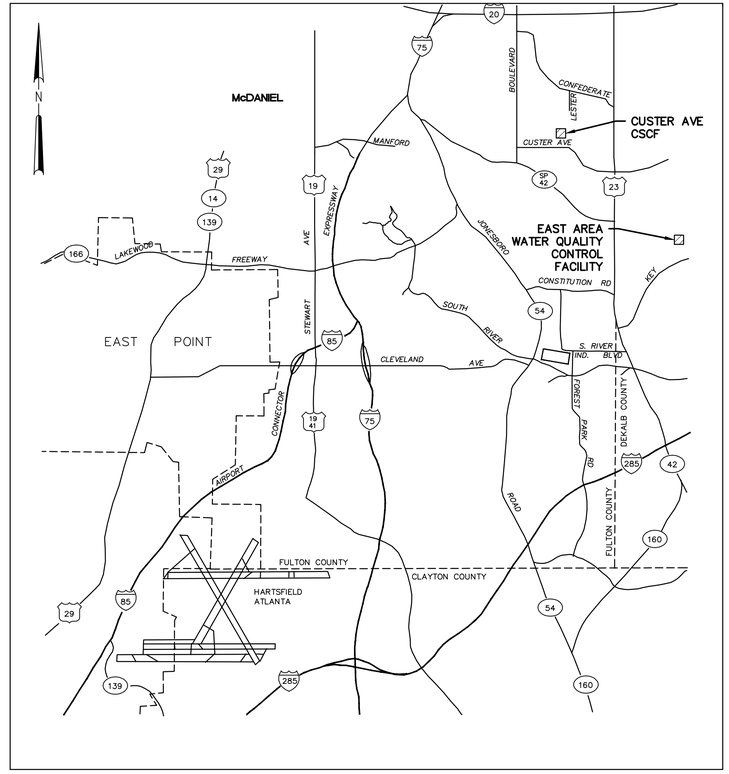
CITY OF ATLANTA

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

FC-4906A AND FC-7383A

FACILITY	PARCEL ID	DISTRICT	LAND LOT	COUNTY
EAST AREA WATER QUALITY CONTROL FACILITY	15.11101005	15	111	DEKALB
CUSTER AVENUE CSCF	14 002400070451	14	24	Fulton
	14 002400030018	14	24	Fulton
	14 002400030034	14	24	Fulton
	14 002400030026	14	24	Fulton
	14 002400030042	14	24	Fulton
	14 002400030059	14	24	Fulton
	14 002400030067	14	24	Fulton
	14 000900040016	14	9	Fulton
	14 002400030331	14	24	Fulton
	14 0024 LL0020	14	24	Fulton
	14 0009 LL0011	14	9	Fulton
	14 002400030281	14	24	Fulton



LOCATION MAP

ARCADIS
BPA
A Joint Venture

GEORGIA REGISTERED No. 009978 PROFESSIONAL ENGINEER JOHN DEAN

PROJECT MANAGER: JOHN DEAN, PE
GEORGIA REGISTRATION NO. : 009978

GEORGIA REGISTERED No. 041536 PROFESSIONAL 7-8-22 ENGINEER HAMILTON DAY GILES

DESIGN COORDINATOR: HAMILTON GILES, PE
GEORGIA REGISTRATION NO. : 041536

OWNER
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
72 MARIETTA STREET, NW
ATLANTA, GEORGIA 30303

MAYOR
ANDRE DICKENS

WATERSHED MANAGEMENT COMMISSIONER
MIKITA BROWNING

CSS MANAGER
DEREK STEWART

811 Know what's **below.** **Call** before you dig.

PROJECT NO. GABPA134			
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG
NO.	DATE	ISSUED FOR	BY

G–001

CITY OF ATLANTA

USER:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\GENERAL\G-001.DWG Scale:1:1 SavedDate:7/7/2022 Time:09:53 Plot Date: Crain, Angela: 7/7/2022; 11:09 ; Layout:1

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User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\GENERAL\G-002.DWG Scale:1:1 SavedDate:7/7/2022 Time:10:56 Plot Date: Crolin, Angela: 7/7/2022; 11:10 ; Layout:2

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SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

INDEX OF DRAWINGS

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: R. KUNZ
DRAWN BY: C. MARTINI
CHECKED BY: A. SHARP

SCALE: NONE

G-002

SHEET 2 OF 150

ABBREVIATIONS

&	AND
@	AT
A	
A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ABAN	ABANDONED
ADJ	ADJUSTABLE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANN	ANNUNICATOR
APPROX	APPROXIMATE
ARV	AIR RELEASE VALVE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
B	
BFP	BACKFLOW PREVENTER, BELT FILTER PRESS
BFV	BUTTERLFY VALVE
BLDG	BUILDING
C	
C/C	CENTER TO CENTER
CB	CATCH BASIN
CI	CAST IRON, CURB INLET
CIP	CAST IN PLACE, CAST IRON PIPE
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CL, ℄	CENTER LINE
CL,	CHLORINE RESIDUAL
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
CONC	CONCRETE
CONT.	CONTINUOUS
CPLG	COUPLING
CS	CARBON STEEL
CS	COMBINED SEWER
CSCF	COMBINED SEWER CONTROL FACILITY
D	
DAT	DATUM
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DI	DUCTILE IRON, DROP INLET
DIA	DIAMETER
DISC	DISCONNECT
DISC SW	DISCONNECT SWITCH
DISCH	DISCHARGE
DISTR PNL	DISTRIBUTION PANEL
DO	DISSOLVED OXYGEN
DR	DRAIN, DOOR
DS	DOWNSPOUT
DWG	DRAWING
E	
E	EAST
EA	EACH
EC	EDGE OF CURB
ECC	ECCENTRIC
EFF	EFFLUENT
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EX, EXIST	EXISTING
EXP	EXPANSION, EXPOSED
F	
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FH	FIRE HYDRANT
FIG	FIGURE
FLEX	FLEXIBLE
FLG	FLANGE
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT, FEET
FTG	FOOTING
G	
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GR	GRADE
H	
HB	HOSE BIB
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
I	
I/O	INPUT/OUTPUT
ID	INSIDE DIAMETER, IDENTIFICATION
IN	INCH
INF	INFLUENT
INV EL	INVERT ELEVATION
J	
JB	JUNCTION BOX
JT	JOINT
K	
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
KWHM	KILOWATT HOUR METER
KWM	KILOWATT METER
L	
LB	POUND
LCP	LOCAL CONTROL PANEL
LF	LINEAR FOOT
LTG	LIGHTING
LV	LOW VOLTAGE
M	
mA	MILLIAMPERE
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM, MINUTE
MJ	MECHANICAL JOINT
MOT	MOTOR
mV	MILLIVOLT
N	
N	NORTH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER, NORMALLY OPEN
NTS	NOT TO SCALE
O	
O/C	OPEN/CLOSE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE, OVERFLOW
P	
P	PICTURE
PB	PULL BOX, PANELBOARD, PUSH BUTTON
PH	PHASE
PNL	PANEL
POS	POSITION, POSITIVE
PREFAB	PREFABRICATED
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE, PRESSURE RELIEF VALVE, PRESSURE REGULATING VALVE
PS CONC	PRESTRESSED CONCRETE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	PAINT, PRESSURE TREATED, POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
PWR	POWER
Q	
QTY	QUANTITY
R	
RED	REDUCER
REBAR	REINFORCING STEEL BARS
RECPT	RECEPTACLE
REINF	REINFORCE (D) (ING) (MENT)
RV	ROOF VENT
S	
S	SOUTH
S/S	START/STOP
SD	STORM DRAIN
SECT	SECTION
SP	SPARE
SPEC	SPECIFICATION
SPPS	SOLIDS PROCESSING PUMP STATION
SPRT	SUPPORT
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STR	STARTER
STRUCT	STRUCTURAL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
T	
T/	TOP OF
TD	TRENCH DRAIN
TEMP	TEMPORARY, TEMPERATURE
TO_ T/	TOP OF
TOB	TOP OF BEAM
TOC, TC	TOP OF CONCRETE, TOP OF CURB
TOD	TOP OF DUCT
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOP	TOP OF PAVEMENT, TOP OF PARAPET
TS	TEMPERATURE SWITCH
TYP	TYPICAL
U	
UGND	UNDERGROUND
UP	UTILITY POLE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	
V	VENT, VOLT
VAC	VACUUM
VB	VACUUM BREAKER, VALVE BOX
VENT	VENTILATION, VENTILATOR
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	
W	WEST, WASTE, WATT
W/	WITH
W/O	WITHOUT
WLD	WELDED
WM	WATER MAIN, WATER METER, WIRE MESH
WS	WATERSTOP
WT	WEIGHT, WATER TIGHT
WW	WASTE WATER, WIREWAY
X	
X-SECT	CROSS SECTION
XFRM	TRANSFORMER
XR	EXISTING TO REMAIN
XS	LIMIT SWITCH
Y	
YH	YARD HYDRANT

EQUIPMENT NUMBER PREFIXES

ARV	AIR RELEASE VALVE
BFP	BELT FILTER PRESS
BV	BALL VALVE
BP	BACKFLOW PREVENTER
BPV	BACK PRESSURE VALVE
BSN	BAR SCREEN
CFR	CHEMICAL FEEDER (POLYMER, CHLROINATOR, ETC.)
CON	CONVEYOR (BELT, SCREW)
CRN	CRANE
CV	CHECK VALVE
CV	CONTROL VALVE
EF	EXHAUST FAN
F	FILTER, STATIC
FE	FLOW ELEMENT
FLT	FILTER
H	HOIST
HEX	HEAT EXCHANGER (RADIATOR, AFTERCOOLER, ETC.)
HP	HEAT PUMP
HPR	HOPPER
HTR	HEATER
INJ	INJECTOR (CHLORINE, STEAM, CHEMICAL, ETC.)
LCP	LOCAL CONTROL PANEL
LVR	LOUVER (ADJUSTABLE ONLY)
M	MOTOR
MCC	MOTOR CONTROL CENTER
MX	MIXER (FLASH, EDUCTOR, ETC.)
PLV	PLUG VALVE
P	PUMP
PCV	PRESSURE CONTROL VALVE
PDC	POWER DISTRIBUTION CENTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PV	PINCH VALVE
REC	RECEIVER
SG	SLUICE GATE
SLG	SLIDE GATE
SV	SOLENOID VALVE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
T	TANK (NONPRESSURE TYPE: E.G. STORAGE. FUEL, ETC.)
TFR	TRANSFOMER
THK	THICKENER
TM	TIMER
TRS	TRANSFER SWITCH
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
VP	VACUUM PUMP
WH	WATER HEATER
WHR	WASHER (GRIT, ETC.)
WQCF	WATER QUALITY CONTROL FACILITY
WSH	OVERLOAD TORQUE SWITCH
WSHH	SHEAR PIN LIMIT SWITCH

