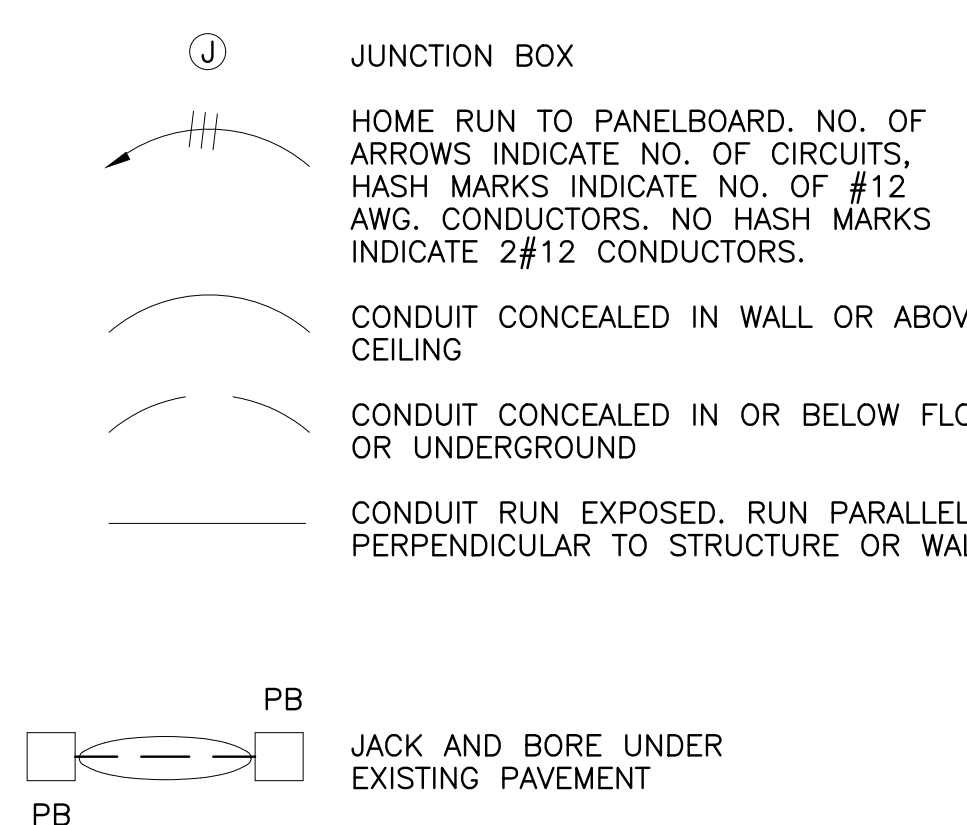
RECEPTACLE OUTLET SYMBOLS



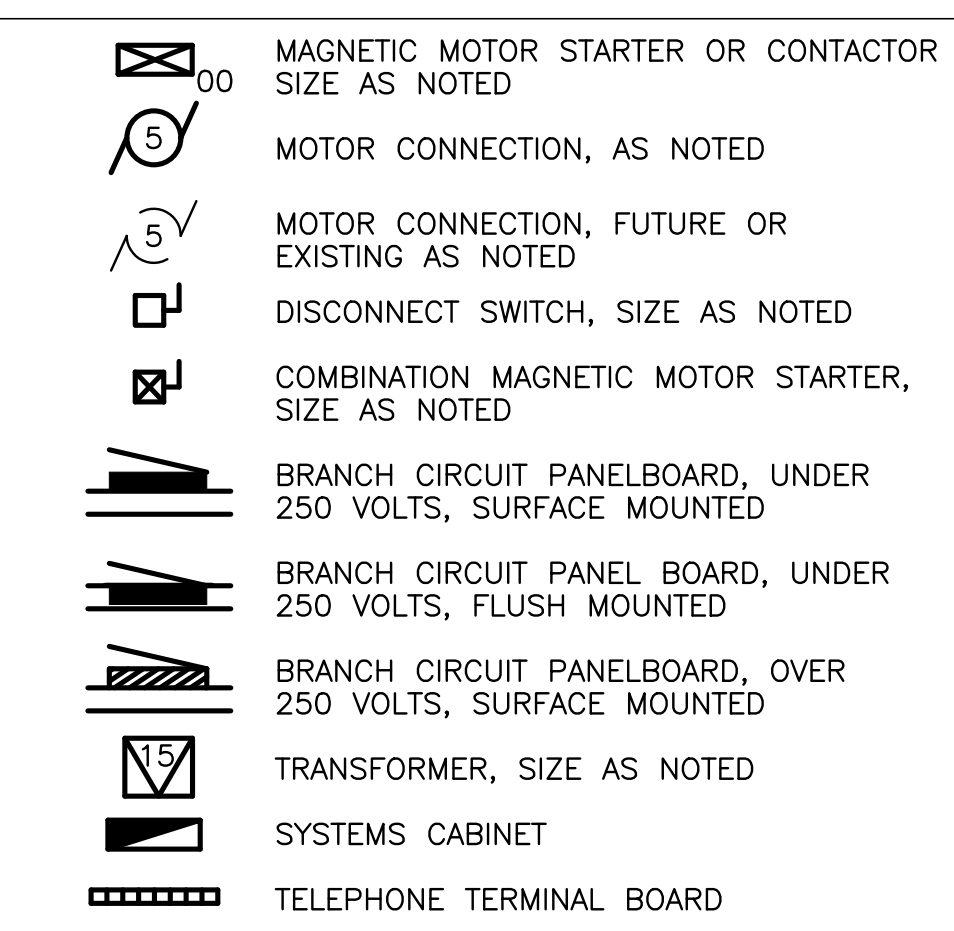
LIGHTNING PROTECTION SYSTEM



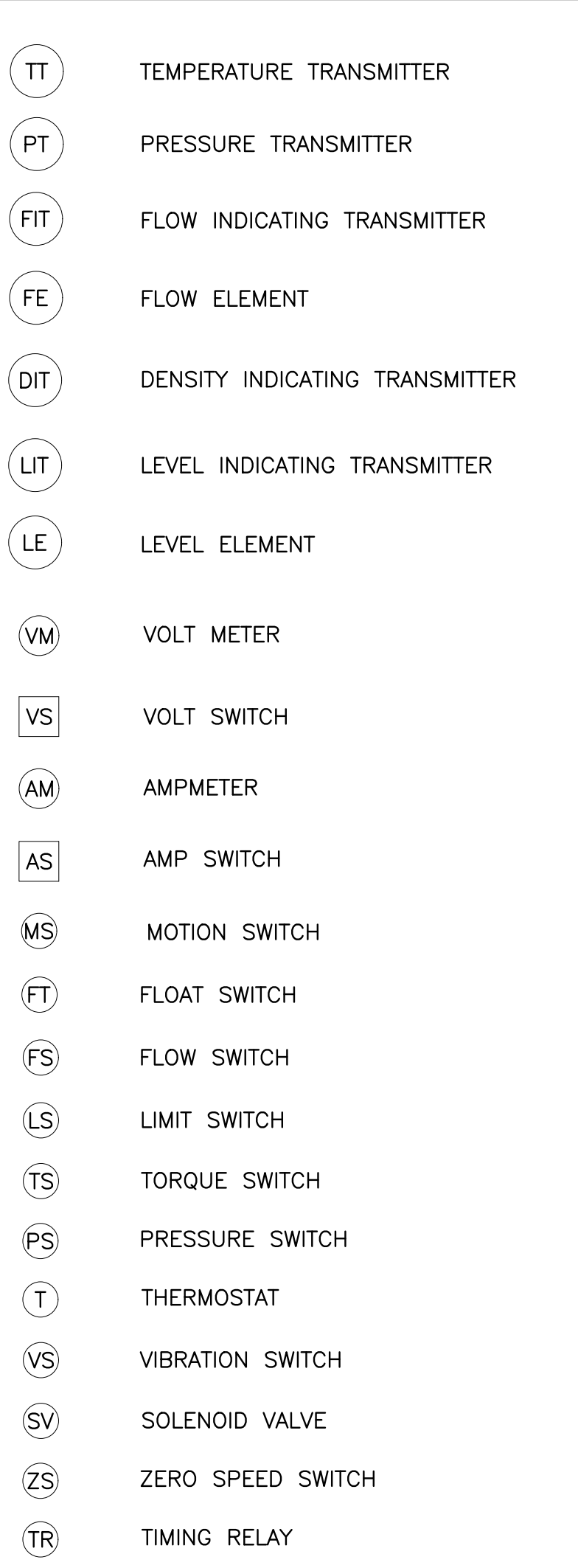
RACEWAY SYSTEM



SERVICE AND DISTRIBUTION



PLAN SYMBOLS



ABBREVIATIONS

| | | | | | |
|-------|--|------|--|------|------------------------------------|
| A | AMBER, AMPERE, ALARM | GALV | GALVANIZED | R | RED, RAISE, RELAY OR REVERSE |
| AC | ALTERNATING CURRENT | GB | GENERATOR BREAKER | RECP | RECEPTACLE |
| ACB | AIR CIRCUIT BREAKER | GD | GROUND DETECTOR | RES | RESISTOR |
| ACCU | AIR COOLED CONDENSING UNIT | GEN | GENERATOR | RGS | RIGID GALVANIZED STEEL |
| AF | AMPERE FRAME | GFI | GROUND FAULT INTERRUPTER | RMS | ROOT-MEAN-SQUARE |
| AFF | ABOVE FINISHED FLOOR | GND | GROUND | RS | RAPID START |
| AFG | ABOVE FINISHED GRADE | GFR | GROUND FAULT RELAY | RT | REPEATING TIMER |
| AHU | AIR HANDLING UNIT | H | HIGH OR HUMIDISTAT | RTD | RESISTANCE TYPE TEMP DETECTOR |
| AIC | AMPS INTERRUPTING CAPACITY | HC | HOT CIRCUIT | RTU | REMOTE TERMINAL UNIT |
| ALUM | ALUMINUM | HH | HANDHOLE | SCH | SCHEDULE |
| AM | AMMETER | HMT | HIGH MOTOR TEMPERATURE | SEC | SECONDARY |
| ANN | ANNUNCIATOR | HOA | HAND-OFF-AUTO | SH | SPACE HEATER OR SHIELD |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE | HOR | HAND-OFF-REMOTE | SN | SOLID NEUTRAL |
| AR | ALARM RELAY | HP | HORSE POWER | SP | SINGLE POLE |
| ASA | AMERICAN STANDARDS ASSOCIATION | HPS | HIGH PRESSURE SODIUM | SPDT | SINGLE POLE DOUBLE THROW |
| AS | AMMETER SWITCH | HR | HOUR | SSS | SOLID STATE SOFT STARTER |
| AT | AMPERE TRIP | HWCO | HIGH WATER CUTOFF | SS | SELECTOR SWITCH OR STAINLESS STEEL |
| ATS | AUTOMATIC TRANSFER SWITCH | HZ | HERTZ (CYCLE) | ST | STATION TIE BREAKER |
| AUX | AUXILIARY | I/O | INPUT/OUTPUT | STPV | SUPERVISORY CONTROL |
| AWG | AMERICAN WIRE GAGE | IEEE | INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS | SV | SOLENOID VALVE |
| B | BLUE | IES | ILLUMINATING ENGINEERING SOCIETY | SW | SWITCH |
| BC | BARE COPPER OR BATTERY CHARGER | INST | INSTRUMENTATION | SWBD | SWITCHBOARD |
| BIL | BASIC IMPULSE LEVEL | ISO | ISOLATION | SWGR | SWITCHGEAR |
| BKR | BREAKER | J | JUNCTION BOX | T | THERMOSTAT, TIMER, OR TOTALIZER |
| BLDG | BUILDING | K | KEY INTERLOCK | TACH | TACHOMETER |
| BR | BRAKE | KV | KILOVOLT | TB | TERMINAL BLOCK |
| BT | BEARING TEMPERATURE | KVA | KILOVOLT AMPERE | TC | TIMER CLUTCH OR TIME CLOCK |
