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Contract Administration Department
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Tampa, FL 33602
(813)274-8456

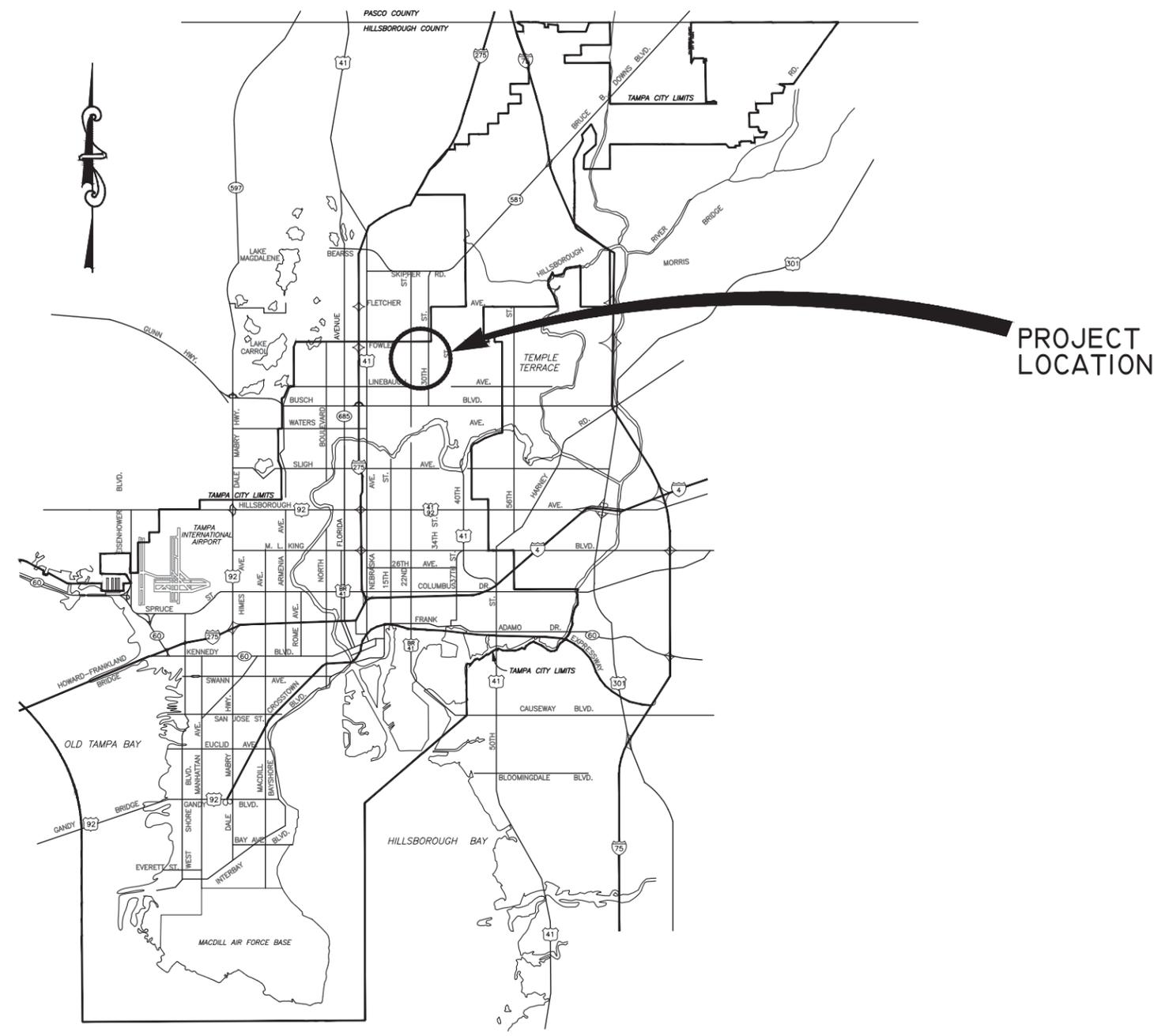
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CITY of TAMPA



DEPARTMENT OF
TRANSPORTATION AND STORMWATER SERVICES
STORMWATER ENGINEERING DIVISION

PLANS FOR
POINSETTIA PUMP STATION REPLACEMENT
CONTRACT # 18-C-00013



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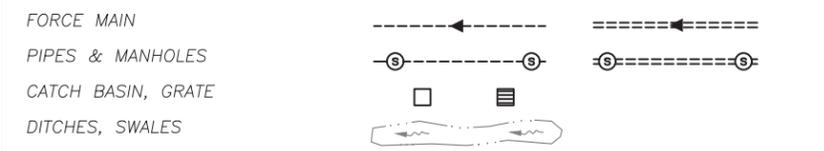
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LEGEND

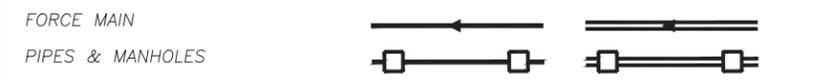
ABBREVIATIONS

INDEX

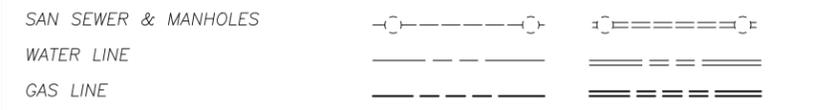
EX STORMWATER



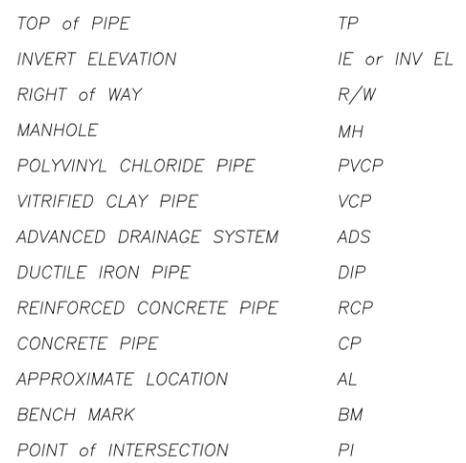
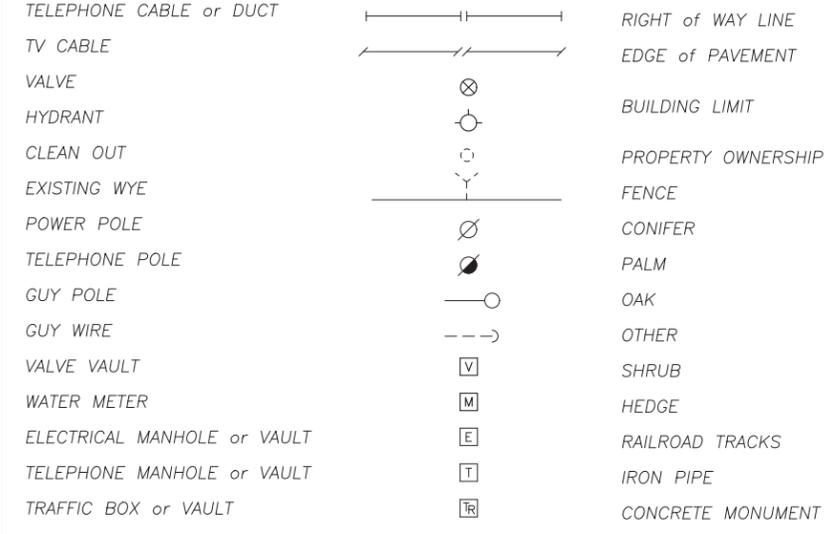
PROP STORMWATER



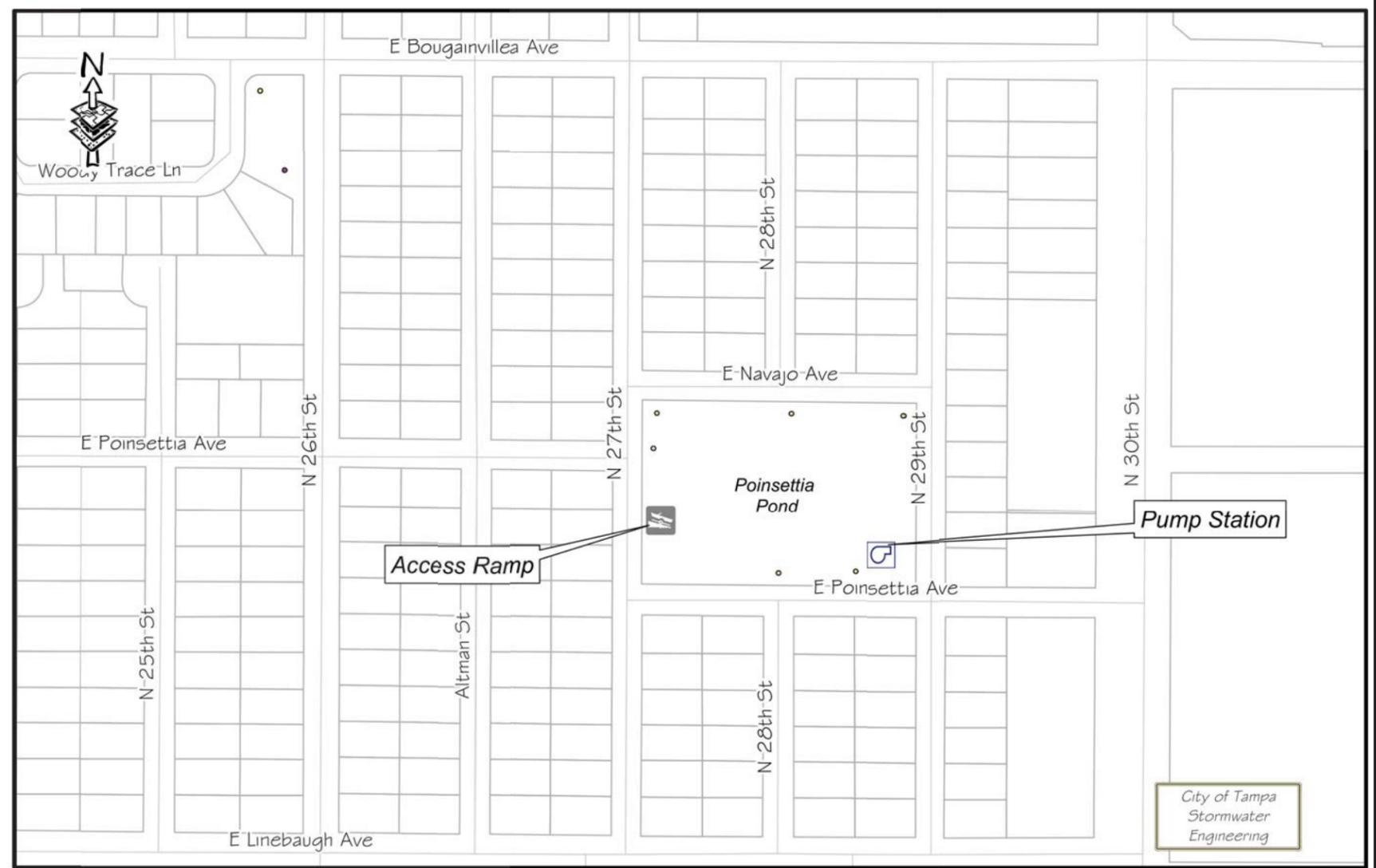
OTHER UTILITIES



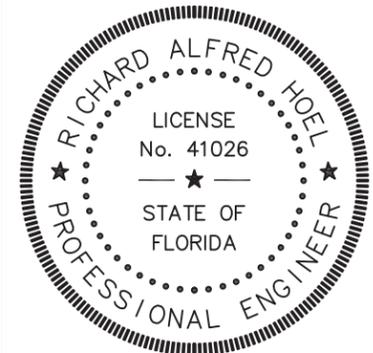
OTHER FEATURES



No.	DESCRIPTION
1	COVER SHEET
2	LEGEND, INDEX, AND MAP
3-4	GENERAL AND STRUCTURAL NOTES
C1-C2	EXISTING CONDITION
C3	DEMOLITION PLAN
C4-C5	DEBRIS CONTAINMENT BARRIERS & BOAT RAMP DETAILS
C6-C10	PUMP STATION PLANS
C11-C15	DETAIL SHEETS
S1-S9	REINFORCED CONCRETE PLANS
E1-E19	ELECTRICAL PLANS



LOCATION MAP



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CITY of TAMPA
 Department of Transportation
 and Stormwater Services
 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 LEGEND, INDEX & MAP

City of Tampa
 Stormwater
 Engineering

POINSETTIA PUMP STATION

SW

GENERAL NOTES

1. EXISTING DIMENSIONS ARE BASED ON THE BEST INFORMATION AVAILABLE. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTALS.
2. LOCATION OF EXISTING FORCE MAIN AND OTHER UTILITIES TO BE VERIFIED BY CONTRACTOR AT TIME OF CONSTRUCTION. CONTRACTOR SHALL RELOCATE ALL UTILITIES ON SITE THAT ARE IN THE PATH OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE RELOCATIONS WITH THE DEPARTMENT AND WITH EACH UTILITY AS NECESSARY.
3. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS FOR WORK WITHIN THE RIGHT OF WAYS.
5. INSTALL THREE FLYGT PL7030 AXIAL PUMPS, 26 HP, 3 PHASE, 480 VOLTS, LIFT TUBES, FORM SUCTION INTAKES AND ASSOCIATED ELECTRICAL CONTROL SYSTEM.
6. A STAINLESS STEEL TYPE 316 WELDED LINK CHAIN HAVING ONE INCH LINKS AND A WORKLOAD CAPACITY OF TWICE THE PUMP WEIGHT SHALL BE FASTENED TO PUMP. CONTRACTOR TO SUBMIT CERTIFICATION OF WORKLOAD CAPACITIES FOR APPROVAL. THE BITTER END OF CHAIN SHALL BE FASTENED TO CONCRETE TOP SLAB WITH STAINLESS ANCHORS. LENGTH OF CHAIN SHALL BE FROM THE PUMP TO THE SLAB PLUS SIX FEET.
7. INSTALL A STAINLESS STEEL CABLE SUSPENSION SYSTEM ON STAINLESS STEEL BRACKETS ON CONCRETE SURFACE BELOW ALUMINUM HATCH TO SUPPORT VARIOUS CABLES. ALL "J" HOOKS SHALL BE MADE OF 3/8" DIAMETER ROD (MINIMUM). CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
8. BACKFILL (NO CLAY OR CLAYEY MATERIAL) SHALL BE COMPACTED IN 12 INCH LAYERS TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A.
9. CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING AND PAVEMENT THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL SOD ALL UNPAVED AREAS.
10. ALUMINUM ACCESS COVERS SHALL BE U.S. FOUNDRY, OR EQUAL. ACCESS COVERS SHALL HAVE STAINLESS STEEL HARDWARE AND SHALL OPEN IN THE DIRECTION CORRESPONDING TO THE HINGES SHOWN ON PLANS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE INSTALLATION AND CONFIGURATION.
11. BOLTS, WASHERS, NUTS, SCREWS, HOOKS, BRACKETS, HINGES, ETC. INSTALLED WITHIN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL UNLESS OTHERWISE SPECIFIED.

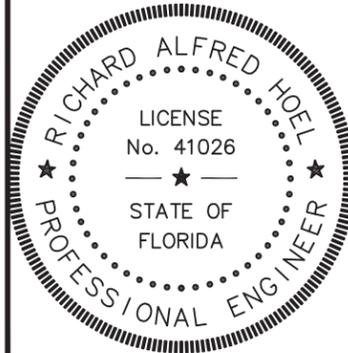
12. CONTRACTOR SHALL COORDINATE WITH TECO REGARDING THE PROPOSED ELECTRICAL SERVICE EQUIPMENT (SEE SPECIFICATIONS).
13. ALL METAL PIPE, FITTINGS, SUPPORTS, VALVES, PUMP TUBES AND CHANNEL SHALL RECEIVE:
 - A) SHOP COAT - ONE COAT, 4-6 MILS, TNEMEC N-140 POTA POX EPOXY PRIMER- GRAY IN COLOR.
 - B) FIELD COAT - TWO COATS, FIRST COAT - TNEMEC SERIES 446 PERMA-SHIELD, 5-7 MILS. SECOND COAT TNEMEC 1074U ENDURA-SHIELD 4-6 MILS. - GRAY IN COLOR, STAINLESS STEEL WILL NOT BE COATED.
14. ALL METAL SURFACES COMING IN CONTACT WITH CONCRETE SHALL BE PROVIDED WITH NEOPRENE PADS OR 2 COATS OF COAL TAR EPOXY WITH PROPER SURFACE PREPARATION. CONTRACTOR SHALL SUBMIT SYSTEM(S) FOR APPROVAL.
15. CONTRACTOR SHALL RESTORE SPALLING CONCRETE SURFACES BELOW ELEVATION 22.5 WITH SPRAYCRETE OR GUNITE APPROVED BY ENGINEER TO ORIGINAL THICKNESS.
16. THIS PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE 6TH EDITION.

TREE NOTES

1. ALL WORK WITHIN THE PROTECTIVE RADIUS OF THE TREES MUST BE COORDINATED WITH PLANNING AND DEVELOPMENT, IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE AND NATURAL RESOURCES SECTION WHO CAN BE REACHED AT (813) 274-3100.
2. PRIOR TO ANY CONSTRUCTION ACTIVITIES, PROTECTIVE BARRICADES SHALL BE INSTALLED AROUND ALL PROTECTED TREES AND GRAND TREES WITHIN FIFTEEN FEET OF THE FORCE MAIN OR PUMP STATION.
 - a) BARRICADES SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET FROM A PROTECTIVE TREE AND A MINIMUM OF TWENTY (20) FEET FROM A GRAND TREE.
3. NO CHANGES SHALL TAKE PLACE TO THE PREDEVELOPMENT CONDITIONS WITHIN THE PROTECTIVE ROOT ZONE DURING THE CONSTRUCTION PROCESS, UNLESS NOTED ON THE PLANS.
4. NO PARKING OR STORAGE OF VEHICLES, EQUIPMENT, OR MATERIALS IS ALLOWED WITHIN THE PROTECTIVE ROOT ZONE.
5. ALL TREE TRIMMING AND ROOT PRUNING MUST BE SUPERVISED BY A CERTIFIED ARBORIST AND PERFORMED CLEANLY WITH APPROVED CUTTING TYPE EQUIPMENT, SUCH AS A CHAINSAW, HAND SAW, OR OTHER CUTTING EQUIPMENT.

SURVEY NOTES

1. FIELD WORK PERFORMED BY POLARIS ASSOCIATES DATE OF SURVEY: MAY 18, 2017.
2. ELEVATIONS ARE BASED ON CITY OF TAMPA BENCHMARK HV 02-0155 HAVING AN ELEVATION OF 26.61 NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
3. PROJECT LOCATED IN FLOOD ZONE AE WITH A BASE FLOOD ELEVATION OF 29.5 NAVD PER FEMA FIRM 12057C0216H DATED AUGUST 28, 2008.



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	3/9/18	ADDED NOTE 16 TO GENERAL NOTES.

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CITY of TAMPA
Department of Transportation
and Stormwater Services
Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
GENERAL NOTES

SHEET
3
OF 19

STRUCTURAL CONSTRUCTION NOTES:

SW

1.0 GENERAL

1.1 ALL WORK IS TO BE PERFORMED IN A GOOD, WORKMANLIKE AND PROFESSIONAL MANNER.

1.2 ALL CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE FLORIDA STATE BUILDING CODE, LATEST EDITION, LOCAL BUILDING CODES, FDOT SPECIFICATIONS AND INDICES AND COT SPECIFICATIONS, IF MORE STRINGENT.

1.3 THESE DRAWINGS DO NOT SHOW PROVISIONS FOR SAFETY DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THE REQUIRED BRACING, SHORING, AND SAFETY DEVICES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.

2.0 COORDINATION

2.1 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH GENERAL, ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS AND OTHER CONTRACT DOCUMENTS. IF COORDINATION OF INFORMATION PRESENTED ON DRAWINGS CONFLICTS w/ THE PROJECT SPECIFICATIONS, THE DRAWINGS WILL TAKE PRECEDENCE.

2.2 COORDINATE THE EXACT SIZE AND LOCATION OF ALL PIPES, SLEEVES AND OPENINGS THROUGH SLABS AND WALLS w/ GENERAL, ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.

2.3 ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN ON THESE DRAWINGS ARE TO BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE CONSTRUCTION WORK PROCEEDS, INCLUDING ORDERING AND FABRICATING MATERIALS.

3.0 FOUNDATIONS

3.1 FOOTING & SLAB ELEVATIONS SHALL NOT BE RAISED OR LOWERED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

3.2 ALL EXCAVATIONS SHALL BE ADEQUATELY DEWATERED BEFORE PLACEMENT OF CONCRETE. NO CONCRETE OR CONCRETE FILL SHALL BE PLACED IN STANDING WATER. WATER ACCUMULATION EXCEEDING 1 INCH SHALL BE PUMPED OUT.

3.3 FOOTING EXCAVATIONS AND FORMS SHALL BE REVIEWED BY AN OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE.

3.4 ALL FOOTINGS SHALL BE CENTERED UNDER THE SUPPORTING MEMBER UNLESS NOTED OTHERWISE.

3.5 CONSTRUCTION JOINTS IN SLABS, WALLS & FOOTINGS SHALL BE MADE AT LOCATIONS SHOWN ON DRAWINGS.

3.6 CONTRACTOR IS TO VERIFY THE ELEVATION AND LOCATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. ANY "KNOWN" UTILITY LINES DAMAGED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE. IF ANY "UNKNOWN" UTILITY LINES ARE ENCOUNTERED WHEN EXCAVATING THE CONTRACTOR IS TO CEASE ALL EXCAVATION ACTIVITY UNTIL THE ENGINEER AND OWNER ARE NOTIFIED AND INSTRUCTIONS ARE PROVIDED ABOUT HOW TO PROCEED.

3.7 THE CONTRACTOR SHALL OBTAIN THE OWNER'S PERMISSION BEFORE ENCASING OR BACK FILLING AROUND ANY EXISTING UNDERGROUND STRUCTURE, PIPING, ELECTRICAL, OR OTHER UNDERGROUND WORK.

4.0 REINFORCING STEEL

4.1 BARS SHALL BE ROLLED FROM NEW BILLET-STEEL OF DOMESTIC MANUFACTURE CONFORMING TO "STANDARD SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT," ASTM A 615, GRADE 60 AND SUPPLEMENTARY REQUIREMENT S-1.

4.2 DETAIL AND FABRICATE REINFORCING STEEL IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "ACI DETAILING MANUAL," LATEST PUBLICATION.

4.3 REINFORCING STEEL IN PLACE SHALL BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE. GENERAL "CLR" DISTANCES FOR CONCRETE COVER ARE PROVIDED ON THE DRAWINGS IN THE SECTIONS & DETAILS. FOR SECTIONS & DETAILS w/OUT CONCRETE COVER FOR REINFORCING BARS REFERENCE THE PROJECTS SPECIFICATIONS.

4.4 WELDED WIRE FABRIC SHALL CONFORM TO "STANDARD SPECIFICATION FOR WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT," ASTM A-185.

4.5 PLACE WELDED WIRE FABRIC AT CENTER OF SLABS-ON-GRADE UNLESS NOTED OTHERWISE.

4.6 PROVIDE BARS AT CORNERS AND INTERSECTIONS OF WALLS & FOOTINGS OF THE SAME NUMBER AND SIZE AS LONGITUDINAL BARS, U.N.O. ON THE DRAWINGS.

4.7 FABRICATE CONTINUOUS BARS IN SLABS, WALLS & FOOTINGS TO THE LONGEST PRACTICABLE LENGTHS.

4.8 REINFORCING STEEL SHALL NOT BE BENT AFTER BEING PARTIALLY EMBEDDED IN HARDENED CONCRETE.

4.9 BARS SHALL BE COLD BENT AND SHALL NOT BE HEATED FOR ANY REASON.

4.10 REINFORCING BARS SHALL NOT BE WELDED UNLESS NOTED OTHERWISE ON THE DRAWINGS.

4.11 REFERENCE DRAWINGS FOR REQUIREMENTS FOR LAP REINFORCING STEEL IN CONCRETE. ALL "LCS" SHALL CONFORM TO CLASS B SPLICE CRITERIA. IT IS ACCEPTABLE TO LAP REINFORCING IN NON "LCS" STRUCTURES A MINIMUM 50 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

4.12 LAP SPLICED BARS IN CONCRETE ARE TO BE WIRE TIED.

5.0 CONCRETE

5.1 CONCRETE SHALL BE TYPE III 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, UNLESS NOTED BELOW. CONCRETE FOR PRECAST STRUCTURES SHALL BE CLASS II 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE FOR SIDEWALKS & DRIVEWAYS SHALL BE CLASS I 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. REFERENCE FDOT SPECIFICATION 346, EXCEPT SECTION 346.6.1, FOR APPLICATION & SPECIFIC CONCRETE MIX DESIGN REQUIREMENTS.

5.2 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318 & TO "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES", ACI 350 (LATEST EDITIONS).

5.3 PLACE 1/2 INCH EXPANSION JOINT MATERIAL BETWEEN EDGES OF SLABS AND VERTICAL SURFACES UNLESS NOTED OTHERWISE.

5.4 PROVIDE CONSTRUCTION OR CONTROL JOINTS IN SLABS & WALLS AT LOCATIONS SHOWN ON DRAWINGS, AT OFFSETS AND CHANGES IN DIRECTION AND AT THIRTY (30) FEET MAXIMUM U.N.O.. GENERAL CONTRACTOR TO PROVIDE CONSTRUCTION JOINT LAYOUT PLAN PER THE PROJECT SPECIFICATIONS PRIOR TO CONSTRUCTION, INCLUDING ORDERING & FABRICATING MATERIALS.

5.5 CHAMFER EXPOSED EDGES OF CONCRETE 3/4 INCH, UNLESS NOTED OTHERWISE.

5.6 CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CURING OF ALL CONCRETE. CURING METHODS SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES" ACI 350 AND "STANDARD PRACTICE FOR CURING CONCRETE," ACI 308, LATEST EDITIONS.

5.7 UNLESS NOTED OTHERWISE DOWELS SHALL BE THE SAME NUMBER AND SIZE AS THE LARGEST VERTICAL BAR TO WHICH THEY ARE SPLICED.

5.8 REFERENCE PROJECT SPECIFICATIONS FOR REQUIRED FINISHES.

5.9 BONDING AGENT TO BE STRUCTURAL EPOXY ADHESIVE CONFORMING TO ASTM C-881 TYPE I AND II, GRADE 2, CLASS B AND C WITH A MINIMUM BOND STRENGTH OF 1900 PSI.

5.10 CONTRACTOR SHALL SUBMIT REBAR SHOP DRAWINGS FOR APPROVAL TO OWNER PRIOR TO FABRICATION. DO NOT FABRICATE REINFORCING PRIOR TO RECEIPT OF APPROVED SHOP DRAWINGS.

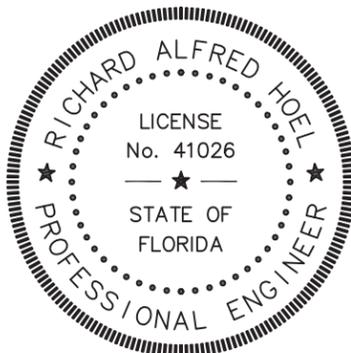
5.11 CONCRETE MIXES TO BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE. COMPRESSIVE STRENGTH TEST CYLINDERS TO BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE THROUGHOUT CONCRETE CONSTRUCTION OF THE PROJECT.

6.0 GROUT

6.1 PROVIDE NON-SHRINK GROUT UNDER ALL COLUMN BASE PLATES AND BEAM BEARING PLATES AND ELSEWHERE AS INDICATED ON DRAWINGS. NON-SHRINK GROUT SHALL CONFORM TO ASTM C 1107.

6.2 GROUT SHALL BE NON-METALLIC AND NON-STAINING AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 7000

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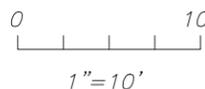
POINSETTIA PUMP STATION REPLACEMENT
STRUCTURAL NOTES

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4
OF 19

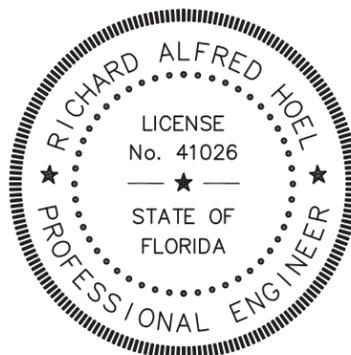
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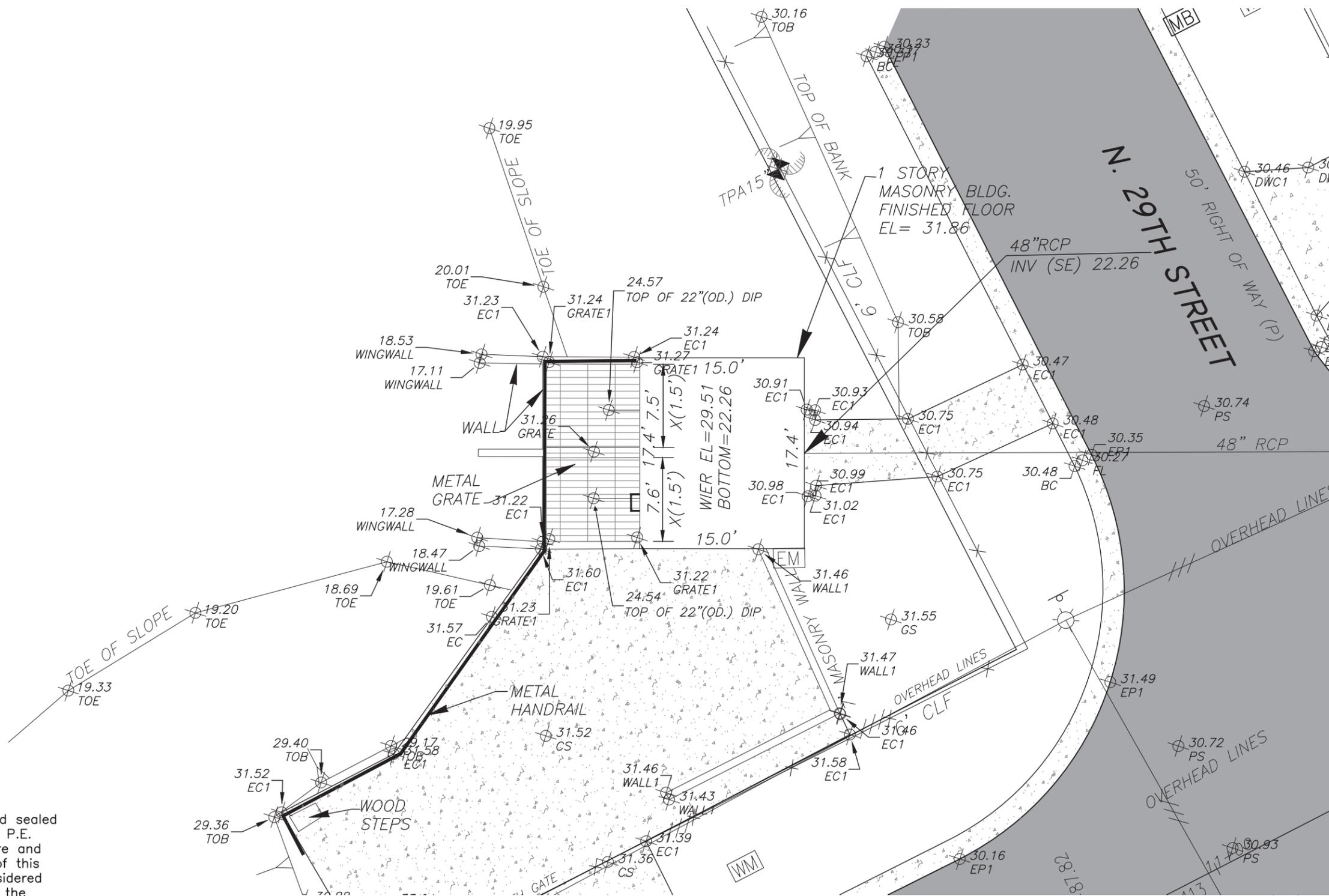
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LAKE TRACT



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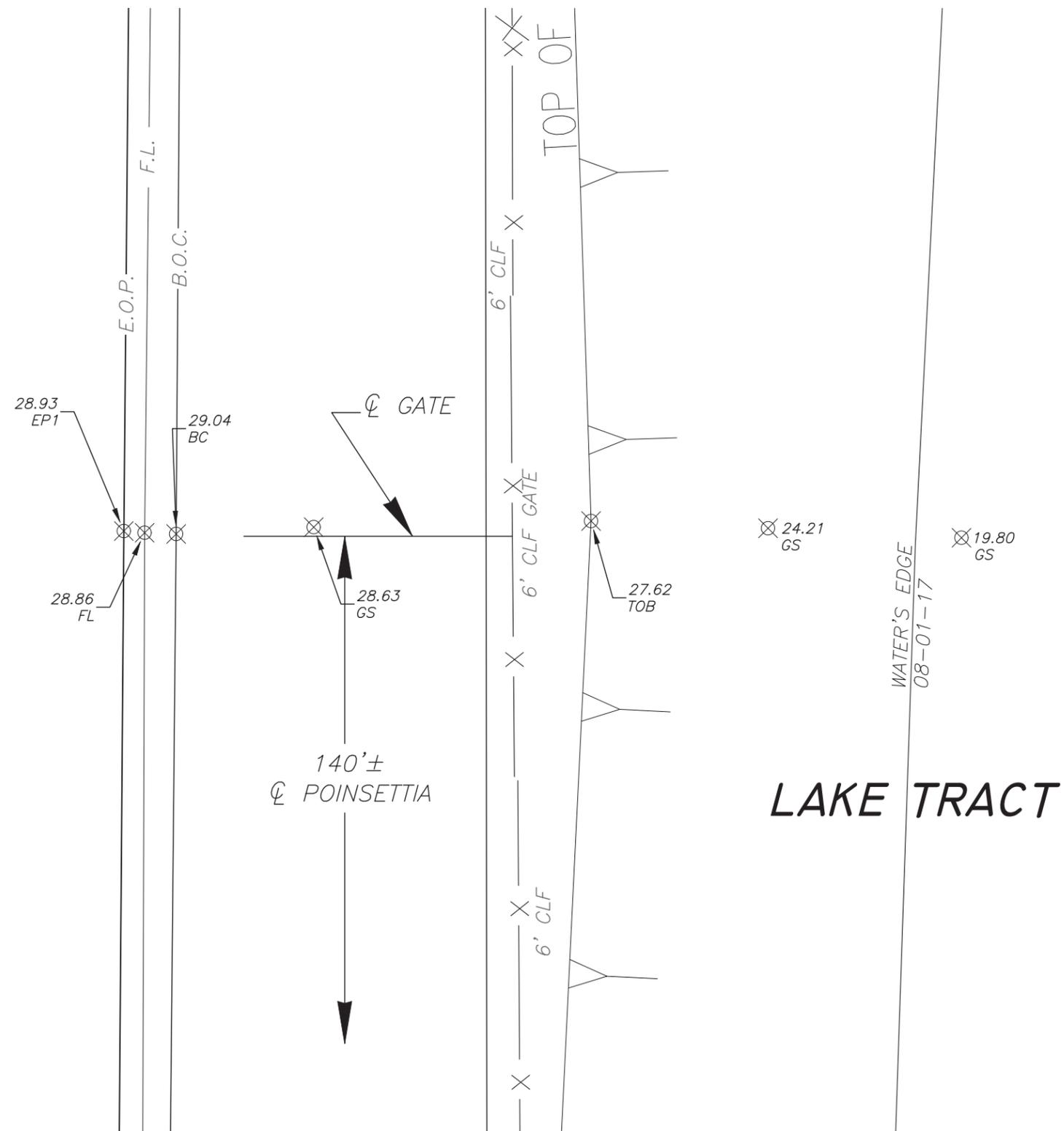
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POINSETTIA PUMP STATION REPLACEMENT
PUMP STATION EXISTING CONDITIONS

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N. 27TH ST.