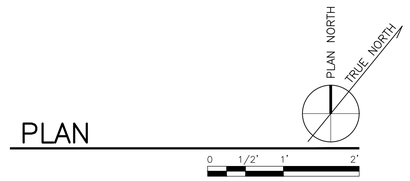
MECHANICAL PIPING ABBREVIATIONS

CU	COPPER
CMD	CHEMICAL DRAIN
CLS	CHLORINE SOLUTION
CS	CS INFLUENT
D	DRAIN
DI	DUCTILE IRON PIPE
DR	DRAIN
FEFF	FINAL EFFLUENT
GR	GRIT
HDPE	HIGH DENSITY POLYETHYLENE PIPE
NaOCL	SODIUM HYPOCHLORITE
NBS	SODIUM BISULFITE
OF	OVERFLOW
PE	POLYETHYLENE PIPE
POL	POLYMER
PVC	POLYVINYL CHLORIDE PIPE
SL	SLUDGE
SMP	SAMPLING LINE
SS	STAINLESS STEEL PIPE
STL	STEEL PIPE
SW	SEAL WATER
TS	THICKENED SLUDGE
VFD	VARIABLE FREQUENCY DRIVE
VIC	VICTAULIC
DI (V)	VICTAULIC DUCTILE IRON PIPE
W1	WATER (POTABLE)
W2	WATER (POTABLE-BACKFLOW PREVENTER)
W3	WATER (NON-POTABLE PLANT WATER)
WWW	WASTE WASHWATER

FACILITY AREA IDENTIFICATION

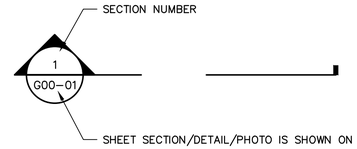
PROCESS NUMBER	PROCESS AREA
00	CSO PUMPING STATION
10	DRUM SCREEN
20	VORTEX SEAPRATOR
30	SEDIMENTATION AND SLUDGE PUMPING
31	THICKENER TANKS
32	SLUDGE PUMP BUILDING
33	SLUDGE DEWATERING BUILDING
40	FILTERS
50	SODIUM HYPOCHLORITE CHEMICAL AND MISC. SYSTEMS
81	SLUDGE HOLDING TANK
82	SOLIDS PROCESSING PUMP STATION
83	DEWATERING BUILDING
93	TUNNEL PUMPING STATION
94	CHEMICAL BUILDING
95	VORTEX SEPARATOR
96	GRIT SETTLING BASIN & SEDIMENTATION BASIN
97	HIGH RATE FILTER
98	POST TREATMENT CHEMICALS

TITLE MARKERS

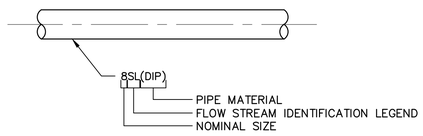


TYPICAL DETAILS

SECTION MARKERS



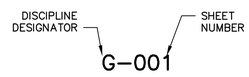
PIPE DESIGNATION



DISCIPLINE DESIGNATOR

G	GENERAL
I	INSTRUMENTATION
C	CIVIL (SITE)
S	STRUCTURAL
M	MECHANICAL (PROCESS)
H/P	HVAC, PLUMPING
E	ELECTRICAL

SHEET NUMBER IDENTIFICATION



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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

ARCADIS BPA
A Joint Venture
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

STANDARD ABBREVIATIONS AND SYMBOLS

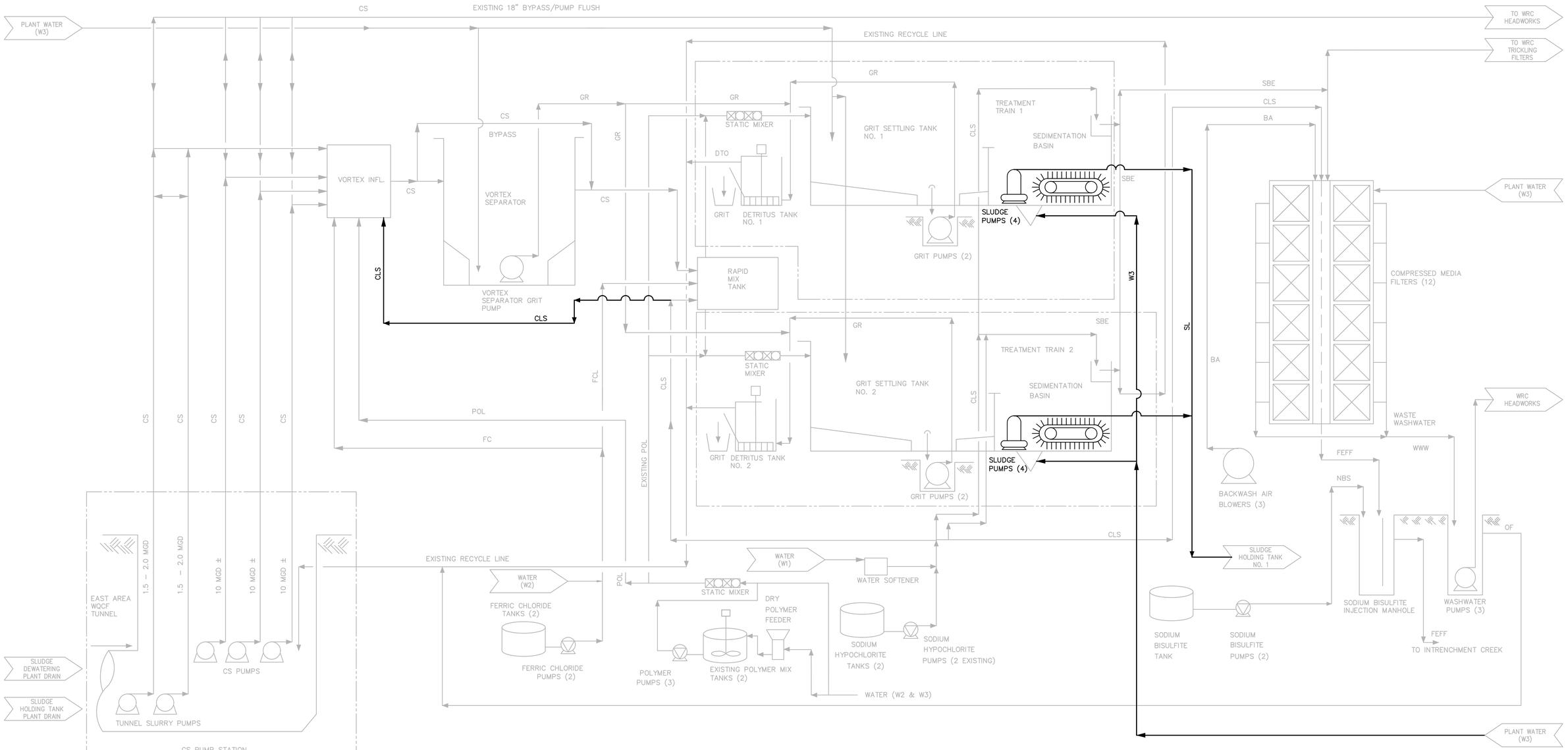
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	R. KUNZ
DRAWN BY:	C. MARTINI
CHECKED BY:	A. SHARP

SCALE: NONE

G-003

SHEET 3 OF 150

User:ACRAIN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\GENERAL\G-003.DWG Scale:1:1 SavedDate:7/7/2022 Time:10:51 Plot Date: Crain, Angela: 7/7/2022: 11:11 : Layout:3



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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

PROCESS FLOW DIAGRAM 1 (WET STREAM)

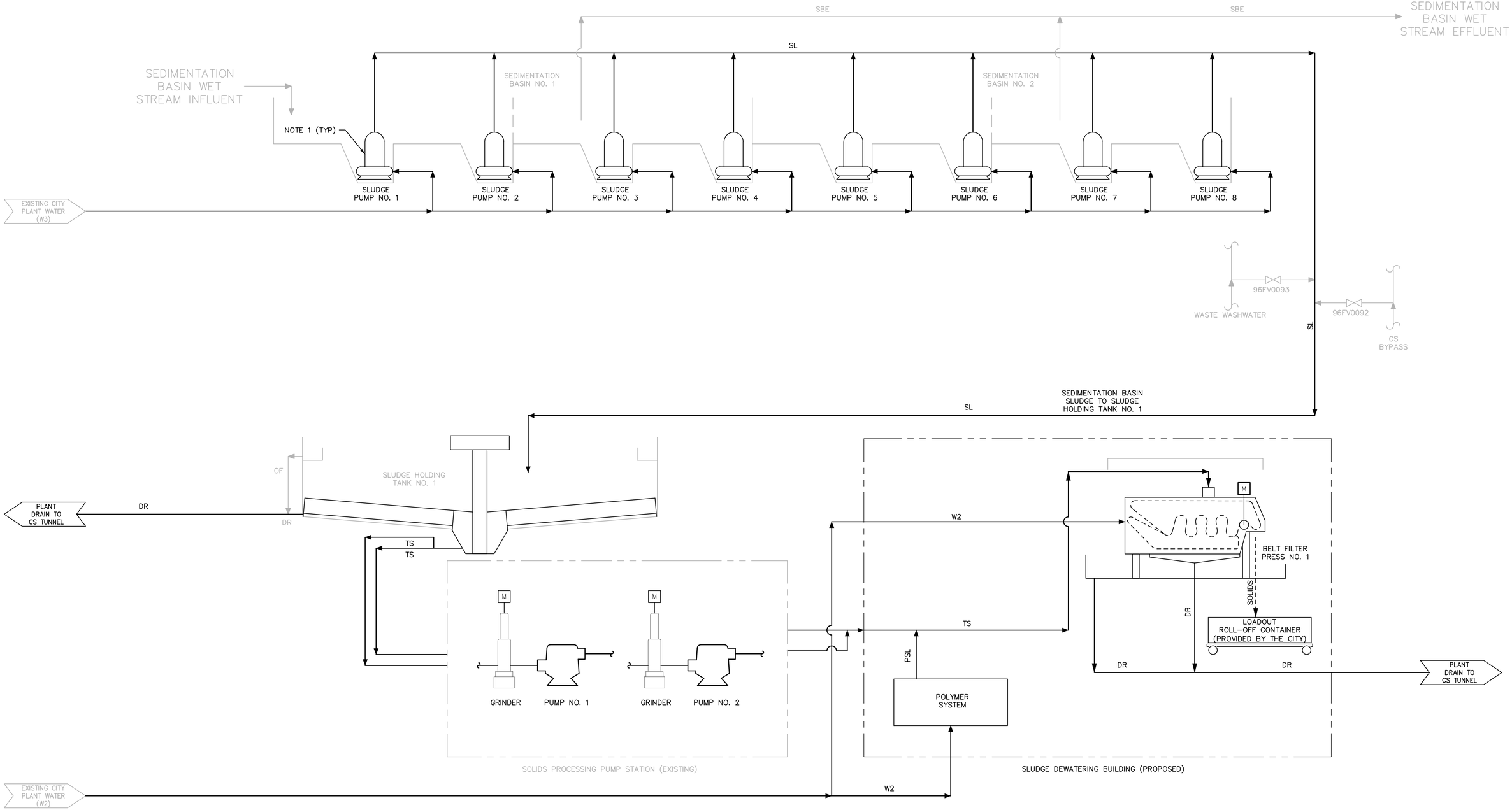
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: NONE