| C | CLOSE, COUNTER, CONTACTOR OR CONDUIT | KVAR | KILOVOLT AMPERE REACTANCE | TD | TIME DELAY RELAY |
| °C | DEGREES CENTIGRADE | KW | KILOWATT | TEL | TELEPHONE |
| CAB | CABINET | KWH | KILOWATT HOUR | TEMP | TEMPERATURE |
| CAP | CAPACITOR | L | LOW, LEVEL | TM | TIMER MOTOR |
| CB | CIRCUIT BREAKER | LA | LIGHTNING ARRESTED | TQ | TORQUE |
| CB"A" | CIRCUIT BREAKER AUXILIARY CONTACT (OPEN WHEN BREAKER IS OPEN AND CLOSED WHEN BREAKER IS CLOSED OR TRIPPED) | LC | LIGHTING CONTRACTOR | TTB | TELEPHONE TERMINAL BOX OR BOARD |
| CB"B" | CIRCUIT BREAKER AUXILIARY CONTACT (CLOSED WHEN BREAKER IS OPEN AND OPEN WHEN BREAKER IS CLOSED OR TRIPPED) | LOR | LOCAL-OFF-REMOTE | TTC | TELEPHONE TERMINAL CABINET |
| CBM | CERTIFIED BALLAST MANUFACTURERS | LS | LIMIT OR LEVEL SWITCH | TYP | TYPICAL |
| CI | CELL INTERLOCK | LT | LIGHT | UL | UNDERWRITERS LABORATORIES |
| CKT | CIRCUIT | LTG | LIGHTING | UG | UNDERGROUND |
| CL2 | CHLORINE | LWCO | LOW WATER CUTOFF | UON | UNLESS OTHERWISE NOTED |
| CLG | CEILING | M | MAGNETIC MOTOR STARTER | UV | UNDER VOLTAGE |
| CONC | CONCRETE | MA | MILLIAMPERE | UPS | UNINTERRUPTIBLE POWER SUPPLY |
| COND | CONDUCTOR | MAX | MAXIMUM | V | VOLTS |
| CONN | CONNECTION | MCB | MAIN CIRCUIT BREAKER | VA | VOLT AMPERE |
| COS | CABLE OPERATED SWITCH | MCC | MOTOR CONTROL CENTER | VAR | VARMETER |
| CP | CONTROL PANEL | MCM | THOUSAND CIRCULAR MIL | VFD | VARIABLE FREQUENCY DRIVE |
| CPT | CONTROL POWER TRANSFORMER | MCP | MOTOR CIRCUIT PROTECTOR | VLS | VALVE LIMIT SWITCH |
| CR | CURRENT OR CONTROL RELAY | MD | MOISTURE DETECTOR | VM | VOLTMETER |
| CS | CONTROL STATION | MD | MAGNETIC FLOW METER | VPI | VALVE POSITION INDICATOR |
| CT | CYCLE TIMER OR CURRENT TRANSFORMER | MFR | MANUFACTURER | VS | VOLTMETER SWITCH |
| CTC | CYCLE TIMER CLUTCH | MH | MANHOLE, MOUNTING HEIGHT | VSC | VARIABLE SPEED CONTROLLER |
| CTM | CYCLE TIMER MOTOR | MIN | MINIMUM | VSD | VARIABLE SPEED DRIVE |
| CU | COPPER | MLO | MAIN LUGS ONLY | W | WHITE, WATTS OR WIRE |
| CWP | COLD WATER PIPE | MOV | MOTOR OPERATED VALVE | WH | WATTHOUR METER |
| DC | DIRECT CURRENT | MPR | MOTOR PROTECTION RELAY | WM | WATT METER |
| DIA | DIAMETER | MS | MANUAL MOTOR STARTER | WP | WEATHER PROOF |
| DI | DOOR INTERLOCK | MSH | MOTOR SPACE HEATER | WT | WATER TIGHT |
| DN | DAMPEN MOTOR OR DEMAND METER | MTD | MOUNTED | X | AUXILIARY RELAY |
| DN | DRAWN | MTS | MANUAL TRANSFER SWITCH | XFMR | TRANSFORMER |