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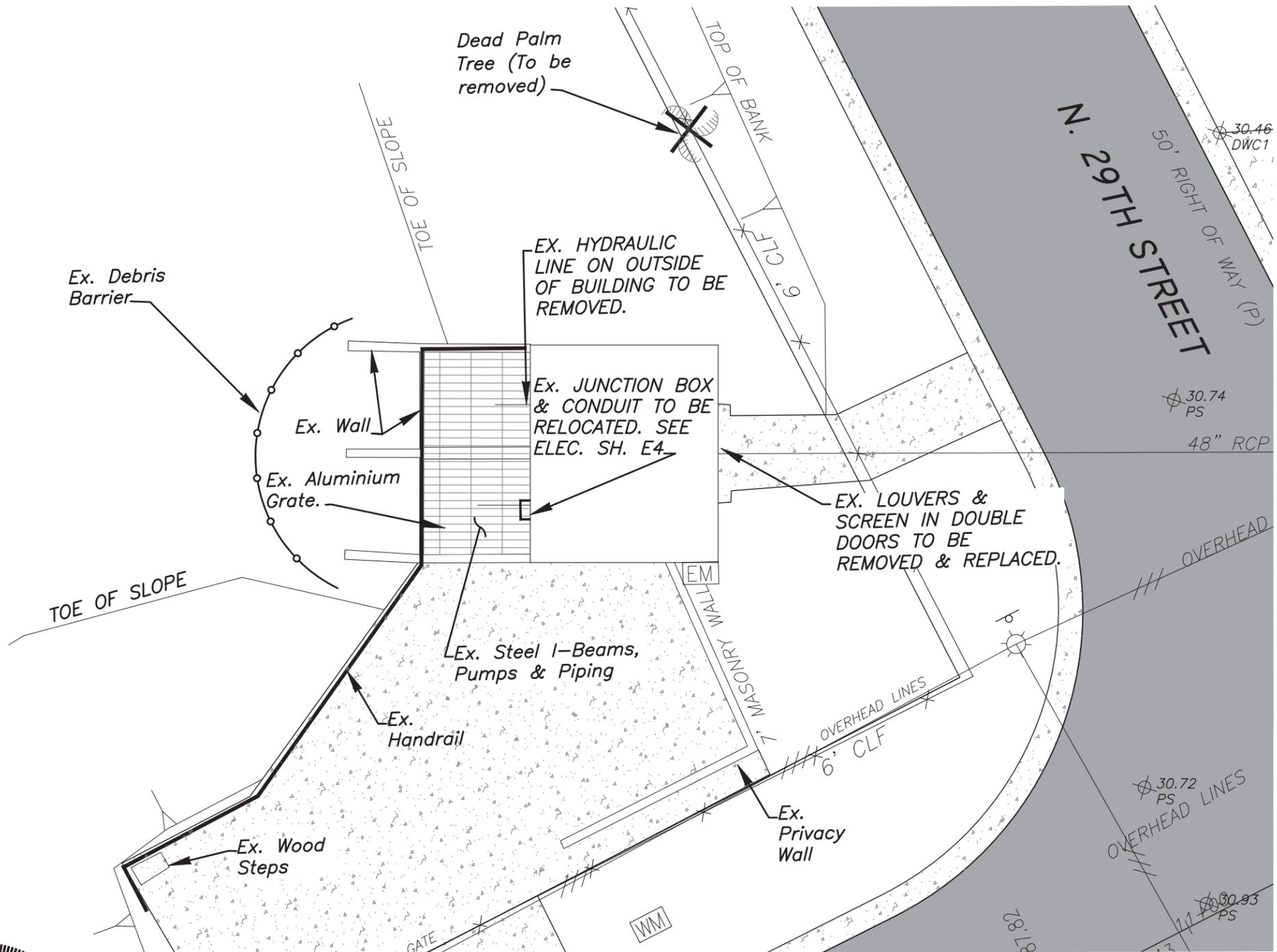
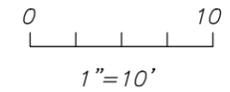
POINSETTIA PUMP STATION REPLACEMENT
 BOAT RAMP EXISTING CONDITIONS

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C-2
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SEC.17 T28S R19E



DEMOLITION NOTES:

1. REMOVE AND SALVAGE ALL STEEL I-BEAMS, ALUMINUM GRATES, AND DIAMOND PLATE. ALL SALVAGED MATERIAL WILL BE CONVEYED TO CITY STAFF AND DELIVERED TO MAINTENANCE FACILITY ON 26TH AVE.
2. ALL HYDRAULIC AND MECHANICAL EQUIPMENT ASSOCIATED WITH PUMPING WATER TO BE REMOVED AND DISPOSED OF OFFSITE IN AN ENVIRONMENTALLY CORRECT LOCATION.
3. INTERIOR OF CONTROL BUILDING TO BE PRESSURED WASHED TO REMOVE RESIDUAL HYDRAULIC FLUID AND OIL. WASH WATER MAY NOT BE ALLOWED TO ENTER THE LAKE OR THE STORMWATER SYSTEM.
4. REFER TO ELECTRICAL DRAWINGS FOR IDENTIFICATION OF ELECTRICAL COMPONENTS TO BE REMOVED. ANY REMAINING COMPONENTS MUST BE PROTECTED DURING THE CLEANING PROCESS.
5. REMOVE AND DISPOSE OF EXISTING DEBRIS BARRIERS AND BAR SCREENS.
6. REMOVE AND DISPOSE OF EXISTING HANDRAILS.



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and Stormwater Services
Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT

DEMOLITION

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1"=10'

N. 29TH STREET

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48" RCP

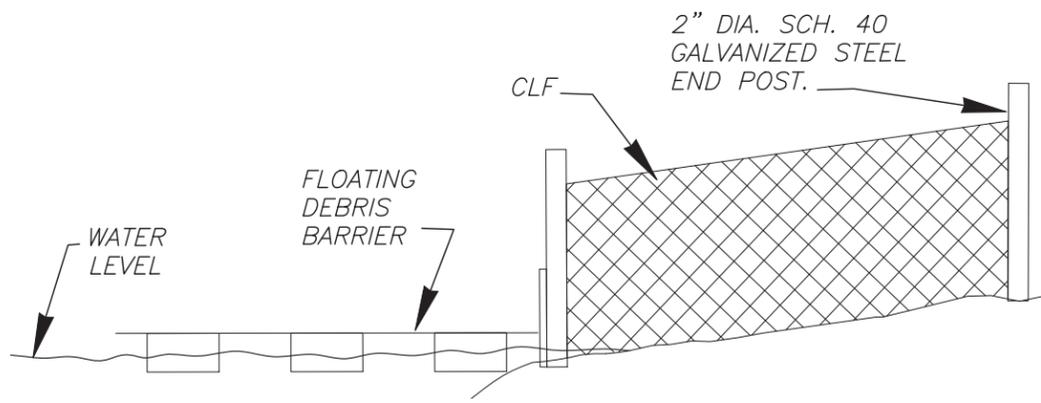
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OVERHEAD LINES

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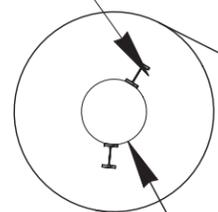
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LAKE TRACT

1. DEBRIS BARRIER SHALL BE ABLE TO TRAVEL BETWEEN ELEV. 18.0 TO ELEV. 29.0
2. WOOD UTILITY POLES TO BE INSTALLED WITH A MINIMUM OF 15 FEET EMBEDMENT.
3. CHAIN LINK FENCE TO BE 2" MESH, 8 GA., ZINC COATED 6 FEET HIGH W/O TOP RAIL OR TENSION WIRE.

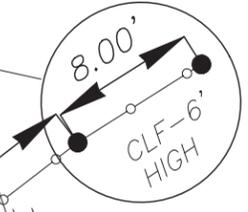
STEEL I-BEAM



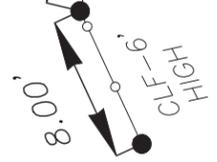
WOOD UTILITY POLE

FLOATING DEBRIS BARRIER W/ TIDESLIDE BEAMS (ABASCO SIGMA 24 DEBRIS BARRIER OR EQUAL)

TOE OF SLOPE



TOE OF SLOPE



CLF-6' HIGH



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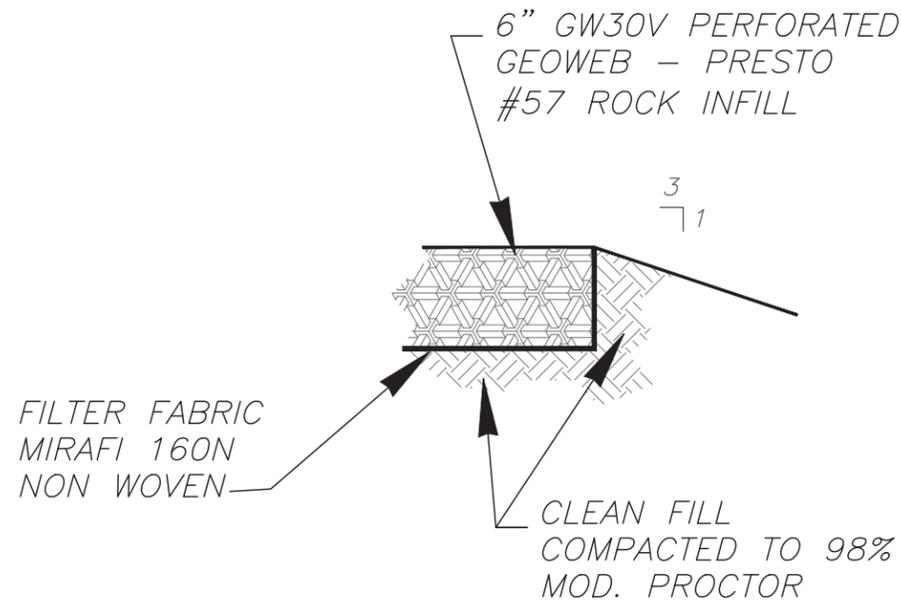
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 DRN: ME
 CKD:
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CITY of TAMPA
 Department of Transportation
 and Stormwater Services
 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 DEBRIS CONTAINMENT BARRIERS

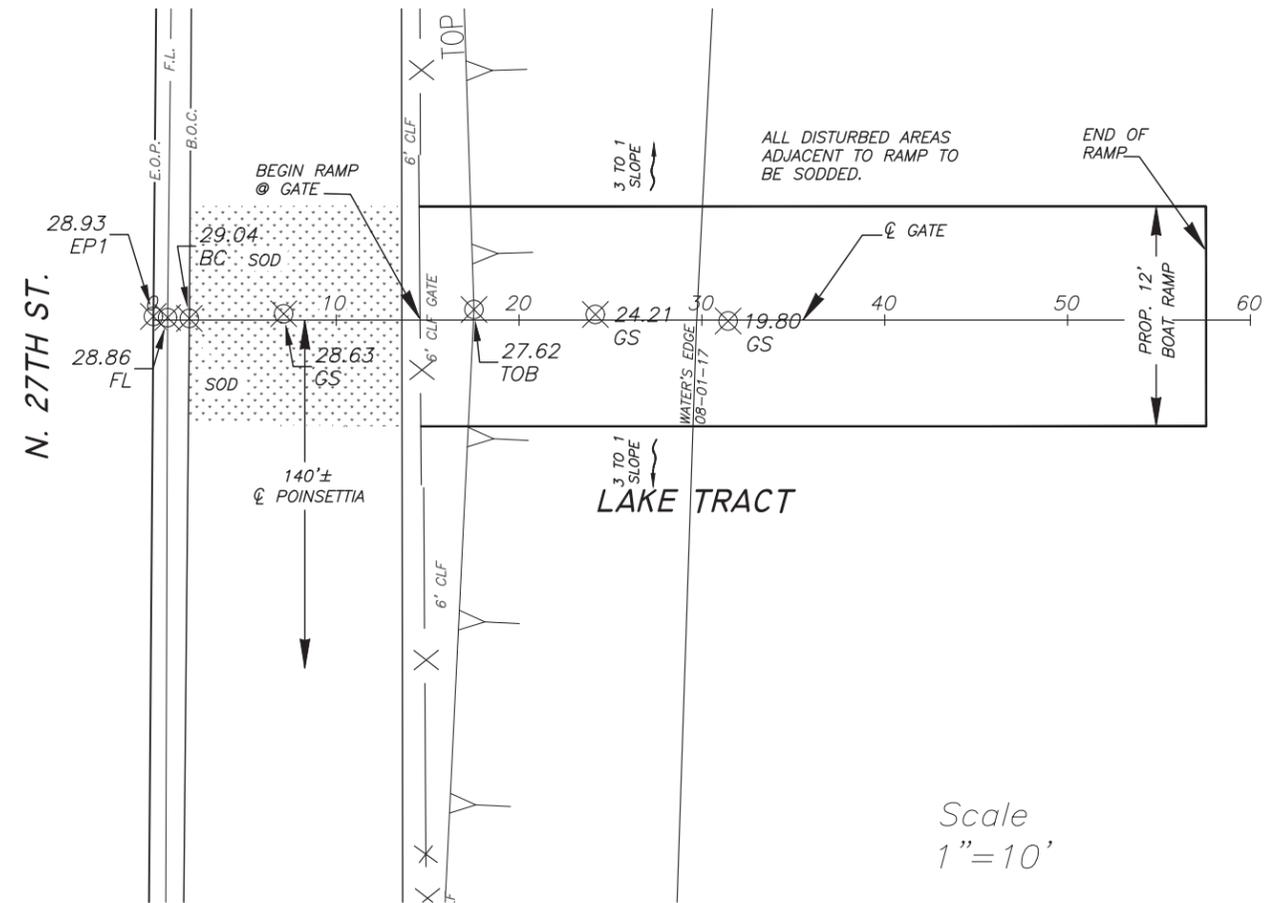
SHEET
C-4
 OF 19

SW

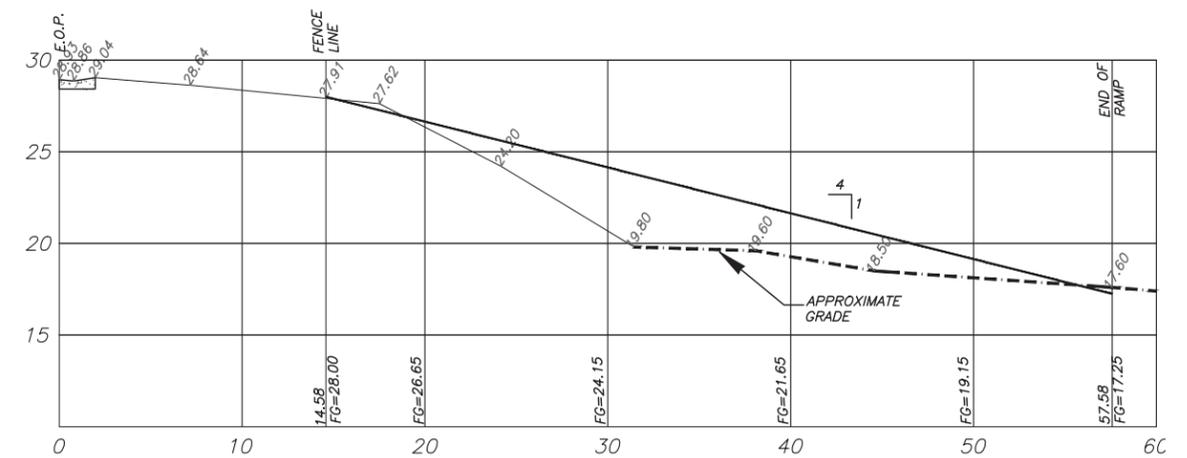


RAMP DETAILS

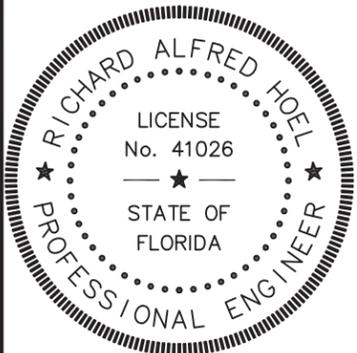
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Scale
1"=10'



Scale
1"=10'



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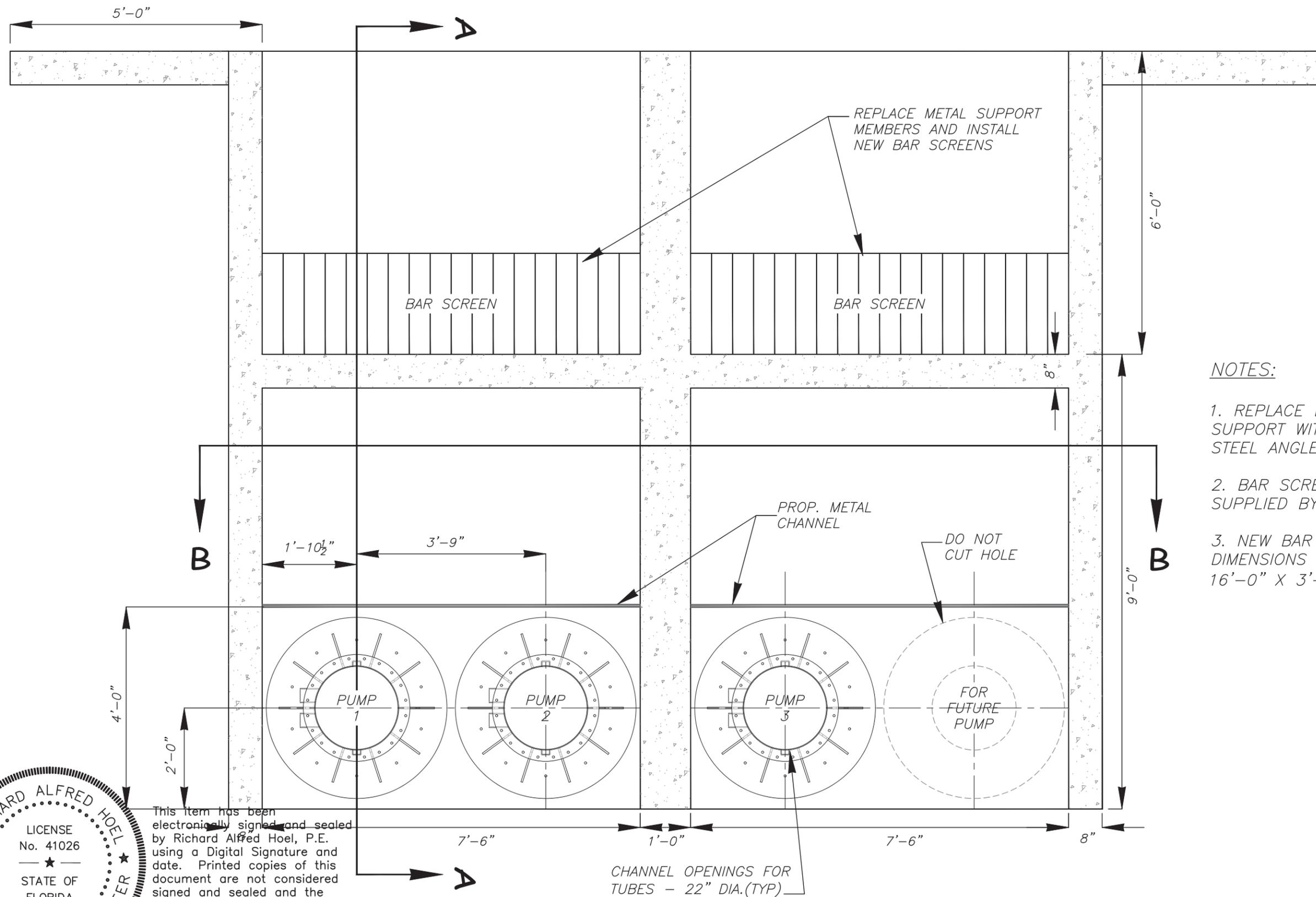
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Department of Transportation
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Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
BOAT RAMP

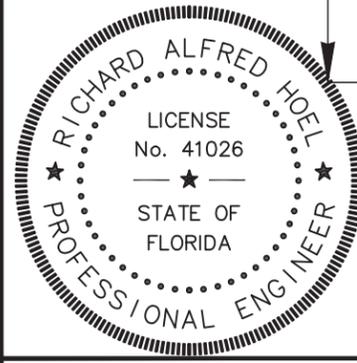
SHEET
C-5
OF 19

SW



NOTES:

1. REPLACE BAR SCREEN SUPPORT WITH GALVANIZED STEEL ANGLE.
2. BAR SCREENS TO BE SUPPLIED BY CITY.
3. NEW BAR SCREEN DIMENSIONS ARE 16'-0" X 3'-8" EACH.



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CHANNEL OPENINGS FOR TUBES - 22" DIA.(TYP)

SCALE: 1/2"=1'-0"

No.	DATE	REVISIONS
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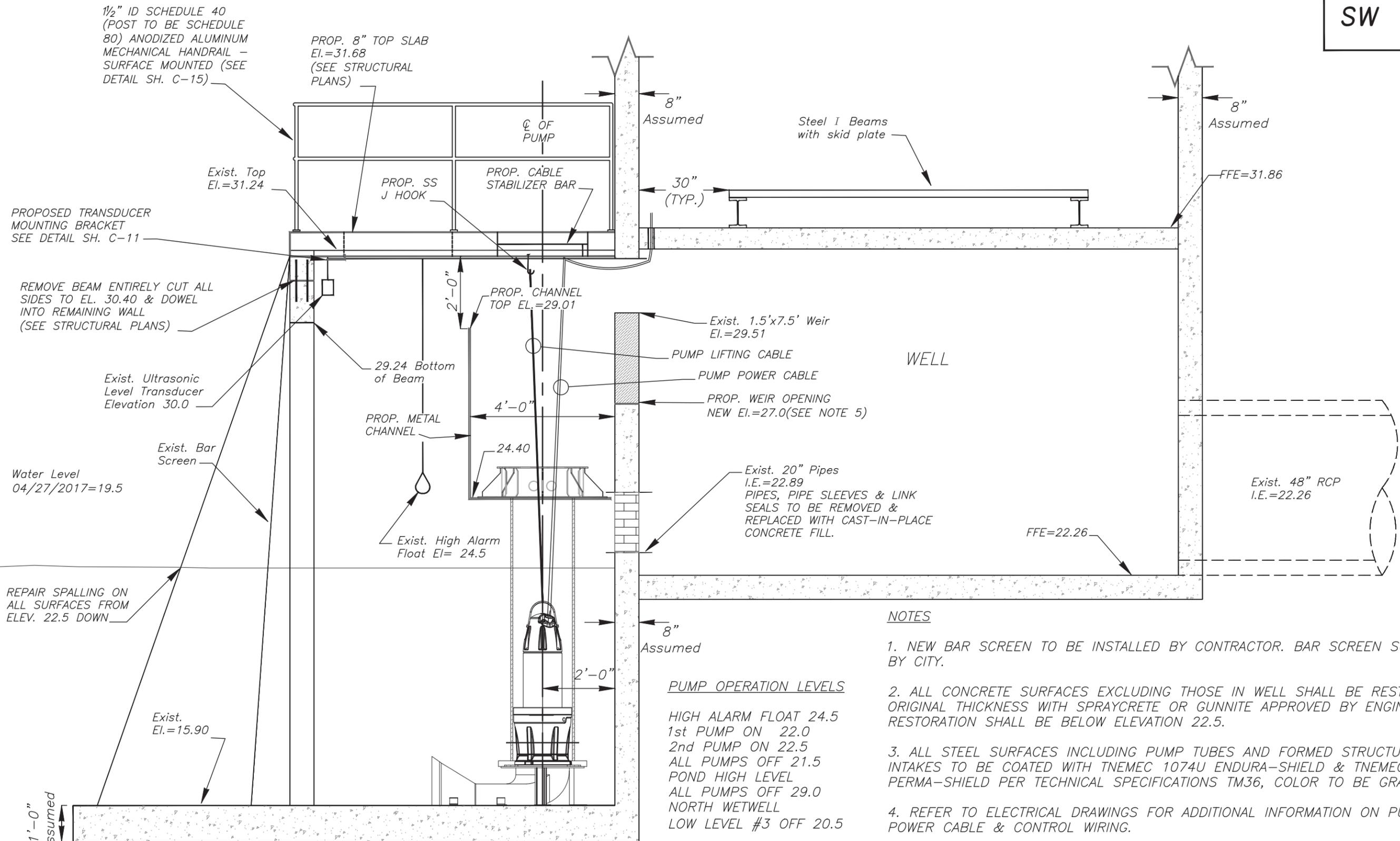
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 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 PLAN VIEW

SHEET
C-6
 OF 19

SW



PROPOSED TRANSDUCER MOUNTING BRACKET SEE DETAIL SH. C-11

REMOVE BEAM ENTIRELY CUT ALL SIDES TO EL. 30.40 & DOWEL INTO REMAINING WALL (SEE STRUCTURAL PLANS)

Water Level 04/27/2017=19.5

REPAIR SPALLING ON ALL SURFACES FROM ELEV. 22.5 DOWN

1'-0" Assumed

PROP. 8" TOP SLAB E.I.=31.68 (SEE STRUCTURAL PLANS)

Exist. Top E.I.=31.24

PROP. SS J HOOK

PROP. CABLE STABILIZER BAR

8" Assumed

Steel I Beams with skid plate

FFE=31.86

30" (TYP.)

8" Assumed

Exist. Ultrasonic Level Transducer Elevation 30.0

29.24 Bottom of Beam

PROP. CHANNEL TOP E.I.=29.01

Exist. 1.5'x7.5' Weir E.I.=29.51

PUMP LIFTING CABLE

PUMP POWER CABLE

PROP. WEIR OPENING NEW E.I.=27.0(SEE NOTE 5)

WELL

Exist. Bar Screen

PROP. METAL CHANNEL

24.40

Exist. 20" Pipes I.E.=22.89 PIPES, PIPE SLEEVES & LINK SEALS TO BE REMOVED & REPLACED WITH CAST-IN-PLACE CONCRETE FILL.

FFE=22.26

Exist. 48" RCP I.E.=22.26

Exist. High Alarm Float E.I.= 24.5

NOTES

1. NEW BAR SCREEN TO BE INSTALLED BY CONTRACTOR. BAR SCREEN SUPPLIED BY CITY.
2. ALL CONCRETE SURFACES EXCLUDING THOSE IN WELL SHALL BE RESTORED TO ORIGINAL THICKNESS WITH SPRAYCRETE OR GUNNITE APPROVED BY ENGINEER. RESTORATION SHALL BE BELOW ELEVATION 22.5.
3. ALL STEEL SURFACES INCLUDING PUMP TUBES AND FORMED STRUCTURAL INTAKES TO BE COATED WITH TNEMEC 1074U ENDURA-SHIELD & TNEMEC 446 PERMA-SHIELD PER TECHNICAL SPECIFICATIONS TM36, COLOR TO BE GRAY.
4. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON PUMP POWER CABLE & CONTROL WIRING.
5. EXISTING WEIR OPENINGS TO BE SAW CUT & LOWERED TO ELEVATION SHOWN. WEIR OPENING TO BE OVER CUT TO ALLOW PLACEMENT OF AT LEAST 2 INCHES OF SIKA QUICK VOH CEMENTITIOUS MORTAR OR EQUAL ON EXPOSED SURFACE.

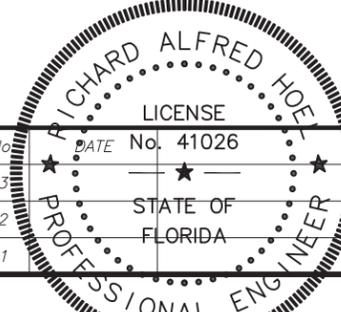
PUMP OPERATION LEVELS

HIGH ALARM FLOAT 24.5
 1st PUMP ON 22.0
 2nd PUMP ON 22.5
 ALL PUMPS OFF 21.5
 POND HIGH LEVEL
 ALL PUMPS OFF 29.0
 NORTH WETWELL
 LOW LEVEL #3 OFF 20.5

SECTION A-A

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

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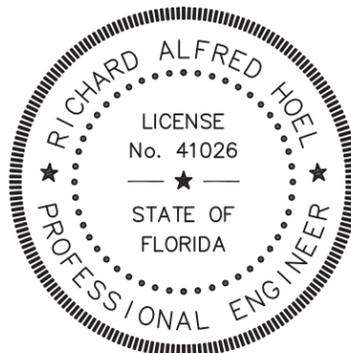
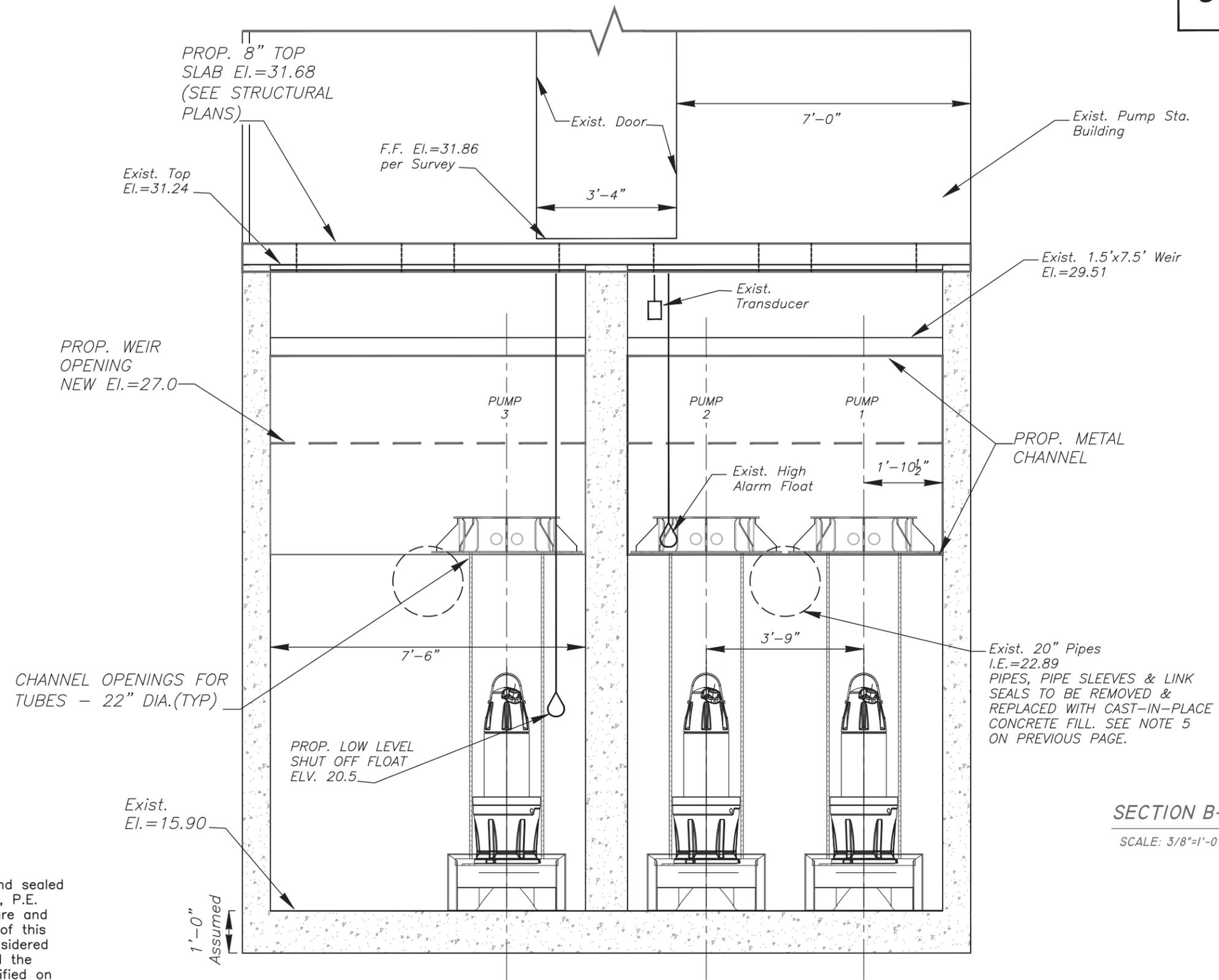
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POINSETTIA PUMP STATION REPLACEMENT
 SECTION VIEW

SHEET C-7 OF 19

SW



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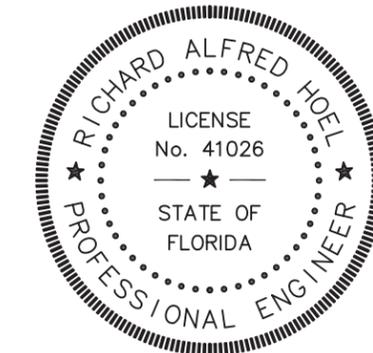
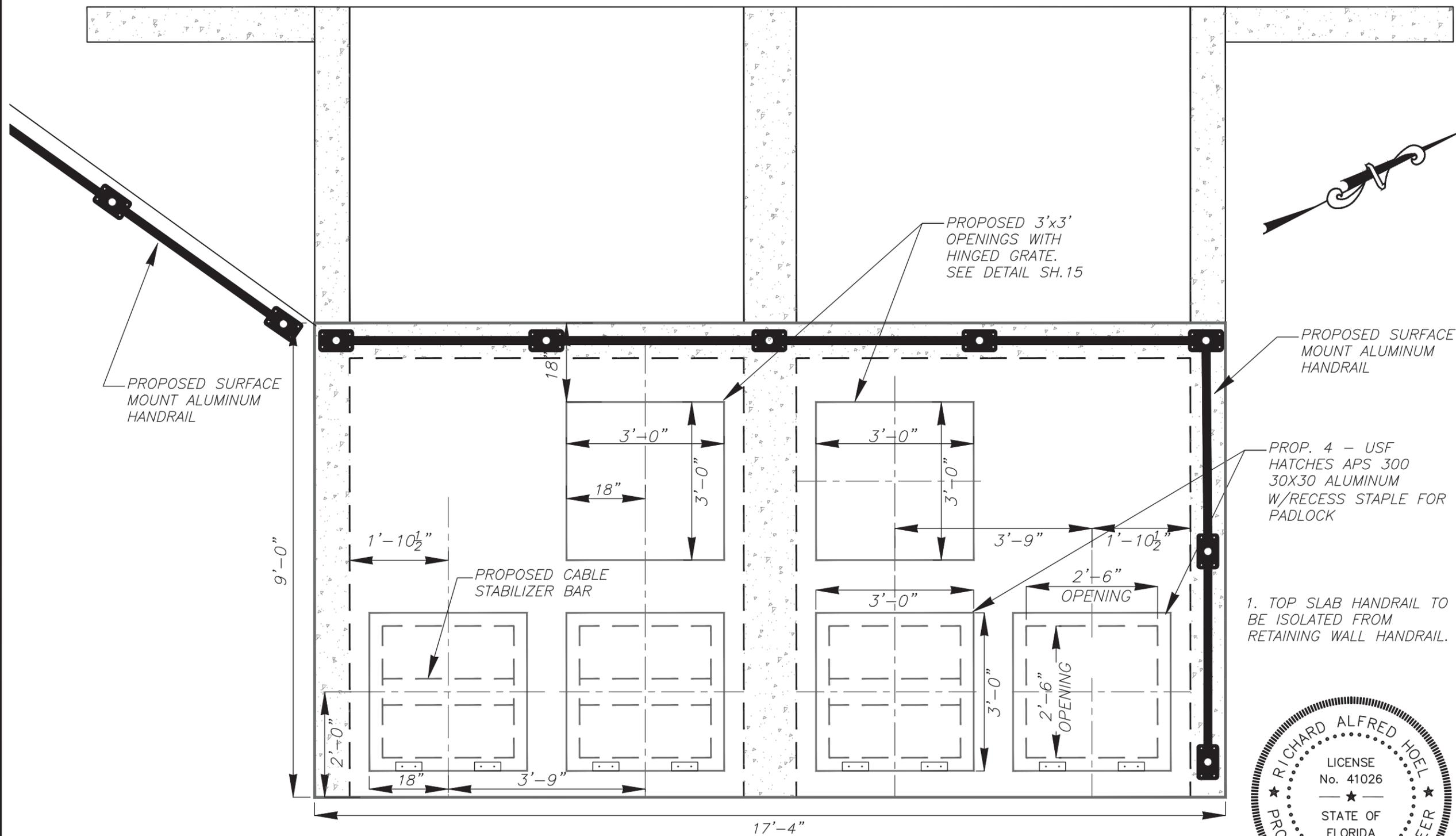
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POINSETTIA PUMP STATION REPLACEMENT
 FRONT VIEW

SHEET
C-8
 OF 19



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1. TOP SLAB HANDRAIL TO BE ISOLATED FROM RETAINING WALL HANDRAIL.