G-004

SHEET 4 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\GENERAL\G-004.DWG Scale:1:1 SavedDate:7/7/2022 Time:10:50 Plot Date: Crain, Angela: 7/7/2022; 11:11 ; Layout:4



NOTES:

1. SLUDGE CONVEYED TO SLUDGE PUMPS BY EXISTING COLLECTOR MECHANISMS.

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SEALS

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

PROCESS FLOW DIAGRAM 2 (SOLIDS HANDLING)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	C. MARTINI
CHECKED BY:	A. SHARP

SCALE: NONE

G-005

SHEET 5 OF 150

User: ACRAN Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\GENERAL\G-005.DWG Scale:1:1 SavedDate:7/7/2022 Time:10:57 Plot Date: Crain, Angela: 7/7/2022; 11:09 ; Layout:5

GENERAL NOTES:

1. TOPOGRAPHIC SURVEY FURNISHED BY: CITY OF ATLANTA & ARCADIS 2839 PACES FERRY ROAD SE SUITE 900, ATLANTA, GA 30339. LAST REVISED SEPTEMBER 21, 2015.
2. ALL ELEVATIONS ARE BASED ON STATE PLANE COORDINATES, N.A.D. 83 – GEORGIA WEST ZONE. HORIZONTAL DATUM IS BASED ON GEORGIA STATE PLANE COORDINATES.
3. EXCESS EXCAVATED MATERIAL SHALL BE HAULED OFF–SITE AND LEGALLY DISPOSED OF IN A SUITABLE LOCATION DETERMINED BY THE CONTRACTOR.
4. LOCATION AND ELEVATIONS OF EXISTING SITE FEATURES, UTILITIES, PIPES AND WORK ARE BASED ON THE BEST AVAILABLE INFORMATION INCLUDING TOPOGRAPHIC SURVEY AND RECORD DRAWINGS FOR THE INTRENCHMENT CREEK WRC AND THE EAST AREA CSO TREATMENT PLANT. EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS ABOVE AND BELOW THE GROUND SURFACE AT THE SITE PRIOR TO CONSTRUCTION. FINAL LOCATION OF PIPES SHALL BE DETERMINED IN THE FIELD AND SHALL BE APPROVED BY THE ENGINEER.
5. THE CONTRACTOR MAINTAINS RESPONSIBILITY FOR LOCATION OF ALL UTILITIES, ABOVE & BELOW THE GROUND SURFACE, PRIOR TO START OF WORK, AND SHALL TAKE ADDITIONAL MEASURES AS REQUIRED TO ENSURE THAT UTILITIES ARE LOCATED IN ADVANCE OF ANY LAND DISTURBANCE. CONTRACTOR SHALL CONTACT THE STATE OF GEORGIA ONE CALL CENTER AT 1–800–282–7411 TO COORDINATE UTILITY LOCATION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO CONSTRUCT THIS PROJECT AS GOVERNED BY STATE & LOCAL AGENCIES, PRIOR TO STARTING CONSTRUCTION.
7. PROVIDE UNIFORM SLOPE OF ROADWAY BETWEEN ELEVATIONS INDICATED ON CENTERLINE. ALL ROADWAYS SHALL BE INVERTED CROWNED 1/4" PER FOOT UNLESS OTHERWISE INDICATED BY SPOT ELEVATIONS.
8. WITHIN THE LIMITS INDICATED ON THE DRAWING, THE CONTRACTOR SHALL PROVIDE NEW PAVEMENT IN ACCORDANCE WITH THE DRAWINGS AND DETAILS. FOR ADDITIONAL REQUIREMENTS, REFER TO THE SPECIFICATIONS.
9. UTILITY SERVICES SHALL BE MAINTAINED THROUGH OUT CONSTRUCTION.
10. ALL NEW BUILDINGS, STRUCTURES, AND ROADWAYS SHALL BE LOCATED BY THE COORDINATES AND DIMENSIONS GIVEN ON THE SITE LAYOUT AND DIMENSION PLAN.
11. EXISTING TREES, BUSHES, AND SHRUBS SHALL BE PROTECTED BY CONTRACTOR FROM ALL DAMAGE UNLESS IN DIRECT CONFLICT WITH NEW STRUCTURES, ROADWAYS, OR PATHS. CONTRACTOR TO REFER TO PLANS FOR TREE SAVE AND TREE REPLACEMENT REQUIRED.
12. UNPAVED AREAS DISTURBED BY THE CONTRACTOR SHALL BE CLEARED AND GRUBBED IF REQUIRED, AND RESTORED WITH DISTURBED AREA STABILIZATION DETAILS (SHEET C–013).
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL BENCHMARK ELEVATIONS.
14. THE ENGINEER MAY DIRECT THE CONTRACTOR TO VARY THE WORK DURING CONSTRUCTION TO MEET EXISTING CONDITIONS.
15. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. ALL ROADWAYS, PARKING AREAS, SIDEWALKS, AND OTHER STRUCTURES DISTURBED BY CONSTRUCTION IN OR OUTSIDE THE PROJECT AREA SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET CONSTRUCTION AS DIRECTED BY THE ENGINEER. ALL COSTS RELATED TO THE REPAIR OF DAMAGED UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
16. ALL COVERS, FRAMES, AND GRATES FROM STRUCTURES WHICH ARE ABANDONED UNDER THIS CONTRACT SHALL BE PROTECTED FROM DAMAGE AND SHALL BE TURNED OVER TO THE CITY OF ATLANTA OR DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
17. THE CONTRACTOR SHALL DIG TEST PITS AS DEEMED NECESSARY, AND AS DIRECTED BY THE ENGINEER, TO DETERMINE THE SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND UTILITIES. ANY CONFLICTS NOTED IN CONSTRUCTION SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
18. ALL UTILITY BOXES, FRAMES, GRATES, ETC. NOT TO BE ABANDONED SHALL BE RESET TO THE PROPER GRADE.
19. THE CONTRACTOR SHALL FILL AND GRADE AREAS ADJACENT TO NEW CONSTRUCTION FOR POSITIVE DRAINAGE AND AS DIRECTED BY THE ENGINEER.
20. ALL WALKWAYS TO BE CONCRETE EXCEPT AS INDICATED OTHERWISE. MINIMUM WIDTH SHALL BE 4 FEET FOR NEW AND RECONSTRUCTED WALKWAYS, EXCEPT WHERE OTHERWISE INDICATED BY ENGINEER.
21. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES AS REQUIRED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER.
22. FINAL GRADING PLAN FOR ALL PAVEMENT SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION OF ANY PAVEMENT. (0)
23. THERE ARE NUMEROUS REQUIREMENTS INVOLVING WORK SEQUENCE. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.
24. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATION AND CONSTRUCTION ACTIVITIES WITH THE CITY, ENGINEER AND ABUTTING EASEMENT OWNERS TO MINIMIZE INTERFERENCE WITH EXISTING FACILITIES AND OPERATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
25. ALL AREAS OF EXCAVATION, BACKFILL, FILL AND GRADING SHALL BE RETURNED TO THE ORIGINAL GRADE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
26. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND SHALL PROVIDE ALL NECESSARY CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE AND STRENGTH TO PREVENT ACCESS TO ALL OPEN EXCAVATIONS AT THE COMPLETION OF EACH DAY'S WORK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
27. ALL WALL AND SLAB PENETRATIONS SHALL BE SEALED WATERTIGHT.
28. STOCKPILING OF CONSTRUCTION MATERIALS WITHIN 100 FT. OF WETLANDS IS PROHIBITED. A WETLAND STUDY WAS PERFORMED FOR THE AREAS OF WORK ON MARCH 2016, BY ARCADIS/BPA AND, NO WETLANDS WERE IDENTIFIED IN THOSE AREAS.
29. DELINEATION OF WATERS OF THE STATE & U.S. CONDUCTED ON MARCH 16, 2016 BY ARCADIS/BPA.

SITE LAYOUT & DIMENSION NOTES:

1. THE CONTRACTOR SHALL UTILIZE SITE DIMENSION AND LAYOUT PLANS TO LOCATE THE BUILDING CORNERS, AS WELL AS OTHER FACILITIES OUTSIDE THE BUILDINGS. THE CONTRACTOR SHALL USE THE STRUCTURAL PLANS TO STAKEOUT THE BUILDINGS PROPER, OFFSETS, OPENINGS, SERVICE AREAS, ETC.