| DO | DRAW OUT | MV | MILLIVOLT OR MERCURY VAPOR | XTMR | TRANSFORMER |
| DPDT | DOUBLE POLE DOUBLE THROW | MVA | MEGA VOLT AMPERE | Y | YELLOW |
| DPST | DOUBLE POLE SINGLE THROW | N | NEUTRAL | ZS | POSITION SWITCH |
| DPR | DIFFERENTIAL PRESSURE REGULATOR | NC | NORMALLY CLOSED | Ø | PHASE |
| DPS | DIFFERENTIAL PRESSURE SWITCH | NECA | NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION | | |
| DS | DISCONNECT SWITCH | NEC | NATIONAL ELECTRICAL CODE | | |
| DVLS | DISCHARGE VALVE LIMIT SWITCH | NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION | | |
| EC | EMPTY CONDUIT | NF | NON-FUSED | | |
| EF | EXHAUST FAN | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION | | |
| ELEC | ELECTRICAL | NIC | NOT IN CONTRACT | | |
| EL | ELEVATION | NO | NORMALLY OPEN, NUMBER | | |
| ELR | EMERGENCY LOCKOUT RELAY | NTS | NOT TO SCALE | | |
| EM | EMERGENCY | O | OPEN | | |
| EMH | ELECTRICAL MANHOLE | OC | ON CENTER | | |
| EMT | ELECTRICAL METALLIC TUBING | OFCI | OWNER FURNISHED CONTRACTOR INSTALLED | | |
| ENCL | ENCLOSURE | OH | OVERHEAD | | |
| EO | ELECTRICALLY OPERATED | OL | OVERLOAD | | |
| EP | EXPLOSION PROOF | OLS | OVERLOADS | | |
| ER | ELECTRODE RELAY | OSHA | OCCUPATIONAL SAFETY AND HEALTH ACT | | |
| ES | END SWITCH | P | POLE | | |
| ESB | ENERGY SAVING BALLAST | PB | PUSH BUTTON OR PULL BOX | | |
| ETM | ELAPSED TIME METER | PC | PHOTO CONTROL | | |
| EUIH | ELECTRIC UNIT HEATER | PLC | PROGRAMMABLE LOGIC CONTROLLER | | |
| EVA | ELECTRIC VALVE ACTUATOR | PF | POWER FACTOR | | |
| EWC | ELECTRIC WATER COOLER | PH | PHASE, CHEMICAL TERM | | |
| EWH | ELECTRIC WATER HEATER | PNL | PANEL | | |
| EXH | EXHAUST | PR | PAIR | | |
| EXIST | EXISTING | PRGS | PVC COATED RIGID GALVANIZED STEEL | | |
| F | FORWARD | PRI | PRIMARY | | |
| °F | DEGREES FAHRENHEIT | PRS | PROXIMITY SWITCH | | |
| FAAP | FIRE ALARM ANNUNCIATION PANEL | | | | |
| FACP | FIRE ALARM CONTROL PANEL | | | | |
| FIT | FLOW INDICATING TRANSMITTER | | | | |
| FLA | FULL LOAD AMPERES | | | | |
| FM | FACTORY MANUAL | | | | |
| FS | FLOW SWITCH | | | | |
| FT | FEET | | | | |

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| RECORD DRAWINGS | | | | |
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| REVIEWED BY: | | | | |
| APPROVED BY: | PROJECT ENGINEER | DATE | | |
| | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86811 | DATE | | |
| | REVISION | BY | DATE | |