SCALE: 1/2"=1'-0"

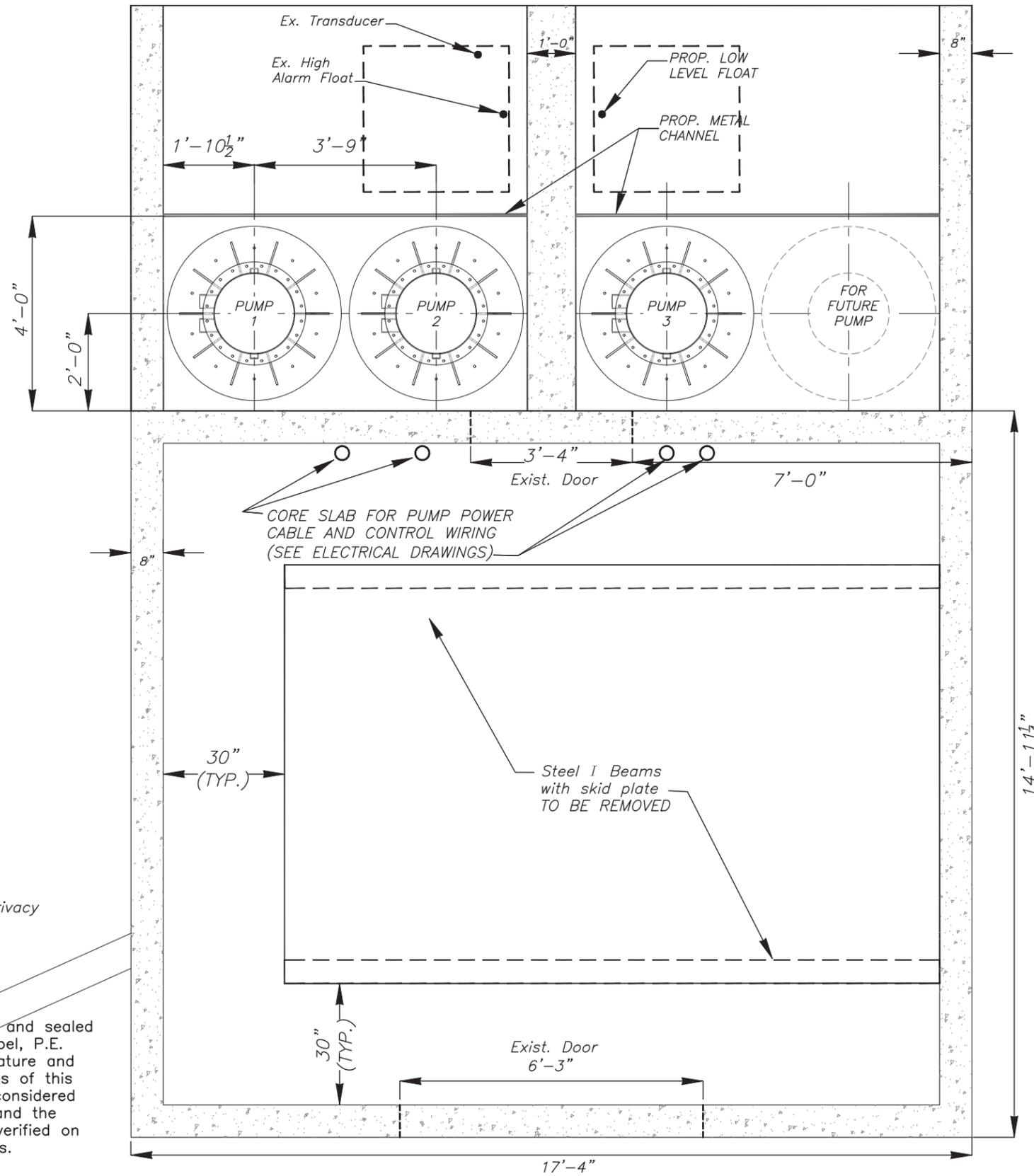
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 DATE:

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 Department of Transportation
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 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 TOP SLAB/HATCHES

SW

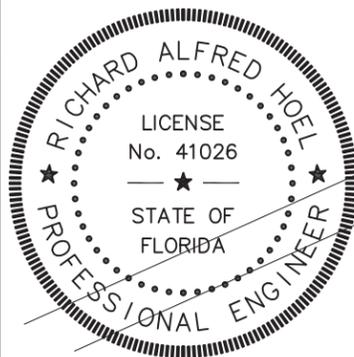


NOTES

1. EXTERIOR SURFACES OF THE PUMP HOUSE, PRIVACY WALL, AND WET WELL SHALL BE PRESSURED CLEANED AND PREPARED FOR PAINTING. EXTERIOR SURFACES SHALL RECEIVE ONE COAT OF PORTER ACRY-PRO 100, 100% ACRYLIC -1.2 MILS AND TWO COATS OF PORTER ACRY-SHIELD, 100% ACRYLIC -1.4 MILS EACH. COLORS SHALL BE PPG 1025-1 COMMERCIAL WHITE AND DOORS, LOUVERS, WALL CAP, AND FASCIA SHALL BE PPG 1130-6 MOSS RING.

2. CONTRACTOR TO REPLACE THE SCREEN AND LOUVERS ON THE EXISTING DOUBLE DOORS ON THE EAST SIDE. IF LOUVERS ARE UNAVAILABLE, ENTIRE DOORS SHALL BE REPLACED.

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



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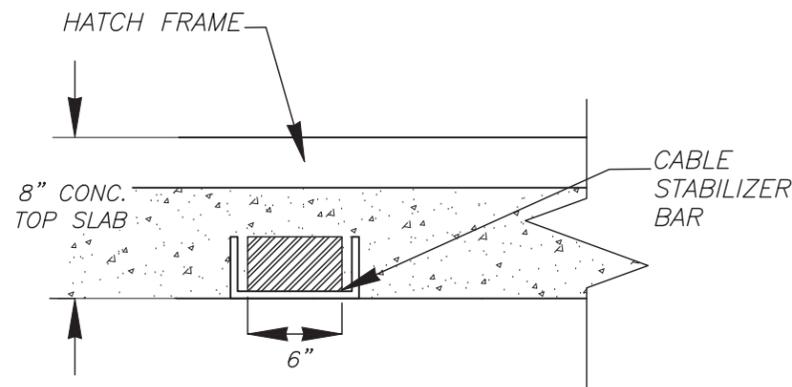
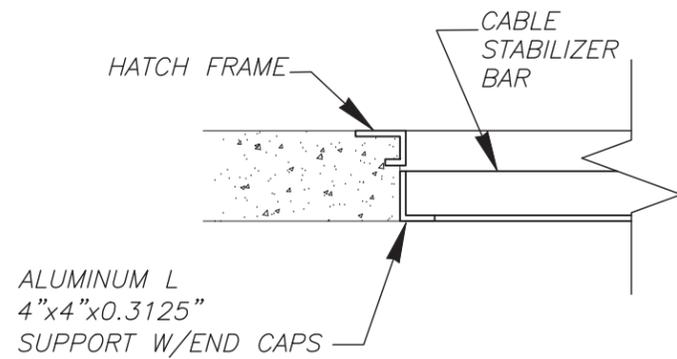
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 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 PUMP HOUSE

SHEET
C-10
 OF 19

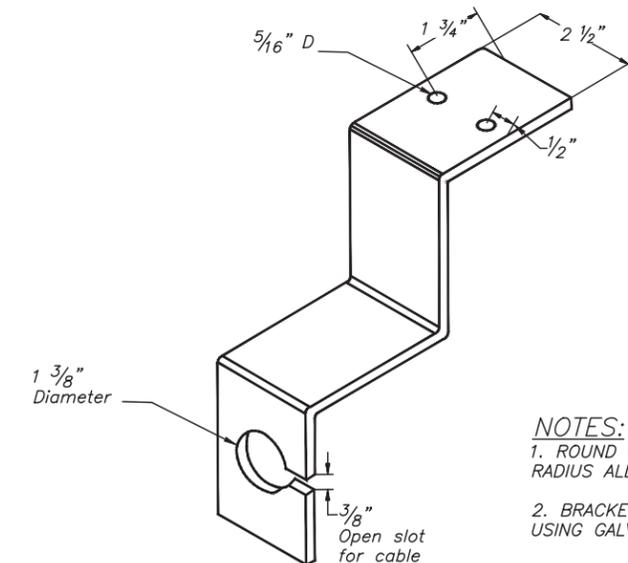
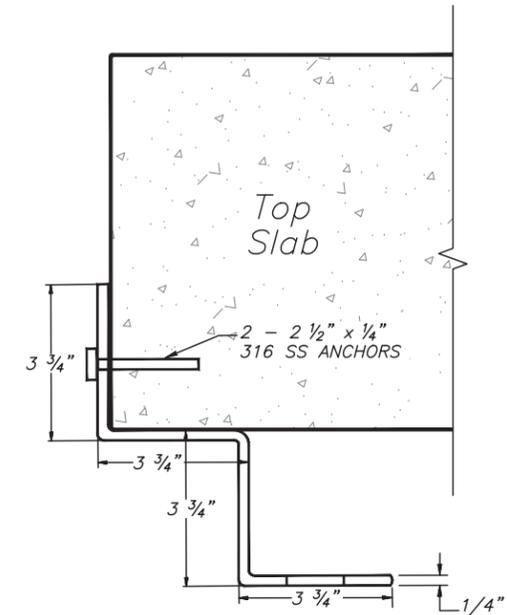
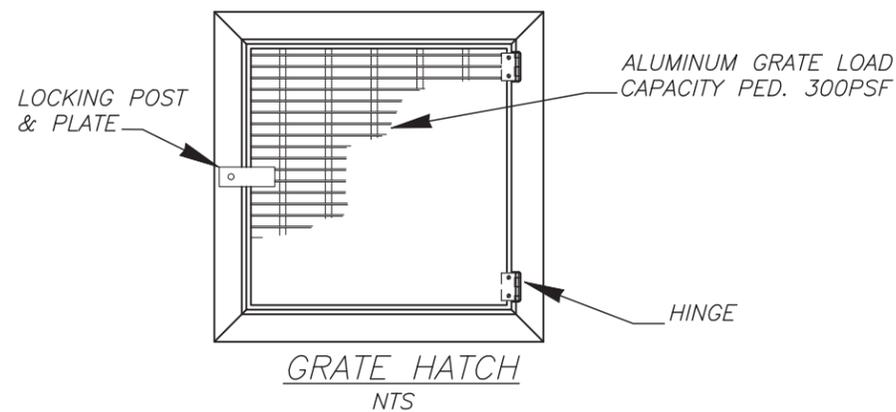
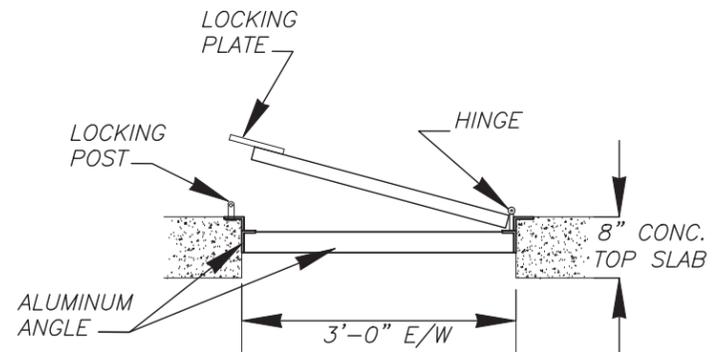
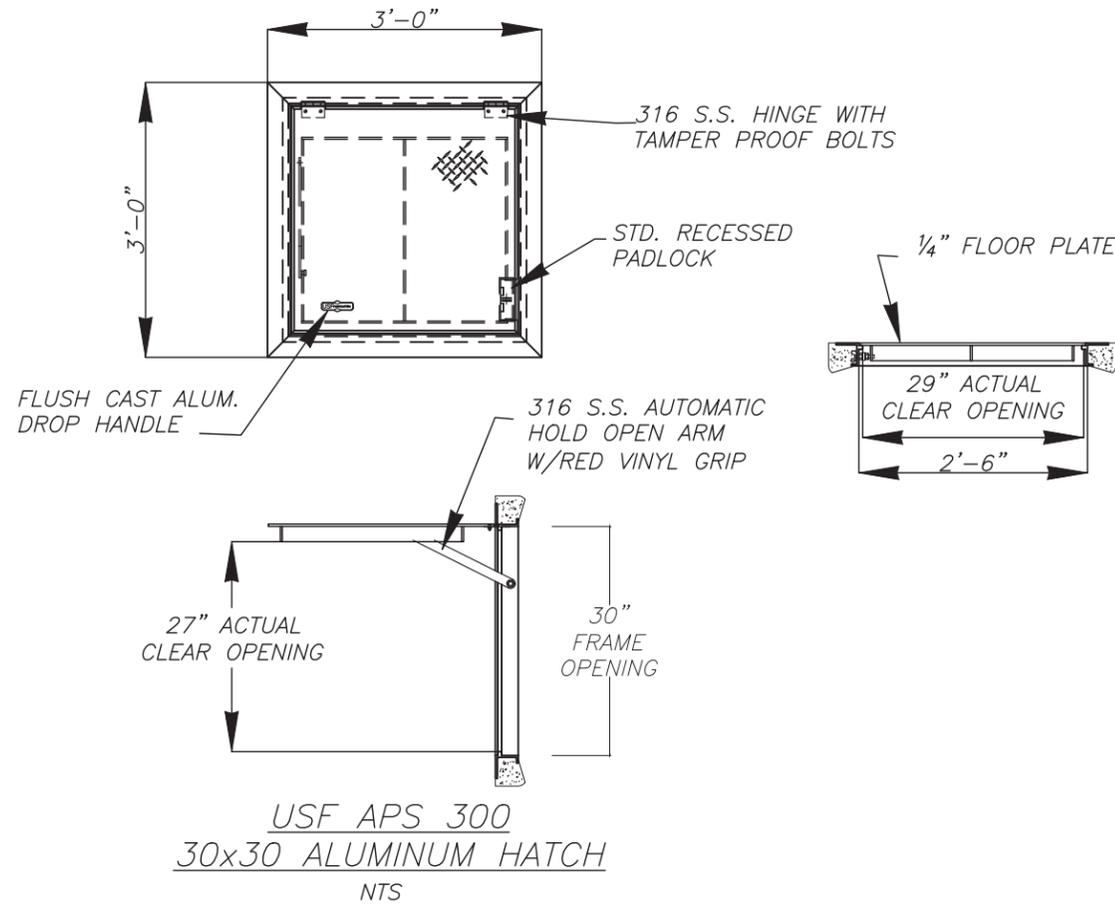
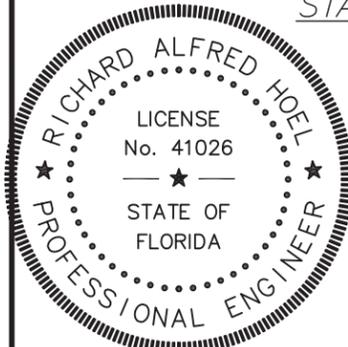


1. CONTRACTOR TO PROVIDE STABILIZER BAR SUPPORTS AT ALL FOUR OPENINGS.
2. SUPPORTS TO BE ANCHORED USING S.S. FASTENERS.

STABILIZER BAR

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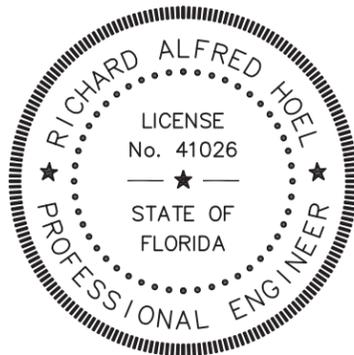
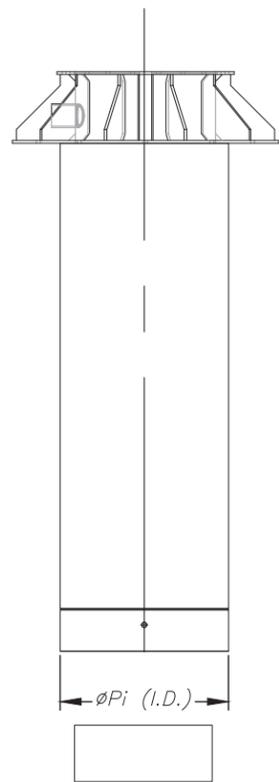
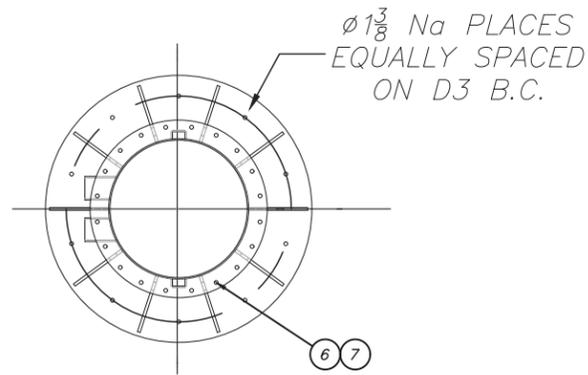
- NOTES:**
1. ROUND OVER ALL EDGES RADIUS ALL CORNERS
 2. BRACKET TO BE FABRICATED USING GALVANIZED STEEL

No.	DATE	REVISIONS
3		
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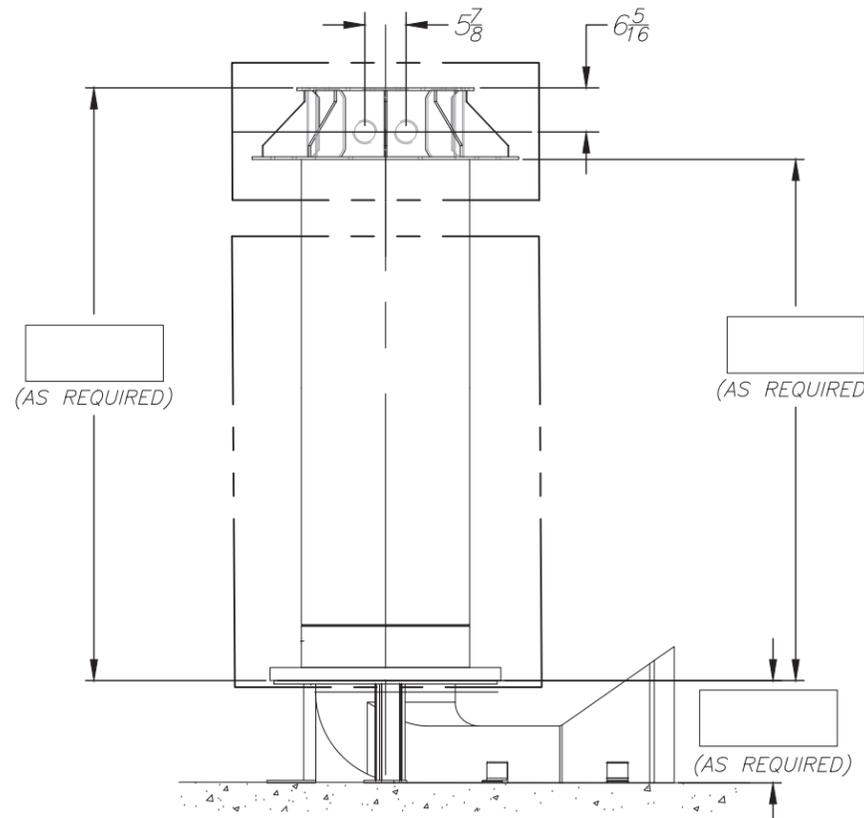
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POINSETTIA PUMP STATION REPLACEMENT
 GRATE/HATCH DETAILS



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CAD DRAWING (D)

NOTES:

1. TUBE LENGTH NOT TO EXCEED 30 FEET.
2. INSTALLATION HOLE DIAMETER NOT TO EXCEED TUBE DIAMETER +4".
3. BACKWALL BRACING REQUIRED EVERY 10 FEET FOR VERTICAL PIPES OVER 10 FEET IN LENGTH.
4. TUBE FOUNDATION AND ANCHORING COMPLIANCE TO LOCAL CODE BY OTHERS.
5. ALL MATERIAL A-36 STRUCTURAL STEEL OR EQUAL.
6. ALL WELDING AND FABRIATION AS PER AWS D1.1 CODE. ALL BUTT WELDS FULL PENETRATION. ALL WELDS WATERTIGHT.
7. BREAK ALL SHARP EDGES.
8. INSIDE AND OUTSIDE TO BE CLEANED TO SSPC10 AND PAINT ENTIRE ASSEMBLY WITH 2 COATS OF RUSTPREVENTIVE ENAMEL (RUST-OLEUM, DERUSTO, ETC.) OR PER CUSTOMER'S SPECIFICATION.
9. CONTACT FLYGT ENGINEERING FOR 60 PSI. VERSION.

ALL DIMENSIONS IN INCHES

NOM. SIZE AND TYPE	DIMENSIONAL CHART							
	D3	L	Na	Pi	Q	BOLT	NUT	
16" 15 PSI								
16" 30 PSI								
20" 15 PSI	32	10	6	19 1/4	4.3	5/8 x 2 1/4	5/8	
20" 30 PSI						5/8 x 2 1/2		
22" 15 PSI								
22" 30 PSI								
24" 15 PSI								
24" 30 PSI								

ITEM	DESCRIPTION	DWG. NO.	PART NUMBER	QTY
7	NUT - UNC (ASTM A307 GR. A)	SEE CHART		L
6	HEX BOLT - UNC (ASTM A563 GR. A)	SEE CHART		L
5	COVER - A36 STEEL	14-682610		0
4	GASKET - RUBBER, (SHORE A), DUROMETER 80	14-681836		0
3	CABLE ENTRY AND POCKETS - A36 STEEL		776 83 02	1
2	ELBOW SECTION - A36 STEEL	14-682849		0
1	TUBE - A36 STEEL	14-682847		1

UNLESS OTHERWISE NOTED:
 MACHINE TOLERANCE ON:
 WHOLE AND FRACTIONS ± 1/32
 1 PLACE DEC. ± 0.1
 2 PLACE DEC. ± 0.02
 3 PLACE DEC. ± 0.005
 ANGLES ± 0.15°
 FABRICATION TOLERANCE ON:
 UP TO 12" ± 1/32
 OVER 12" TO 48" ± 1/16
 OVER 48" TO 120" ± 1/8
 OVER 120" ± 3/16
 ANGLES ± 0.5°

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SCHEMATIC SLIMLINE LIFT TUBE COMPLETE TOP DISCHARGE

LIFT TUBE WITH ELBOW PROPOSAL DWG.
 PROJECT: _____
 PROPOSAL NO. _____
 DATE: _____ BY: _____ REV: _____

SHEET 1 OF 1

NO.	REVISION	BY	DATE	APVD.	DATE	PROJ. ENGR.	DATE	BY	DATE	APVD.	DATE	BY	DATE	APVD.	DATE	BY	DATE	APVD.	DATE	
0	INITIAL DRAWING CREATED BY REVISING 14-682858	MCG	06/22/17																	

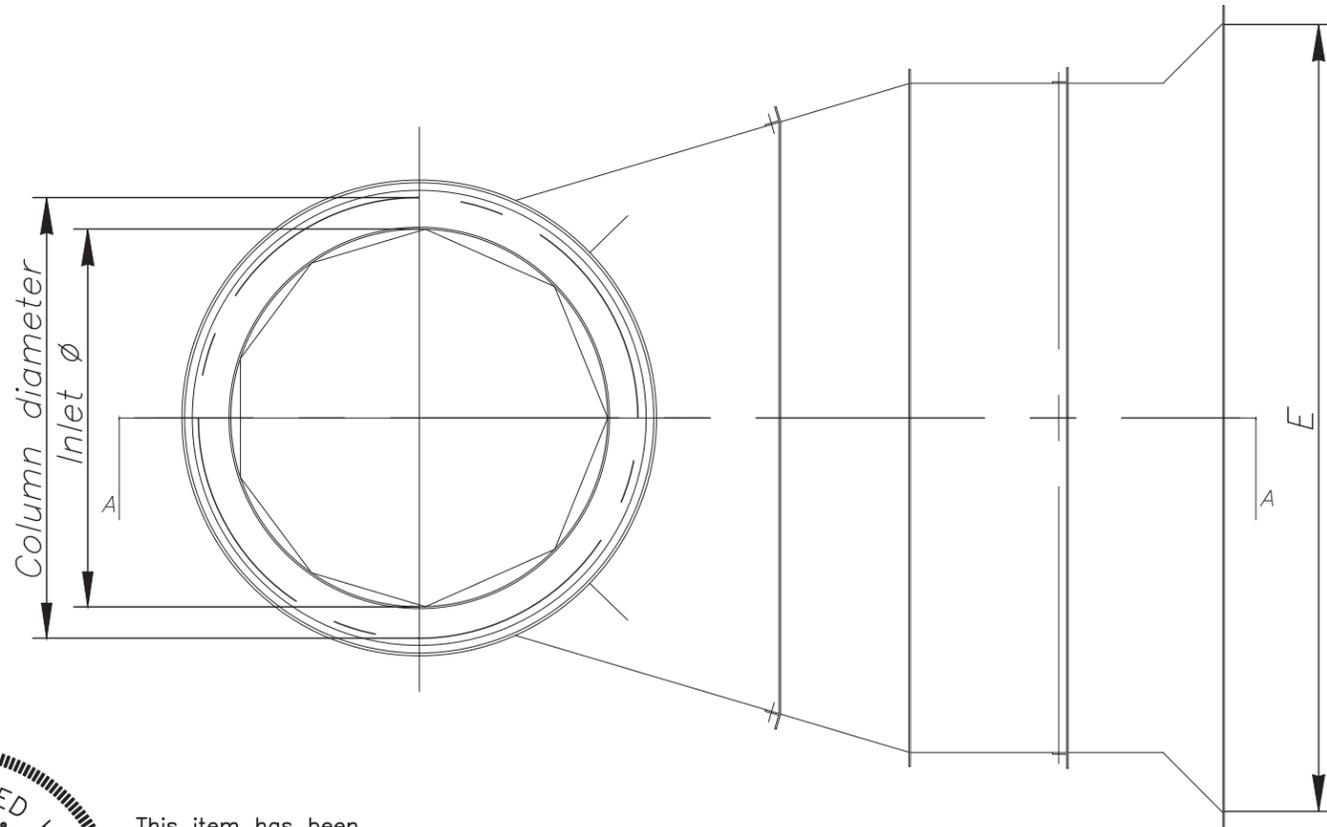
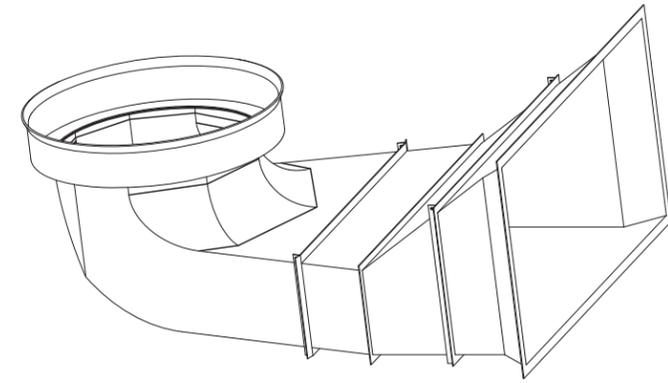
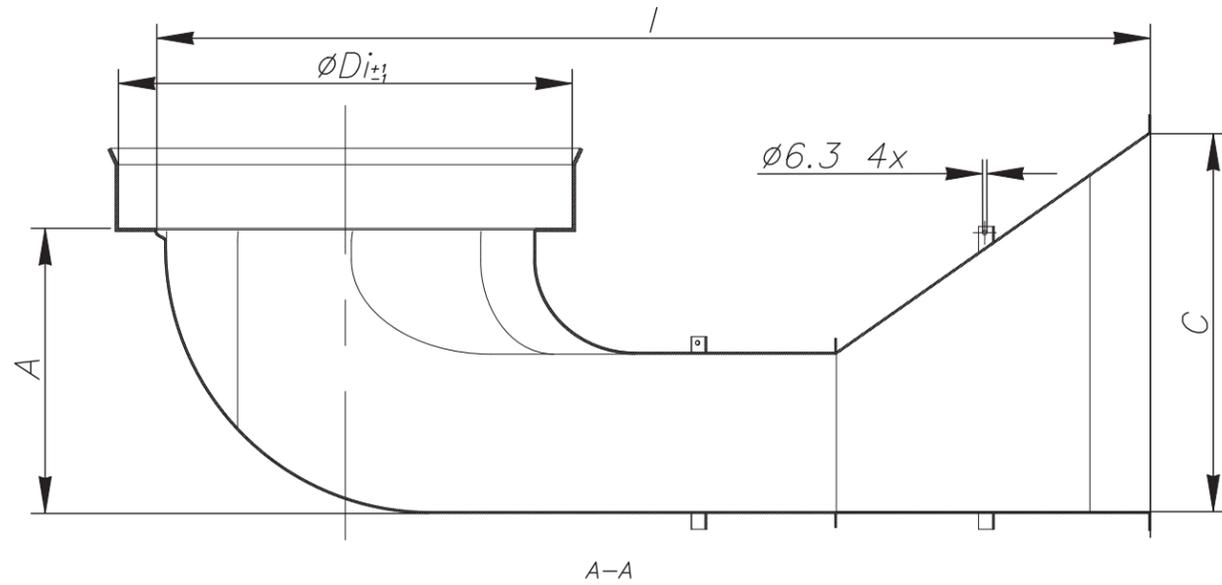
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 Department of Transportation
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 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
 LIFT TUBE DETAILS

SW



ALL DIMENSIONS IN INCHES

Variant	Pump	Column diameter	Inlet ϕ	A	C	Di	E	l	Weight
7722051	PL7121	56	47 1/4	35 1/2	47 1/4	57	98 1/2	124 1/2	2111
7722052	PL7101	48	39 1/4	29 1/2	39 1/4	49	82	103 3/4	1348
7722053	PL7076, PL7081	40	32 3/4	24 1/2	32 3/4	41 1/4	68	86 1/4	828
7722054	PL7055, PL7061	32	24 3/4	18 1/2	24 3/4	33 1/4	51 3/4	65 1/2	548
7722055	PL7045, PL7050	28	20 3/4	15 3/4	20 3/4	29 1/4	43 1/2	55	377
7722056	PL 7040	24	19 1/2	14 1/2	19 1/2	25 1/2	40 1/2	51 1/2	309
7722057	PL 7035	24	17 3/4	13 3/4	17 3/4	23 1/2	37 1/4	47	272
7722058	PL 7030	20	16 1/4	13	16 1/4	21 1/2	33 3/4	42 3/4	241
7722059	PL 7020	16	13	9 3/4	13	17 1/2	26 3/4	34	176
7722060	PL 7035	24	17 3/4	13 3/4	17 3/4	25 1/2	37 1/4	47	2019



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CAD DRAWING (D)

UNLESS OTHERWISE NOTED:
 MACHINE TOLERANCE ON:
 WHOLE AND FRACTIONS ± 1/32
 1 PLACE DEC. ± 0.1
 2 PLACE DEC. ± 0.02
 3 PLACE DEC. ± 0.005
 ANGLES ± 0.15°
 FABRICATION TOLERANCE ON:
 UP TO 12" ± 1/32
 OVER 12" TO 48" ± 1/16
 OVER 48" TO 120" ± 1/8
 OVER 120" ± 3/16
 ANGLES ± 0.5°

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DRAWN DATE 11/15/2017 BY MCG
 CHKR. DATE BY
 PROJ. ENGR. DATE BY
 REF. NUMBER
 SCALE PLOT TO FIT

FORMED SUCTION INTAKE
 TELESCOPIC OUTLET

MG-171115-1A

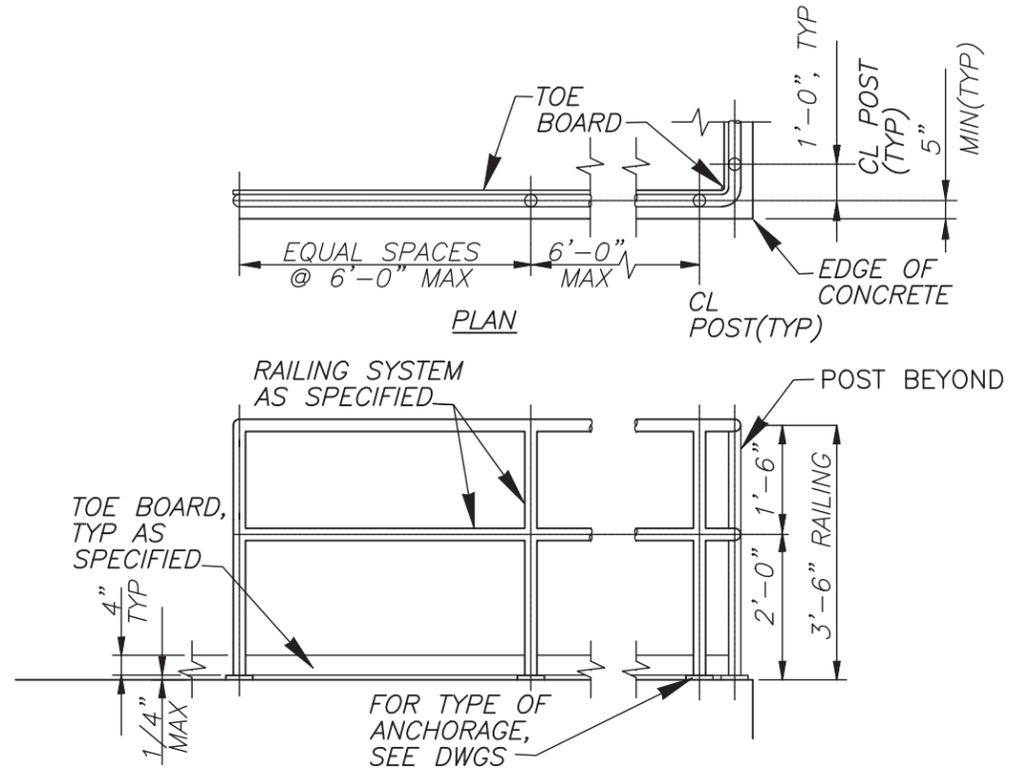
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POINSETTIA PUMP STATION REPLACEMENT
 LIFT TUBE DETAILS

SHEET
C-14
 OF 19



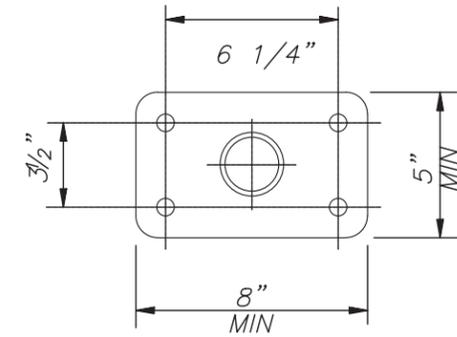
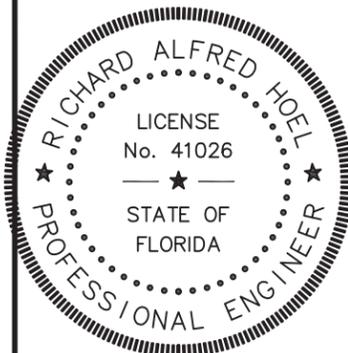
NOTES:

1. 1 1/2" ID SCHEDULE 40 (POSTS TO BE SCHEDULE 80) ANODIZED ALUMINUM MECHANICAL HANDRAIL SYSTEM, SEE SPECS OR MANUFACTURER'S REQUIREMENTS.
2. TOP OF ALL GUARDRAILS SHOULD BE 42" HIGH ABOVE THE FINISH FLOOR OR WALKWAY. THE INTERMEDIATE RAILS SHALL BE EQUALLY SPACED BETWEEN THE TOP RAIL AND THE TOEBOARD.
3. HANDRAIL AT GATE LOCATIONS SHALL NOT BE INTERRUPTED AND SHALL BE SPECIFICALLY ADDRESSED IN SHOP DRAWING SUBMITALS.

RAILING - 2 RAIL - ALUMINUM

NTS

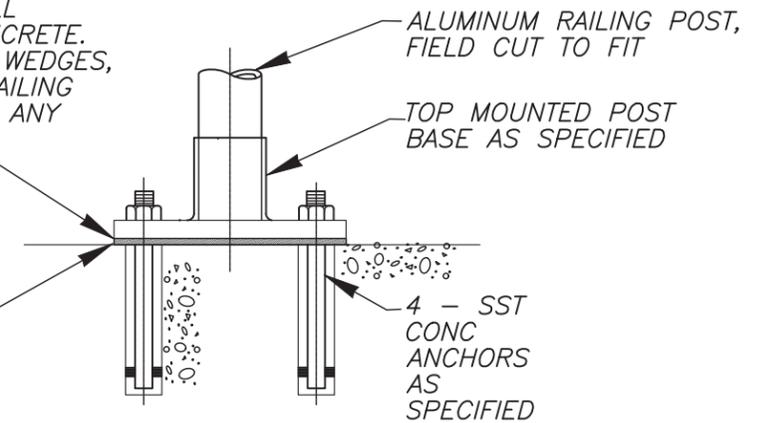
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PLAN

THE BASEPLATE SHALL SIT SOLIDLY ON CONCRETE. THE USE OF SHIMS, WEDGES, GROUT, ETC FOR RAILING POST ALIGNMENT OR ANY OTHER REASON WILL NOT BE PERMITTED

1/8" THICK RESILIENT OR NEOPRENE PAD



ELEVATION

TYPE "A"

NOTE:

PROVIDE PROTECTION FOR DISSIMILAR METALS AND CONCRETE PER SPECIFICATIONS.