GEOTECHNICAL NOTES:

1. ANY LOOSE SAND, SOFT SILT AND CLAY, OR OTHER SOFT MATERIALS ENCOUNTERED AT THE FINAL EXCAVATION LEVEL SHALL BE REMOVED TO REACH A FIRM SUBGRADE AND BACKFILLED WITH EITHER CONTROLLED SELECTED FILL, STRUCTURAL FILL/BACKFILL, AND/OR COARSE AGGREGATE MATERIAL(S) AND COMPACTED, CONFORMING TO SPECIFICATIONS.
2. ALL EXCAVATIONS AND BACKFILLING SHALL BE PERFORMED IN DRY CONDITIONS.
3. EXCAVATION SUPPORT SYSTEM (SHEETING) SHALL BE UTILIZED AT LOCATIONS WHERE THE EXCAVATION LEVEL IS BELOW THE LEVEL OF ADJACENT EXISTING FOUNDATIONS OR UTILITIES AND PER THE SPECIFICATIONS. LATERAL EXTENT OF SHEETING SHALL BE ESTABLISHED BY THE CONTRACTOR'S SHEETING DESIGNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THE SHEETING IS DESIGNED FOR LATERAL LOADS FROM EARTH, GROUNDWATER, ADJACENT FOUNDATION LOAD, SURCHARGE, AND EQUIPMENT LOAD. THE DESIGN SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. (0)

OUTSIDE PIPING NOTES:

1. ALL ABANDONED PIPES SHALL BE GROUT FILLED AND DISCONNECTED AT THE OUTSIDE WALL OF THE STRUCTURE. ALL OPEN ENDS OF ABANDONED PIPES SHALL BE PLUGGED AS DIRECTED.
2. ALL PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS SHOWN UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER. NO SAGS OR CRESTS IN PIPING WILL BE PERMITTED.
3. JOINTS SHALL BE PROVIDED AT THE WALL OF STRUCTURES ON ALL PIPELINES, EXCEPT WHERE SLEEVES ARE INDICATED. THIS SHALL BE ACCOMPLISHED BY CASTING A BELL WALL FITTING, BELL END STUB, OR WALL CASTING INTO THE STRUCTURE.
4. ALL PIPES SHALL HAVE 3'–0" MINIMUM COVER UNLESS REQUIRED BY CITY OF ATLANTA STANDARDS, SPECIFICALLY INDICATED OTHERWISE, OR DIRECTED BY THE ENGINEER.
5. SEE MECHANICAL DRAWINGS FOR PIPE ELEVATIONS AT WALLS OF STRUCTURES.
6. ALL BENDS, VALVES, DEAD–ENDS AND TEES IN PRESSURIZED LINES SHALL BE MECHANICALLY RESTRAINED JOINTS. BLOCKING IS ALSO REQUIRED FOR ALL TEES (INCLUDING TAPPING SLEEVES) AND BENDS.
7. PROVIDE RESTRAINED JOINTS FOR ALL NEW DUCTILE IRON PIPE, UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
8. PROVIDE FITTINGS AT ALL POINTS OF CONNECTION BETWEEN NEW AND EXISTING WORK.
9. ALL PIPING UNDER STRUCTURES SHALL BE ENCASED IN CONCRETE, UNLESS NOTED OTHERWISE ON THE PLANS. (0)
10. SEE MECHANICAL DRAWINGS FOR PIPE ELEVATIONS NOT SHOWN ON THE OUTSIDE PIPING PLANS.
11. ALL UNDERGROUND UTILITIES "LYING UNDER" OR "CROSSING" PAVED AREAS SHALL BE "IN–PLACE" PRIOR TO INSTALLING BASE & PAVEMENT.
12. WATER, STORM DRAINAGE AND SANITARY SEWER WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE STANDARDS & REGULATIONS OF THE CITY.
13. THE TOP ELEVATION OF ALL MANHOLES AND/OR JUNCTION BOXES CONSTRUCTED IN OPEN OR GRASSED AREAS SHALL BE 2 FOOT ABOVE FINISHED GRADE.
14. THE TOP ELEVATION OF ALL MANHOLES AND/OR JUNCTION BOXES CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED GRADE.
15. CONTRACTOR SHALL INSTALL THE WATER SERVICE & MAKE THE TAP TO THE EXISTING MAIN.
16. THE CONTRACTOR SHALL NOTIFY THE CITY PRIOR TO INITIATING CONSTRUCTION ON THE WATER SYSTEM AND SHALL BE RESPONSIBLE FOR ISOLATING THE PROJECT AREA FROM THE REMAINDER OF THE SYSTEM.
17. THE MINIMUM HORIZONTAL DISTANCE BETWEEN A WATER & SEWER LINE SHALL BE TEN FEET, THE MINIMUM VERTICAL SEPARATION SHALL BE 18 INCHES. SEE DETAILS FOR FURTHER REQUIREMENTS.
18. FOR PIPE BEDDING AND INSTALLATION DEPTH OF PIPE REQUIREMENTS, REFERENCE SPECIFICATIONS & CIVIL PLANS & DETAILS.

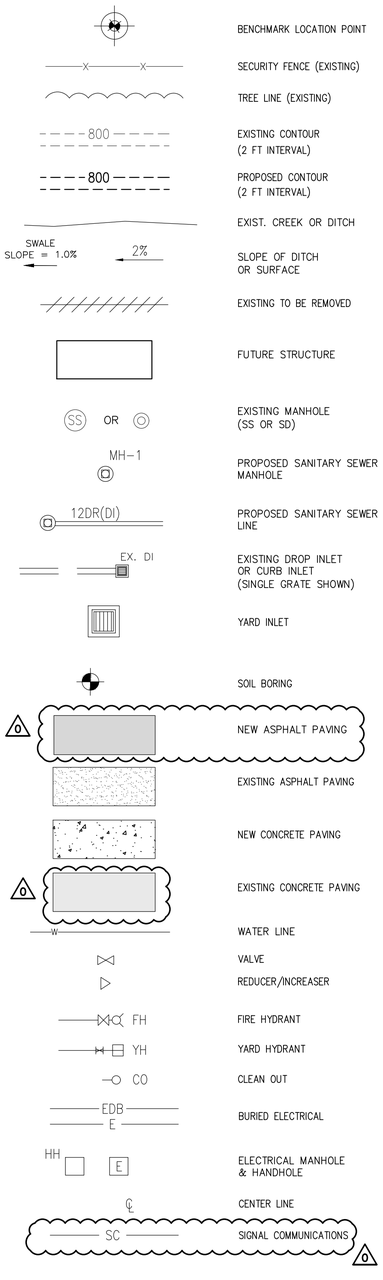
GRADING & DRAINAGE NOTES:

1. FINISHED GRADE CONTOURS ARE SHOWN @ 1 FT INTERVALS (0.5 FT INTERVAL SHOWN AT SLUDGE DEWATERING BUILDING). ELEVATIONS ARE BASED ON TOPOGRAPHIC SURVEY FURNISHED BY ARCADIS & COA RECORD DRAWINGS.
2. ALL AREAS DISTURBED DURING GRADING OPERATIONS AND NOT PAVED SHALL RECEIVE TOPSOIL, SEEDING & MULCH IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS.
3. TOPSOIL SHALL BE "STRIPPED" AND STOCKPILED. TOPSOIL SHALL BE USED TO ACHIEVE THE LAST 4"–6" OF FINISHED GRADE AS FINAL GRADING OPERATIONS PROGRESS. SEE SPECIFICATIONS.
4. CONTOURS & FINISHED SPOT ELEVEVATIONS REPRESENT FINISHED GRADE, TOP OF CONCRETE, PAVEMENT, GRASSED AREAS, ETC.
5. GRADING OPERATIONS SHALL BE COORDINATED WITH THE IMPLEMENTATION OF THE "EROSION & SEDIMENTATION CONTROL" PLAN.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING TO 10' (MINIMUM) BEYOND THE GRADING LIMITS (TOE/TOP OF SLOPE).
7. CLASSIFICATION OF EXCAVATED MATERIALS: REGARDLESS OF THE MATERIALS ENCOUNTERED, ALL EXCAVATION SHALL BE "UNCLASSIFIED". IT SHALL BE UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH OR ANY OTHER MATERIAL IS TO BE CONSIDERED AS "UNCLASSIFIED" MATERIALS. NO SEPARATE PAYMENT WILL BE MADE FOR EITHER ROCK, EARTH OR OTHER MATERIAL.
8. GRADING OPERATIONS SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW FOR AMPLE QUANTITIES OF "SELECTED SOILS" TO BE HELD IN RESERVE OR STOCKPILED AS NECESSARY, TO PROVIDE THE REQUIRED MATERIALS FOR BACKFILLING "UNDER–CUT" AREAS. NO DIRECT PAYMENT WILL BE MADE FOR SUCH NECESSARY MANIPULATION AS DOUBLE HANDLING OR HAULING.
9. IMPLEMENTATION OF THE EROSION & SEDIMENTATION CONTROL PLAN SHALL BEGIN PRIOR TO CONSTRUCTION OPERATIONS.
10. THE CONTRACTOR SHALL UTILIZE CARE DURING GRADING OPERATIONS TO NOT EXCEED THE CONSTRUCTION LIMITS OF DISTURBANCE (LOD). (0)

CIVIL ABBREVIATIONS

AR	RED MAPLE 'OCTOBER GLORY'
CC	REDBUD 'FOREST PANSY'
CP	CONTROL POINT
CS	COMBINED SEWER
CSO	COMBINED SEWER OVERFLOW
CU	COPPER
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DR	DRAIN LINE
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FL	FLUME
GR	GRIT LINE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
IX	'NELLIE R. STEVENS' HOLLY
MH	MANHOLE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SAN	SANITARY DRAIN LINE
SL	SLUDGE LINE
TI	TIE–IN
TBM	TEMPORARY BENCH MARK
TPF	TREE PROTECTION FENCE (CHAIN LINK)
TP	TOP OF PAVEMENT
TSW	TOP OF SIDEWALK
W1	NO. 1 POTABLE WATER
W2	NO. 2 POTABLE BACKFLOW PREVENTED
W3	NO. 3 NON–POTABLE CHLORINATED EFFLUENT PLANT
W4	NO. 4 NON–POTABLE
WM	WATER METER
WRC	WATER RECLAMATION CENTER
WV	WATER VALVE
YI	YARD INLET
YH	YARD HYDRANT

CIVIL LEGEND:



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SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/6/2022

ARCADIS A Joint Venture
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2839 Paces Ferry Road
Suite 900
Atlanta, GA 30339
Tel: 770–431–8666
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www.arcadis–us.com