CITY OF CLEARWATER, FLORIDA
 ENGINEERING DEPARTMENT
 100 SOUTH MYRTLE AVENUE
 CLEARWATER, FL 33756

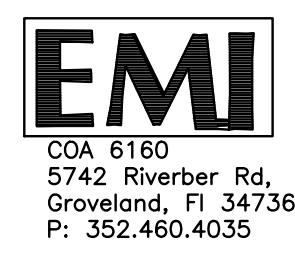
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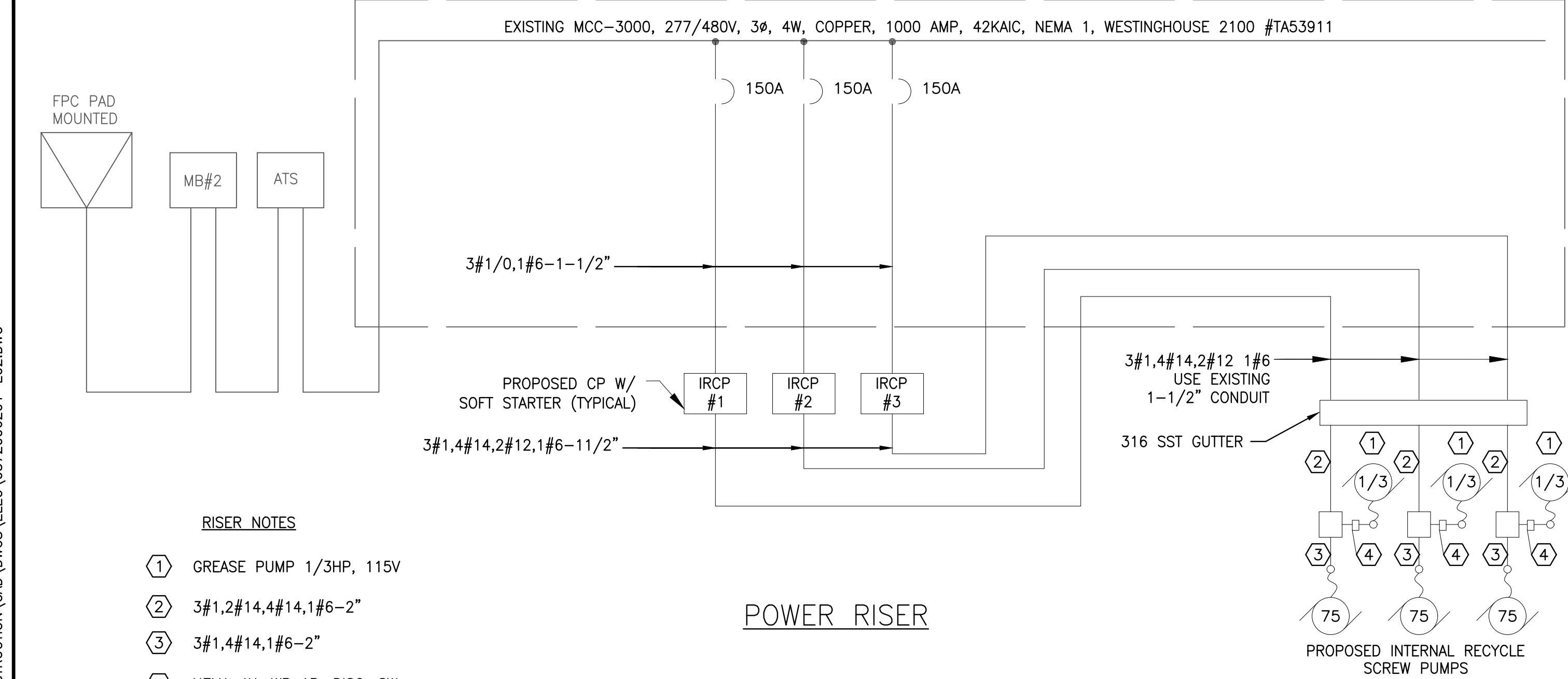
EAST WRF
 SCREW PUMP REPLACEMENT

ELECTRICAL SYMBOLS

| | | | |
|---------------------------------|--------------------------|-----------------|---------------|
| DWG NAME: 0372006201-E01.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JPH | VERT.: |
| JOB NO.: | DESIGNED BY: WCH | CHECKED BY: WCH | HORIZ.: |
| APPROVED FOR CONSTRUCTION | | | SHEET NO.: E1 |
| WILLARD C. HOANSHETL, PE #42592 | | | |



BID DOCUMENTS



RISER NOTES

- ① GREASE PUMP 1/3HP, 115V
- ② 3#1,2#14,4#14,1#6-2"
- ③ 3#1,4#14,1#6-2"
- ④ NEMA 4X, WP 1P, DISC. SW.