RAILING POST ANCHORAGE TYPE A - ALUMINUM

NTS

No.	DATE	REVISIONS
3		
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DATE:

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Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT

HANDRAIL DETAILS

SHEET
C-15
OF 19

- CONDUIT RUN EXPOSED
- — — — CONDUIT RUN CONCEALED UNDERGROUND
- - - - - CONDUIT RUN CONCEALED IN FLOOR OR SLAB
- **G** — **G** — GROUNDING ELECTRODE CONDUCTOR

- ┌—— CONDUIT STUB OUT AND CAP
- ⊙ GROUND ROD
- JUNCTION BOX
- ⤵ JUNCTION BOX WITH FLEXIBLE CONNECTION

480V
15 KVA, 1*
120/240V

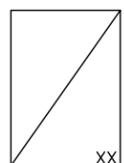


TRANSFORMER, 480V INDICATED PRIMARY VOLTAGE, 120/240V INDICATES SECONDARY VOLTAGE, 15 KVA REPRESENTS POWER RATING, AND 1* INDICATES SINGLE PHASE (THREE PHASE IF NOT INDICATED)

3P
30A



Thermal magnetic circuit breaker with number of poles and ampere rating



COMBINATION MAGNETIC STARTER WITH CONTROL POWER TRANSFORMER (SIZED FOR LOAD). LETTERS INDICATE TYPE :

- N - NON-REVERSING
- R - REVERSING
- 2S - TWO-SPEED
- C - CONTACTOR
- SS - SOLID STATE SOFT START

XXX	XXX DEVICE	DESCRIPTION
	HLS	HIGH LEVEL SWITCH
	HOA	HAND-OFF-AUTO
	LD	LEAK DETECTION
	LLS	LOW LEVEL SWITCH
	LOR	LOCAL-OFF-REMOTE
	PB	PUSH BUTTON
	RTU	REMOTE TERMINAL UNIT
	SS	SOFT STARTER
	SS/B	SOFT START OR BYPASS
	TS	TEMPERATURE SWITCH
	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	ZS	POSITION SENSOR (LIMIT SWITCH)

⤵ FUSE

⊙ XX MOTOR

⤵ THERMAL OVERLOAD

⊙ UTILITY METER

⊙ TRANSFER SWITCH

⊙ ELECTRIC PANELBOARD

⊙ DISCONNECT OR SAFETY SWITCH

⊙ FLOAT SWITCH. OPENS ON LOW LEVEL.

⊙ FLOAT SWITCH. OPENS ON HIGH LEVEL.

⊙ NORMALLY OPEN (N.O.) CONTACT

⊙ NORMALLY CLOSED (N.C.) CONTACT

⊙ GROUND CONNECTION

⊙ INDICATING PILOT LIGHT LETTER INDICATES COLOR OF LENS

⊙ DISCONNECT OR TOGGLE SWITCH

⊙ NORMALLY OPEN MOMENTARY CIRCUIT CLOSING PUSH-BUTTON SWITCH. SPRING OPEN. NUMBER OF ELECTRICAL CONTACTS ON SWITCH SHOWN ON CONTROL SCHEMATIC

⊙ NORMALLY CLOSED MOMENTARY CIRCUIT OPENING PUSH-BUTTON SWITCH. SPRING CLOSE. NUMBER OF ELECTRICAL CONTACTS ON SWITCH SHOWN ON CONTROL SCHEMATIC

⊙ LIMIT SWITCH NORMALLY CLOSED CONTACT. CONTACT OPENS WHEN ACTUATED

⊙ TORQUE SWITCH NORMALLY CLOSED CONTACT. CONTACT OPENS WHEN ACTUATED

⊙ PUMP THERMAL SENSOR

⊙ EXISTING EXTERIOR LIGHT FIXTURE (TO REMAIN)

⊙ EXISTING EXTERIOR LIGHT FIXTURE (TO REMAIN)

A 4' FLUORESCENT LIGHT FIXTURE. LETTER DESIGNATES FIXTURE TYPE. REFER TO FIXTURE SCHEDULE.

EM EMERGENCY LIGHTING FIXTURE. REFER TO FIXTURE SCHEDULE.

X EXIT LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE.

⊙ DUPLEX RECEPTACLE: 20A, 125VAC

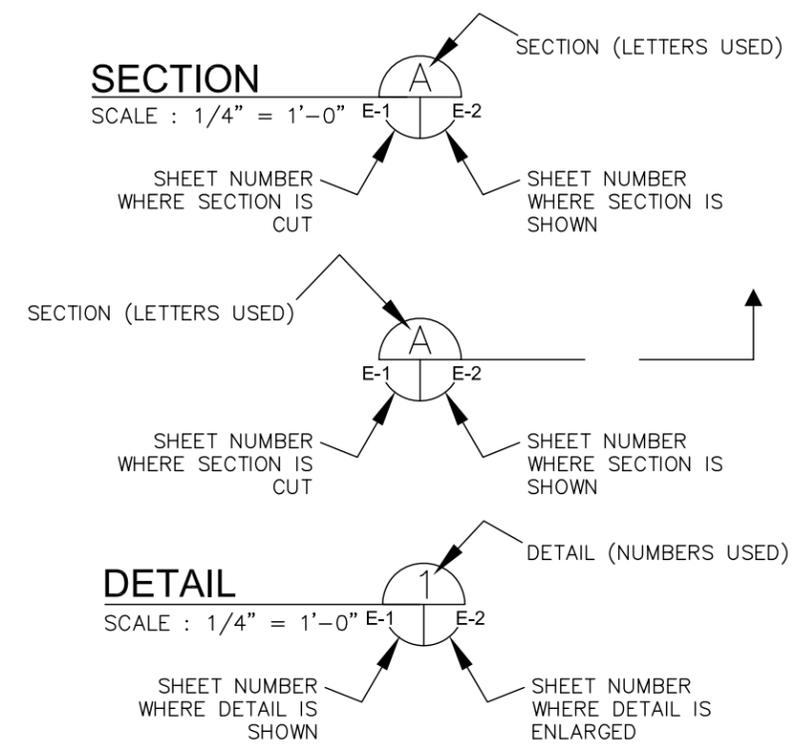
⊙ SWITCH: SINGLE-POLE OR AS NOTED, 20A, 120/277VAC

LIGHTING AND RECEPTACLE WIRING INDICATED AS FOLLOWS:

- TWO WIRES:
- //— THREE WIRES:
- Z//— FOUR WIRES, ETC.
- NEUTRAL WIRE
- ISOLATED GR. WIRE

PROVIDE 2#12 THWN CU. IN 3/4" C. UNLESS OTHERWISE NOTED AND EQUIPMENT GROUND WIRE (NOT INDICATED) IN ALL POWER AND LIGHTING RACEWAYS.

EXAMPLE OF SECTION CUT AND DETAIL



ABBREVIATIONS:

A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATL	ACROSS-THE-LINE
C	CONDUIT
CU	COPPER
EX	EXISTING
ELEC	ELECTRICAL
EXP	EXPLOSION PROOF
FU	FUSE
GFI	GROUND FAULT INTERRUPTER
GND	GROUNDING CONDUCTOR
HP	HORSEPOWER
HZ	HERTZ
IG	ISOLATED GROUND
KVA	KILOVOLT AMPERES
KW	KILOWATTS
MAX	MAXIMUM
MIN	MINIMUM
N/A	NOT APPLICABLE
PH	PHASE
RECP	RECEPTACLE
RPM	REVOLUTIONS PER MINUTE
RTU	REMOTE TERMINAL UNIT
SPD	SURGE PROTECTION DEVICE
TYP	TYPICAL
V	VOLTS
WP	WEATHERPROOF



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and Stormwater Services
Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL LEGEND AND ABBREVIATIONS

GENERAL NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR TO COMMENCING CONSTRUCTION.
2. ALL CONDUCTORS SHALL BE STRANDED COPPER, #12 AWG MIN. W/XHHW-2 INSULATION, UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE IDENTIFIED W/NUMBERS AT ALL TERMINALS AND ON WIRING DIAGRAMS.
4. VERIFY ALL MECHANICAL EQUIPMENT SIZES AND RATING PRIOR TO CONNECTING.
5. FIELD VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO COMMENCING CONSTRUCTION.
6. PLANS ARE DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2017, 6TH EDITION AND THE NATIONAL ELECTRICAL CODE 2014. CONTRACTOR(S) SHALL ENSURE THAT ALL ELECTRICAL WORK PERFORMED SHALL ADHERE TO THE SAME ACCORDANCE AND ALL APPLICABLE LOCAL ORDINANCES.
7. ALL THREADED CONNECTIONS SHALL BE COATED W/ ALUMA- SHIELD ANTI-SEIZE COMPOUND MANUFACTURED BY THOMAS & BETTS (T & B) OR EQUAL.
8. ALL PANELS, DISCONNECTS, SWITCHES, AND EQUIPMENT COVERPLATES SHALL BE LABELED W/ NAMEPLATES. NAMEPLATES SHALL BE THREE-PLY PHENOLIC BLACK-WHITE-BLACK ENGRAVED THROUGH THE FIRST BLACK LAYER. LETTERING SHALL BE 0.5 CM (3/16") MIN. EDGE OF NAMEPLATE SHALL BE BEVELED 45 DEG.
9. ALL CONDUIT SHALL BE SUPPORTED AT MAXIMUM 5'-0" INTERVALS.
10. ALL CIRCUITS SHALL HAVE A PROPERLY SIZED GROUNDING CONDUCTOR ROUTED INSIDE EACH CONDUIT W/ POWER CONDUCTORS.
11. ALL CONDUCTOR LENGTHS SHALL BE CONTINUOUS, NO SPLICES OR CONDUCTOR TERMINATIONS SHALL BE PERMITTED UNLESS SPECIFICALLY DESIGNATED IN THE DRAWINGS.
12. NEATLY COIL ALL SPARE CONDUCTORS & TAPE W/ VINYL ELECTRICAL TAPE (SCOTCH 33+).
13. PROVIDE A MINIMUM OF 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT IN ACCORDANCE W/ ARTICLE 110 OF THE NEC.
14. ALL FASTENING HARDWARE (SCREW, BOLTS, NUTS, ETC.) SHALL BE 316-STAINLESS STEEL. FASTENING HARDWARE CONSTRUCTED OF FERROUS MATERIAL ARE NOT ACCEPTABLE.
15. EXPOSED CONDUITS SHALL BE NON-COATED RIGID ALUMINUM CONDUIT, UNLESS OTHERWISE NOTED (UON). INSTALL PVC COATED RIGID ALUMINUM CONDUIT TO THE WET WELL.
16. DIRECT BURIED CONDUIT SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED, WITH A TRANSITION TO RIGID ALUMINUM IN THE VERTICAL RUN AT LEAST ONE FOOT PRIOR TO EMERGENCE. ALL ALUMINUM SURFACES IN CONTACT WITH SOIL, CONCRETE, AND OTHER INCOMPATIBLE MATERIALS SHALL BE COATED WITH TWO COATS OF BITUMASTIC OR OTHER APPROVED INSULATING MATERIAL.
17. ALUMINUM WATERTIGHT HUBS (MYERS HUBS) SHALL BE USED FOR CONNECTIONS TO PUMP CONTROL PANEL, MOTOR CONTROL PANEL, HIGH VOLTAGE JUNCTION BOXES, ETC.
18. A 316-STAINLESS STEEL CHANNEL ERECTOR SYSTEM SHALL BE USED TO SUPPORT ALL CONDUITS, BOXES, ETC. USE 316-STAINLESS STEEL MOUNTING HARDWARE.
19. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO EXECUTE THE PROPOSED INSTALLATIONS.
21. ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR THE CONTRACTOR'S REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION.
22. PULL BOXES SHALL BE INSTALLED AS NECESSARY TO FACILITATE WIRE PULLS AND AVOID EXCESSIVE PULLING TENSION ON WIRING. IN NO CASE SHALL CONDUIT LENGTHS EXCEED 150' OR THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) WITHOUT A PULL BOX. PULL BOXES SHALL BE SIZED IN ACCORDANCE WITH ARTICLE 314 OF THE NEC.
23. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED AND AS SPECIFIED, OR AS APPROVED BY THE ENGINEER. THE PANEL BUILDER SHALL BE UL-508A CERTIFIED AND A UL LABEL SHALL BE ATTACHED TO THE INSIDE OF THE ENCLOSURE.
24. THE ENCLOSURES SHALL BE NEMA 4X, THEY SHALL BE CONSTRUCTED OF MINIMUM 14 GAUGE 304 SS, AND THE CLOSING SURFACES SHALL HAVE ROLLED LIPS, PROVIDE HINGED DOORS WITH 3-POINT LATCH AND LOCKABLE HANDLES. REFERENCE PARTS SCHEDULE ON SHEET E-16.
25. ALL COMPONENTS TO BE MOUNTED ON PANEL USING TAPPED HOLES.
26. ALL WIRING SHALL BE COPPER, ALL CONTROL WIRING SHALL BE STRANDED XHHW-2 COPPER, MINIMUM AWG # 14, AND SHALL HAVE SPADE LUG TERMINATIONS.
27. DIMENSIONS, ITEMS, OR ELEVATIONS MARKED "" TO BE DETERMINED AFTER EQUIPMENT SELECTION.
28. ALL MECHANICAL CONNECTORS SHALL BE TORQUED PER NEC, UL OR MANUFACTURERS SPECIFICATIONS.
29. INSTALL LAMINATED SCHEMATIC, LAMINATED DATA SHEET AND LAMINATED SOFT STARTER SETUP PARAMETERS ON BACK FACE OF THE DOOR INSIDE THE ENCLOSURE.
30. ENSURE THAT LINE CONNECTIONS TO DOUBLE-POLE TRANSFER SWITCH (FDTS) PROVIDES CORRECT MOTOR ROTATION.
31. CONDUCTORS WITHIN THE ENCLOSURE AND NOT ROUTED IN WIREWAYS, SHALL BE SECURED TO THE BACKPANEL WITH MECHANICAL FASTENERS, FASTENERS SECURED WITH ADHESIVE ARE NOT ACCEPTABLE.
32. ALL HINGED SURFACES SHALL BE GROUNDED WITH A BONDING JUMPER SECURED TO THE ENCLOSURE OR BACKPANEL.
33. THE EXISTING PULSAR BLACKBOX 130, WET WELL LEVEL DETECTION SYSTEM AND ALL ASSOCIATED EQUIPMENT (BATTERY, ETC.) SHALL BE REMOVED FROM THE EXISTING DIESEL/ELECTRICAL CONTROL PANEL AND INSTALLED IN THE NEW PUMP CONTROL PANEL (PCP).
34. THE EXISTING MOTOROLA ACE3600 RTU AND ALL ASSOCIATED EQUIPMENT SHALL BE REMOVED FROM THE EXISTING RTU ENCLOSURE AND INSTALLED IN THE NEW PUMP CONTROL PANEL (PCP).
35. PROVIDE 1/4" MINIMUM THICKNESS LEXAN SHIELDS OVER POWER DISTRIBUTION BLOCK AND OTHER EXPOSED CABLE TERMINATIONS.
36. XHHW-2 CONDUCTORS (3-#8 AWG + 1-#10 AWG GND. CU FOR EACH MOTOR) SHALL EXTEND FROM THE CONTROL PANEL TO ASSOCIATED HIGH VOLTAGE JUNCTION BOX.
37. ALUMINUM CONDUIT SURFACE THAT IS IN CONTACT WITH SOIL OR CONCRETE SHALL BE COATED WITH TWO COATS ASPHALT VARNISH (FED. SPEC. TT-V-51) EXTENDING 4" BEYOND FINAL CONTACT POINT.

SCOPE OF WORK:

1. THE SERVICE VOLTAGE TO THIS FACILITY SHALL REMAIN 277/480 VAC. 3-PHASE, 4-WIRE, WYE.
2. REMOVE ALL EQUIPMENT AS INDICATED AND ALL ASSOCIATED CONDUIT AND CONDUCTORS, AS SHOWN ON PLANS.
3. ANY SALVAGEABLE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE DELIVERED, BY THE CONTRACTOR, TO THE CIT YOF TAMPA. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL OTHER REMOVED EQUIPMENT.
4. PREPARE THE SITE FOR THE INSTALLATION OF THE PROPOSED PUMP CONTROLS/ MOTOR CONTROLS ENCLOSURES.
5. PROVIDE AND INSTALL A NEW PUMP CONTROL PANEL. THE PUMP CONTROL PANEL SHALL CONTAIN CONTROL COMPONENTS, INDICATOR LIGHTS AND ANCILLARY EQUIPMENT AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS.
6. PROVIDE AND INSTALL A NEW MOTOR CONTROL PANEL. THE MOTOR CONTROL PANEL SHALL CONTAIN CIRCUIT BREAKERS, REDUCED VOLTAGE SOFT STARTERS AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS.
7. REUSE EXISTING MOTORLA ACE3600 RTU COMPONENTS AND SCADA ANTENNA/ MAST AS INDICATED.
8. CALIBRATE AND ADJUST SETPOINTS AND ALL SENSING DEVICES, ALARM DEVICES, AND TIMERS. CALIBRATIONS AND SETPOINTS SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. PROVIDE FOR PROPER GROUNDING AS SHOWN, SPECIFIED, AND REQUIRED.
10. PROVIDE AND INSTALL ALL NECESSARY CONDUITS AND CONDUCTORS AS SHOWN, SPECIFIED, AND REQUIRED.
11. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE ADOPTED BY THE STATE OF FLORIDA AND CHAPTER 5 OF THE CITY OF TAMPA CODE.
12. REFER TO CIVIL/MECHANICAL SHEETS FOR BYPASS PUMPING REQUIREMENTS. IF ELECTRICALLY DRIVEN BYPASS PUMPS ARE UTILIZED, THE CONTRACTOR SHALL COORDINATE ALL TEMPORARY ELECTRICAL SERVICE REQUIREMENTS WITH TAMPA ELECTRIC COMPANY (TECO).



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POINSETTIA PUMP STATION REPLACEMENT
GENERAL NOTES & SCOPE OF ELECTRICAL WORK

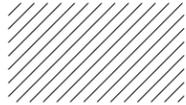
SHEET
E-2
 OF

GENERAL NOTES:

1. EXISTING LIGHTING FIXTURE LOCATIONS, EXISTING SWITCH LOCATIONS AND EXISTING RECEPTACLE LOCATIONS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FIXTURE LOCATION/QUANTITIES, SWITCH LOCATIONS/QUANTITIES AND RECEPTACLE LOCATIONS/QUANTITIES.

DEMOLITION NOTES:

1. HATCHING AS INDICATED BY:



IDENTIFIES ITEMS OR MATERIALS TO BE REMOVED BY THE CONTRACTOR. COORDINATE ANY ITEMS TO BE SALVAGED WITH THE CITY OF TAMPA.

2. REFER TO CIVIL SHEETS FOR OTHER DEMOLITION REQUIREMENTS.

KEYED NOTES:

1 EXISTING PUMP STATION BUILDING. REFER TO CIVIL PLANS FOR PROPOSED STRUCTURAL CHANGES. REFER TO SHEETS E-4 AND E-5 FOR NEW ELECTRICAL WORK REQUIRED.

2 EXISTING ELECTRICAL SERVICE METER TO REMAIN.

3 EXISTING 480V, 3-POLE, 225 AMPERE ENCLOSED CIRCUIT BREAKER (SERVICE ENTRANCE DISCONNECT) AND EXISTING JUNCTION BOX ABOVE TO BE REMOVED. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTORS BACK TO LOAD SIDE OF METER.

4 EXISTING 480V, 2-POLE, 15 AMPERE ENCLOSED CIRCUIT BREAKER (TRANSFORMER DISCONNECT), 480-120/240V, 5 KVA TRANSFORMER, BATTERY CHARGER, WIREWAY (BELOW EQUIPMENT) AND ALL ASSOCIATED CONDUIT AND CONDUCTORS TO BE REMOVED. PROVIDE KNOCK-OUT PLUG ON DISCONNECT CREATED BY CONDUIT REMOVAL.

5 EXISTING MOSCAD SCADA RTU TO BE REMOVED. THE CONTRACTOR SHALL REUSE THE EXISTING MOTOROLA ACE3600 RTU, ASSOCIATED RADIO AND THE TWO (2) WILKERSON INSTRUMENT CO. SIB-V245 AUXILIARY I/O BOARDS. THIS EQUIPMENT SHALL BE RELOCATED TO THE NEW PUMP CONTROL PANEL (REFER TO SHEET E-7 FOR DETAILS). ALL OTHER EQUIPMENT DEEMED UNNECESSARY FOR THE PROPER OPERATION OF THE NEW PUMP CONTROL PANEL SHALL BE DELIVERED TO THE CITY OF TAMPA FOR MAINTENANCE INVENTORY. ALL ASSOCIATED CONDUIT AND CONDUCTORS ASSOCIATED WITH THE RTU SHALL BE REMOVED WITH THE EXCEPTION THAT THE EXISTING CONDUIT UTILIZED FOR THE RADIO ANTENNA WILL BE EXTENDED TO THE NEW PUMP CONTROL PANEL. THE CONTRACTOR SHALL PROVIDE A NEW COAXIAL CABLE (TO MATCH THE EXISTING) AND INSTALL THE NEW COAXIAL CABLE FROM THE EXISTING ANTENNA TO THE NEW PUMP CONTROL PANEL.

6 EXISTING FAN TO REMAIN. REFER ALSO TO KEYED NOTE #17 ON THIS SHEET.

7 EXISTING ANTENNA FOR MOSCAD SCADA RTU TO REMAIN. CONTRACTOR TO PROVIDE NEW COAXIAL CABLE. REFER ALSO TO KEYED NOTE #5 ON THIS SHEET.

8 EXISTING RECEPTACLE TO REMAIN. CONTRACTOR TO REMOVE POWER CONDUCTORS AND CONDUIT. NEW POWER CONDUCTORS TO BE PROVIDED. REFER TO SHEET E-4.

9 EXISTING LIGHTING FIXTURE TO BE REMOVED ALONG WITH ALL ASSOCIATED CONDUIT AND CONDUCTORS.

10 EXISTING SINGLE-POLE LIGHT SWITCH TO REMAIN. CONTRACTOR TO REMOVE POWER CONDUCTORS AND CONDUIT. NEW POWER CONDUCTORS TO BE PROVIDED. REFER TO SHEET E-5.

11 EXISTING LIGHTING FIXTURE TO REMAIN. CONTRACTOR TO REMOVE POWER CONDUCTORS AND CONDUIT FROM EXISTING SWITCH TO EXISTING PANEL AND REPLACE WITH NEW AFTER NEW MINI POWER-ZONE INSTALLATION. REFER TO SHEET E-5.

12 EXISTING CONTROL PANELS TO BE REMOVED ALONG WITH ALL ASSOCIATED CONDUITS AND CONDUCTORS.

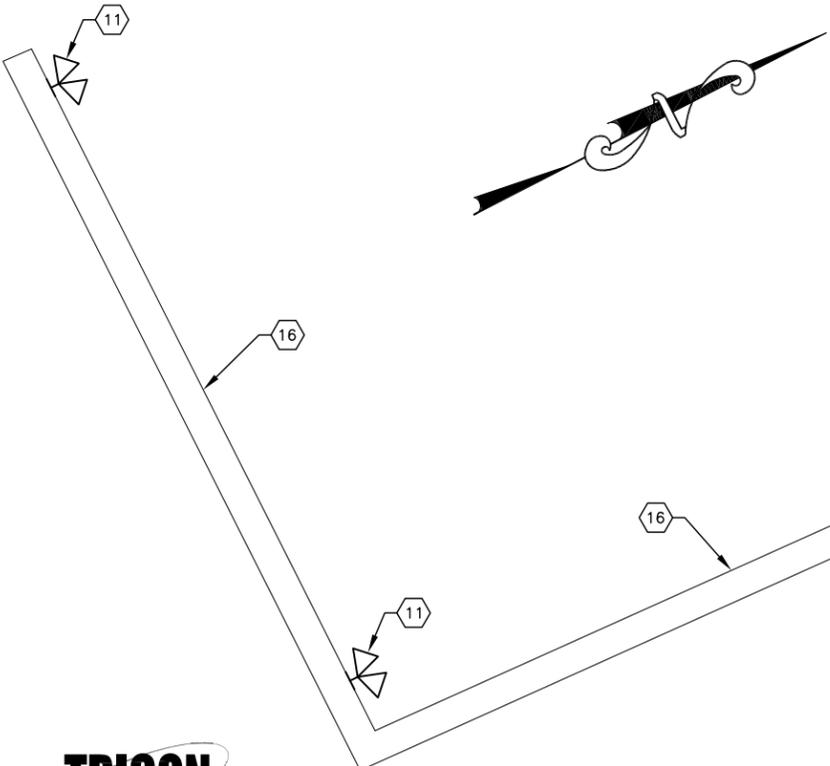
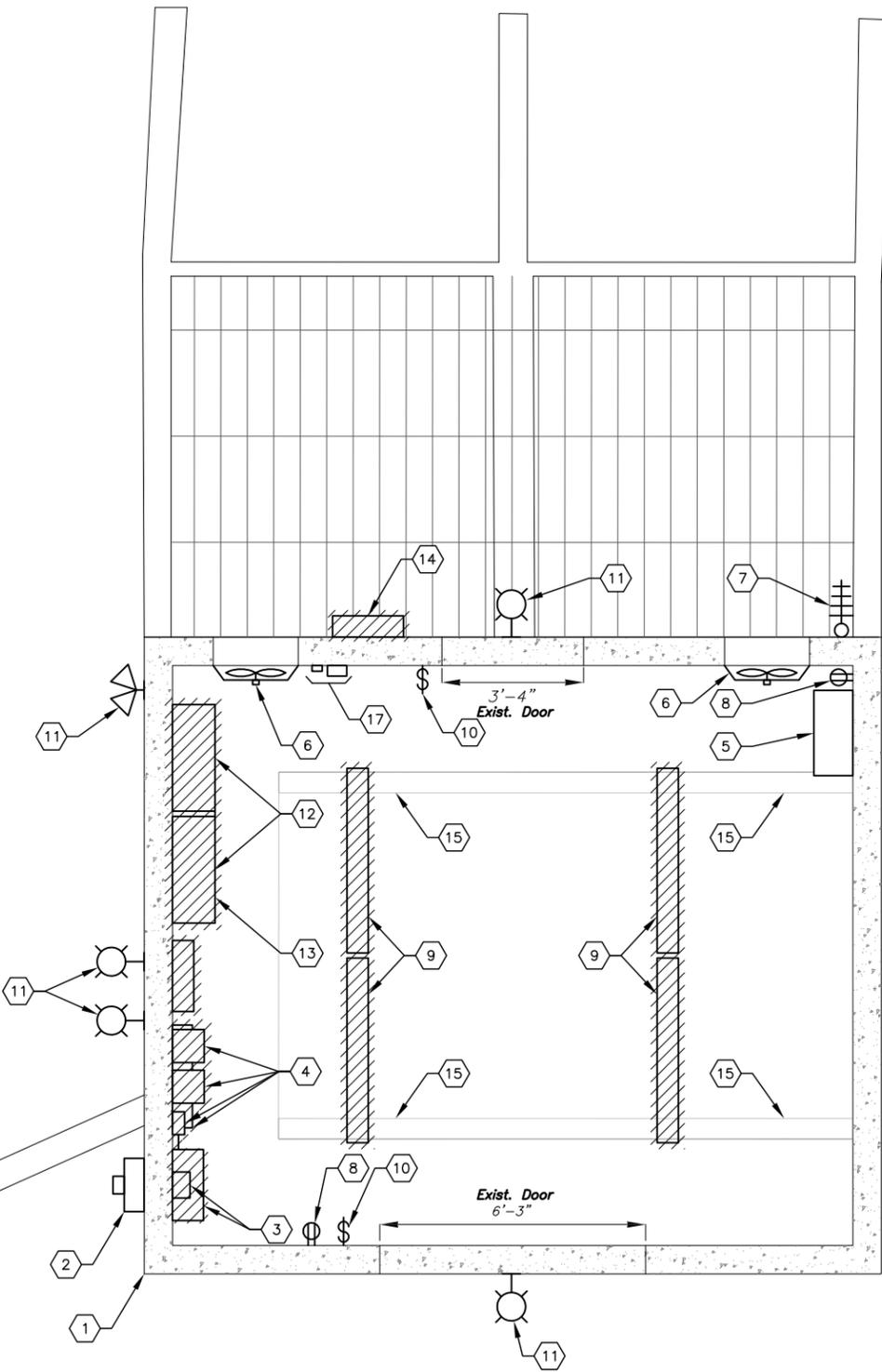
13 EXISTING DIESEL/ELECTRIC CONTROL PANEL CONTAINS AN EXISTING PULSAR, BLACKBOX 130 LEVEL TRANSMITTER. THIS LEVEL TRANSMITTER SHALL BE REUSED IN THE NEW PUMP CONTROL CABINET TRANSMITTER CABINET. REFER ALSO TO SHEET E-7.

14 EXISTING LEVEL TRANSMITTER AND FLOAT SWITCH JUNCTION BOX TO BE REMOVED.

15 STEEL I BEAMS WITH SKID PLATE TO BE REMOVED. REFER ALSO TO CIVIL DRAWINGS.

16 EXISTING PRIVACY WALL.

17 EXISTING FAN CONTROLS TO BE RELOCATED IN ORDER TO ACCOMMODATE NEW HIGH VOLTAGE JUNCTION BOXES. REFER TO KEYED NOTE #6 ON SHEET E-4 FOR NEW LOCATION AND NEW CONDUIT/CONDUCTORS REQUIRED.



EXISTING CONDITIONS AND DEMOLITION WORK
SCALE : 1/4" = 1'-0"



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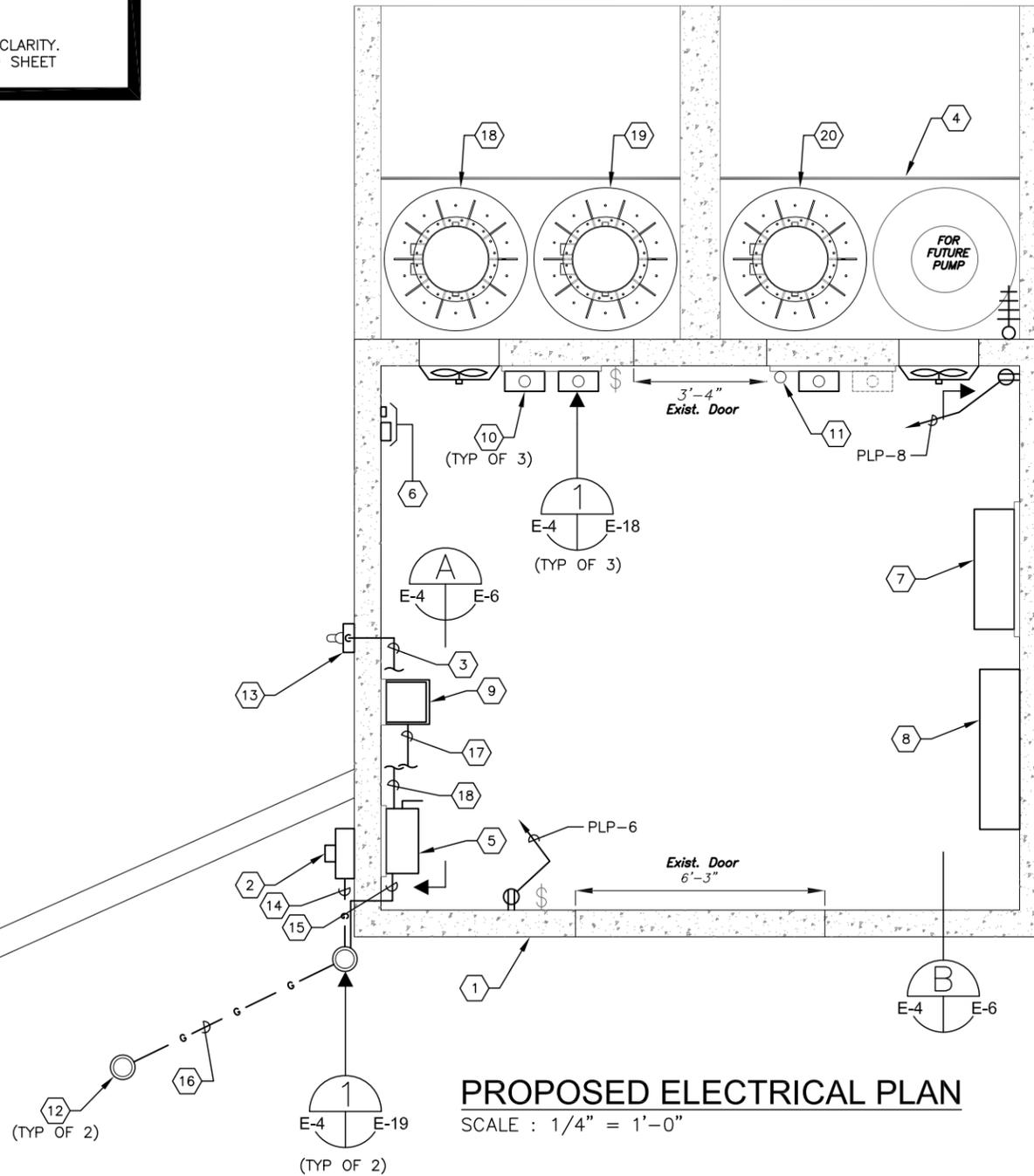
POINSETTIA PUMP STATION REPLACEMENT
EXISTING CONDITIONS AND DEMOLITION WORK

GENERAL NOTES:

- EXISTING RECEPTACLE LOCATIONS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING RECEPTACLE LOCATION/QUANTITIES.
- NOT ALL CONDUIT/CONDUCTORS SHOWN FOR CLARITY. REFER ALSO TO SHEET E-5, SHEET E-6 AND SHEET E-9.

KEYED NOTES:

- EXISTING PUMP STATION BUILDING. REFER TO CIVIL PLANS FOR PROPOSED STRUCTURAL CHANGES.
- EXISTING ELECTRICAL SERVICE METER.
- PROVIDE AND INSTALL (3)-3/0 XHHW-2 CU + (1)-1/0 XHHW-2 CU NEUTRAL + (1)-#6 XHHW-2 CU GND. IN 2" CONDUIT FROM DOUBLE THROW SWITCH TO GENERATOR PLUG.
- PROPOSED METAL CHANNEL. REFER ALSO TO CIVIL DRAWINGS.
- PROVIDE AND INSTALL HEAVY DUTY, DOUBLE THROW, SERVICE ENTRANCE RATED FUSIBLE SWITCH, 3-POLE, 600 VAC, 200 AMP IN NEMA 4X TYPE ENCLOSURE. PROVIDE 600 VOLT, 200A, DUAL-ELEMENT, TIME-DELAY CLASS RK5 FUSES; SWITCH--EATON DT364FWK, DT200NK-NEUTRAL KIT, DS200GK-GROUND LUG KIT, DS46FK-"R" FUSE ADAPTER KIT.
- NEW LOCATION FOR EXISTING FAN CONTROLS (REFER ALSO TO KEYED NOTE #17 ON SHEET E-3). CONTRACTOR SHALL PROVIDE AND INSTALL 2-#12 + 1-#12 GND IN 3/4"C. FROM PANELBOARD PLP (CIRCUIT #3) TO FANS CONTROLS FOR FAN POWER. THE REMAINING CONTROL CONDUCTORS AND CONDUIT SHALL MATCH THE EXISTING AND ONLY BE MODIFIED BASED ON THE NEW LOCATION OF THE CONTROLS.
- PROVIDE AND INSTALL PUMP CONTROL PANEL. REFER TO DETAIL ON SHEET E-6.
- PROVIDE AND INSTALL MOTOR CONTROL PANEL. REFER TO DETAIL ON SHEET E-6.
- PROVIDE AND INSTALL 480V-120/240V, 1Ø, 10KVA MINI POWER-ZONE (PANEL 'PLP') WITH INTEGRAL 40A PRIMARY CIRCUIT BREAKER AND 60A SECONDARY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE. REFER TO SHEET E-18 FOR PANEL SCHEDULE.
- CONTRACTOR TO PROVIDE AND INSTALL HIGH VOLTAGE JUNCTION BOX FOR ASSOCIATED PUMP. TYPICAL OF 3. REFER TO TYPICAL DETAIL ON SHEET E-18. REFER TO CIVIL SHEETS FOR CORING OF FLOOR SLAB FOR POWER CABLE AND CONTROL WIRING.
- PROPOSED CORE LOCATION FOR NEW CONDUIT CONTAINING LEVEL TRANSMITTER SIGNAL CABLE AND FLOAT SWITCH CABLES. REFER ALSO TO KEYED NOTE #18 ON SHEET E-6.
- PROVIDE AND INSTALL GROUND ROD TEST WELL, OLDCASTLE PRECAST ENCLOSURE SOLUTIONS #F08 BOX WITH #F08C CAST IRON LID MARKED "GROUND". MINIMUM SPACING BETWEEN GROUND ROD TEST WELLS/GROUND RODS SHALL BE 6'-0".
- PROVIDE AND INSTALL A NEW WATERPROOF 600V, 200A, 3-POLE, 4-WIRE GENERATOR PLUG WITH ANGLE ADAPTER AND JUNCTION BOX ASSEMBLY. MOUNT TO PUMP STATION BUILDING WALL. COORDINATE PREFERRED LOCATION WITH THE CITY OF TAMPA.
- PROVIDE AND INSTALL #4 BARE COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM METER TO GROUND ROD TEST WELL. CONFIRM CONDUCTOR SIZE WITH TECO.
- PROVIDE AND INSTALL #4 BARE COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM FDTS TO GROUND ROD TEST WELL.
- PROVIDE AND INSTALL #4 BARE COPPER GROUNDING ELECTRODE CONDUCTOR FROM GROUND ROD TEST WELL TO GROUND TEST WELL. DIRECT BURY CONDUCTOR.
- PROVIDE AND INSTALL #8 BARE COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM MINI POWER-ZONE TO GROUND ROD TEST WELL.
- PROPOSED PUMP #1. 480V, 3Ø, 26 HP. REFER ALSO TO CIVIL DRAWINGS.
- PROPOSED PUMP #2. 480V, 3Ø, 26 HP. REFER ALSO TO CIVIL DRAWINGS.
- PROPOSED PUMP #3. 480V, 3Ø, 26 HP. REFER ALSO TO CIVIL DRAWINGS.