RESURGENS 1871 ATLANTA, GA. 1961

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

SHEET TITLE
CIVIL LEGEND AND NOTES

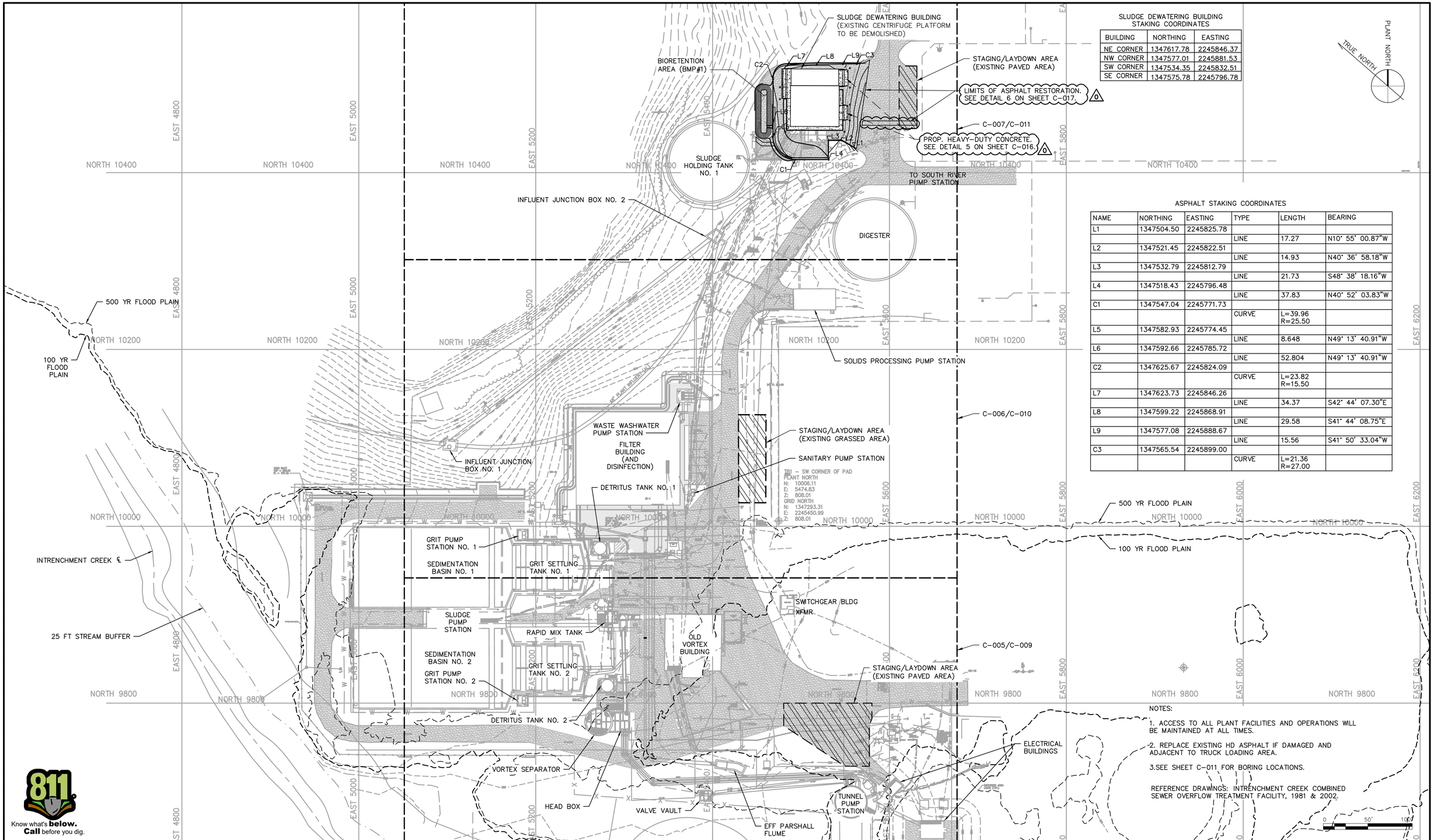
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: W. HACKETT/DAW
DRAWN BY: J. BROWN/ADC
CHECKED BY: A. SHARP/DAW

SCALE: NONE

C–001

SHEET 6 OF 150

User:ACRAIN Spec:AUS–NCSMOD File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–001.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:13 Plot Date: Crain, Angela: 7/8/2022, 12:23 , Layout:6



SLUDGE DEWATERING BUILDING STAKING COORDINATES

BUILDING	NORTHING	EASTING
NE CORNER	1347617.78	2245846.37
NW CORNER	1347577.01	2245881.53
SW CORNER	1347534.35	2245832.51
SE CORNER	1347575.78	2245796.78

ASPHALT STAKING COORDINATES

NAME	NORTHING	EASTING	TYPE	LENGTH	BEARING
L1	1347504.50	2245825.78			
			LINE	17.27	N10° 55' 00.87"W
L2	1347521.45	2245822.51			
			LINE	14.93	N40° 36' 58.18"W
L3	1347532.79	2245812.79			
			LINE	21.73	S48° 38' 18.16"W
L4	1347518.43	2245796.48			
			LINE	37.83	N40° 52' 03.83"W
C1	1347547.04	2245771.73			
			CURVE	L=39.96 R=25.50	
L5	1347582.93	2245774.45			
			LINE	8.648	N49° 13' 40.91"W
L6	1347592.66	2245785.72			
			LINE	52.804	N49° 13' 40.91"W
C2	1347625.67	2245824.09			
			CURVE	L=23.82 R=15.50	
L7	1347623.73	2245846.26			
			LINE	34.37	S42° 44' 07.30"E
L8	1347599.22	2245868.91			
			LINE	29.58	S41° 44' 08.75"E
L9	1347577.08	2245888.67			
			LINE	15.56	S41° 50' 33.04"W
C3	1347565.54	2245899.00			
			CURVE	L=21.36 R=27.00	

NOTES:

1. ACCESS TO ALL PLANT FACILITIES AND OPERATIONS WILL BE MAINTAINED AT ALL TIMES.
2. REPLACE EXISTING HD ASPHALT IF DAMAGED AND ADJACENT TO TRUCK LOADING AREA.
3. SEE SHEET C-011 FOR BORING LOCATIONS.

REFERENCE DRAWINGS: INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY, 1981 & 2002.

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SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EAWQCF SITE AND LAYDOWN AREA PLAN

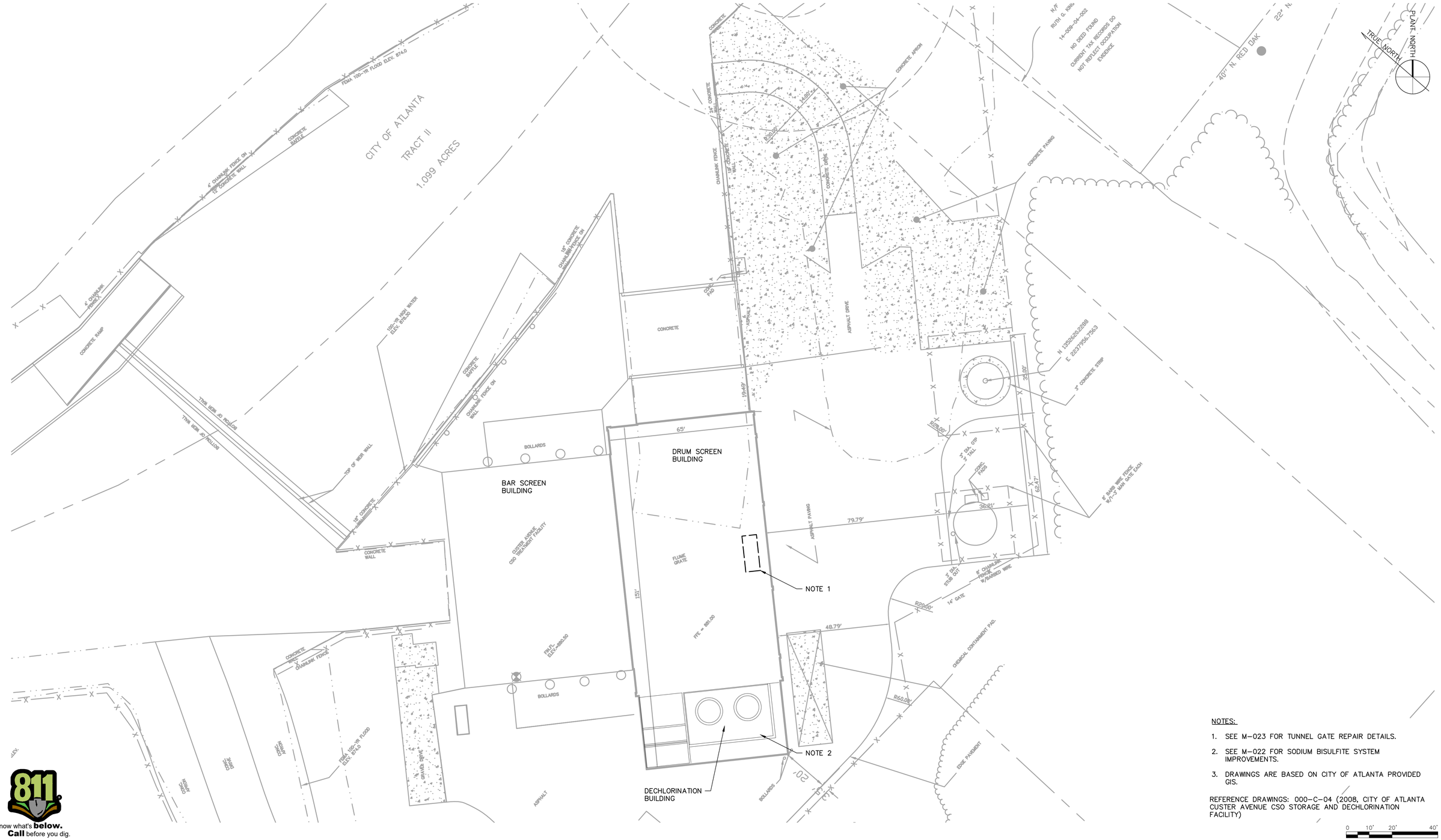
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 50'

C-002

SHEET 7 OF 150

User: ACRAIN Spec: AUS-NCSM00 File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-002.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:45 Plot Date: Crain, Angela: 7/8/2022, 12:25 : Layout:7



NOTES:

1. SEE M-023 FOR TUNNEL GATE REPAIR DETAILS.
2. SEE M-022 FOR SODIUM BISULFITE SYSTEM IMPROVEMENTS.
3. DRAWINGS ARE BASED ON CITY OF ATLANTA PROVIDED GIS.

REFERENCE DRAWINGS: 000-C-04 (2008, CITY OF ATLANTA CUSTER AVENUE CSO STORAGE AND DECHLORINATION FACILITY)

0 10' 20' 40'

811 Know what's **below.** **Call** before you dig.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CUSTER AVENUE SITE PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-003

SHEET 8 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-003.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:43 Plot Date: Crain, Angela: 7/8/2022, 12:26 ; Layout:8

WILLMER ENGINEERING INC. | WE

Project: East Area WQCF Treatment Plant
Location: **City of Atlanta, DeKalb County, Georgia**
Project Number: **71.4068**

HOLE No. EAB-1
Sheet 1 of 1
Location: **See Figure 2**

Azimuth: **--** Angle from Horizontal: **90** Surface Elevation (ft): **825.78** Station: **N/A**
Drilling Equipment: **CME-550X ATV** Drilling Method: **HSA - Manual Hammer**
Core Boxes: **N/A** Samples: **12** Overburden (ft): **N/A** Rock (ft): **N/A** Total Depth (ft): **50.0**
Logged By: **G. Hoffman** Date Drilled: **9/14/15**

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	STANDARD PENETRATION TEST DATA (blows/foot) 5 10 20 40 60 80	N-VALUE
0		DCP			ASPHALT = 3"	GAB	825.8		
		DCP			GRADED AGGREGATE BASE = 10"	SM	825		15
5		SS			FILL: Medium dense brown silty medium to fine **SAND** with rock fragments	SC	820		8
		SS			Loose reddish brown clayey medium to fine **SAND** with rock fragments	ML / SM			8
10		SS			RESIDUUM: Firm reddish brown medium to fine sandy **SILT** (micaceous)		815		12
15		SS			Medium dense and dense black and tan silty medium to fine **SAND** (micaceous)		810		40
					- becomes brown and tan				
20		SS			- becomes tannish brown and sand becomes fine		805		29
25		SS					800		40
30		SS					795		12
35		SS			- becomes tan and dark brown		790		15
40		SS			- becomes grey, brown, and white		785		36
45		SS			PARTIALLY WEATHERED ROCK: Sampled as very dense grey and white silty medium to fine **SAND** with rock fragments (slightly micaceous to micaceous)	PWR	780		50/4"
50		SS			Boring was termintated at 50 feet below the existing ground surface.				50/6"
					The top 5 feet of the boring was advanced using a hand auger with dynamic cone penetrometer (DCP) testing. The DCP blow counts were converted to SPT N-values using available correlations.				
					Groundwater was encountered at 23 feet below the existing ground surface at the time of boring completion.				