POWER RISER

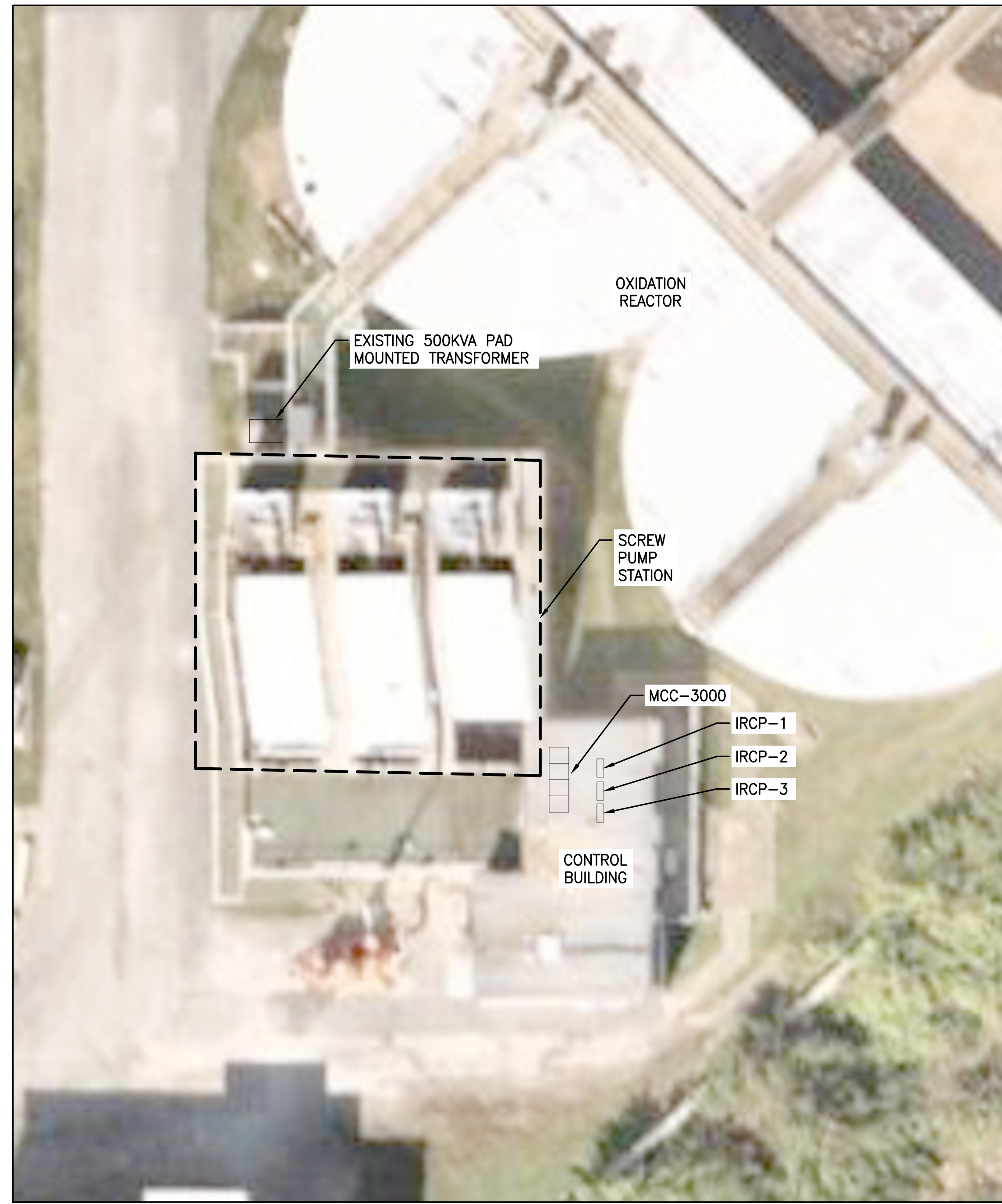
| Clearwater WRF Electrical Load MCC-3000 Calculations | | | |
|---|-----------------|-----------------|-----------------|
| Available Voltage 480v - 3 Phase, 3 Wire, WYE, Solid Ground | | | |
| Maximum Available Fault Current = 20,070A at Pad Mount | | | |
| EXISTING LOAD | Phase A Amps | Phase B Amps | Phase C Amps |
| AERATOR #1-125HP | 156.0 | 156.0 | 156.0 |
| AERATOR #2-125HP | 156.0 | 156.0 | 156.0 |
| GENERATOR EXHAUST FAN-5HP | 7.6 | 7.6 | 7.6 |
| PANEL L3 | 80.0 | 80.0 | 80.0 |
| PANEL L5 | 80.0 | 80.0 | 80.0 |
| PROPOSED LOAD | | | |
| SCREW PUMP #1-75HP | 96.0 | 96.0 | 96.0 |
| SCREW PUMP #2-75HP | 96.0 | 96.0 | 96.0 |
| SCREW PUMP #3-75HP | 96.0 | 96.0 | 96.0 |
| 25% Largest Motor | 39.0 | 39.0 | 39.0 |
| Total | 806.6 | 806.6 | 806.6 |
| Existing Service Size = 1000 Amperes | | | |



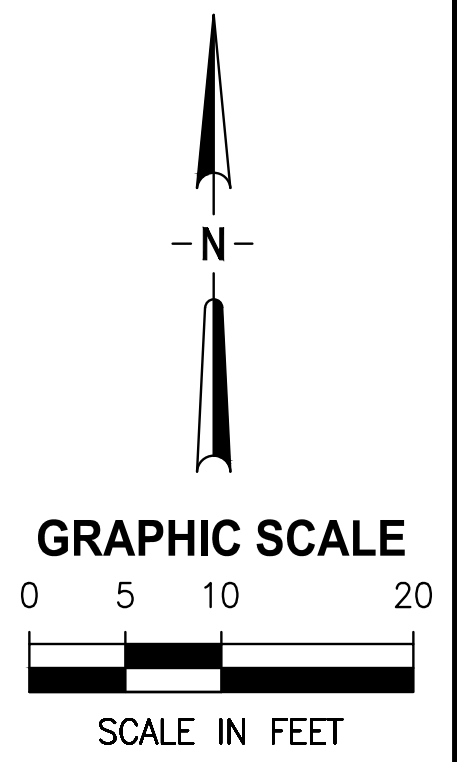
EXISTING MCC-3000



EXISTING MCC-3000



SITE PLAN



LAST SAVED: 10/16/2023 4:16 PM JKRAMER DWG LOCATION: X:\03720-CITY OF CLEARWATER\PROJECTS\062-01 CLEARWATER EAST WRF SCREW PUMP STATION REPLACEMENT\DESIGN&CONSTRUCTION\CAD\DWGS\ELEC\0372006201-E02.DWG

| RECORD DRAWINGS | | REVISION | BY | DATE |
|-----------------|--|----------|----|------|
| SURVEYED BY: | DRAWN BY: | | | |
| REVIEWED BY: | | | | |
| APPROVED BY: | PROJECT ENGINEER | | | DATE |
| | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 | | | DATE |

CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 SOUTH MYRTLE AVENUE
CLEARWATER, FL 33756

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EAST WRF
SCREW PUMP REPLACEMENT
ELECTRICAL SITE PLAN AND RISER

| | | | |
|---------------------------------|-----------------------------|---------------------------------|------------------|
| DWG NAME: 0372006201-E02.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: VERT. |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JPH | HORIZ. |
| JOB NO.: | DESIGNED BY: WCH | CHECKED BY: WCH | SHEET NO.: E2 |
| APPROVED FOR CONSTRUCTION | | WILLARD C. HOANSHELY, PE #42592 | |