PROPOSED ELECTRICAL PLAN

SCALE : 1/4" = 1'-0"



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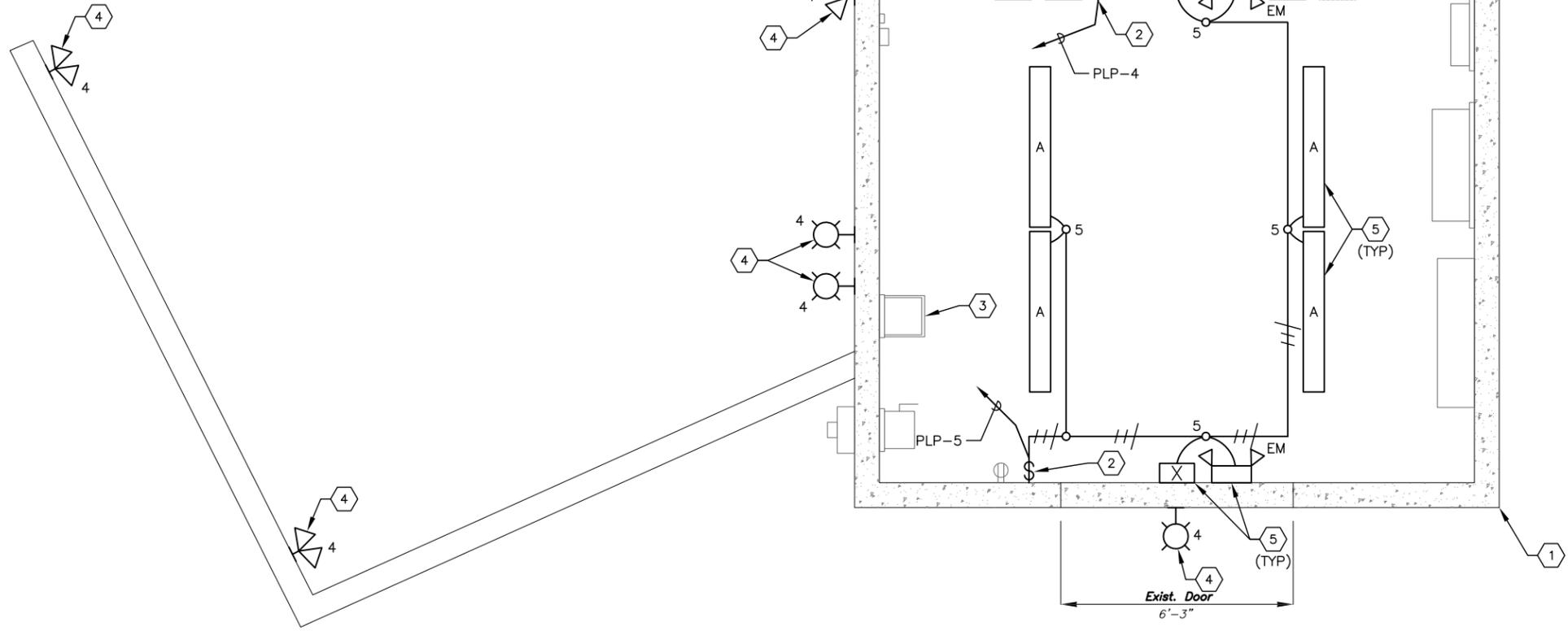
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Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
PROPOSED ELECTRICAL PLAN

SHEET
E-4
OF



- KEYED NOTES:**
- ① EXISTING PUMP STATION BUILDING. REFER TO CIVIL PLANS FOR PROPOSED STRUCTURAL CHANGES.
 - ② EXISTING SWITCH TO BE REUSED.
 - ③ PROPOSED MINI POWER-ZONE (PANEL 'PLP').
 - ④ EXISTING LIGHTING FIXTURE TO REMAIN. CONTRACTOR TO REMOVE POWER CONDUCTORS AND CONDUIT FROM EXISTING SWITCH TO EXISTING PANEL AND REPLACE WITH NEW AFTER NEW MINI POWER-ZONE INSTALLATION.
 - ⑤ PROPOSED LIGHTING FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE ON THIS SHEET FOR TYPE.

- GENERAL NOTES:**
- 1. EXISTING LIGHTING FIXTURE LOCATIONS, EXISTING SWITCH LOCATIONS AND SWITCHING CIRCUITS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FIXTURE LOCATION/QUANTITIES, SWITCH LOCATIONS/QUANTITIES AND SWITCHING CIRCUITS.
 - 2. NOT ALL CONDUIT/CONDUCTORS SHOWN FOR CLARITY. REFER ALSO TO SHEET E-4, SHEET E-6 AND SHEET E-9.

PROPOSED LIGHTING PLAN
SCALE : 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NUMBER	LAMP(S)	VOLTS	MOUNTING	REMARKS
A	COLUMBIA	LXEM-40ML-RA-EU	38W LED	120	CEILING	LED ENCLOSED AND GASKETED
X	LITHONIA	LQMP3R120/277ELN	(1) 1W DRIVER	120/277	UNIVERSAL	LED EXIT SIGN WITH NICKEL CADMIUM BATTERY BACKUP
EM	LITHONIA	ELM2 LED	(1) 1W DRIVER	120/277	WALL	LED EMERGENCY LIGHT

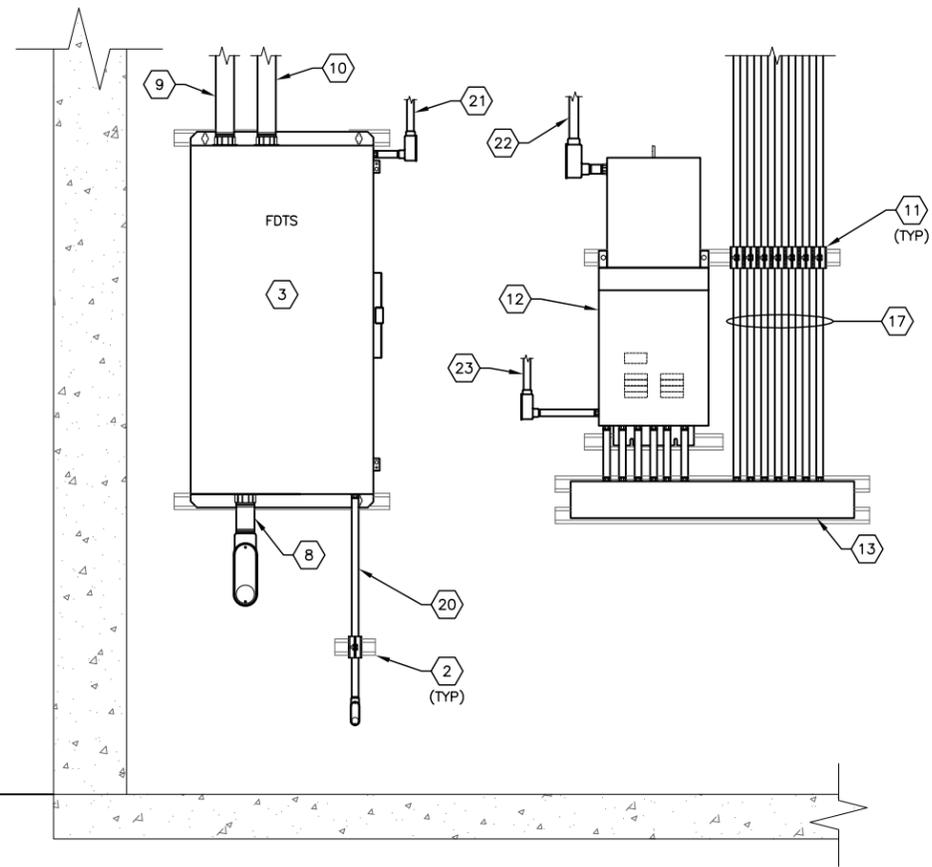


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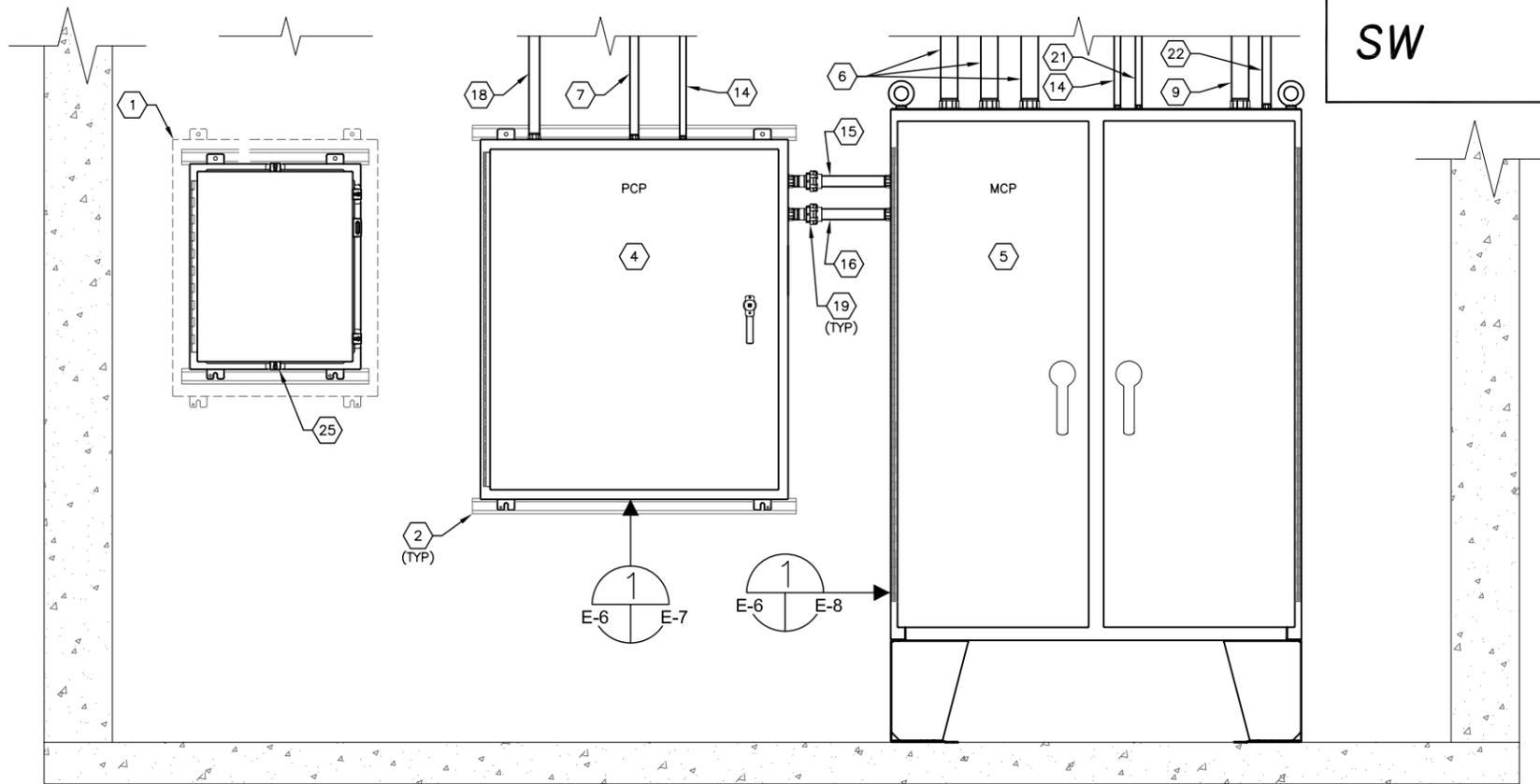
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POINSETTIA PUMP STATION REPLACEMENT
PROPOSED LIGHTING PLAN



SOUTHWEST WALL ELEVATION A
SCALE : N.T.S. E-4E-6



NORTHEAST WALL ELEVATION B
SCALE : N.T.S. E-4E-6

SW



KEYED NOTES:

- ① PREVIOUS LOCATION OF EXISTING MOTOROLA RTU ENCLOSURE. ACE3600 RTU AND REQUIRED COMPONENTS TO BE REMOVED AND RELOCATED IN NEW PUMP CONTROL PANEL. REFER ALSO TO KEYED NOTE #5 ON SHEET E-3.
- ② PROVIDE AND INSTALL 1-5/8" x 1-5/8" 316 STAINLESS STEEL UNISTRUT WITH 316 STAINLESS STEEL HARDWARE.
- ③ PROVIDE AND INSTALL HEAVY DUTY, DOUBLE THROW, SERVICE ENTRANCE RATED FUSIBLE SWITCH 'FDTS'. 3-POLE, 600 VAC, 200 AMP IN NEMA 4X TYPE ENCLOSURE, 600 VOLT, DUAL-ELEMENT, TIME-DELAY CLASS RK5 FUSES; SWITCH--EATON DT364FWK, DT200NK-NEUTRAL KIT, DS200GK-GROUND LUG KIT, DS46FK-"R" FUSE ADAPTER KIT.
- ④ PROVIDE AND INSTALL PUMP CONTROL PANEL. REFER TO DETAIL ON SHEET E-7.
- ⑤ PROVIDE AND INSTALL MOTOR CONTROL PANEL. REFER TO DETAIL ON SHEET E-8.
- ⑥ PROVIDE AND INSTALL 3-#8 XHHW-2 CU + 1-#10 XHHW-2 CU GND + 2-#12 XHHW-2 CU (LEAK/TEMP) IN 2" CONDUIT FOR SUBMERSIBLE PUMP POWER TO ASSOCIATED PUMP HIGH VOLTAGE JUNCTION BOX.
- ⑦ PROVIDE AND INSTALL NEW COAXIAL CABLE IN 1"C. FROM NEW PUMP CONTROL PANEL 'PCP' TO EXISTING SCADA ANTENNA.
- ⑧ PROVIDE AND INSTALL (3)-3/0 XHHW-2 CU + (1)-1/0 XHHW-2 CU NEUTRAL IN EXISTING CONDUIT FROM DOUBLE THROW SWITCH 'FDTS' TO EXISTING ELECTRICAL SERVICE METER. CONTRACTOR SHALL RE-PENETRATE WALL AND LOWER CONDUIT IF NECESSARY TO ACCOMMODATE NEW DOUBLE THROW TRANSFER SWITCH 'FDTS'.
- ⑨ PROVIDE AND INSTALL (3)-3/0 XHHW-2 CU + (1)-1/0 XHHW-2 CU NEUTRAL + (1)-#6 XHHW-2 CU GND. IN 2" CONDUIT FROM DOUBLE THROW SWITCH 'FDTS' TO MOTOR CONTROL PANEL 'MCP'.
- ⑩ PROVIDE AND INSTALL (3)-3/0 XHHW-2 CU + (1)-1/0 XHHW-2 CU NEUTRAL + (1)-#6 XHHW-2 CU GND. IN 2" CONDUIT FROM 'FDTS' TO GENERATOR PLUG.
- ⑪ PROVIDE AND INSTALL ALUMINUM CONDUIT STRAPS (TYPICAL).
- ⑫ PROVIDE AND INSTALL NEW MINI POWER-ZONE (PANEL 'PLP'). REFER TO SHEET E-18 FOR PANEL SCHEDULE.
- ⑬ PROVIDE AND INSTALL NEW 4" X 4" NEMA 3R WIREWAY (LENGTH AS REQUIRED) TO FACILITATE INSTALLATION OF PANEL 'PLP' CIRCUITS.
- ⑭ PROVIDE AND INSTALL 2-#12 + 1-#12 GND IN 3/4"C. TO PANEL 'PLP' FOR 120V AC POWER.
- ⑮ PROVIDE AND INSTALL 40-#14 + 1-#14 GND IN 1-1/4"C. FROM THE 'MCP' TO THE 'PCP' FOR 120V AC CONTROL WIRING. CONDUCTOR COUNT INCLUDES SPARES.
- ⑯ PROVIDE AND INSTALL 30-#14 + 1-#14 GND IN 1-1/4"C. FROM THE 'MCP' TO THE 'PCP' FOR 24V DC CONTROL WIRING.
- ⑰ PROVIDE AND INSTALL CONDUITS AS REQUIRED FOR 120V AC CIRCUITS.
- ⑱ PROVIDE AND INSTALL (9)-#14 XHHW-2 CU + (1)-#14 XHHW-2 CU GND + (1)-3/C-#18 TWISTED SHIELDED CABLE IN 1-1/4" CONDUIT FROM PCP TO WET WELL FOR LEVEL TRANSMITTER SIGNAL, NORTH WET WELL LOW LEVEL ALARM, POND HIGH LEVEL ALARM AND SOUTH WET WELL HIGH AND NOT HIGH INDICATION. REFER TO KEYED NOTE #11 ON SHEET E-4 FOR PROPOSED SLAB CORE LOCATION FOR CONDUIT.
- ⑲ PROVIDE AND INSTALL MYERS HUB AND UNION (TYP.).
- ⑳ PROVIDE AND INSTALL #4 BARE COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM 'FDTS' TO GROUND ROD TEST WELL.
- ㉑ PROVIDE AND INSTALL 3-#12 + 1-#12 GND IN 3/4"C. FROM 'FDTS' TO MOTOR CONTROL PANEL 'MCP' FOR UTILITY POWER MONITORING.
- ㉒ PROVIDE AND INSTALL 2-#8 + 1-#8 GND IN 1"C. TO MOTOR CONTROL PANEL 'MCP' FOR MINI POWER-ZONE FEEDER.
- ㉓ PROVIDE AND INSTALL #8 BARE COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM MINI POWER-ZONE TO GROUND ROD TEST WELL.

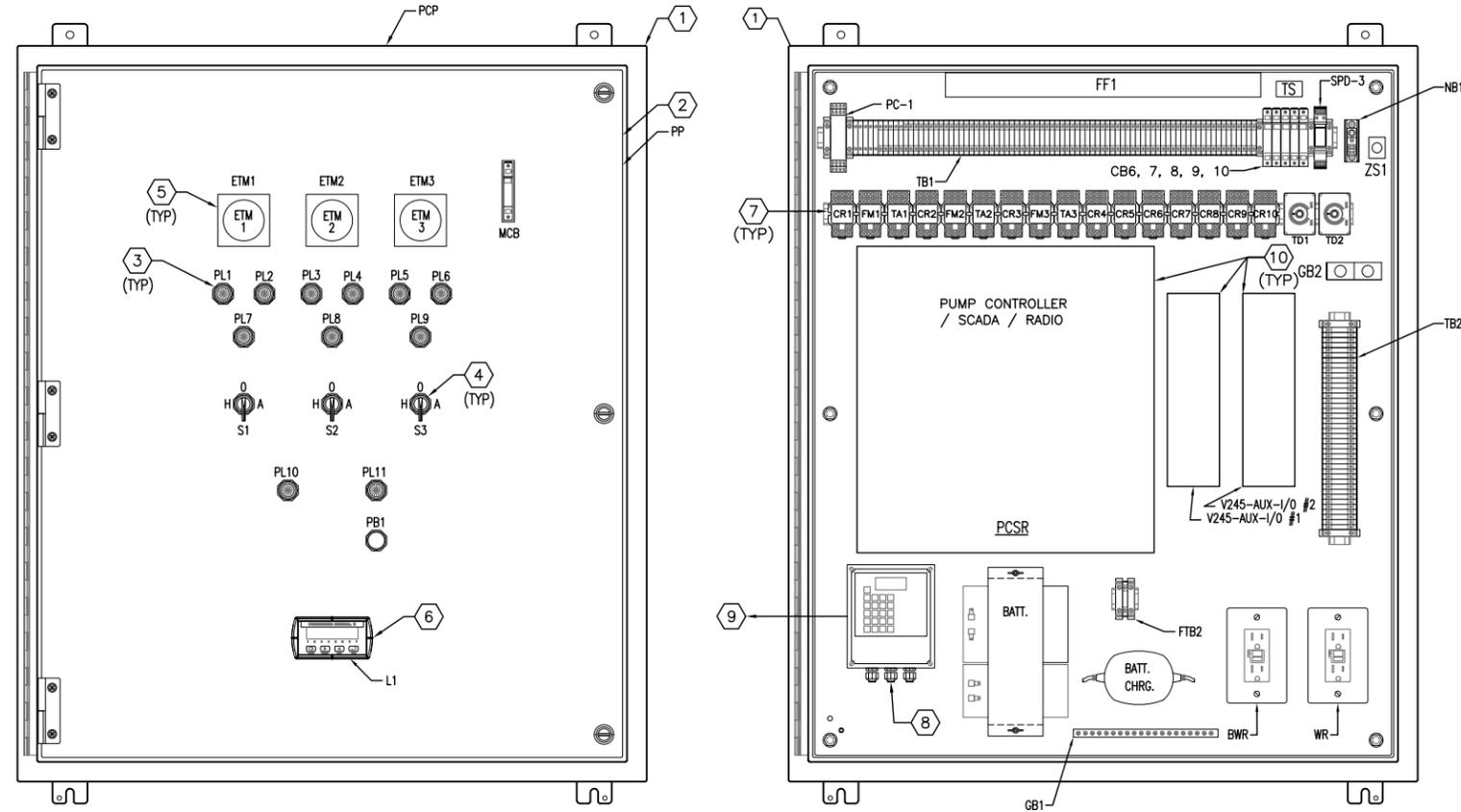
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POINSETTIA PUMP STATION REPLACEMENT
EQUIPMENT ELEVATIONS

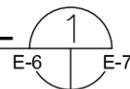
SHEET
E-6
OF



PUMP CONTROL PANEL DETAIL

SCALE : N.T.S

INTERIOR DEADFRONT VIEW



INTERIOR VIEW

LEGEND PLATE SCHEDULE

SYMBOL	DEVICE	LEGEND
ETM1	ELAPSED TIME METER	PUMP NO. 1 HOURS
ETM2	ELAPSED TIME METER	PUMP NO. 2 HOURS
ETM3	ELAPSED TIME METER	PUMP NO. 3 HOURS
PL1	YELLOW PILOT LIGHT	PUMP NO. 1 ON
PL2	RED ILLUMINATED PUSH BUTTON	PUMP NO. 1 TEMP. ALARM
PL3	YELLOW PILOT LIGHT	PUMP NO. 2 ON
PL4	RED ILLUMINATED PUSH BUTTON	PUMP NO. 2 TEMP. ALARM
PL5	YELLOW PILOT LIGHT	PUMP NO. 3 ON
PL6	RED ILLUMINATED PUSH BUTTON	PUMP NO. 3 TEMP. ALARM
PL7	RED PILOT LIGHT	PUMP NO. 1 SEAL LEAK ALARM
PL8	RED PILOT LIGHT	PUMP NO. 2 SEAL LEAK ALARM
PL9	RED PILOT LIGHT	PUMP NO. 3 SEAL LEAK ALARM
PL10	RED PILOT LIGHT	ALL PUMPS HIGH POND SHUTDOWN
PL11	RED PILOT LIGHT	PUMP NO. 3 LOW LEVEL SHUTDOWN
PB1	RED PUSHBUTTON	PUMP NO. 3 LOW LEVEL SHUTDOWN RESET
S1	3 POSITION SWITCH	PUMP NO. 1 HAND-OFF-AUTO
S2	3 POSITION SWITCH	PUMP NO. 2 HAND-OFF-AUTO
S3	3 POSITION SWITCH	PUMP NO. 3 HAND-OFF-AUTO
MCB	PUMP CONTROL PANEL MAIN CIRCUIT BREAKER	MAIN CIRCUIT BREAKER
L1	DIGITAL PROCESS METER	WET WELL LEVEL

KEYED NOTES:

- ① PUMP CONTROL PANEL. 42" X 36 X 12" NEMA 4X SS, PAINTED WHITE.
- ② PROVIDE AND INSTALL ALUMINUM DEADFRONT DOOR WITH STOP KIT.
- ③ PROVIDE AND INSTALL NEW PILOT LIGHT. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ④ PROVIDE AND INSTALL NEW SELECTOR SWITCH. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ⑤ PROVIDE AND INSTALL NEW ELAPSED TIME METER. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ⑥ PROVIDE AND INSTALL PRECISION DIGITAL PROCESS METER, MODEL PD765-6X3-00 WITH 4-20mA OUTPUT. REFER ALSO TO PARTS SCHEDULE ON SHEET E-17.
- ⑦ PROVIDE AND INSTALL ALUMINUM DIN RAIL WHERE REQUIRED.
- ⑧ LEVEL DETECTION SYSTEM (LEV) BLACKBOX 130 (RELOCATED FROM DIESEL/ELECTRICAL CONTROL PANEL).
- ⑨ TO dB10 ULTRASONIC SENSOR (VIA RELOCATED LEVEL TRANSMITTER AND FLOAT SWITCH JUNCTION BOX).
- ⑩ EXISTING MOTOROLA ACE3600 RTU, ASSOCIATED RADIO AND THE TWO (2) WILKERSON INSTRUMENT CO. SIB-V245 AUXILIARY I/O BOARDS RELOCATED FROM EXISTING RTU ENCLOSURE. REFER ALSO TO KEYED NOTE #5 ON SHEET E-3.

NOTE:
 PROVIDE AND INSTALL A #12 AWG GREEN BONDING JUMPER BETWEEN THE ENCLOSURE DOOR AND GROUNDING LUG. ALSO PROVIDE AND INSTALL A #12 AWG GREEN BONDING JUMPER BETWEEN THE DEADFRONT DOOR AND GROUNDING LUG.



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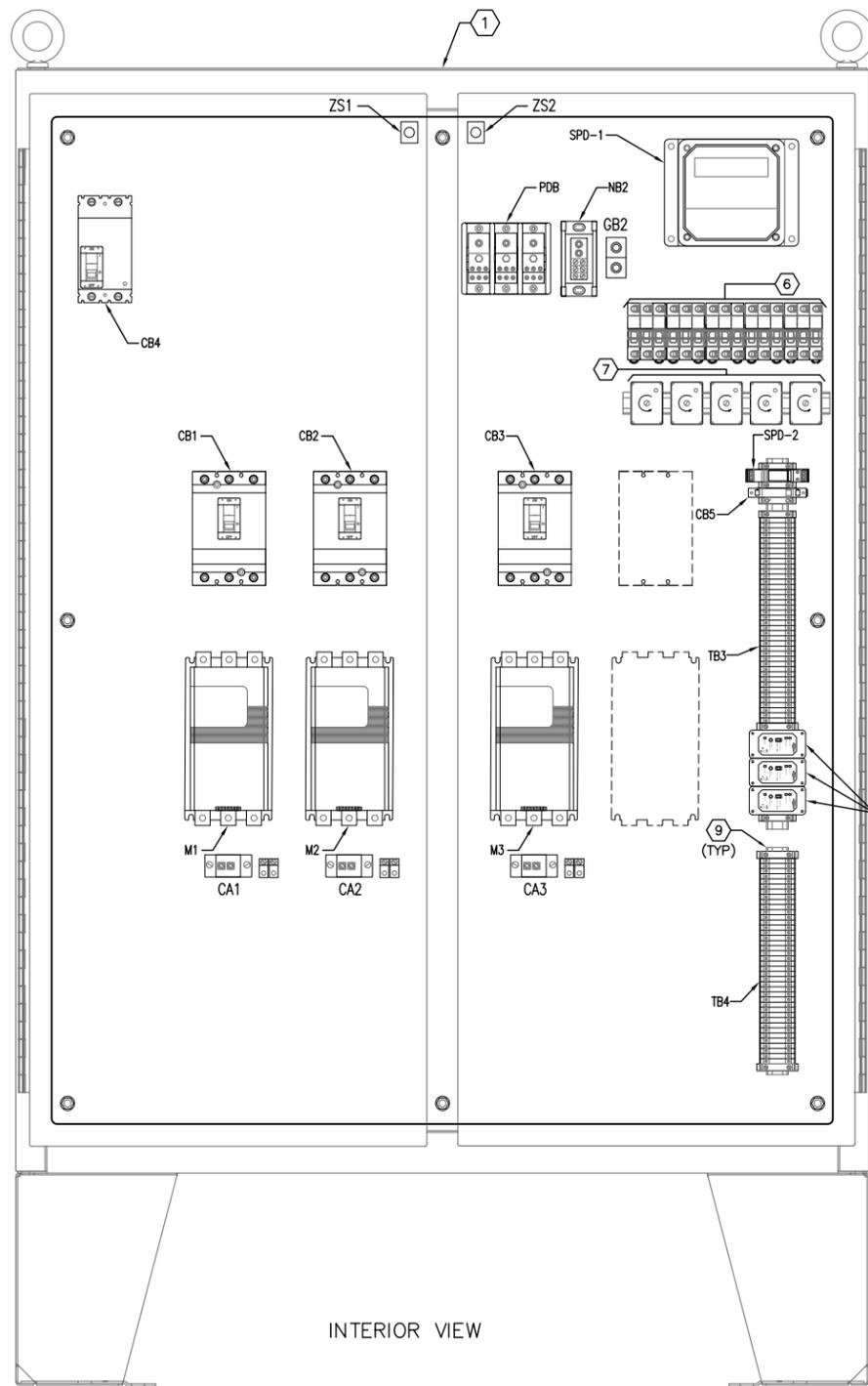
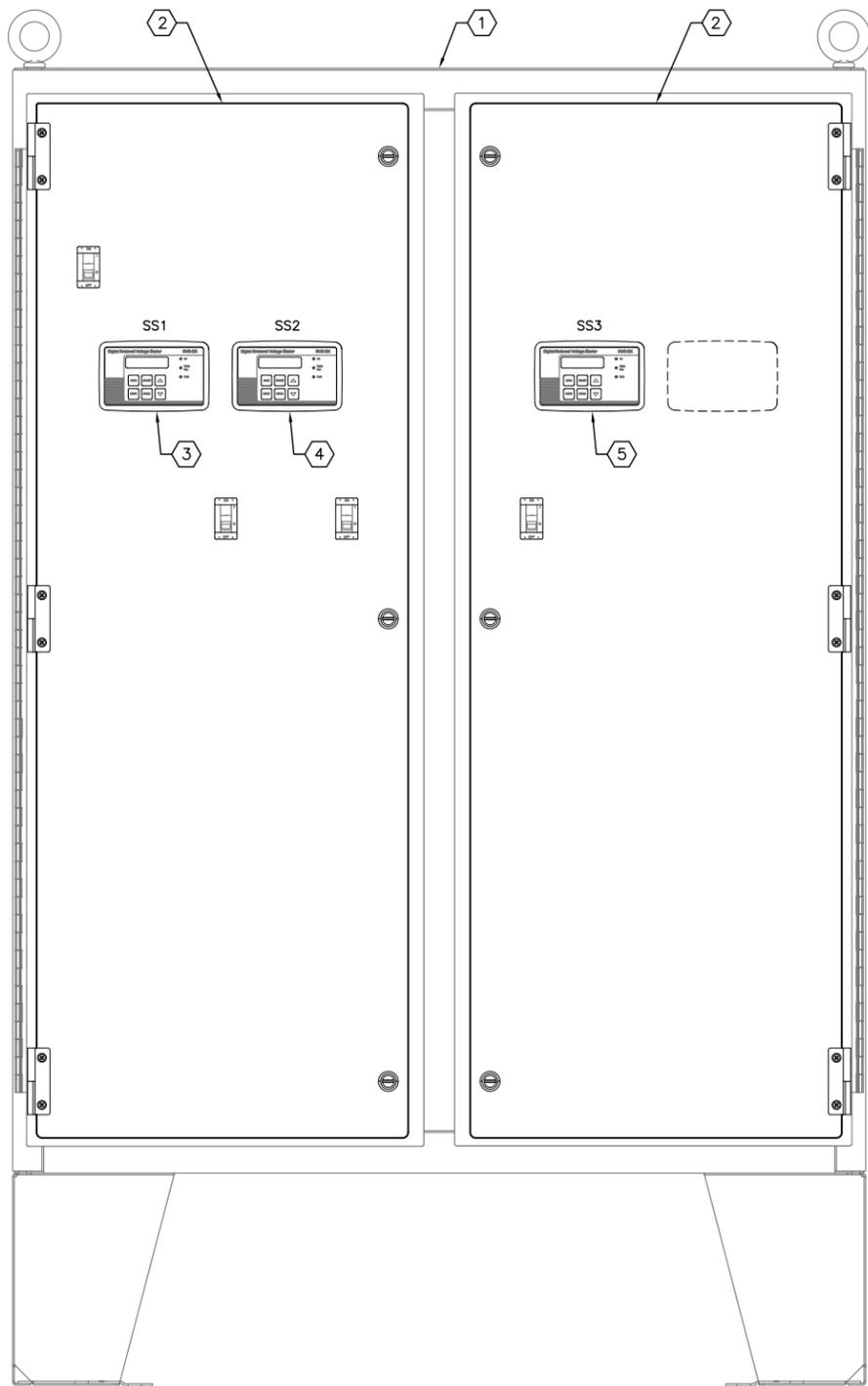
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POINSETTIA PUMP STATION REPLACEMENT
PUMP CONTROL PANEL DETAILS

SHEET
E-7
 OF



LEGEND PLATE SCHEDULE

SYMBOL	DEVICE	LEGEND
CB1	CIRCUIT BREAKER	PUMP NO. 1 CIRCUIT BREAKER
CB2	CIRCUIT BREAKER	PUMP NO. 2 CIRCUIT BREAKER
CB3	CIRCUIT BREAKER	PUMP NO. 3 CIRCUIT BREAKER
CB4	CIRCUIT BREAKER	MINI POWER-ZONE 480V FEEDER
SS1	SOFTSTARTER KEYPAD	SOFTSTARTER NO. 1 KEYPAD
SS2	SOFTSTARTER KEYPAD	SOFTSTARTER NO. 2 KEYPAD
SS3	SOFTSTARTER KEYPAD	SOFTSTARTER NO. 3 KEYPAD

KEYED NOTES:

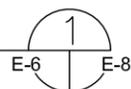
- ① MOTOR CONTROL CABINET. 62" X 48 X 12" NEMA 4X SS ENCLOSURE.
- ② PROVIDE AND INSTALL ALUMINUM DEADFRONT DOOR WITH STOP KIT.
- ③ PROVIDE AND INSTALL NEW KEYPAD FOR SOFTSTARTER #1. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ④ PROVIDE AND INSTALL NEW KEYPAD FOR SOFTSTARTER #2. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ⑤ PROVIDE AND INSTALL NEW KEYPAD FOR SOFTSTARTER #2. REFER ALSO TO PARTS SCHEDULE ON SHEET E-16.
- ⑥ PROVIDE AND INSTALL FUSE DISTRIBUTION BLOCKS FDB1, FDB2, FDB3, FDB4 AND FDB5.
- ⑦ PROVIDE AND INSTALL PHASE MONITORS PM1, PM2, PM3, PM4 AND PM5.
- ⑧ PROVIDE AND INSTALL XYLEM MINI CAS 120 MODULES SLD1, SLD2 AND SLD3.
- ⑨ PROVIDE AND INSTALL ALUMINUM DIN RAIL WHERE REQUIRED.

NOTE:
 PROVIDE AND INSTALL A #12 AWG GREEN BONDING JUMPER BETWEEN THE ENCLOSURE DOORS AND GROUNDING LUG. ALSO PROVIDE AND INSTALL A #12 AWG GREEN BONDING JUMPER BETWEEN THE DEADFRONT DOORS AND GROUNDING LUG.