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	EAB-1
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

SPT N 71.4068 EAST AREA CSO.GPJ 9/29/15

WILLMER ENGINEERING INC. | WE

Project: East Area WQCF Treatment Plant
Location: **City of Atlanta, DeKalb County, Georgia**
Project Number: **71.4068**

HOLE No. EAB-2
Sheet 1 of 1
Location: **See Figure 2**

Azimuth: **--** Angle from Horizontal: **90** Surface Elevation (ft): **826.00** Station: **N/A**
Drilling Equipment: **CME-550X ATV** Drilling Method: **HSA - Manual Hammer**
Core Boxes: **N/A** Samples: **6** Overburden (ft): **16** Rock (ft): **N/A** Total Depth (ft): **16.0**
Logged By: **G. Hoffman** Date Drilled: **9/14/15**

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	STANDARD PENETRATION TEST DATA (blows/foot) 5 10 20 40 60 80	N-VALUE
0		DCP			ASPHALT = 5"	GAB	826.0		
		DCP			GRADED AGGREGATE BASE = 8"	SM	825		11
5		DCP			FILL: Medium dense to very loose brown silty medium to fine **SAND** (slightly micaceous)	SC			4
		SS					820		8
10		SS			Loose clayey medium to fine **SAND** with rock fragments	SM			5
					- becomes brown without rock fragments		815		4
15		SS			Very loose black and light brown silty medium to fine **SAND**	SM			7
					ALLUVIUM: Loose grey silty medium to fine **SAND** (micaceous)		810		
					Auger refusal was encountered at 16 feet below the exising ground surface.				
					The top 5 feet of the boring was advanced using a hand auger with dynamic cone penetrometer (DCP) testing. The DCP blow counts were converted to SPT N-values using available correlations.				
					Groundwater was encountered at 11.5 feet below the existing ground surface at the time of boring completion.				

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	EAB-2
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

SPT N 71.4068 EAST AREA CSO.GPJ 9/29/15

NOTES:
0 1. INFORMATION PROVIDED BY OTHERS
2. SEE SHEET C-011 FOR BORE LOCATIONS

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SEALS
GEORGIA REGISTERED No. 31611 PROFESSIONAL ENGINEER RA'TESHAWN BAITLEY
7/13/2022

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
PROPOSED SLUDGE DEWATERING BUILDING BORING LOGS

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: W. HACKETT/DAW
DRAWN BY: J. BROWN/ADC
CHECKED BY: W. GRUBBS/DAW

SCALE: NONE

C-004

SHEET 9 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-004.DWG Scale:1:1 SavedDate:7/6/2022 Time:11:40 Plot Date: Croin, Angela: 7/8/2022, 12:27 - Layout:9

User: ACRAIN Spec: AUS-NCSM0D File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-005.DWG Scale:1:1 SavedDate:7/7/2022 Time:13:01 Plot Date: Crain, Angela: 7/8/2022, 12:27 : Layout:10

MATCHLINE (SEE SHEET C-006)

NOTE 1

NOTE 2

SLUDGE PUMP STATION

SEDIMENTATION BASIN NO. 2

GRIT SETTLING TANK NO. 2

GRIT PUMP STATION NO. 2

RAPID MIX TANK

DETRITUS TANK NO. 2

OLD VORTEX BUILDING

VORTEX SEPARATOR

HEAD BOX

VALVE VAULT

EFF PARSHALL FLUME

TUNNEL PUMP STATION

ELECTRICAL BUILDING

500 YR FLOOD PLAIN

100 YR FLOOD PLAIN

25 FT STREAM BUFFER

INTRENCHMENT CREEK ℄

NOTE 3

NORTH 9800

NORTH 9600

EAST 5200

EAST 5400

EAST 5600

802

804

806

808

810

EXISTING CONDITION SHOWN FROM THE FOLLOWING REFERENCE BACKGROUND SOURCES:

1. 1981 DRAWING SET – INTRENCHMENT COMBINED SEWER OVERFLOW TREATMENT FACILITY
2. 2002 DRAWING SET – EAST AREA CSO & INTRENCHMENT WRCF IMPROVEMENTS
3. 2008 DRAWING SET – INTRENCHMENT CREEK CSO TREATMENT PLANT VOLUME 4 OF 4

NOTES:

1. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 738' OF EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASIN TO SLUDGE HOLDING TANK.
2. DEMOLISH AND REPLACE APPROXIMATELY 139 SQUARE YARDS OF ASPHALT PAVEMENT.
3. DEMOLISH AND REPLACE SECTIONS OF TUNNEL PUMP STATION OUTFALL AS SHOWN ON DRAWING S-010 AND S-011.

INSET A

SCALE: 1" = 30'

SCALE: 1" = 20'

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RESURGENS ATLANTA, GA 1847

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

DEMOLITION PLAN (1 OF 3)

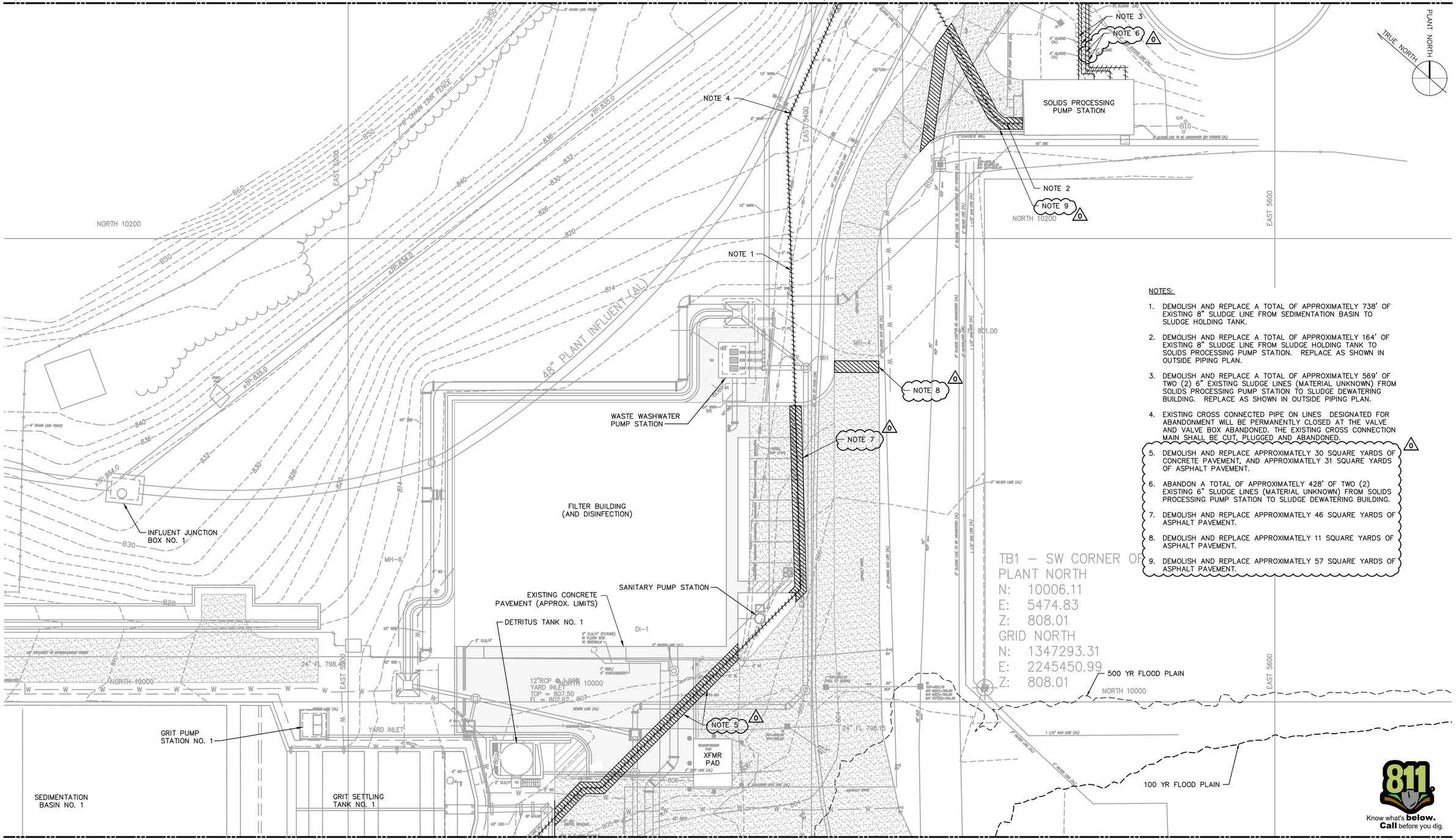
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: AS SHOWN

C-005

SHEET 10 OF 150

MATCHLINE (SEE SHEET C-007)



NOTES:

1. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 738' OF EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASIN TO SLUDGE HOLDING TANK.
2. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 164' OF EXISTING 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. REPLACE AS SHOWN IN OUTSIDE PIPING PLAN.
3. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 569' OF TWO (2) 6" EXISTING SLUDGE LINES (MATERIAL UNKNOWN) FROM SOLIDS PROCESSING PUMP STATION TO SLUDGE DEWATERING BUILDING. REPLACE AS SHOWN IN OUTSIDE PIPING PLAN.
4. EXISTING CROSS CONNECTED PIPE ON LINES DESIGNATED FOR ABANDONMENT WILL BE PERMANENTLY CLOSED AT THE VALVE AND VALVE BOX ABANDONED. THE EXISTING CROSS CONNECTION MAIN SHALL BE CUT, PLUGGED AND ABANDONED. (0)
5. DEMOLISH AND REPLACE APPROXIMATELY 30 SQUARE YARDS OF CONCRETE PAVEMENT, AND APPROXIMATELY 31 SQUARE YARDS OF ASPHALT PAVEMENT.
6. ABANDON A TOTAL OF APPROXIMATELY 428' OF TWO (2) EXISTING 6" SLUDGE LINES (MATERIAL UNKNOWN) FROM SOLIDS PROCESSING PUMP STATION TO SLUDGE DEWATERING BUILDING.
7. DEMOLISH AND REPLACE APPROXIMATELY 46 SQUARE YARDS OF ASPHALT PAVEMENT.
8. DEMOLISH AND REPLACE APPROXIMATELY 11 SQUARE YARDS OF ASPHALT PAVEMENT.
9. DEMOLISH AND REPLACE APPROXIMATELY 57 SQUARE YARDS OF ASPHALT PAVEMENT.