EMJ
COA 6160
5742 Riverber Rd,
Groveland, FL 34736
P: 352.460.4035

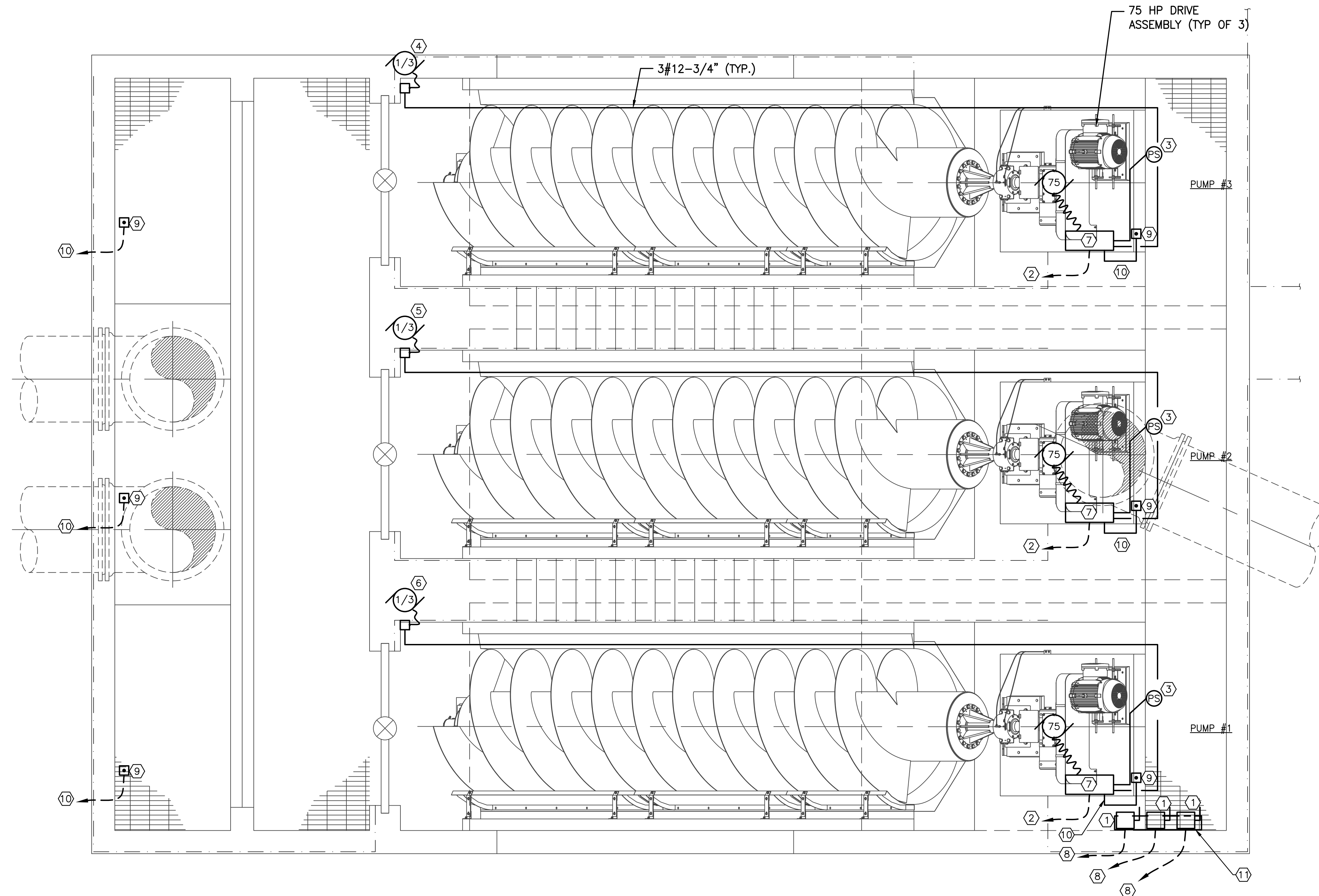
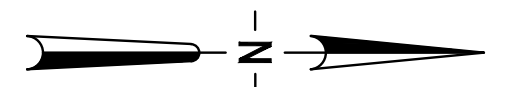
BID DOCUMENTS

GRAPHIC SCALE

0 1 2 4



SCALE IN FEET



SHEET NOTES

- ① REMOVE LOCAL SAFETY SWITCH & REPLACE W/ GUTTER
- ② REUSE CONDUIT TO SAFETY SW.
- ③ PRESSURE SWITCH TO BE REMOVED
- ④ LUBE MOTOR #1
- ⑤ LUBE MOTOR #2
- ⑥ LUBE MOTOR #3
- ⑦ J-BOX TO REMAIN
- ⑧ REUSE CONDUIT TO MCC-3000
- ⑨ REUSE EXISTING EMERGENCY STOP PB
- ⑩ 2#14-3/4" TO RESPECTIVE IRCP
- ⑪ 316 SST GUTTER

ELECTRICAL SCREW PUMP LIFT STATION PLAN

3/8" = 1'-0"



COA 6160
5742 Riverber Rd,
Groveland, FL 34736
P: 352.460.4035

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| RECORD DRAWINGS | |
|-----------------|--|
| SURVEYED BY: | DRAWN BY: |
| REVIEWED BY: | |
| APPROVED BY: | PROJECT ENGINEER |
| | CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 |
| DATE | DATE |
| REVISION | BY DATE |

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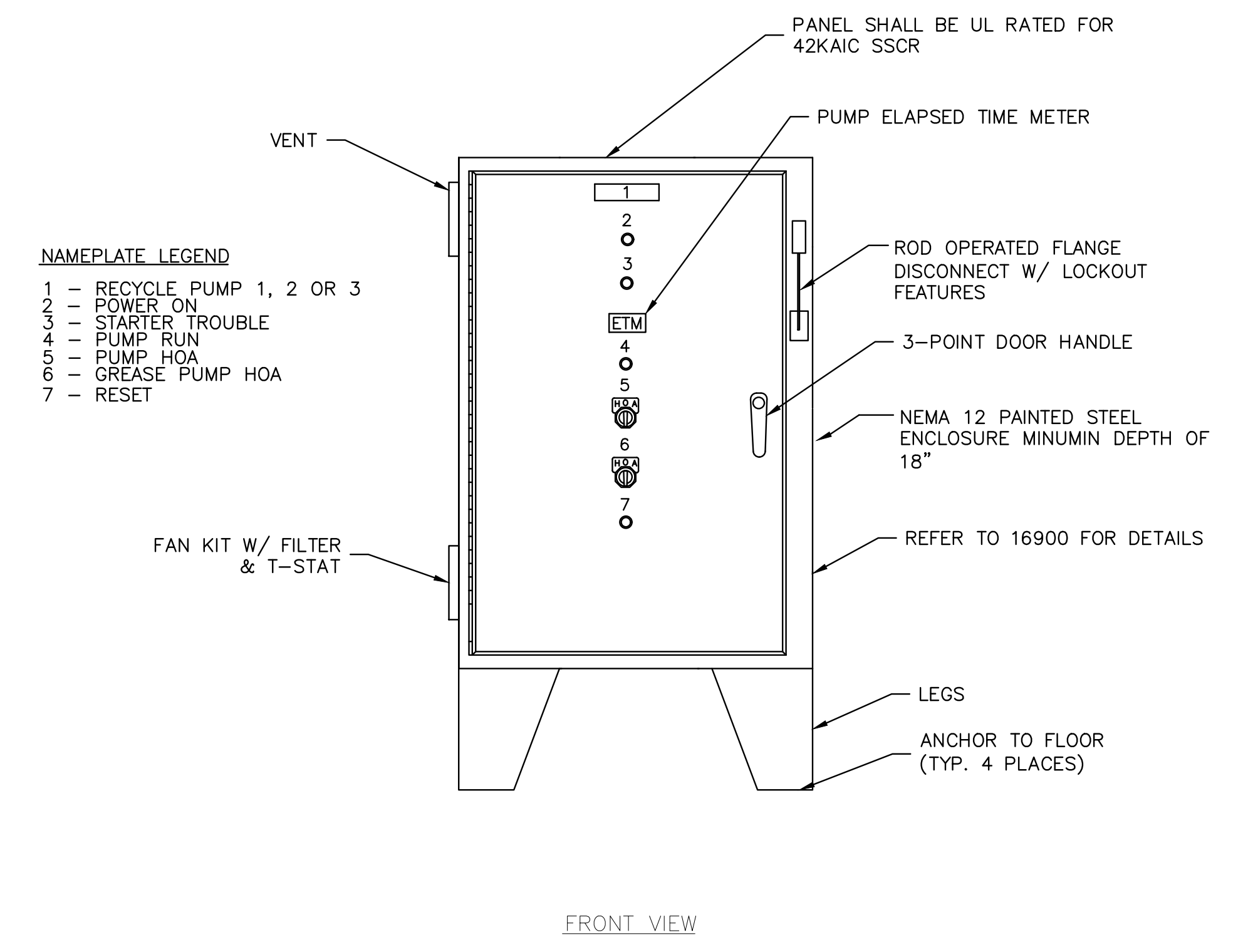
EAST WRF
SCREW PUMP REPLACEMENT
**ELECTRICAL SCREW PUMP
LIFT STATION PLAN**