MOTOR CONTROL PANEL DETAIL

SCALE : N.T.S

INTERIOR DEADFRONT VIEW



INTERIOR VIEW



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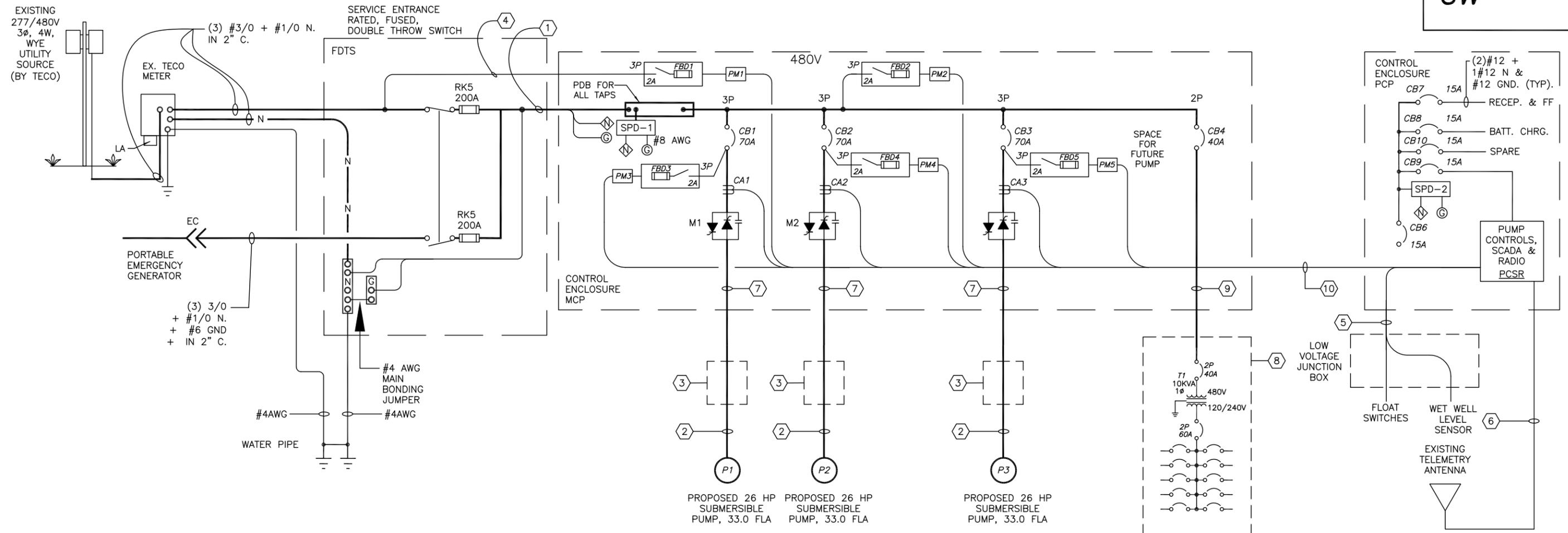
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POINSETTIA PUMP STATION REPLACEMENT
 MOTOR CONTROL PANEL DETAILS

SW



ONE LINE DIAGRAM NOTES:

- ① PROVIDE AND INSTALL 3-3/0 + 1-1/0 NEUTRAL + 1-#6 GND IN 2" C. CONDUIT, REFER TO DETAILS ON SHEET E-6.
- ② NEW SUBMERSIBLE PUMP POWER CABLE IN NEW 2" CONDUIT.
- ③ NEW HIGH VOLTAGE JUNCTION BOX.
- ④ PROVIDE AND INSTALL 3-#12 + 1-#12 GND IN 3/4" C. FROM FDT5 TO MOTOR CONTROL PANEL FOR UTILITY POWER MONITORING.
- ⑤ PROVIDE NEW 1-1/4" CONDUIT FROM NEW PUMP CONTROL PANEL TO WET WELL FOR FLOAT SWITCH AND LEVEL SENSOR CABLES. REFER TO DETAILS ON SHEET E-6.
- ⑥ PROVIDE NEW 1" CONDUIT FROM NEW PUMP CONTROL PANEL TO EXISTING ANTENNA MAST FOR NEW COAX CABLE.
- ⑦ (3)-#8 AWG & #10 GND. + 2-#12 (LEAK/TEMP).
- ⑧ PROVIDE AND INSTALL 480V-120/240V, 1Ø, 10KVA MINI POWER-ZONE (PANEL 'PLP') WITH INTEGRAL 40A PRIMARY CIRCUIT BREAKER AND 60A SECONDARY CIRCUIT BREAKER IN NEMA 1. REFER TO SHEET E-18 FOR PANEL SCHEDULE.
- ⑨ PROVIDE AND INSTALL 2-#8 + 1-#8 GND IN 1" C. TO MOTOR CONTROL PANEL FOR MINI POWER-ZONE FEEDER.
- ⑩ FOR CONDUCTORS REQUIRED TO PUMP CONTROL CABINET REFER TO SHEET E-14.

ELECTRICAL SERVICE LOAD SUMMARY

480 VAC, 3Ø, 4W

LOAD	CONNECTED	DEMAND	APPROX. PHASE CURRENTS		
			L1	L2	L3
NEW PUMP #1	27.4 KVA	27.4 KVA	33.0 A	33.0 A	33.0 A
NEW PUMP #2	27.4 KVA	27.4 KVA	33.0 A	33.0 A	33.0 A
NEW PUMP #3	27.4 KVA	27.4 KVA	33.0 A	33.0 A	33.0 A
SINGLE PHASE LOADS	5.0 KVA	5.0 KVA	0.0 A	10.4 A	10.4 A
TOTAL	87.2 KVA	87.2 KVA	99.0 A	109.4 A	109.4 A

SHORT CIRCUIT CALCULATIONS

AVAILABLE SHORT-CIRCUIT CURRENT AT 480V UTILITY SERVICE IS 13,532 AMPERES.

UTILITY SERVICE: THREE - 480/277, 3 PH, 75 KVA POLE MOUNTED TRANSFORMERS. TRANSFORMER AVAILABLE FAULT CURRENT AT SECONDARY SIDE OF TECO'S TRANSFORMERS: 13,532 AMP RMS SYM. SERVICE CONDUCTOR LENGTH: 135 FEET SERVICE CONDUCTOR SIZE: 3/0 THWN CU. FUSE RATING: 200 AMPS ISCA AT LINE SIDE OF FTDS:

$$ISCA = \left[1 + \frac{1}{\frac{(1.73)(135)(13,532)}{(11,500)(480)}} \right] * 13,532 = 8,605$$

SHORT CIRCUIT CURRENT AVAILABLE AT MAIN LUGS OF MCP=8,605 AMPS RMS, SYMMETRICAL



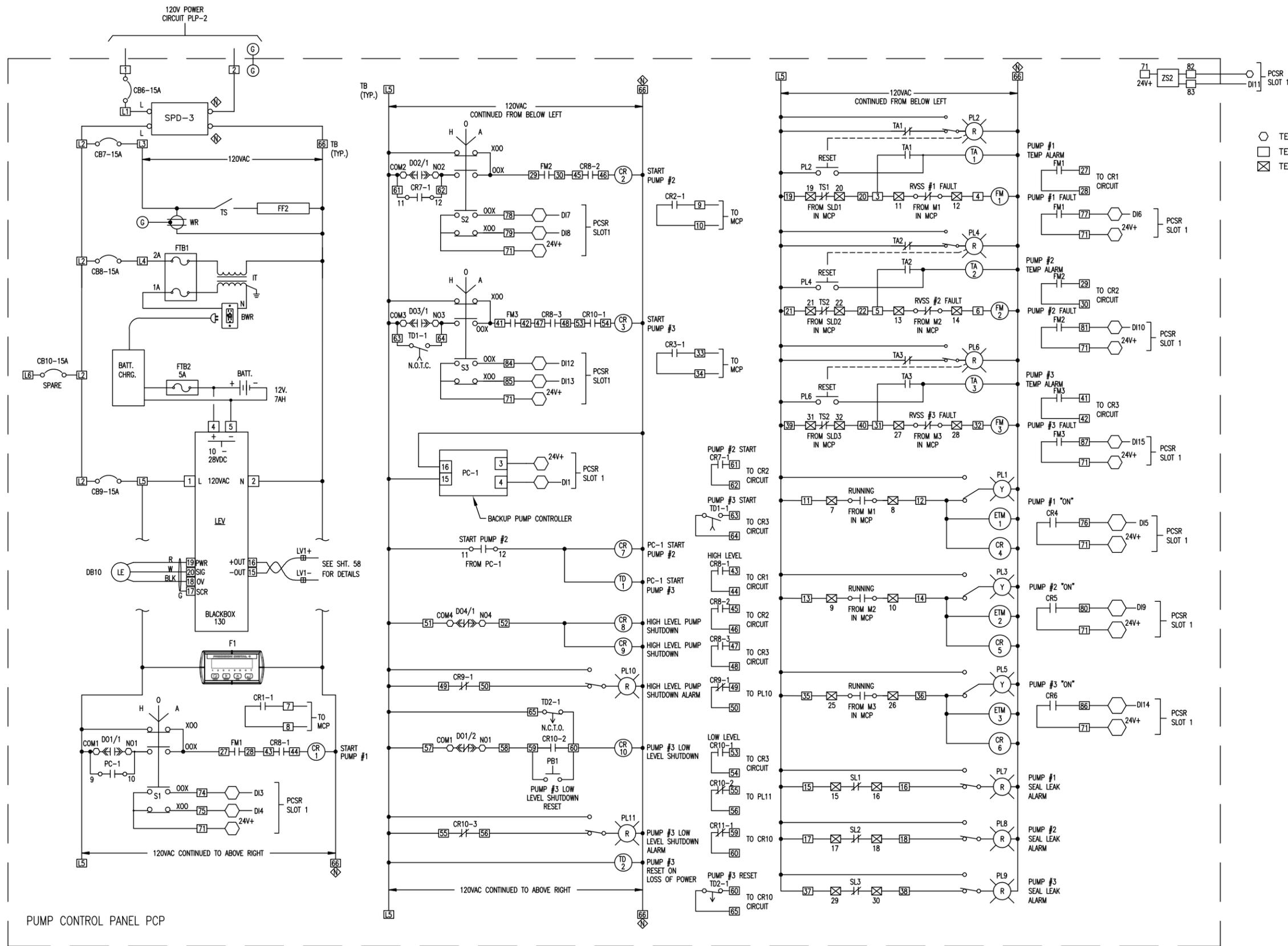
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POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL ONE-LINE DIAGRAM



PUMP CONTROL PANEL PCP



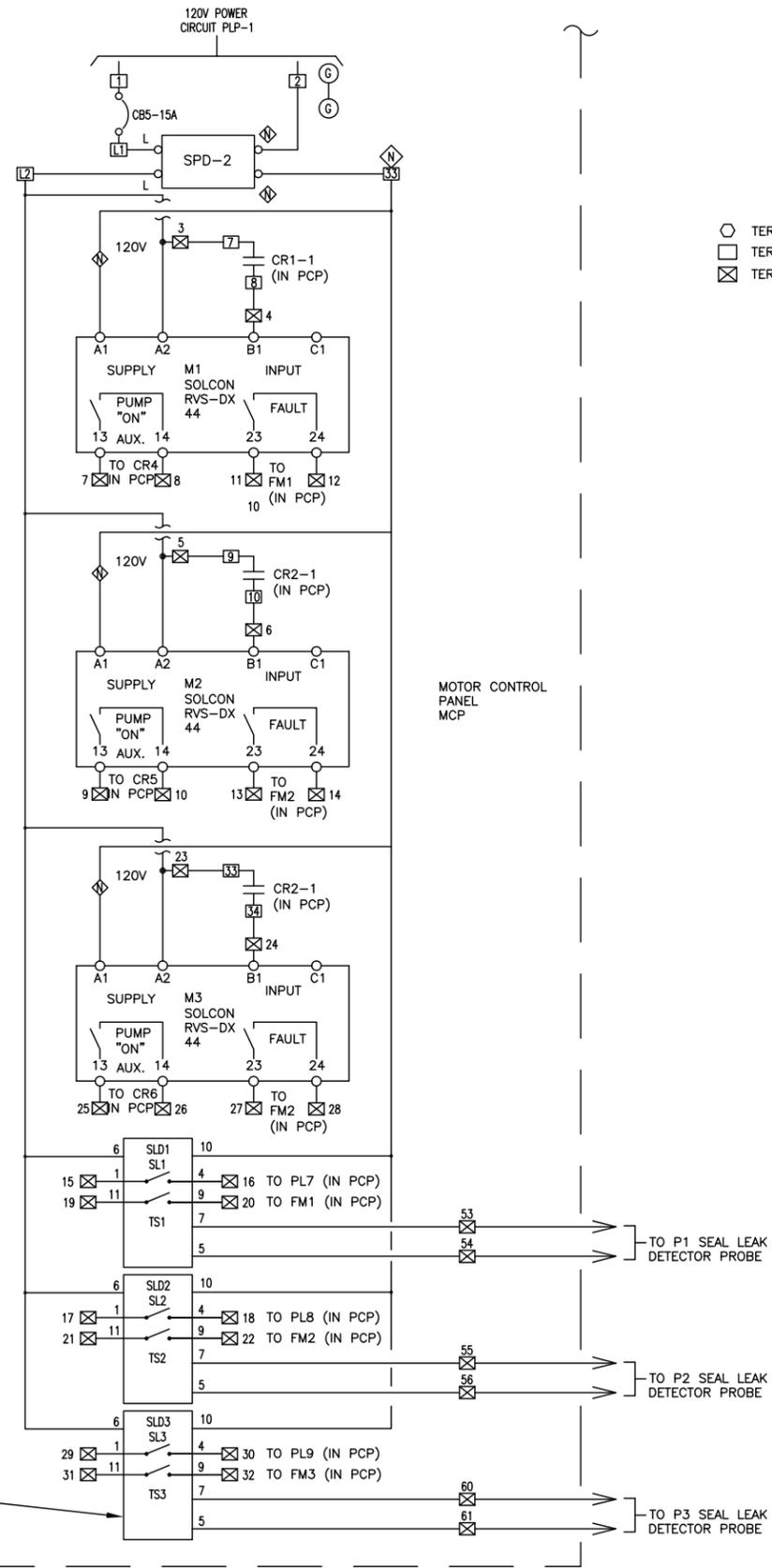
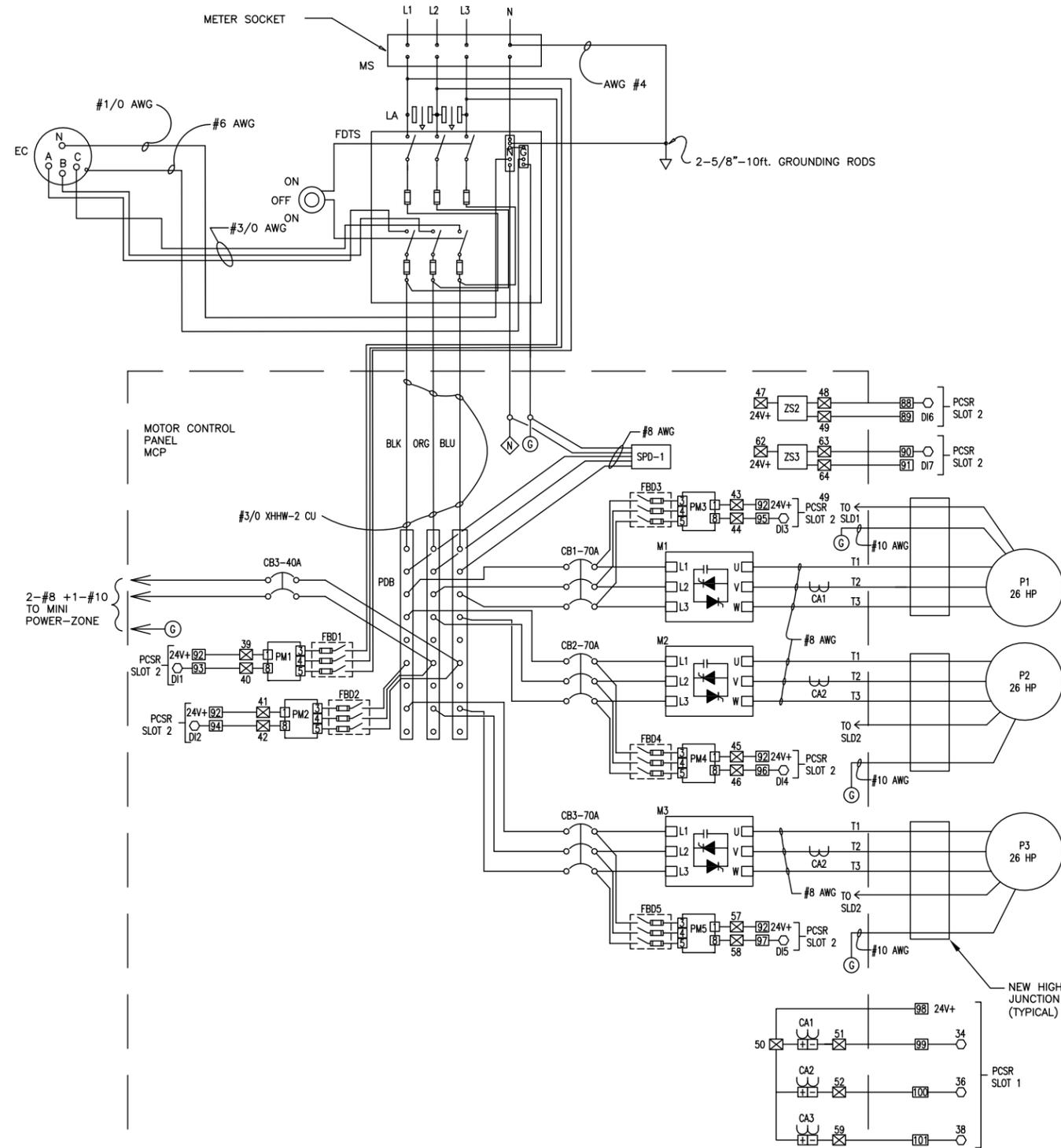
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POINSETTIA PUMP STATION REPLACEMENT
 ELECTRICAL SCHEMATIC (1 OF 4 - PCP)



- TERMINALS ON ACE I/O MODULE (GENERAL)
- TERMINALS IN PUMP CONTROL PANEL
- ⊗ TERMINALS IN MOTOR CONTROL PANEL

CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER TO DETERMINE SPECIFIC HARDWARE REQUIRED FOR STATOR TEMP AND SEAL-LEAK DETECTION (E.G. MINI-CAS 120 FOR FLYGT PUMPS).



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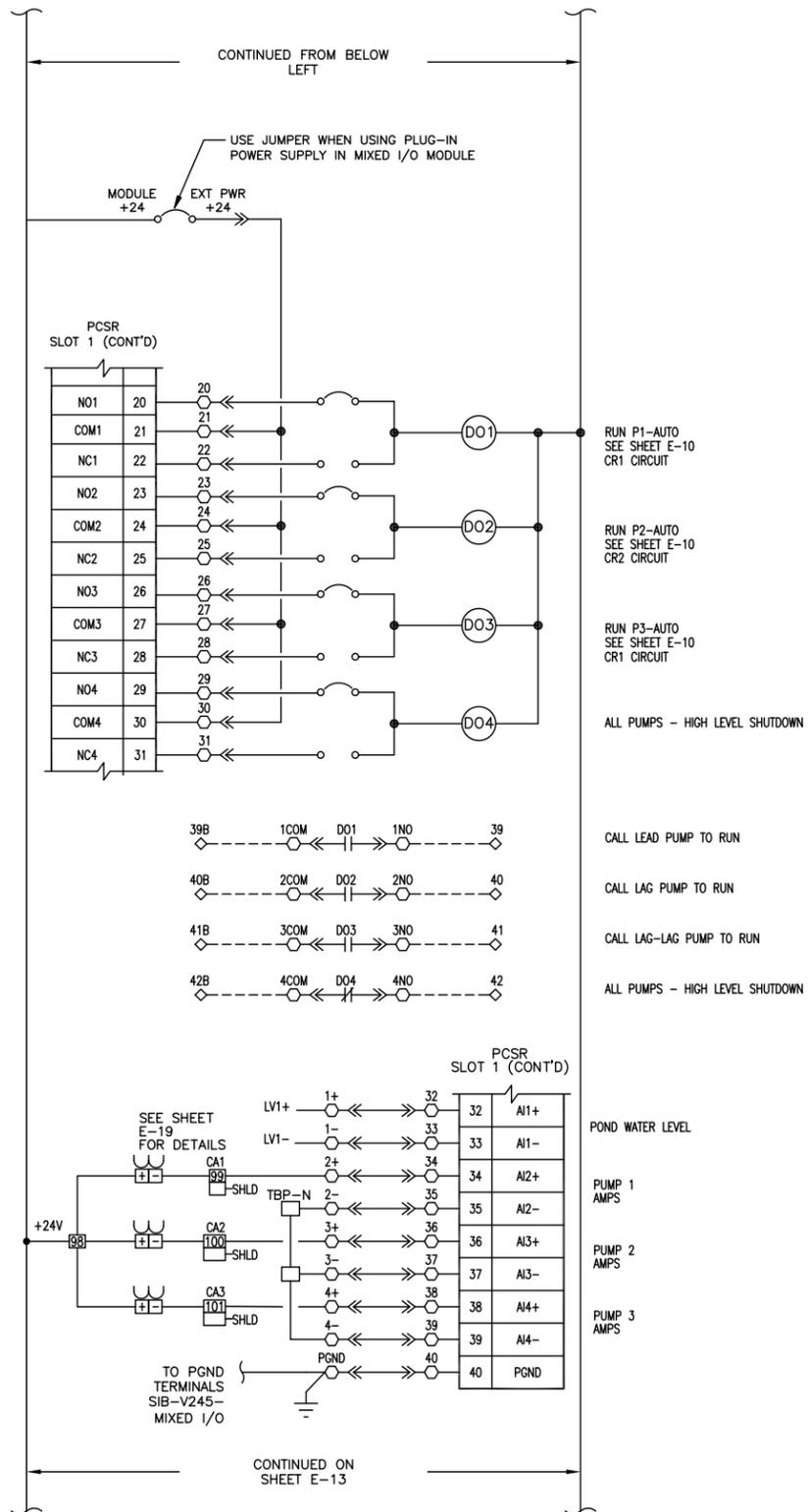
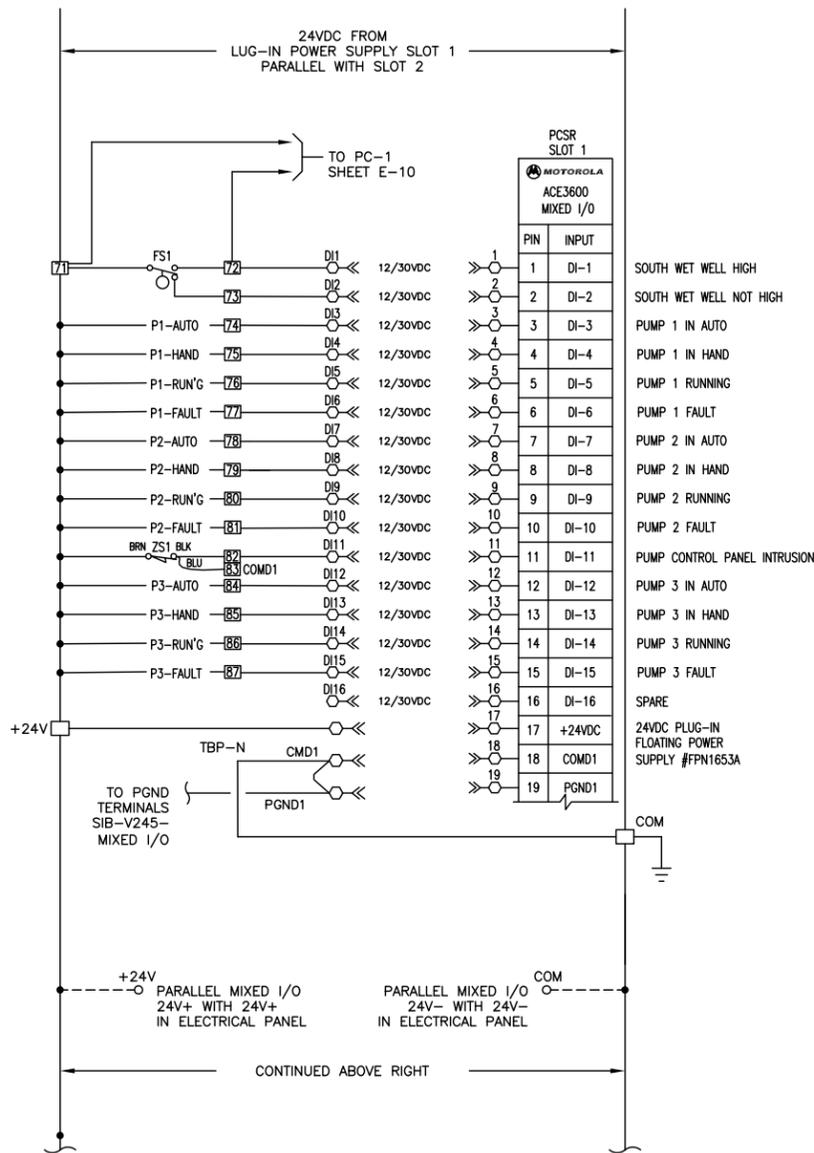
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POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL SCHEMATIC (2 OF 4 - MCP)

- TERMINALS ON ACE I/O MODULE (GENERAL)
- TERMINALS IN PUMP CONTROL PANEL
- ⊗ TERMINALS IN MOTOR CONTROL PANEL



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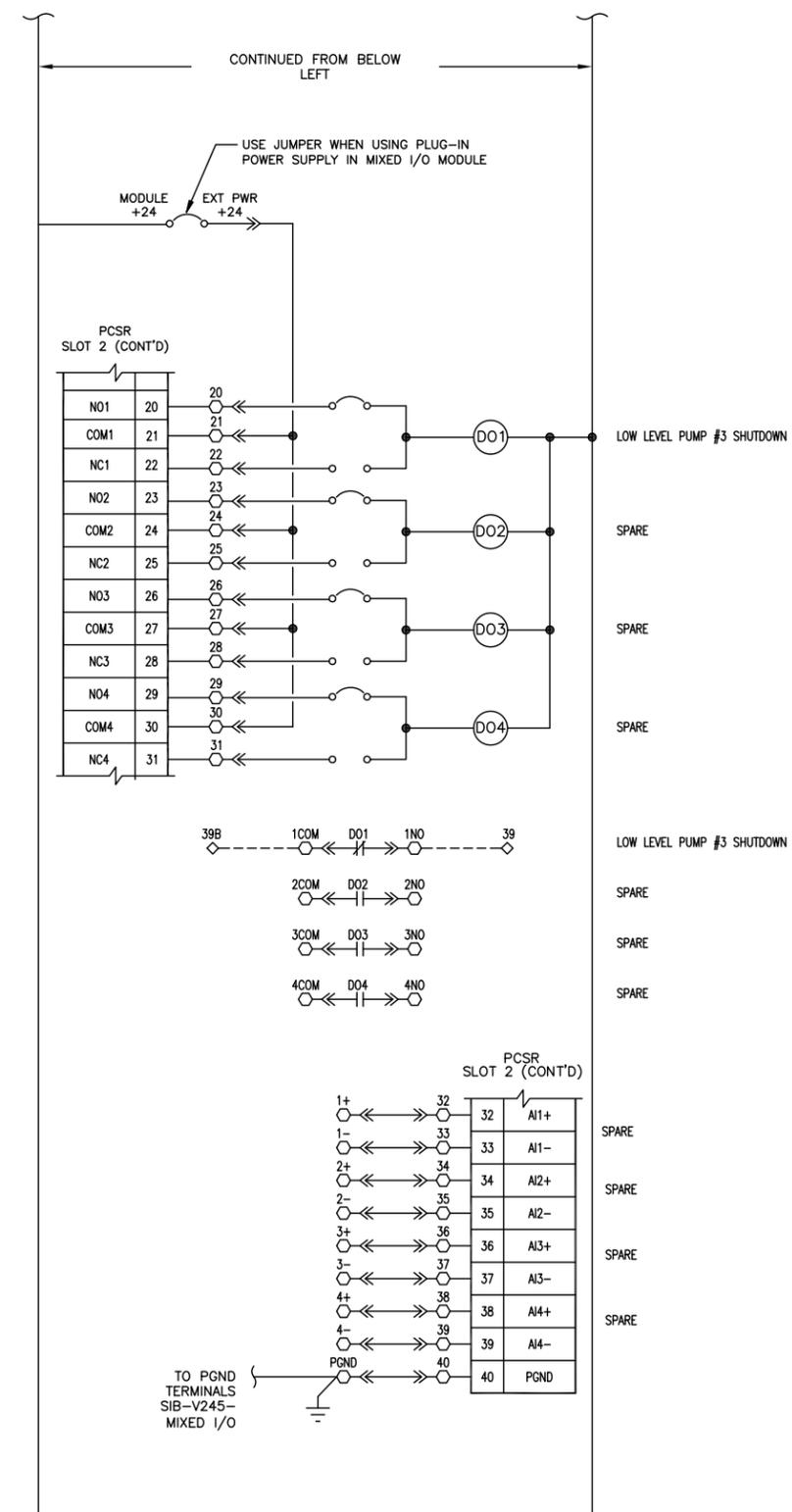
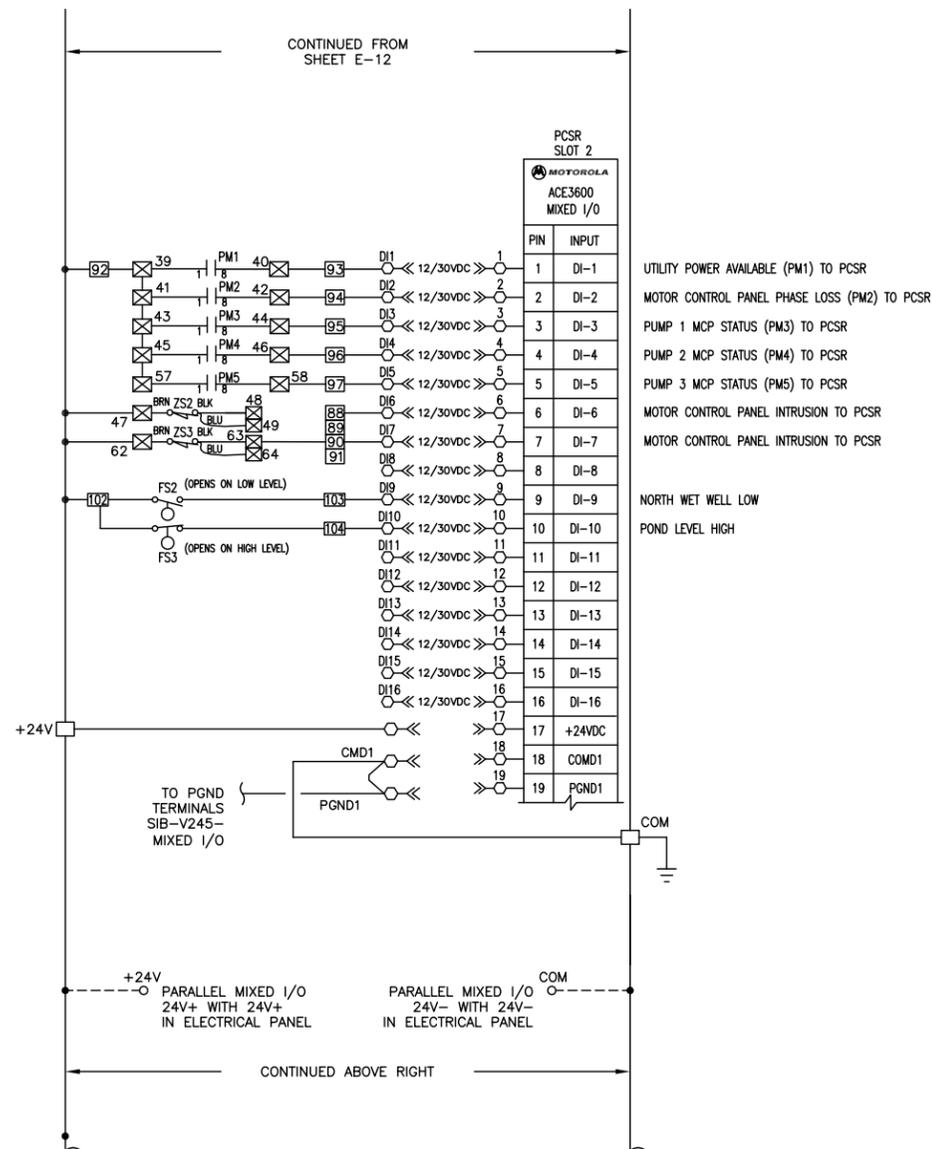
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POINSETTIA PUMP STATION REPLACEMENT
 ELECTRICAL SCHEMATIC (3 OF 4 - RTU)

- TERMINALS ON ACE I/O MODULE (GENERAL)
- TERMINALS IN PUMP CONTROL PANEL
- ⊗ TERMINALS IN MOTOR CONTROL PANEL



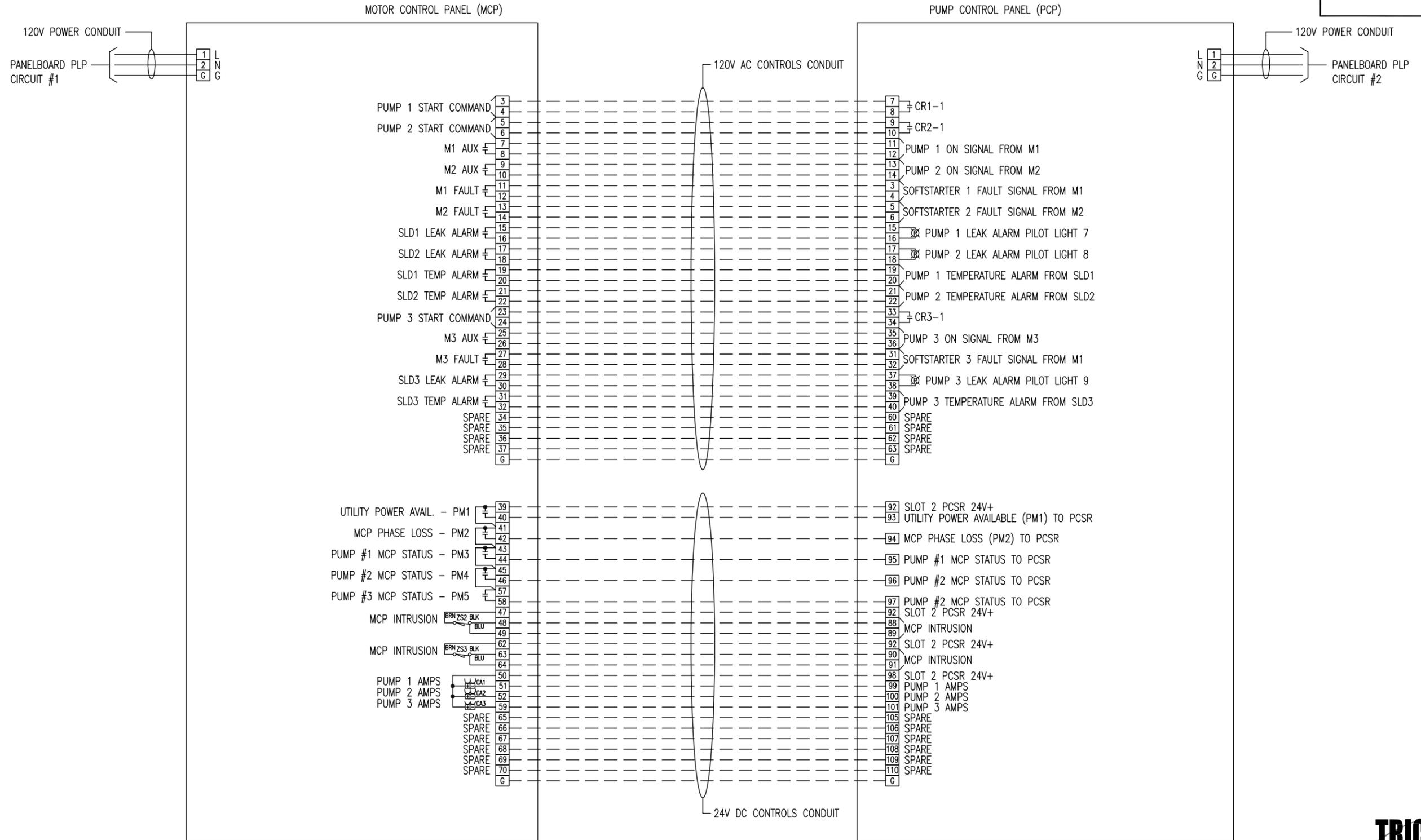
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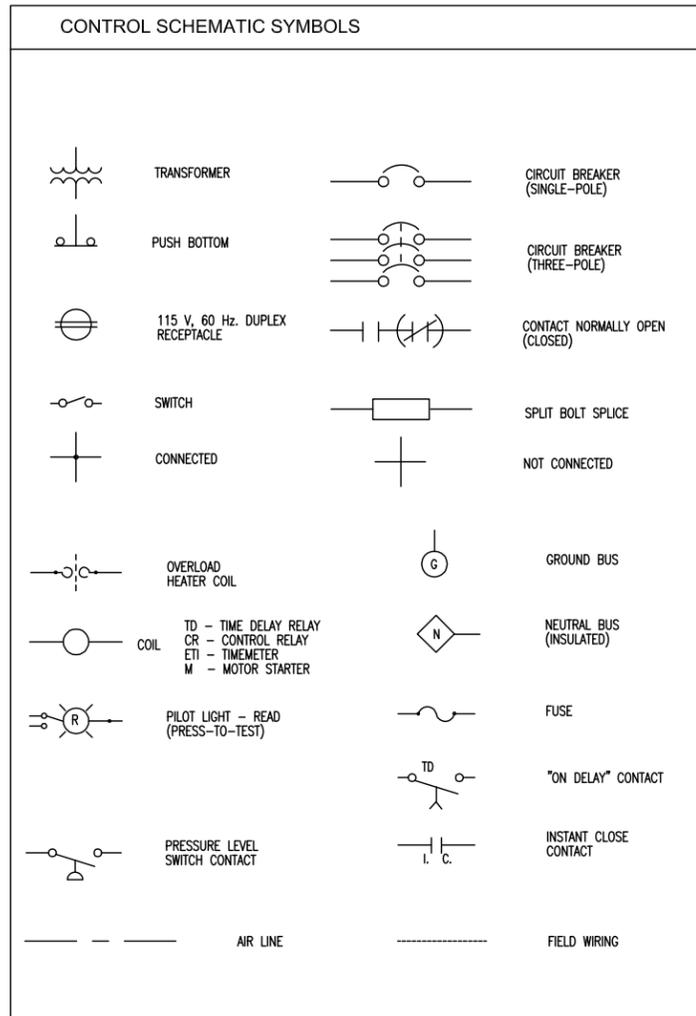
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POINSETTIA PUMP STATION REPLACEMENT
 ELECTRICAL SCHEMATIC (4 OF 4 - RTU)