TB1 – SW CORNER OF PLANT NORTH
N: 10006.11
E: 5474.83
Z: 808.01
GRID NORTH
N: 1347293.31
E: 2245450.99
Z: 808.01

Know what's **below.** **Call** before you dig.

0 10' 20' 40'

MATCHLINE (SEE SHEET C-005)

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SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/8/2022

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

SHEET TITLE
DEMOLITION PLAN (2 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	R. KUNZ/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

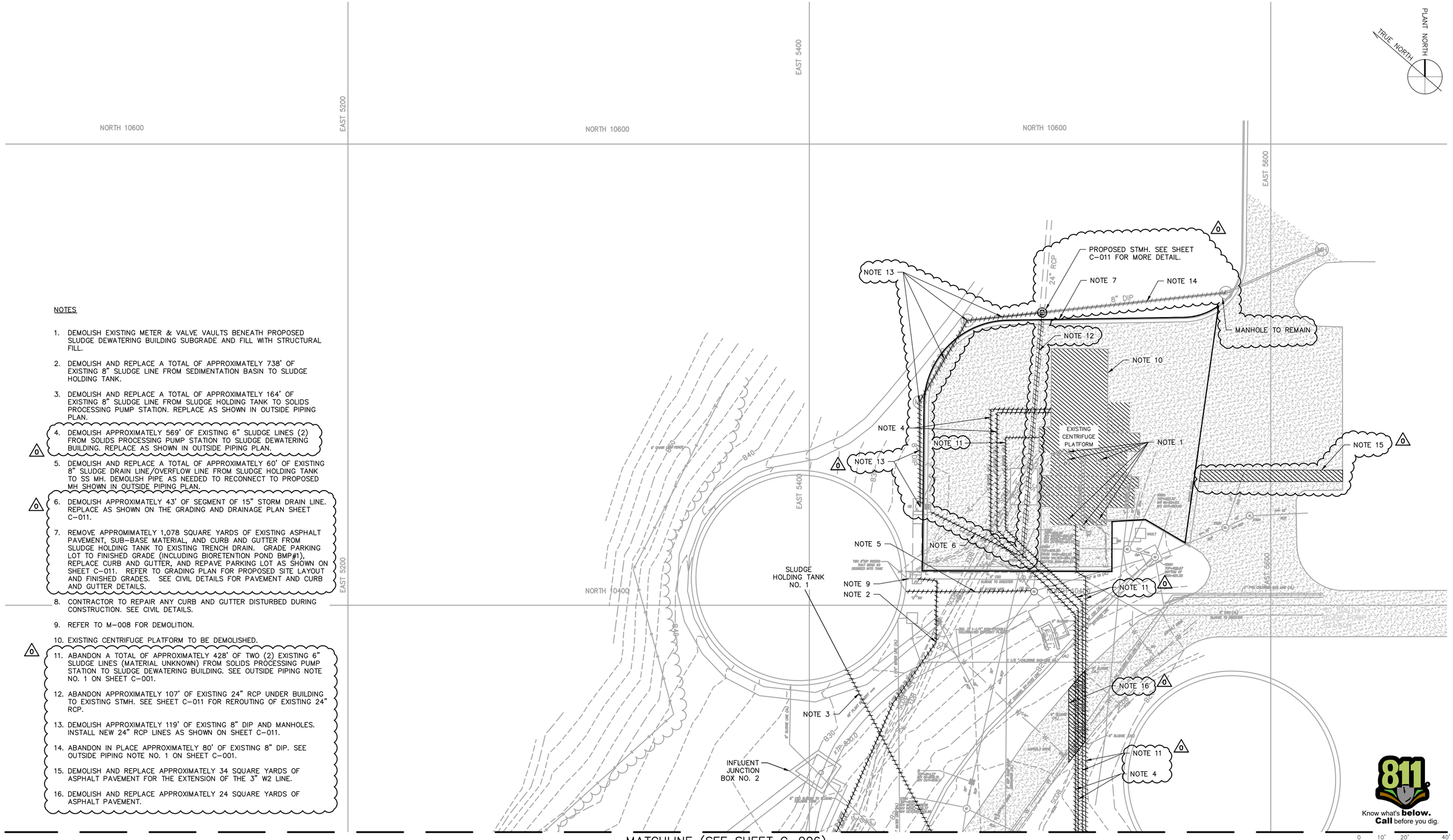
C-006

SHEET 11 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-006.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:46 Plot Date: Crain, Angela: 7/8/2022, 12:28 : Layout:11

NOTES

1. DEMOLISH EXISTING METER & VALVE VAULTS BENEATH PROPOSED SLUDGE DEWATERING BUILDING SUBGRADE AND FILL WITH STRUCTURAL FILL.
2. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 738' OF EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASIN TO SLUDGE HOLDING TANK.
3. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 164' OF EXISTING 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. REPLACE AS SHOWN IN OUTSIDE PIPING PLAN.
4. DEMOLISH APPROXIMATELY 569' OF EXISTING 6" SLUDGE LINES (2) FROM SOLIDS PROCESSING PUMP STATION TO SLUDGE DEWATERING BUILDING. REPLACE AS SHOWN IN OUTSIDE PIPING PLAN. (0)
5. DEMOLISH AND REPLACE A TOTAL OF APPROXIMATELY 60' OF EXISTING 8" SLUDGE DRAIN LINE/OVERFLOW LINE FROM SLUDGE HOLDING TANK TO SS MH. DEMOLISH PIPE AS NEEDED TO RECONNECT TO PROPOSED MH SHOWN IN OUTSIDE PIPING PLAN.
6. DEMOLISH APPROXIMATELY 43' OF SEGMENT OF 15" STORM DRAIN LINE. REPLACE AS SHOWN ON THE GRADING AND DRAINAGE PLAN SHEET C-011. (0)
7. REMOVE APPROMIMATELY 1,078 SQUARE YARDS OF EXISTING ASPHALT PAVEMENT, SUB-BASE MATERIAL, AND CURB AND GUTTER FROM SLUDGE HOLDING TANK TO EXISTING TRENCH DRAIN. GRADE PARKING LOT TO FINISHED GRADE (INCLUDING BIORETENTION POND BMP#1), REPLACE CURB AND GUTTER, AND REPAVE PARKING LOT AS SHOWN ON SHEET C-011. REFER TO GRADING PLAN FOR PROPOSED SITE LAYOUT AND FINISHED GRADES. SEE CIVIL DETAILS FOR PAVEMENT AND CURB AND GUTTER DETAILS.
8. CONTRACTOR TO REPAIR ANY CURB AND GUTTER DISTURBED DURING CONSTRUCTION. SEE CIVIL DETAILS.
9. REFER TO M-008 FOR DEMOLITION.
10. EXISTING CENTRIFUGE PLATFORM TO BE DEMOLISHED.
11. ABANDON A TOTAL OF APPROXIMATELY 428' OF TWO (2) EXISTING 6" SLUDGE LINES (MATERIAL UNKNOWN) FROM SOLIDS PROCESSING PUMP STATION TO SLUDGE DEWATERING BUILDING. SEE OUTSIDE PIPING NOTE NO. 1 ON SHEET C-001. (0)
12. ABANDON APPROXIMATELY 107' OF EXISTING 24" RCP UNDER BUILDING TO EXISTING STMH. SEE SHEET C-011 FOR REROUTING OF EXISTING 24" RCP.
13. DEMOLISH APPROXIMATELY 119' OF EXISTING 8" DIP AND MANHOLES. INSTALL NEW 24" RCP LINES AS SHOWN ON SHEET C-011. (0)
14. ABANDON IN PLACE APPROXIMATELY 80' OF EXISTING 8" DIP. SEE OUTSIDE PIPING NOTE NO. 1 ON SHEET C-001.
15. DEMOLISH AND REPLACE APPROXIMATELY 34 SQUARE YARDS OF ASPHALT PAVEMENT FOR THE EXTENSION OF THE 3" W2 LINE. (0)
16. DEMOLISH AND REPLACE APPROXIMATELY 24 SQUARE YARDS OF ASPHALT PAVEMENT. (0)



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SEALS

GEORGIA REGISTERED No. 031526 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/8/2022

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ATLANTA, GEORGIA
CITY OF ATLANTA
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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

DEMOLITION PLAN (3 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	R. KUNZ/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-007

SHEET 12 OF 150

User:ACRAIN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-007.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:58 Plot Date: Crain, Angela: 7/8/2022, 12:29 : Layout:12

GEORGIA
UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site entrance to provide a place for removing mud from tires thereby protecting public streets.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.