| | | | |
|---------------------------------|-----------------------------|---------------------------------|------------------|
| DWG NAME: 0372006201-E03.DWG | FIELD BOOK: | SURVEYED BY: | SCALE: VERT. |
| CONTRACT NO.: | DATE DRAWN: OCTOBER 2023 | DRAWN BY: JPH | HORIZ. |
| JOB NO.: | DESIGNED BY: WCH | CHECKED BY: WCH | SHEET NO.: E3 |
| APPROVED FOR CONSTRUCTION | | WILLARD C. HOANSHELY, PE #42592 | |
| | | DATE | |

LAST SAVED: 10/25/2023 8:17 AM J.KRAMER DWG LOCATION: Y:\03720-CITY OF CLEARWATER\PROJECTS\062-01 CLEARWATER EAST WRF SCREW PUMP STATION REPLACEMENT\DESIGN&CONSTRUCTION\CAD\DWGS\ELEC\0372006201-E03.DWG



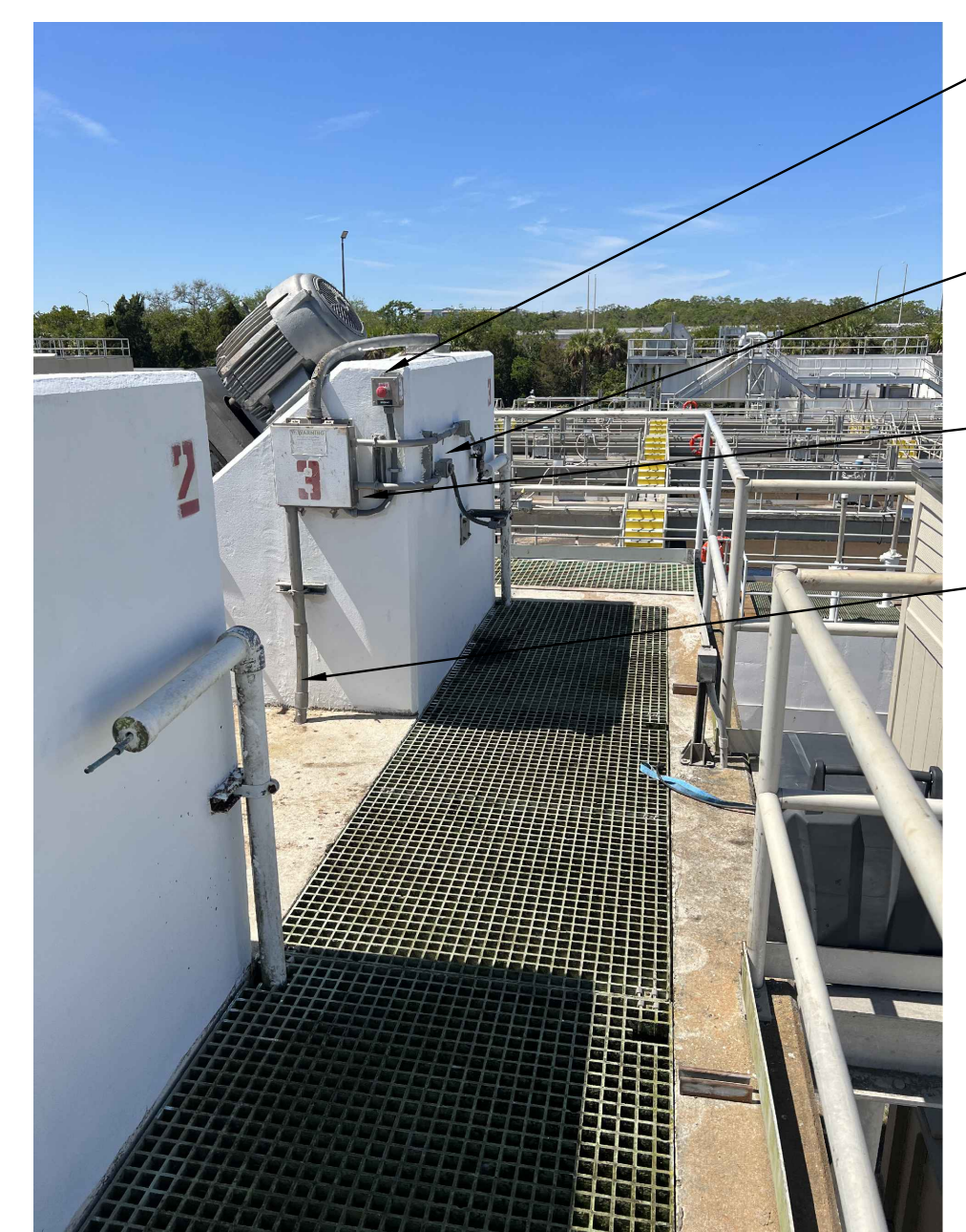
- REMOVE MTG FRAME
- REMOVE ALL SAFETY SWITCHES
- EXISTING ESTOP TO REMAIN (TYP 6 PLACES)
- GUTTER