SW





TB1 (□) (120V AC) MOUNTED ON PUMP CONTROL PANEL (PCP)

TERM.	DESCRIPTION
1	120V FROM PANELBOARD PLP CIR #2
2	NEUTRAL FROM PANELBOARD PLP
3	SOFTSTARTER NO. 1 FAULT FROM M1
4	SOFTSTARTER NO. 1 FAULT FROM M1
5	SOFTSTARTER NO. 2 FAULT FROM M2
6	SOFTSTARTER NO. 2 FAULT FROM M2
7	PUMP 1 START COMMAND TO M1 (IN MCP)
8	PUMP 1 START COMMAND TO M1 (IN MCP)
9	PUMP 2 START COMMAND TO M2 (IN MCP)
10	PUMP 2 START COMMAND TO M2 (IN MCP)
11	P1 "ON" SIGNAL FROM M1 (IN MCP)
12	P1 "ON" SIGNAL FROM M1 (IN MCP)
13	P2 "ON" SIGNAL FROM M2 (IN MCP)
14	P2 "ON" SIGNAL FROM M2 (IN MCP)
15	PUMP 1 LEAK ALARM FROM MCP
16	PUMP 1 LEAK ALARM FROM MCP
17	PUMP 2 LEAK ALARM FROM MCP
18	PUMP 2 LEAK ALARM FROM MCP
19	PUMP 1 TEMPERATURE ALARM FROM MCP
20	PUMP 1 TEMPERATURE ALARM FROM MCP
21	PUMP 2 TEMPERATURE ALARM FROM MCP
22	PUMP 2 TEMPERATURE ALARM FROM MCP
23	SPARE
24	SPARE
25	SPARE
26	SPARE
27	PUMP 1 FAULT RELAY CONTACT
28	PUMP 1 FAULT RELAY CONTACT
29	PUMP 2 FAULT RELAY CONTACT
30	PUMP 2 FAULT RELAY CONTACT
31	SOFTSTARTER NO. 3 FAULT FROM M3
32	SOFTSTARTER NO. 3 FAULT FROM M3
33	PUMP 3 START COMMAND TO M3 (IN MCP)
34	PUMP 3 START COMMAND TO M3 (IN MCP)
35	P3 "ON" SIGNAL FROM M3 (IN MCP)
36	P3 "ON" SIGNAL FROM M3 (IN MCP)
37	PUMP 3 LEAK ALARM FROM MCP
38	PUMP 3 LEAK ALARM FROM MCP
39	PUMP 3 TEMPERATURE ALARM FROM MCP
40	PUMP 3 TEMPERATURE ALARM FROM MCP
41	PUMP 3 FAULT RELAY CONTACT
42	PUMP 3 FAULT RELAY CONTACT

TB1 (□) CONTINUED FROM BELOW LEFT

TERM.	DESCRIPTION
43	PUMP 1 HIGH LEVEL SHUTDOWN (CR8)
44	PUMP 1 HIGH LEVEL SHUTDOWN (CR8)
45	PUMP 2 HIGH LEVEL SHUTDOWN (CR8)
46	PUMP 2 HIGH LEVEL SHUTDOWN (CR8)
47	PUMP 3 HIGH LEVEL SHUTDOWN (CR8)
48	PUMP 3 HIGH LEVEL SHUTDOWN (CR8)
49	PUMP HIGH LEVEL SHUTDOWN IND. (CR9)
50	PUMP HIGH LEVEL SHUTDOWN IND. (CR9)
51	HIGH LEVEL SHUTDOWN COMMAND (PCSR)
52	HIGH LEVEL SHUTDOWN COMMAND (PCSR)
53	PUMP 3 LOW LEVEL SHUTDOWN (CR10)
54	PUMP 3 LOW LEVEL SHUTDOWN (CR10)
55	PUMP 3 LOW LEVEL SHUTDOWN IND. (CR10)
56	PUMP 3 LOW LEVEL SHUTDOWN IND. (CR10)
57	#3 LOW LEVEL SHUTDOWN COMMAND (PCSR)
58	#3 LOW LEVEL SHUTDOWN COMMAND (PCSR)
59	PUMP 3 LOW LVL SHUTDOWN RESET (CR11)
60	PUMP 3 LOW LVL SHUTDOWN RESET (CR11)
61	PUMP 2 START FROM PC-1 (CR7)
62	PUMP 2 START FROM PC-1 (CR7)
63	PUMP 3 START FROM PC-1 (TD1)
64	PUMP 3 START FROM PC-1 (TD1)
65	PUMP 3 LOSS OF POWER RESET (TD2)
66	SPD-3 NEUTRAL OUT
67-75	SPARE
L1	MAIN BREAKER CB6 OUT
L2	SPD-2 120V LINE OUT
L3	CB7 OUT
L4	CB8 OUT
L5	CB9 OUT
L6	SPARE CB10 BREAKER

TB2 (□) (24V DC) MOUNTED ON PUMP CONTROL PANEL (PCP)

TERM.	DESCRIPTION
71	SLOT 1 PCSR 24V+
72	FS1 SOUTH WET WELL HIGH
73	FS1 SOUTH WET WELL NOT HIGH
74	PUMP 1 "AUTO" TO PCSR
75	PUMP 1 "HAND" TO PCSR
76	PUMP 1 "ON" TO PCSR
77	PUMP 1 "FAULT" TO PCSR
78	PUMP 2 "AUTO" TO PCSR
79	PUMP 2 "HAND" TO PCSR
80	PUMP 2 "ON" TO PCSR
81	PUMP 2 "FAULT" TO PCSR
82	PUMP CONTROL PANEL INTRUSION
83	
84	PUMP 3 "AUTO" TO PCSR
85	PUMP 3 "HAND" TO PCSR
86	PUMP 3 "ON" TO PCSR
87	PUMP 3 "FAULT" TO PCSR
88	MOTOR CONTROL PANEL INTRUSION
89	
90	MOTOR CONTROL PANEL INTRUSION
91	
92	SLOT 2 PCSR 24V+
93	UTIL. POWER AVAILABLE (PM1) TO PCSR
94	MOTOR CONTROL PANEL PHASE LOSS (PM2) TO PCSR
95	PUMP #1 MCP STATUS PHASE LOSS (PM3) TO PCSR
96	PUMP #2 MCP STATUS PHASE LOSS (PM4) TO PCSR
97	PUMP #3 MCP STATUS PHASE LOSS (PM5) TO PCSR
98	SLOT 2 PCSR 24V+
99	PUMP 1 AMPS
100	PUMP 2 AMPS
101	PUMP 3 AMPS
102	SLOT 2 PCSR 24V+
103	NORTH WET WELL LOW ALARM
104	POND HIGH LEVEL ALARM
105-112	SPARES
X-Y	TERMINAL POINT MOUNTED ON PCP (INTERFACE TO PCSR)
○	TERMINAL POINT ON PCSR
□	TERMINAL POINT IN PUMP CONTROL PANEL (PCP)
⊗	TERMINAL POINT IN MOTOR CONTROL PANEL (MCP)

TB3 (⊗) (120V AC) MOUNTED ON MOTOR CONTROL PANEL (MCP)

TERM.	DESCRIPTION
1	120V FRM PANELBOARD PLP CIR #1
2	NEUTRAL FROM PANELBOARD PLP
3	PUMP 1 START COMMAND FROM CR1-1 (IN PCP)
4	PUMP 1 START COMMAND FROM CR1-1 (IN PCP)
5	PUMP 2 START COMMAND FROM CR2-1 (IN PCP)
6	PUMP 2 START COMMAND FROM CR2-1 (IN PCP)
7	PUMP 1 'ON' SIGNAL TO CR4 (IN PCP)
8	PUMP 1 'ON' SIGNAL TO CR4 (IN PCP)
9	PUMP 2 'ON' SIGNAL TO CR5 (IN PCP)
10	PUMP 2 'ON' SIGNAL TO CR5 (IN PCP)
11	SOFTSTART 1 FAULT SIGNAL TO PCP
12	SOFTSTART 1 FAULT SIGNAL TO PCP
13	SOFTSTART 2 FAULT SIGNAL TO PCP
14	SOFTSTART 2 FAULT SIGNAL TO PCP
15	PUMP 1 LEAK DETECTED TO PILOT LIGHT 7 (IN PCP)
16	PUMP 1 LEAK DETECTED TO PILOT LIGHT 7 (IN PCP)
17	PUMP 2 LEAK DETECTED TO PILOT LIGHT 8 (IN PCP)
18	PUMP 2 LEAK DETECTED TO PILOT LIGHT 8 (IN PCP)
19	PUMP 1 TEMPERATURE ALARM TO FM1 (IN PCP)
20	PUMP 1 TEMPERATURE ALARM TO FM1 (IN PCP)
21	PUMP 2 TEMPERATURE ALARM TO FM2 (IN PCP)
22	PUMP 2 TEMPERATURE ALARM TO FM2 (IN PCP)
23	PUMP 3 START COMMAND FROM CR3-1 (IN PCP)
24	PUMP 3 START COMMAND FROM CR3-1 (IN PCP)
25	PUMP 3 'ON' SIGNAL TO CR6 (IN PCP)
26	PUMP 3 'ON' SIGNAL TO CR6 (IN PCP)
27	SOFTSTART 3 FAULT SIGNAL TO PCP
28	SOFTSTART 3 FAULT SIGNAL TO PCP
29	PUMP 3 LEAK DETECTED TO PILOT LIGHT 9 (IN PCP)
30	PUMP 3 LEAK DETECTED TO PILOT LIGHT 9 (IN PCP)
31	PUMP 3 TEMPERATURE ALARM TO FM3 (IN PCP)
32	PUMP 3 TEMPERATURE ALARM TO FM3 (IN PCP)
34-38	SPARE
33	SPD-2 NEUTRAL OUT
L1	MAIN BREAKER CB5 OUT
L2	SPD-2 120V LINE OUT

TB4 (⊗) (24V DC) MOUNTED ON MOTOR CONTROL PANEL (MCP)

TERM.	DESCRIPTION
39	SLOT 2 PCSR 24V+
40	UTILITY POWER AVAILABLE (PM1) TO PCSR
41	SLOT 2 PCSR 24V+
42	MOTOR CONTROL PANEL PHASE LOSS (PM2) TO PCSR
43	SLOT 2 PCSR 24V+
44	PUMP #1 MCP STATUS PHASE LOSS (PM3) TO PCSR
45	SLOT 2 PCSR 24V+
46	PUMP #2 MCP STATUS PHASE LOSS (PM4) TO PCSR
47	SLOT 2 PCSR 24V+
48	MOTOR CONTROL PANEL INTRUSION
49	
50	SLOT 2 PCSR 24V+
51	PUMP 1 AMPS
52	PUMP 2 AMPS
53	PUMP 1 SEAL LEAK DETECTOR PROBE
54	PUMP 1 SEAL LEAK DETECTOR PROBE
55	PUMP 2 SEAL LEAK DETECTOR PROBE
56	PUMP 2 SEAL LEAK DETECTOR PROBE
57	SLOT 2 PCSR 24V+
58	PUMP #3 MCP STATUS PHASE LOSS (PM5) TO PCSR
59	PUMP 3 AMPS
60	PUMP 3 SEAL LEAK DETECTOR PROBE
61	PUMP 3 SEAL LEAK DETECTOR PROBE
62	SLOT 2 PCSR 24V+
63	MOTOR CONTROL PANEL INTRUSION
64	
65-75	SPARE
X-Y	TERMINAL POINT MOUNTED ON PCP (INTERFACE TO PCSR)
○	TERMINAL POINT ON PCSR
□	TERMINAL POINT IN PUMP CONTROL PANEL (PCP)
⊗	TERMINAL POINT IN MOTOR CONTROL PANEL (MCP)

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CITY of TAMPA
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 and Stormwater Services
 Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL SCHEMATIC LEGEND

SHEET
E-15
 OF



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PARTS SCHEDULE

SYMBOL	NAME	PART				REMARKS
		MAKE	TYPE	MODEL OR CAT. #	RATING	
CB 1	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36070	600 V, 70A	18 KAIC @ 480VAC
CB 2	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36070	600 V, 70A	
CB 3	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 36070	600 V, 70A	
CB 4	CIRCUIT BREAKER	SQUARE D	TWO POLE	HDL 26040	600 V, 40A	
CB 5 AND 6	CIRCUIT BREAKER	SQUARE D	SINGLE POLE	QOU-115	120 V, 15A	
CB 6, 7, 8, 9, 10	CIRCUIT BREAKER	SQUARE D	SINGLE POLE	QOU-115	120 V, 15A	
M1, M2, M3	MOTOR STARTER	SOLCON	RVSS	RVS-DX 44-480-115-8-U-S	44 A	PROVIDE REMOTE KEYPAD
CA1, CA2, CA3	CIRCUIT SENSOR	ENERCORP INSTRUMENTS	4-20 mA OUTPUT	SC200-2	0 - 100A	ADJUSTABLE RANGE
PL1, PL3, PL5	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LYA9	120 V, LED TYPE	YELLOW LENS & PRESS TEST
PL2, PL4, PL6	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LRR9	120 V, LED TYPE	RED LENS & PRESS TEST
PL7, PL8, PL9, PL10, PL11	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LRR9	120 V, LED TYPE	RED LENS & PRESS TEST
S1, S2, S3	HOA SWITCH ASSEMBLY	SQUARE D	OIL-TIGHT CLASS 9001	SKS - 43B H2	10A @ 120V	
PB1	RESET PUSHBUTTON	SQUARE D	OIL-TIGHT CLASS 9001	KR1 - RH13	10A @ 120V	
ETM1, ETM2, ETM3	ELAPSED TIME METER	CRAMER	ROUND BEZEL, NON RESET	635E&S	120 V	W.W. GRANGER CAT. NO. 6X144
ZS1, ZS2, ZS3	CONTROL PNL INTRUSION SENSOR	OMRON	CYLINDRICAL, SHORT BARREL	E2F-X5F1 (GRAINGER-1EA77)	12-24VDC, 3-WIRE PNP	W/ TELEMECANIQUE MTG. BRACKET (GRAINGER - 5B233)
FF1, FF2 & TS	LED LIGHTING FIXTURE	HOFFMAN	LED	LEDA1S35	120 V, 5W	W/TOGGLE SWITCH-TS
WR1, WR2	WALL RECEPTACLE	HUBBELL	DUPLEX W/GFI	GF5262	120V AC, 15A GFI	W/ALUMINUM OUTLET BOX AND COVER
SPD-1	SURGE PROTECTIVE DEVICE TYPE 1	ADVANCED PROTECTION TECHNOLOGIES	MOTOR CONTROL PANEL SPD	TE04XDS104X	277/480 V, 3Ø, 4W	
SPD-2, SPD-3	SURGE PROTECTIVE DEVICE TYPE 1	PHOENIX CONTACT	#2858357	TE04XDS104X	120V AC, SINGLE-PHASE	
TB1, TB2, TB3, TB4	TERMINALS	PHOENIX CONTACT		UK5N TERMINALS	30 A W/ ALUM. DIN RAIL	50 CONTACTS (MIN)
ITS	INSULATED TERMINAL STRIP	ALLEN-BRADLEY	STYLE AA	1492-15-T	600 V AC NEUTRAL BLOCK	4 CONTACTS (MIN) W/ SHORTING BARS
MCP	MOTOR CONTROL PANEL ENCLOSURE	HOFFMAN	NEMA 4X, 3P LATCH, 62"x48"x12"	62"x48"x12" SS	304 SS	3P LATCH W/STOP KIT.
MP	ENCLOSURE PANEL	HOFFMAN	57" X 44", STEEL	A60P48	STEEL, 12 GAUGE	
GB1	GROUND BAR SYSTEM	PANDUIT	12 PORT WITH MAIN LUG	UGB2/0-414-12		COPPER CONSTRUCTION
GB2	GROUNDING BLOCK	ILSCO	AS REQUIRED	AS REQUIRED		
IT	ISOLATION TRANSFORMER	SQUARE D	120V/120V ISOLATION	9070 T100D24		
TA1, TA2, TA3, CR1, CR2, CR3, CR7	CONTROL RELAY	POTTER & BRUMFIELD	8 PIN PLUG-IN	KRPA-11AG-120	120V AC COIL, 10A CONTACTS	DPDT W/ SOCKET AND HOLD DOWN SPRING
FM1, FM2, FM3, CR4, CR5, CR6, CR8, CR9, CR10	CONTROL RELAY	POTTER & BRUMFIELD	8 PIN PLUG-IN	KRPA-14AG-120	120V AC COIL, 10A CONTACTS	3PDT W/ SOCKET AND HOLD DOWN SPRING
TD1	TIME DELAY RELAY	SQUARE-D	8 PIN PLUG-IN	9050JCK17V20	120V AC COIL, 10A CONTACTS	DPDT, N.O.T.C. W/ SOCKET AND HOLD DOWN SPRING. 0.1-99.9 MIN ADJUST
TD2	TIME DELAY RELAY	SQUARE-D	8 PIN PLUG-IN	9050JCK31V20	120V AC COIL, 10A CONTACTS	DPDT, N.C.T.O. W/ SOCKET AND HOLD DOWN SPRING. 0.1-99.9 MIN ADJUST
LEV	WET WELL LEVEL SENSOR	PULSAR, INC.	ULTRASONIC	dB10 TRANSDUCER W/ BLACKBOX 130 TRANSMITTER PART #: 130-110-300-00P-KP-TROP	1 TD 32.8 FT RANGE 115VAC/24VDC POWERED W/ 4-20MA AND (2) RELAY OUT W/ KEY PAD, DISPLAY, AND TROPICALIZATION	EXISTING TO BE RELOCATED TO PCP

PARTS SCHEDULE IS CONTINUED ON SHEET E-17

NOTES:

- ALARM FLOAT SWITCHES WILL BE SUPPLIED BY THE CITY AND INSTALLED BY CONTRACTOR.
- DIMENSIONS, ITEMS, OR ELEVATIONS MARKED "*" SHALL BE DETERMINED AFTER EQUIPMENT SELECTION.



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CITY of TAMPA
Department of Transportation
and Stormwater Services
Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
PARTS SCHEDULE (SHEET 1 OF 2)

SHEET
E-16
OF

PARTS SCHEDULE (CONTINUED)

SYMBOL	NAME	PART				REMARKS
		MAKE	TYPE	MODEL OR CAT. #	RATING	
PM1, 2, 3, 4, 5	3-PHASE POWER MONITOR	ATC DIVERSIFIED ELECTRONICS	8 PIN PLUG-IN	SUA-440-ASA	440 VAC	WITH OPTIONAL 5-SEC RELEASE AND DIN RAIL SOCKET
PDB	PWR DIST. BLOCK	ILSCO	THREE POLE	PDB-112-350-3	600 V, 310 AMP	WITH LEXAN COVER
FBD1, 2, 3, 4, 5	FUSE BLOCK / DISCONNECT	ALLEN BRADLEY	THREE PHASE- HIGH INTER. CAP.	1492-FB3C30-L	600 VAC, 200KAIC	WITH BUSSMANN KTK-R-2 FAST ACTING, REJECTION FUSES
BATT.	BATTERY	POWERSONIC	ABSORBENT GLASS MAT (AGM)	PS-1270 F2	12 VOLT, 7.0 AH	WITH 0.25" x 0.032" TABS
BATT. CHR.G.	BATTERY CHARGER	DELTRAN CORP.	BATTERY TENDER	WATERPROOF 800	120VOLT, 800 mADC	QUALIFICATION, BULK, & FLOAT CHARGING
PC-1	BACKUP PUMP CONTROLLER	WILKERSON	DUPLEX PUMP STATION	DR1920	10 AMP CONTACTS	DIN RAIL MOUNTING
FL	FLOAT SWITCH	ANCHOR SCIENTIFIC	SPDT	S20NONC	10 A @ 120 V	PROVIDED BY THE CITY INSTALLED BY CONTRACTOR
FTB1, 2	FUSED TERMINAL BLOCKS	PHOENIX CONTACT		UK 5-HESI	PROVIDE 1, 2, & 5A FUSES	PROVIDE COOPER BUSSMAN GDB SERIES FUSES
SLD1, SLD2	PUMP MONITORING UNIT	XYLEM		MINI-CAS 120	10A AT 240V AC	
BWR	BATTERY WALL RECEPTACLE	HUBBELL	DUPLEX WITH GFI	GF5262	120V AC, 15A GFI	WITH ALUMINUM OUTLET BOX AND COVER
PCP	PUMP CONTROL PANEL ENCLOSURE	HOFFMAN	NEMA 4X, 3P LATCH, 42"x36"x12"	42"x36"x12" SS	304 SS, POWDER COATED WHITE	3P LATCH WITH STOP KIT. EXTERNAL FINISH DURABLE RAL 9003 WHITE POWER COAT.
PP	ENCLOSURE PANEL	HOFFMAN	39" X 33", STEEL	A42P36	STEEL, 12 GAUGE	
NB1, 2	NEUTRAL DISTRIBUTION BLOCK	BUSSMAN	SINGLE POLE	16220-1	600V, 175A	
L1	PROCESS METER	PRECISION DIGITAL	4 DIGIT, 1.2" DISPLAY	PD765-6X3-00		PROVIDE 4-20mA OUTPUT
SPD-2	SURGE PROTECTION DEVICE TYPE 3	PHOENIX CONTACT	3 CONDUCTOR SYSTEM (L, N, G)	2856812	120V, 25A	
FDTs	FUSED DOUBLE THROW DISCONNECT SWITCH	EATON	SERVICE ENTRANCE RATED, HEAVY DUTY	DT364FWK	DT200 NK NEUTRAL KIT DS200 GK GROUND KIT DS46 FK R FUSE ADAPTOR KIT	TIME DELAY CLASS RK5 FUSES (6) EDISON ECSR200 (PROVIDE (6) SPARES)
EC	EMERGENCY CONNECTOR	CROUSE & HINDS	ARKTITE	AREA20416-S22 WITH BACK BOX, ANGLE ADAPTER, 2" HUB AND SPRING COVER	600V 200 AMP	



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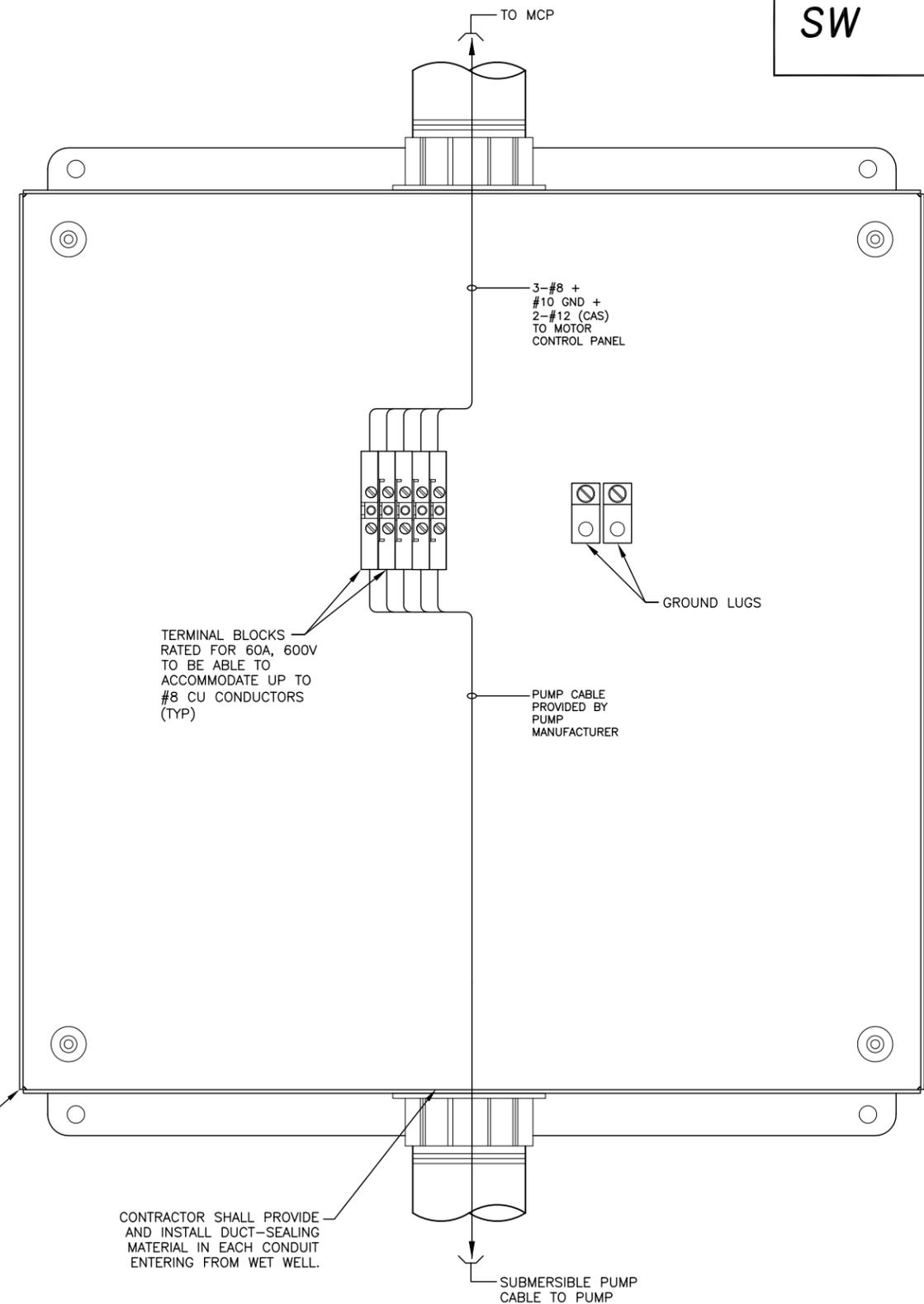
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CITY of TAMPA
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Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
PARTS SCHEDULE (SHEET 2 OF 2)

SW

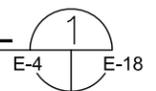
PROPOSED PANEL 'PLP' SCHEDULE													
PANEL 'PLP'; SQUARE D CO. 120/240 VOLTS, 1Ø, 3W 40 AMP MAIN SURFACE ENCLOSURE MINI POWER-ZONE CIRCUIT BREAKER PROVIDE EQUIPMENT GROUND BAR ; TOP AT 5'-6" AFF													
EQUIPMENT SERVED	CIRCUIT BREAKER			KVA/PHASE		CIRC. NO.		KVA/PHASE		CIRCUIT BREAKER			EQUIPMENT SERVED
	POLE	AMPS	FRAME	A	B	NO.	NO.	A	B	POLE	AMPS	FRAME	
MOTOR CONTROL PANEL	1	20	QOB	1.0		1	2	0.8		1	20	QOB	PUMP CONTROL PANEL
FANS	1	20	QOB		1.2	3	4		0.6	1	20	QOB	EXISTING EXTERIOR LIGHTING
INTERIOR LIGHTING	1	20	QOB	0.6		5	6	0.2		1	20	QOB	RECEPTACLE
SPARE	1	20	QOB			7	8		0.2	1	20	QOB	RECEPTACLE
SPACE	--	--	--			9	10			--	--	--	SPACE
SUB-TOTAL KVA				1.6	1.2			1.0	0.8				
TOTAL CONNECTED LOAD = 4.6 KVA						TOTAL DEMAND LOAD = 4.6 KVA							



PROVIDE AND INSTALL A 12"x12"x6" NEMA 4X, STAINLESS STEEL JUNCTION BOX WITH HINGED DOOR, WIEGMANN #BN4121206CHSS.

CONTRACTOR SHALL PROVIDE AND INSTALL DUCT-SEALING MATERIAL IN EACH CONDUIT ENTERING FROM WET WELL.

HIGH VOLTAGE JUNCTION BOX DETAIL
SCALE : N.T.S



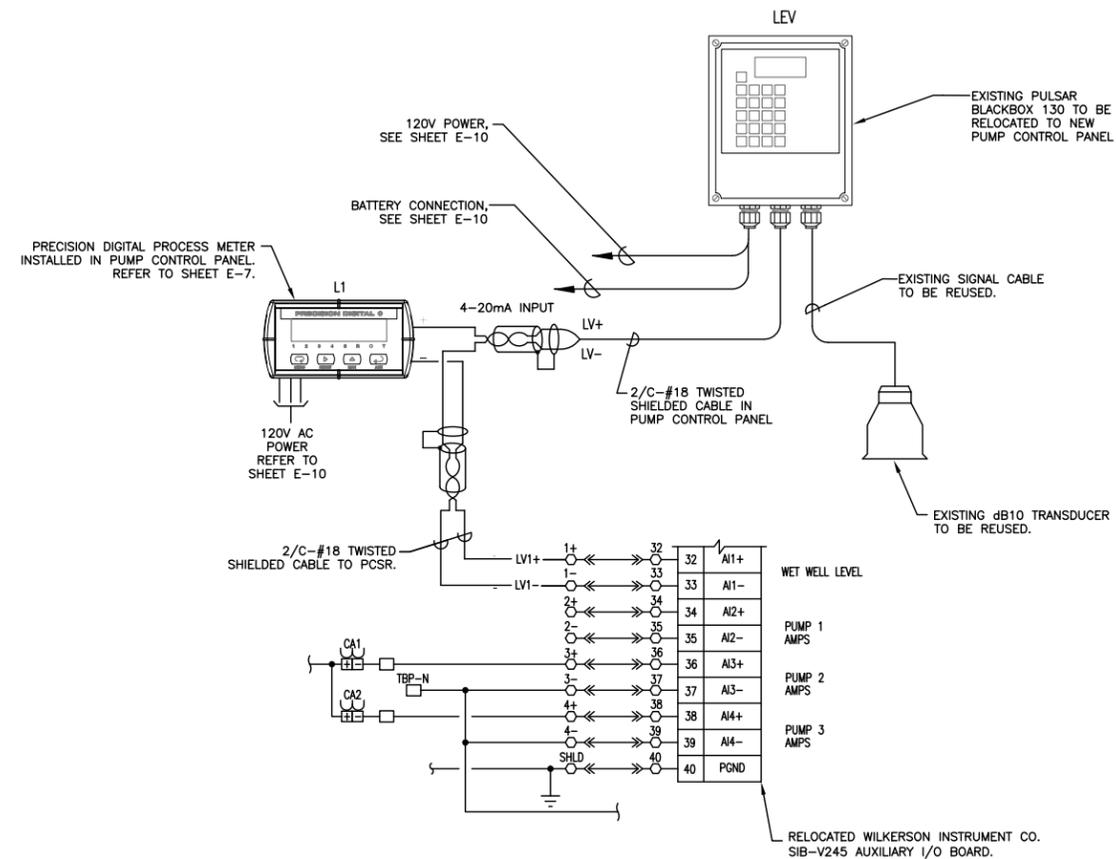
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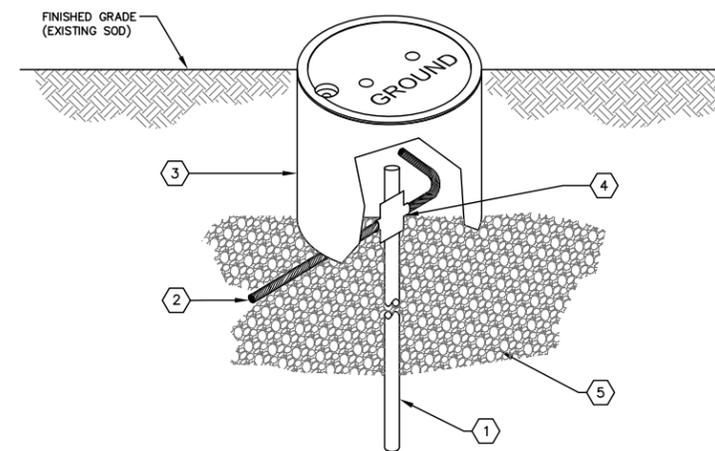
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Stormwater Engineering Division

POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL DETAILS (SHEET 1 OF 2)

SHEET
E-18
OF



LEVEL TRANSMITTER WIRING SCHEMATIC



GROUND TEST WELL DETAIL
SCALE : N.T.S. E-4 | 1 | E-19

- GROUND TEST WELL DETAIL KEYED NOTES:**
- ① NEW GROUND ROD, STAINLESS STEEL, 5/8" X 10'-0" (TYP).
 - ② #4 BARE STRANDED COPPER GROUNDING ELECTRODE CONDUCTOR (TYP).
 - ③ PROVIDE AND INSTALL OLDCASTLE PRECAST ENCLOSURE SOLUTIONS #F08 BOX WITH #F08C CAST IRON LID MARKED "GROUND".
 - ④ EXOTHERMIC WELD.
 - ⑤ PROVIDE 6" MINIMUM OF CRUSHED STONE.



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POINSETTIA PUMP STATION REPLACEMENT
ELECTRICAL DETAILS (SHEET 2 OF 2)

SHEET
E-19
OF

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEERS.
2. DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS NOTED OTHERWISE.
3. ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:
 - A. ACI STANDARD 318-11 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
 - B. ASCE 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".
 - C. AASHTO H-20 WHEEL LOADS = 16,000 LBS OVER 8"x20" AREA + 30% IMPACT FACTOR.
 - D. THE FLORIDA BUILDING CODE, SIXTH EDITION (2017).
4. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER PRIOR TO PERFORMING WORK. IN CASE OF CONFLICT THE MOST STRINGENT CONDITION SHALL APPLY.
5. ALL DIMENSIONS MUST BE COORDINATED WITH CITY OF TAMPA PUMP STATION DRAWINGS AND WITH EQUIPMENT MANUFACTURER. CONTRACTOR MUST OBTAIN AN CITY OF TAMPA, STORMWATER ENGINEERING DIRECTIVE IN CASE OF ANY CONFLICT. REFER TO CITY OF TAMPA DRAWINGS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.

CONCRETE AND REINFORCING:

1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI-318".
2. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5000 PSI.
3. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE. PRIOR TO POURING CONCRETE. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A-706.
4. UNLESS NOTED, ALL BARS MARKED CONTINUOUS SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS.
5. CONCRETE COVER FOR REINFORCING BARS SHOWN IN TYPICAL DETAILS.
6. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED JUST BEFORE PLACING NEW CONCRETE IN ACCORDANCE WITH THE BUILDING CODE.
7. FLY ASH - ASTM C618, TYPE C OR TYPE F SHOULD BE USED BUT NOT TO EXCEED 20% CEMENTITIOUS CONTENT.
8. ALL EXPOSED CONCRETE SLABS SHALL RECEIVE A CURING COMPOUND. THE CURING COMPOUND SHALL CONFORM TO ASTM C309 AND SHALL HAVE 30% SOLIDS MINIMUM. WATER/BLANKET CURING AS PER ACI RECOMMENDATION MAY BE USED AS ALTERNATE.

SEAL:

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST A.I.S.C. SPECIFICATIONS.
2. STRUCTURAL STEEL SHALL CONFORM TO:

SHAPES (L,T,C,PL)	ASTM A441 (50KSI)
FRAMING BOLTS	ASTM A325 OR A490
WELDING ELECTRODES	E70XX
3. INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
4. ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS, SLIP-CRITICAL (FRICTION) TYPE.
5. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE, AWS D1.1, ALL WELDING SHALL BE PERFORMED USING E70XX U.N.O.
6. CUTS, HOLES, COPINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AS REQUIRED BY THE ENGINEER.
7. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER.
8. ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE GALVANIZED.
9. ANY STEEL MEMBERS REQUIRED BY THE ELECTRICAL OR MECHANICAL TRADES FOR THE SUPPORT OF THEIR EQUIPMENT, WHICH ARE NOT SHOWN ON CITY OF TAMPA STORMWATER ENGINEERING OR STRUCTURAL DRAWINGS, SHALL BE PROVIDED BY THE TRADE REQUIRING SUCH SUPPORT.
10. SEE SPECIFICATIONS FOR PAINTING OF STRUCTURAL STEEL. ALL FABRICATION AND ERECTION MARKS SHALL BE COVERED DURING FIELD TOUCH-UP PAINTING.
11. SEAL INSIDE CORNERS OF STEEL CHANNEL AND CONCRETE SURFACE WITH A POLYURETHANE-BASED, NON-SAG ELASTOMERIC SEALANT SUCH AS SIKAFLEX-1A+ - LIMESTONE COLOR.
12. GUARD RAILINGS: FLORIDA BUILDING CODE 5TH EDITION (2014) SECTION 1013 GUARDS 1013.1 GENERAL. GUARDS SHALL COMPLY WITH THE PROVISIONS OF SECTIONS 1013.2 THROUGH 1013.7. OPERABLE WINDOWS WITH SILL LOCATED MORE THAN 72 INCHES (1.83 M) ABOVE FINISH GRADE OR OTHER SURFACE BELOW SHALL COMPLY WITH SECTION 1013.8., 1013.2 WHERE REQUIRED. GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, INCLUDING MEZZANINES, EQUIPMENT PLATFORMS, STAIRS, RAMPS AND LANDINGS THAT ARE LOCATED MORE THAN 30 INCHES (762 MM) MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES (914 MM) HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT IN ACCORDANCE WITH SECTION 1607.8.

SHOP DRAWINGS:

1. NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
2. ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS DETAILER.
3. DETAILER SHALL CHECK ALL CIVIL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.



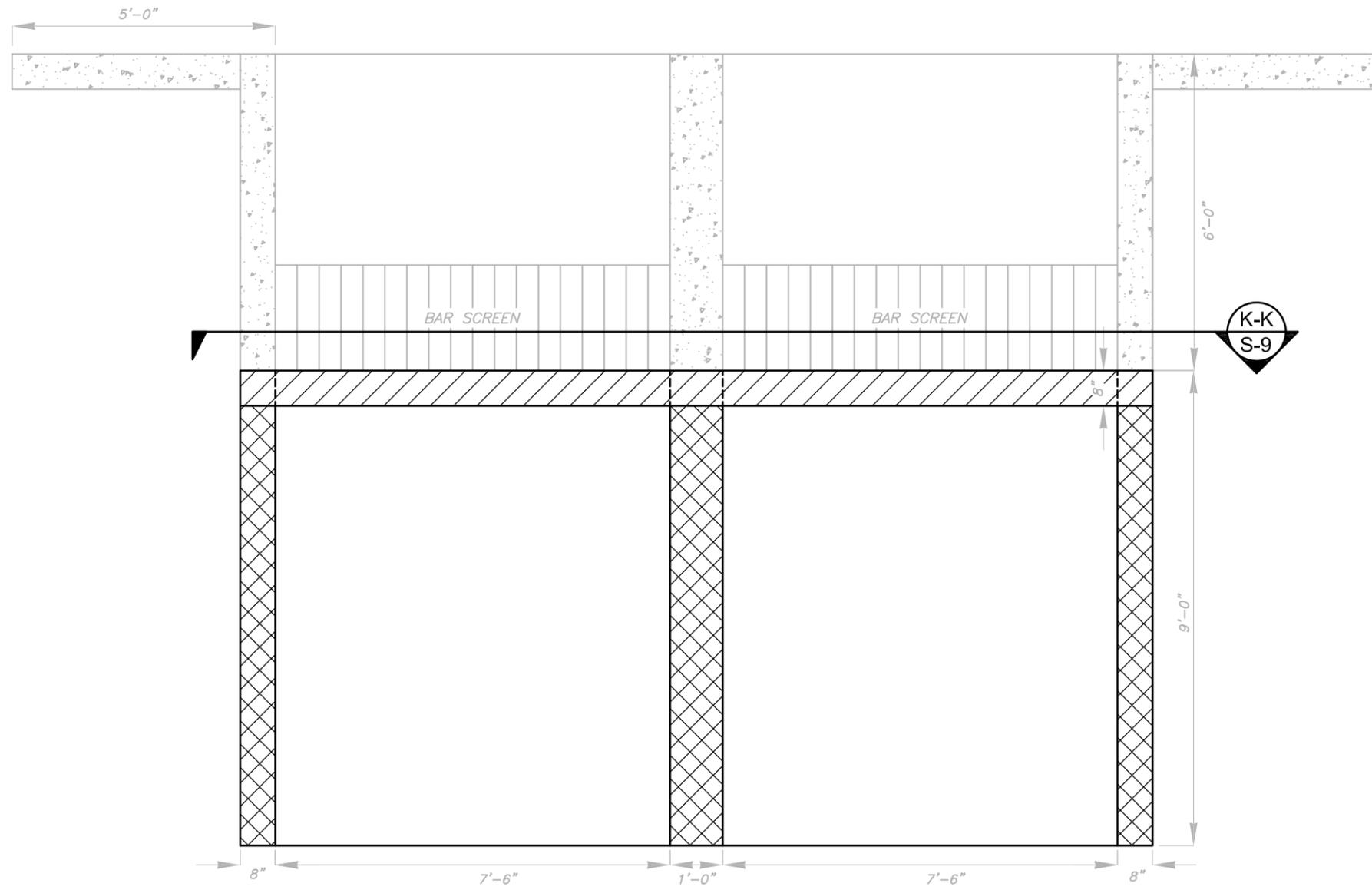
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 CKD: JDS
 DATE: 11/7/17

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POINSETTIA PUMP STATION REPLACEMENT
 STRUCTURAL NOTES



PUMP WELL - DEMOLITON PLAN

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

LEGEND:

-  REMOVE/SAW-CUT EXISTING CONCRETE BEAM AND PORTIONS OF THE EXISTING SIDEWALL AND INTERMEDIATE WALL. SEE K-K/S-9.
-  REMOVE/SAW-CUT THE TOP PORTIONS OF THE EXISTING SIDEWALLS AND INTERMEDIATE WALL TO ELEVATION 30.40.

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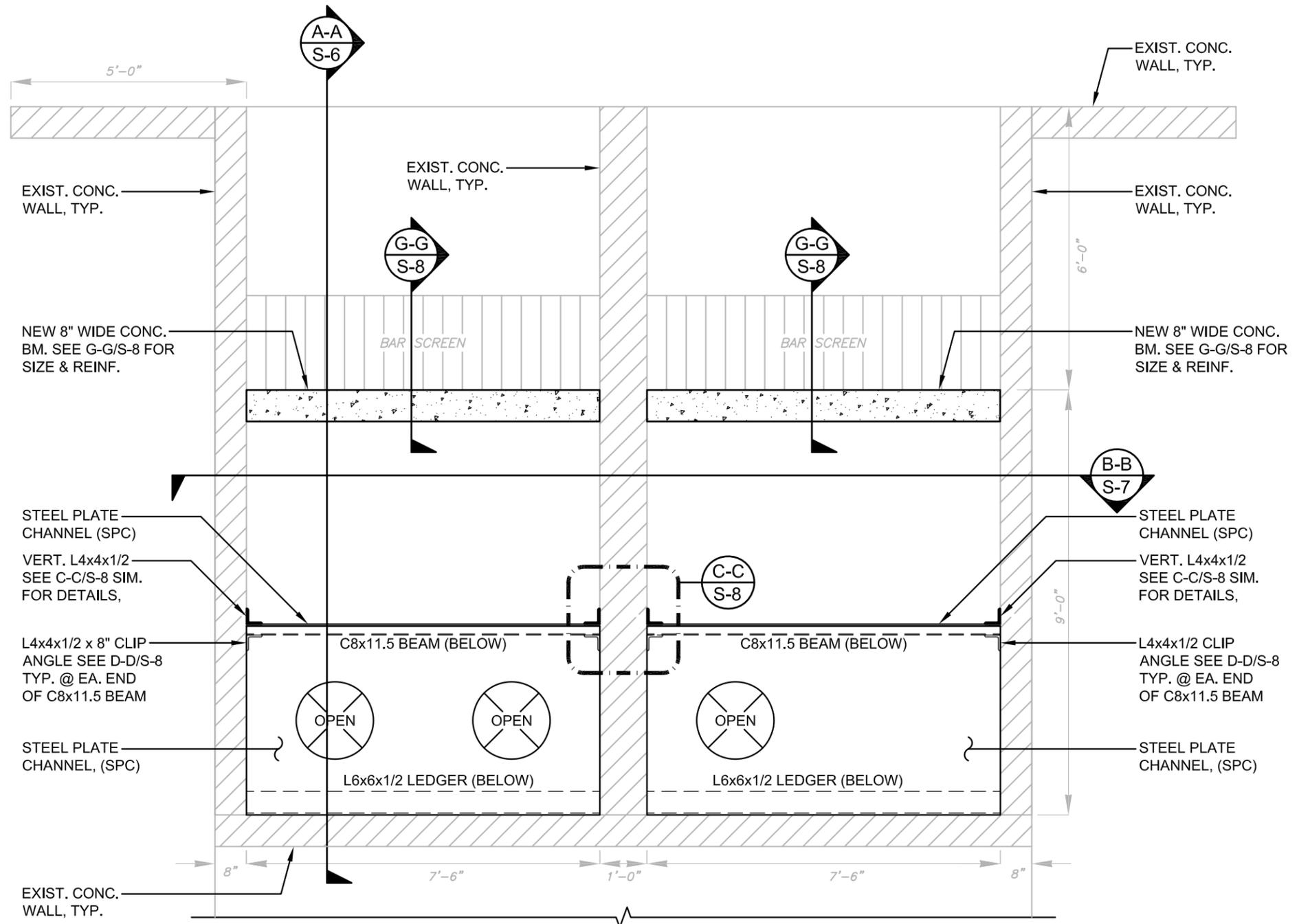
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POINSETTIA PUMP STATION REPLACEMENT

PUMP WELL - DEMOLITION PLAN

SHEET
S-2
OF 9



SEAL:

PUMP WELL - NEW CONSTRUCTION PLAN
SCALE: 3/8" = 1'-0"



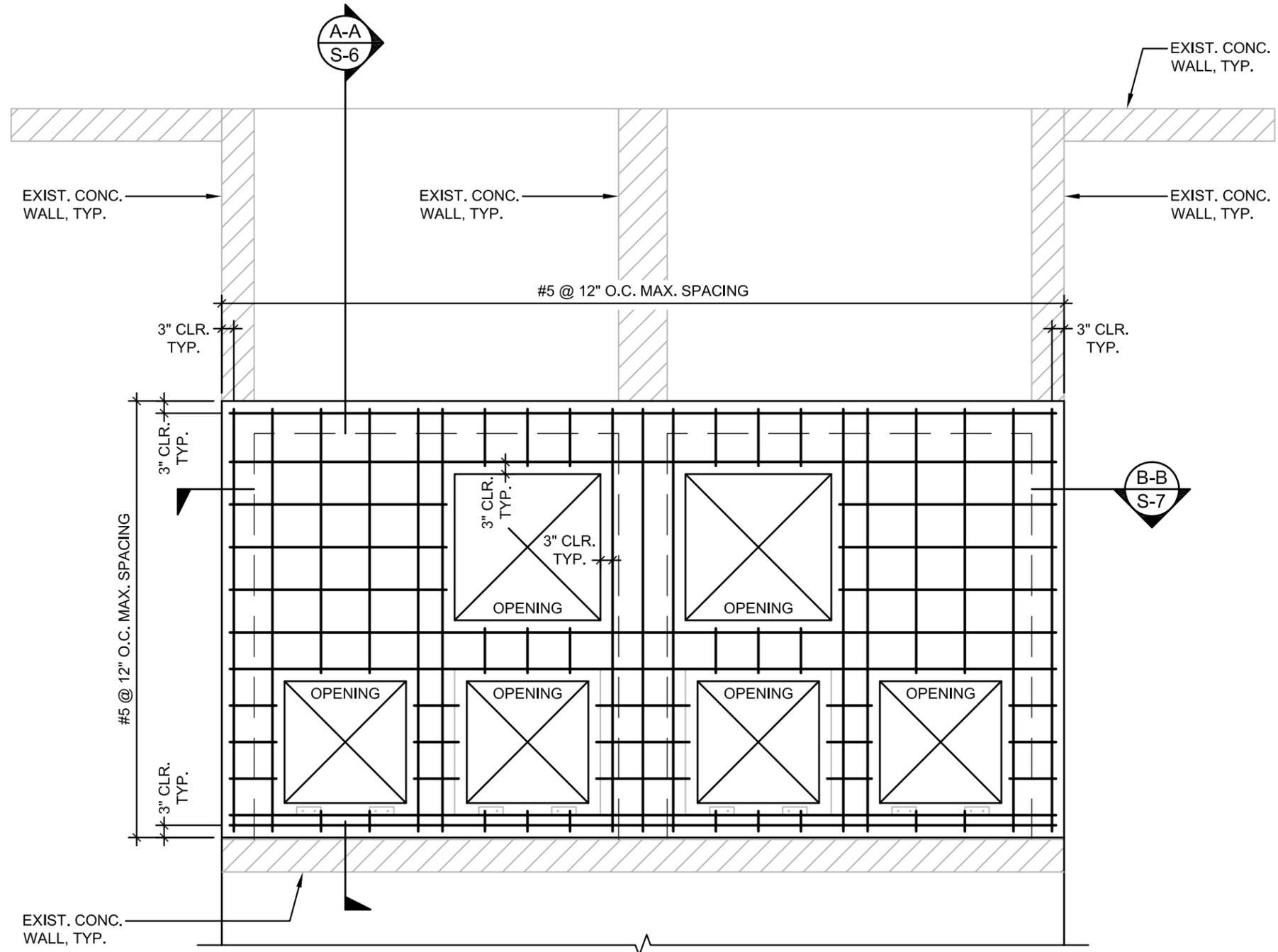
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POINSETTIA PUMP STATION REPLACEMENT
PUMP WELL - NEW CONSTRUCTION PLAN



NEW TOP SLAB - REINFORCEMENT PLAN
 SCALE: 3/8" = 1'-0"

SEAL:



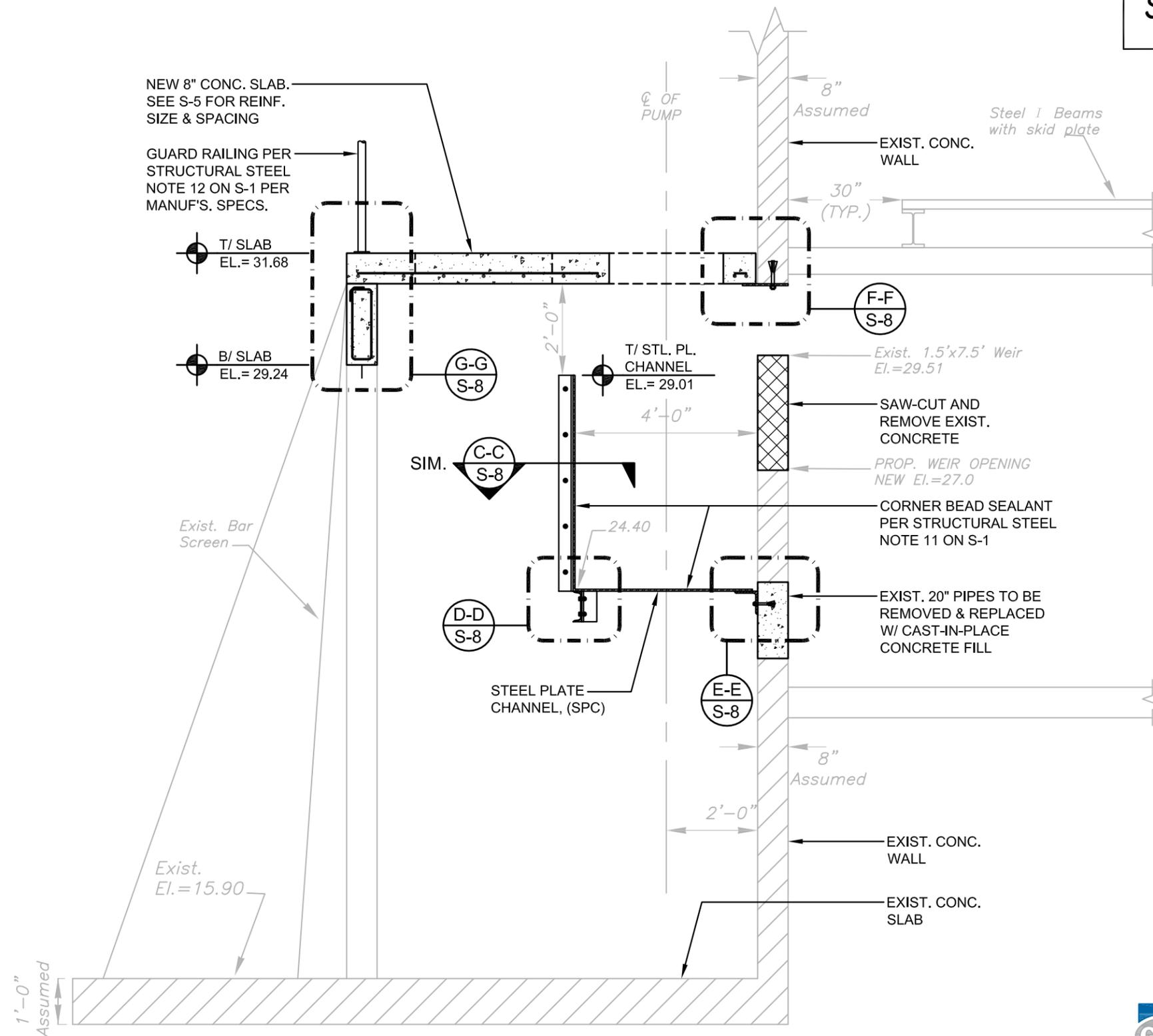
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POINSETTIA PUMP STATION REPLACEMENT
 NEW TOP SLAB - REINFORCEMENT PLAN



SEAL:

(A-A) PUMP WELL - SECTION
(S-5) SCALE: 3/8" = 1'-0"



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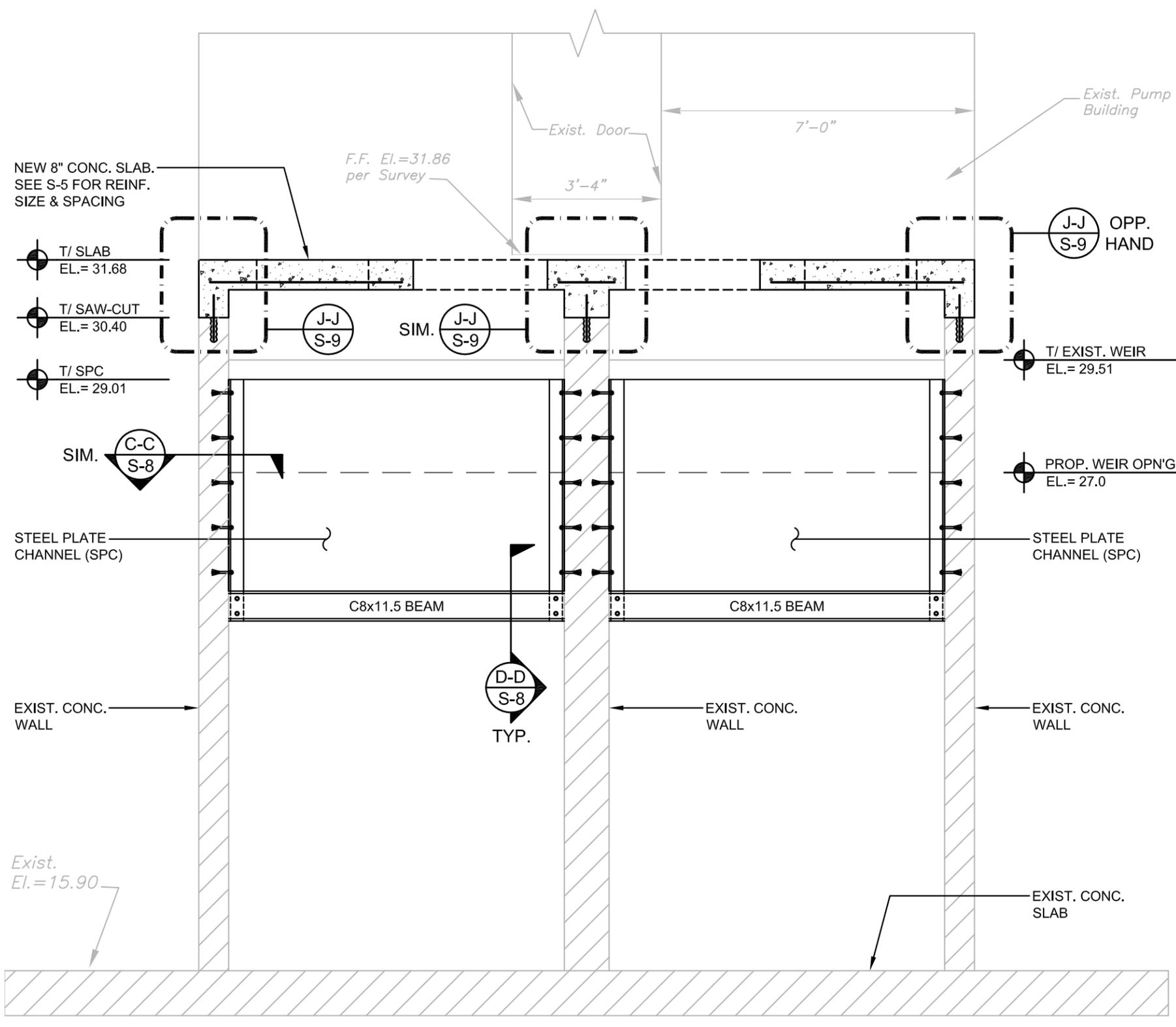
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POINSETTIA PUMP STATION REPLACEMENT
PUMP WELL - SECTION

SHEET
S-6
OF 9

SW



(B-B) PUMP WELL - SECTION
 (S-7) SCALE: 3/8" = 1'-0"



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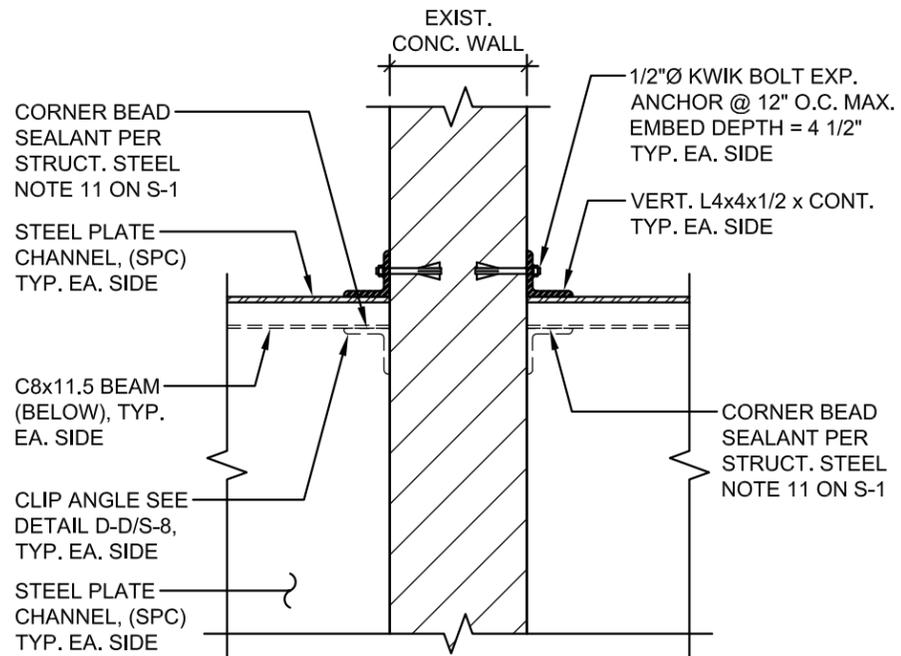
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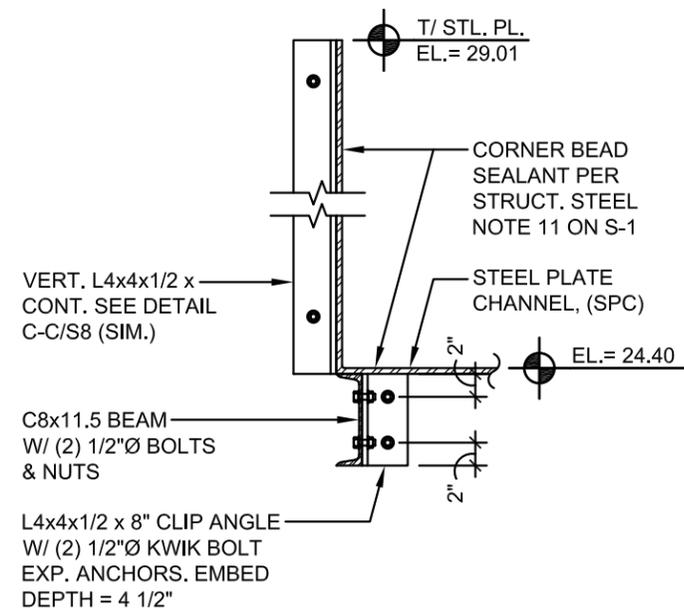
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 PUMP WELL - SECTION

SHEET
S-7
 OF 9

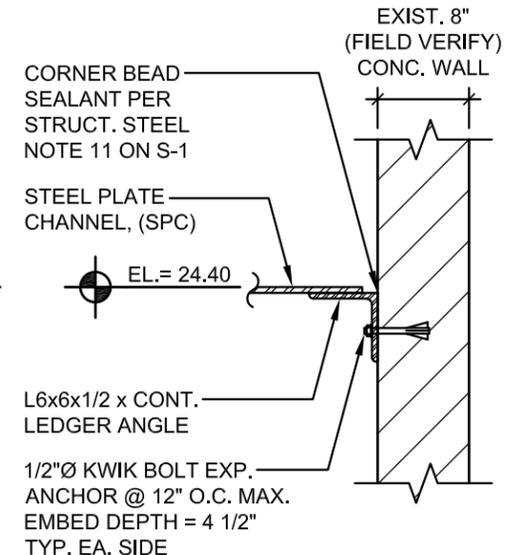
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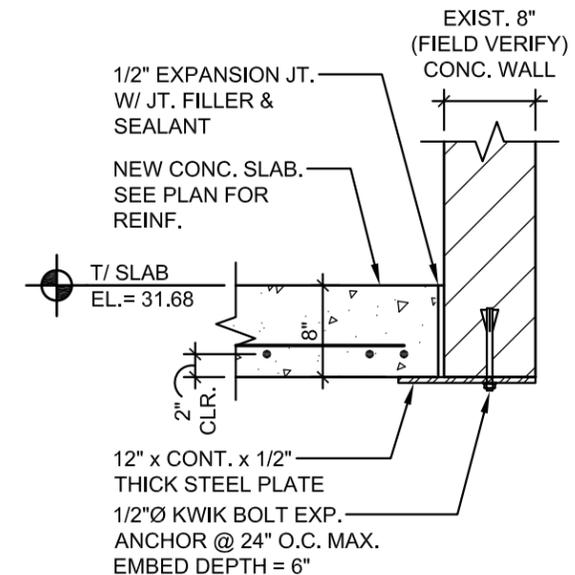
C-C SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



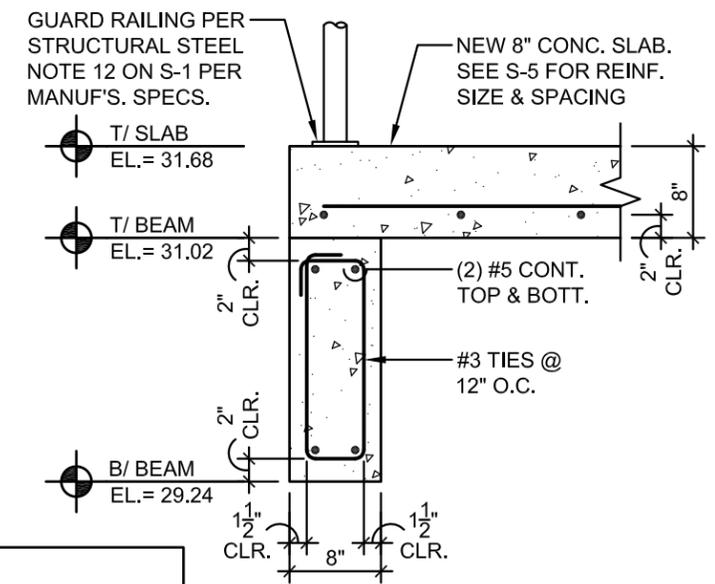
D-D SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



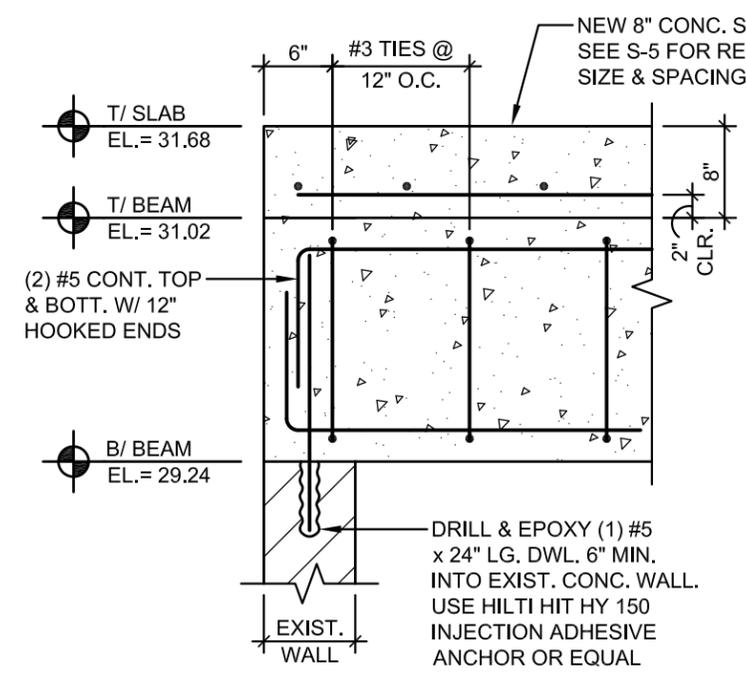
E-E SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



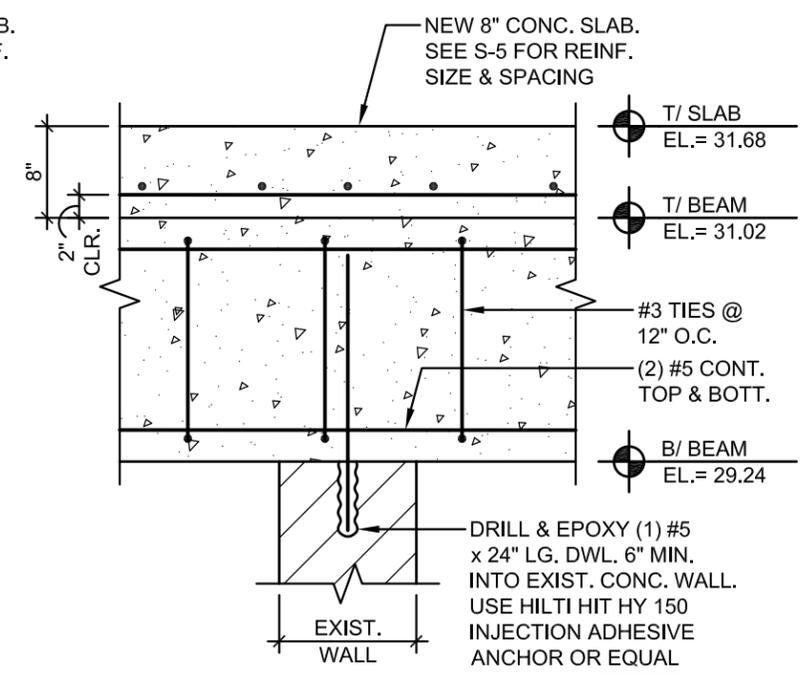
F-F SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



G-G SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



H-H SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"



I-I SECTION DETAIL
S-8 SCALE: 3/4" = 1'-0"

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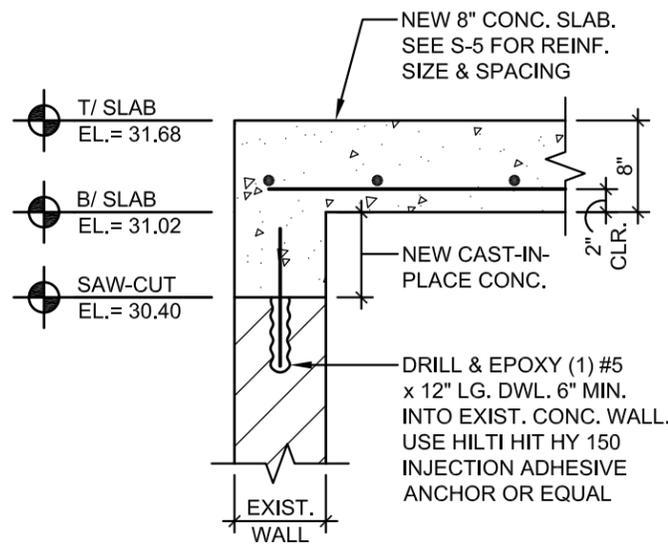
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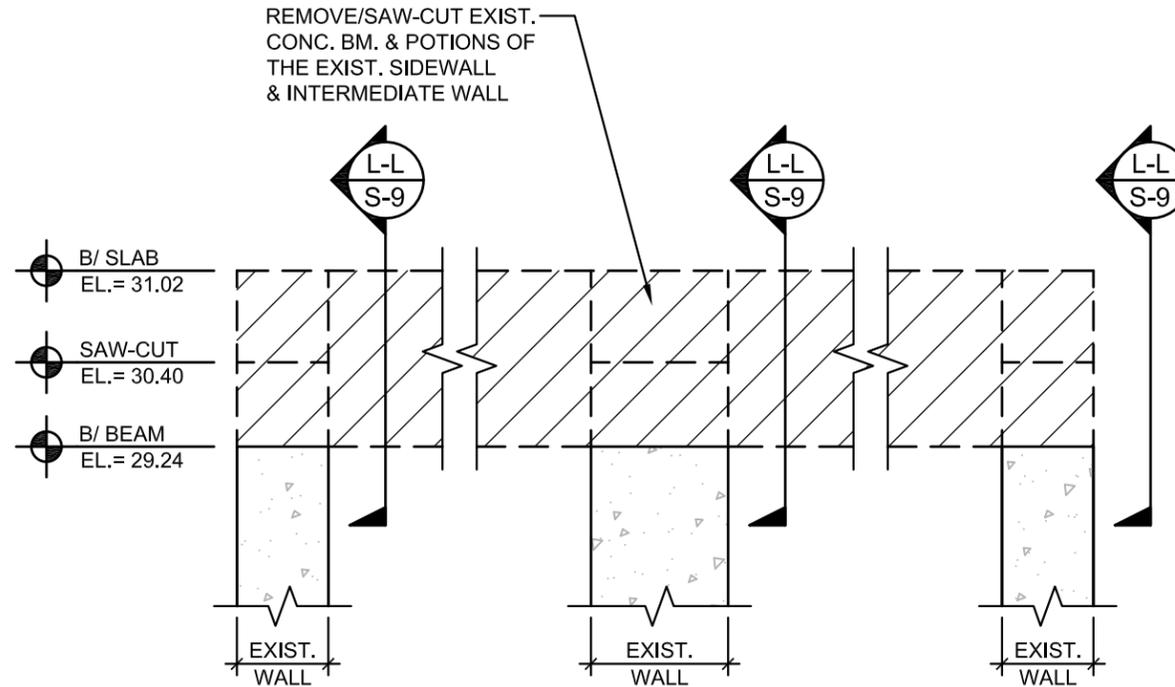
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POINSETTIA PUMP STATION REPLACEMENT
SECTION DETAILS

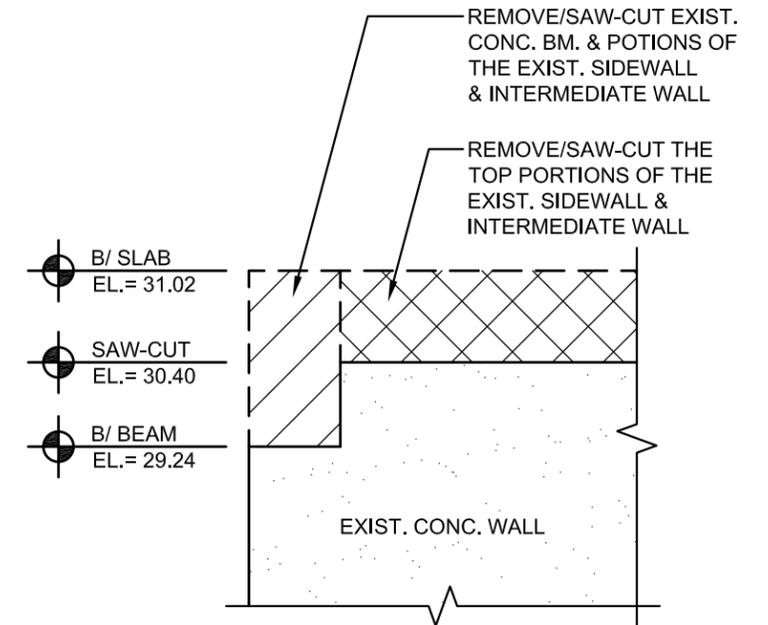
SHEET
S-8
OF 9



J-J SECTION DETAIL
S-9 SCALE: 3/4" = 1'-0"



K-K SECTION DETAIL
S-9 SCALE: 3/4" = 1'-0"



L-L SECTION DETAIL
S-9 SCALE: 3/4" = 1'-0"

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SECTION DETAILS

SHEET
S-9
OF 9