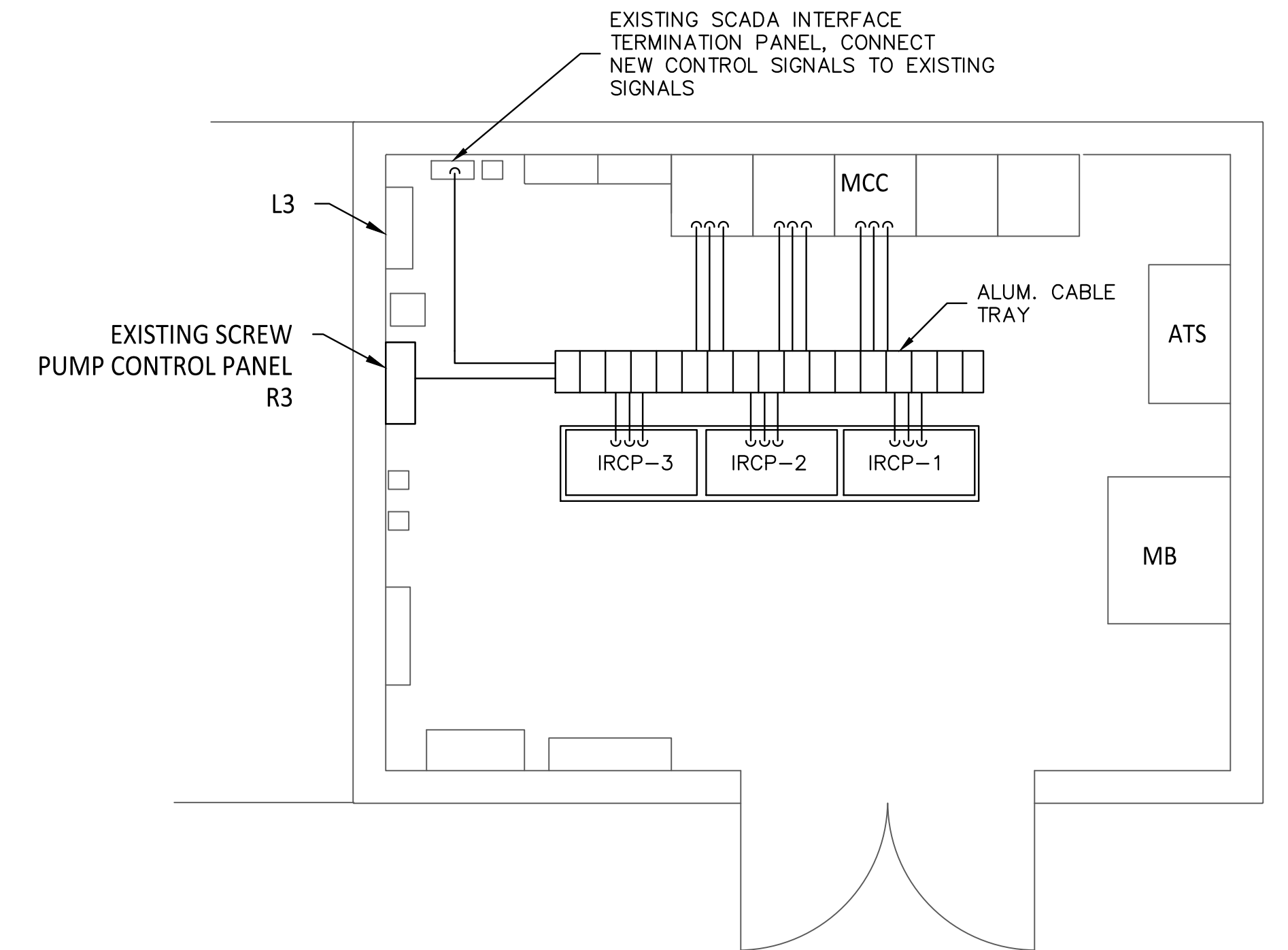
FRONT VIEW

INTERNAL RECYCLE PUMP CONTROL PANEL (TYP. 3 PLACES)

PHOTO: EXISTING SAFETY SWITCHES

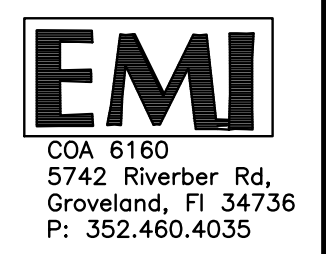


- EMERGENCY STOP TO REMAIN
- REMOVE AND REPLACE ALL CONDUITS, EXCEPT RUN TO LOCAL SAFETY SWITCH
- PB TO REMAIN
- TO SAFETY SWITCH



ELECTRICAL ROOM

PHOTO: TYPICAL MOTOR END VIEW



BID DOCUMENTS

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|---|--|---|--|---|--|--|--|--|--|
| <p>RECORD DRAWINGS</p> <p>SURVEYED BY: _____ DRAWN BY: _____</p> <p>REVIEWED BY: _____</p> <p>APPROVED BY: _____ PROJECT ENGINEER _____ DATE _____</p> <p>CITY ENGINEER, PUBLIC WORKS TARA KIVETT, P.E. #86611 _____ DATE _____</p> | | <p>REVISION</p> <p>BY _____ DATE _____</p> | | <p>CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 SOUTH MYRTLE AVENUE CLEARWATER, FL 33756</p> | | <p>CALL 811 SUNSHINE STATE ONE CALL OF FLORIDA www.sunshine11.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE</p> | | <p>JonesEdmunds</p> <p>730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 324 S. HYDE PARK AVE., SUITE 250 TAMPA, FLORIDA 33606 / (813) 258-0703</p> | | <p>EAST WRF SCREW PUMP REPLACEMENT</p> <p>ELECTRICAL ROOM PLAN AND DETAILS</p> | | <p>DWG NAME: 0372006201-E04.DWG</p> <p>CONTRACT NO.: _____</p> <p>JOB NO.: _____</p> <p>APPROVED FOR CONSTRUCTION _____</p> | | <p>FIELD BOOK: _____</p> <p>DATE DRAWN: OCTOBER 2023</p> <p>DESIGNED BY: WCH</p> <p>SCALE: _____</p> <p>DRAWN BY: JPH</p> <p>CHECKED BY: WCH</p> <p>HORIZ. SHEET NO.: E4</p> | | <p>SURVEYED BY: _____</p> <p>SCALE: _____</p> <p>DATE: _____</p> | |
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