MONTH

ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSTALL AND MAINTAIN EROSION CONTROL																
CLEARING AND GRUBBING																
EARTHWORK, GRADING AND SITE CONSTRUCTION																
VEGETATION AND MULCHING																
PERMANENT GRASSING AND GROUND COVER																

811 Know what's **below.** **Call** before you dig.

SITE NOTES:

1. PROJECT IS LOCATED IN THE 15TH DISTRICT, LAND LOT 111, DEKALB COUNTY, GEORGIA.
2. THE TOTAL LAND DISTURBANCE IS 0.91 ACRES.
3. THE TOTAL CONTRIBUTING DRAINAGE AREA IS APPROXIMATELY 41 ACRES.
4. THE RECEIVING WATER FOR THIS PROJECT IS INTRENCHMENT CREEK WHICH SUPPORTS WARM WATER FISHERIES.
5. A PORTION OF THIS SITE DOES LIE WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" OR "A".FIRM MAP NUMBER: 13089C0129J; EFFECTIVE DATE: MAY 16, 2013.
6. 24–HOUR CONTACT AND INSPECTIONS: TBD
   ADDRESS: TBD
   PHONE: TBD
7. NON–EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50–FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25–FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

MANAGEMENT PLAN:

ALL EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND AFTER EVERY RAINFALL. ALL NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO PREVENT FURTHER DAMAGE AND EROSION. STRUCTURES THAT SHALL BE INSPECTED INCLUDE:

1. OUTLET PROTECTION:
   CHECK FOR EROSION AROUND OR BELOW THE RIPRAP AND IF STONES HAVE BEEN DISLODGED, MAKE NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
2. SEEDING, FERTILIZING, AND MULCHING:
   SEEDED AREAS SHALL BE INSPECTED FOR FAILURE AND NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
3. SEDIMENT BARRIER:
   SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE–HALF THE ORIGINAL HEIGHT OF THE BARRIER. SEDIMENT BARRIERS SHALL BE REPLACED PER MANUFACTURER'S RECOMMENDATIONS OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT.
4. STOCKPILES:
   STOCKPILES SHALL BE CHECKED FOR EROSION AND STABILIZED.
5. CONSTRUCTION ENTRANCE/EXIT:
   INSPECT CONSTRUCTION ROAD SURFACE DAILY, MAINTAIN WHEN NEEDED IN A CONDITION TO PREVENT SEDIMENT AND TOPSOIL FROM LEAVING THE SITE. SEDIMENT TRANSPORTED TO MAIN PLANT ROAD AND TO PUBLIC ROADS SHALL BE REMOVED DAILY.
6. PERMANENT CHANNEL:
   MAINTAIN ALL VEGETATION ADJACENT AND IN CHANNEL. IMMEDIATELY REPAIR DAMAGES DUE TO PIPING, SCOUR HOLES, OR BANK FAILURES.
7. TOP SOIL PREPARATION:
   TOP SOIL FOR PERMANENT GRASSING SHALL BE CLEAN OF ROCKS LARGER THAN 1/2 INCH AND BE ABLE TO SUPPORT VEGETATION. TOP SOIL SHALL BE A MINIMUM OF 4 TO 6 INCHES THICK.
8. SLOPE STABILIZATION:
   ALL EROSION CONTROL BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED.

CONSTRUCTION SEQUENCE:

1. FOR EACH STAGE OF CONSTRUCTION THE FOLLOWING SEQUENCE WILL APPLY:
   A. CONFIRM LOCATIONS OF AND CONSTRUCT/INSTALL CONSTRUCTION/TREE PROTECTION FENCES, SILT FENCES, INLET SEDIMENT TRAPS, AND THE CONSTRUCTION ENTRANCE AS SHOWN ON THE DRAWINGS.
   B. CLEAR AND GRUB TO LIMITS REQUIRED FOR CONSTRUCTION AS SHOWN ON THE DRAWINGS. STOCKPILE FILL MATERIAL IN AREAS DESIGNATED FOR STOCKPILES AND DISPOSE OF WASTE MATERIALS.
   C. BEGIN EXCAVATION AND GRADING ACTIVITIES AFTER ALL REQUIRED EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND CONSTRUCTED.
   D. ESTABLISH FINISHED GRADES ON SITE PERIMETER SLOPES AT EARLIEST POSSIBLE DATE. APPLY PERMANENT SOIL STABILIZATION IN ACCORDANCE WITH PLAN DETAILS.
   E. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR MULCH IF LAND–DISTURBING ACTIVITIES CEASE FOR MORE THAN 14 CALENDAR DAYS.
2. THE FOLLOWING SHALL APPLY AFTER CONSTRUCTION STAGES ARE COMPLETE:
   A. AFTER FINAL STABILIZATION FOR THE PROJECT IS ACHIEVED, THE CONTRACTOR SHALL RESTORE THE SITE BY RESTORATION, MULCHING, AND VEGETATION IN ACCORDANCE WITH THE INFRASTRUCTURE CONSTRUCTION PROJECTS NPDES PERMIT GAR100002. THE CONTRACTOR SHALL RESTORE THE DISTURBED AREAS AS THE CONSTRUCTION PROGRESSES BETWEEN MANHOLES.
   B. THE CONTRACTOR SHALL REMOVE THE BMPS ONCE THE DISTURBED AREA HAS BEEN RESTORED. THE BMPS SHALL BE INSPECTED FOR RE–USE FOR THE NEXT SECTION OF BMPS TO BE INSTALLED.

TREE PROTECTION

1. WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE INCH IN DIAMETER OR LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
2. THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY THE ENGINEER AND/OR DEKALB COUNTY.
3. PROTECT THE TRUNKS OF ANY TREES BEING PRESERVED WITHIN THE TEMPORARY OR PERMANENT EASEMENTS WITH STRAPPED ON PLANKING OR SIMILAR PROTECTIVE DEVICE.
4. TREE PROTECTION DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY CLEARING, GRUBBING OR GRADING.

EROSION CONTROL

1. EROSION CONTROL PRACTICES MUST COMPLY WITH THE MINIMUM BEST MANAGEMENT PRACTICES FOR EROSION CONTROL AND SHALL COMPLY WITH THE STANDARDS / SPECIFICATIONS IN THE "MANUAL FOR EROSION CONTROL AND SEDIMENT CONTROL IN GEORGIA", LATEST EDITION.
2. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES AS REQUIRED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER. .
3. IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND WITH THE HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
4. SEDIMENT / EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ANY ADDITIONAL EROSION CONTROL MEASURES AS DIRECTED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER.
5. PERMANENT VEGETATION SHALL BE PLACED AT ALL AREAS GRADED TO FINAL GRADE IMMEDIATELY UPON COMPLETION. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER (DS1). ON SLOPES THAT ARE 2:1 OR STEEPER, MULCH WILL BE ANCHORED.
6. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE PROPERLY FUNCTIONING PRIOR TO ANY LAND DISTURBANCE ACTIVITIES.
7. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
8. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
9. ANY DISTURBED AREAS LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
10. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
11. BUILDING MATERIALS AND BUILDING PRODUCTS NOT IN USE SHALL BE COVERED BY HEAVY PLASTIC.

POLLUTION CONTROLS

1. BMP'S SUCH AS CONSTRUCTION EXITS, WATERING STATIONS, AND SWEEPERS MAY BE UTILIZED TO MINIMIZE OFF–SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST.
2. NON–EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50–FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
3. PETROLEUM BASED PRODUCTS– CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON–SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.
   3.1. SOLVENTS– ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
   3.2. CONCRETE TRUCK WASHING– WASHOUT OF CONCRETE DRUMS AT THE CONSTRUCTION SITE IS PROHIBITED. CONTRACTOR IS TO SELECT LOCATIONS ON THE SITE FOR CONCRETE WASH DOWN THAT MEET THE CONDITIONS OF THE 404 PERMIT AND NEED NO STAND ALONE PERMIT. CONCRETE WASH DOWN AREA SHOULD BE OUTSIDE OF THE AREA THAT IS MARKED FOR EXCAVATION AND CAN BE LEFT BEHIND FOLLOWING CONSTRUCTION. CONTRACTOR SHALL SELECT AN EPA RECOMMENDED WASH OUT BMP TO BE USED AND SUBMIT LOCATIONS AND WASH OUT BMP TYPE FOR ENGINEER'S APPROVAL.
   3.3. FERTILIZER/HERBICIDES– THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT TABLE IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
   3.4. CONSTRUCTION MATERIALS– NO CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF ACCORDING TO APPLICABLE STATE AND LOCAL REGULATIONS.
4. SOIL CLEANUP AND CONTROL PRACTICES
   4.1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES MADE AVAILABLE TO ON–SITE PERSONNEL.
   4.2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERTY LABELED PLASTIC AND METAL WASTE CONTAINERS.
   4.3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
   4.4. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
   4.5. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1–800–424–8802.
   4.6. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS A 1–800–424–8802.
   4.7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
   4.8. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY A LICENSED PROFESSIONAL.
6. SANITARY UNIT WILL BE ONSITE TO COLLECT ALL SANITARY WASTE DURING CONSTRUCTION ACTIVITY.

404 PERMIT CONDITION NOTES

1. EQUIPMENT STAGING AND MAINTENANCE AREAS ARE PROHIBITED WITHIN 200 FEET OF STREAMS, OR WITHIN 50 FEET OF WETLANDS OR OPEN WATERS, TO MINIMIZE THE POTENTIAL FOR WASTE WATER, PETROLEUM PRODUCTS, OR OTHER CONTAMINANTS FROM CONSTRUCTION EQUIPMENT ENTERING WATERS OF THE U.S.
2. UNCURED WASTE CONCRETE, CONSTRUCTION DEBRIS, DEMOLITION DEBRIS OR OTHER WASTE MATERIALS SHALL NOT BE DISCHARGED INTO WATERS OF THE U.S. WASTE MATERIAL SHALL NOT BE DISPOSED OF OR STORED WITHIN 200 FEET OF STREAMS, OR WITHIN 50 FEET OF WETLANDS OR OPEN WATERS, TO MINIMIZE THE POTENTIAL FOR SUCH MATERIALS FROM ENTERING WATERS OF THE U.S.
3. ANY DISCHARGE OF UNCURED CONCRETE INTO THE WATERS OF THE U.S. DURING CONSTRUCTION OF THE DAM OR INTAKE STRUCTURE SHALL BE CONTAINED WITHIN WATERPROOF FORMS UNTIL CURED.
4. ONCE THE PROJECT SITE IS SUFFICIENTLY STABILIZED THROUGH RE–VEGETATION, THE PERMITEE SHALL REMOVE ALL SILT FENCING AND OTHER NON–BIODEGRADABLE EROSION CONTROL MEASURES FROM STREAM BANKS, RIPARIAN AREAS, WETLANDS AND UPLAND AREAS IMMEDIATELY ADJACENT TO OTHER WATERS OF THE U.S. WITHIN 30 DAYS OF COMPLETION OF THIS ACTION, THE PERMITEE SHALL NOTIFY THE CORPS IN WRITING.
5. NO OILS, GREASE, MATERIALS OR OTHER POLLUTANTS WILL BE DISCHARGED FROM THE CONSTRUCTION ACTIVITIES WHICH REACH PUBLIC WATERS.
6. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

CITY OF ATLANTA EROSION CONTROL NOTES

1. PRIOR TO LAND–DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE A PRE–CONSTRUCTION MEETING WITH THE AREA EROSION CONTROL INSPECTOR. CALL (404) 546–1300 TO CONTACT THE INSPECTOR.
2. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
4. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH AND TEMPORARY SEEDING.
5. ANY DISTURBED AREAS REMAINING IDLE FOR 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN, AND REPAIRED AS NECESSARY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON–SITE INSPECTION.
8. SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 – TYPE C TEMPORARY SILT FENCE, OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1993 EDITION, AND BE WIRE REINFORCED.
9. CITY OF ATLANTA, THE PROPERTY OWNER, AND CONTRACTOR ARE EQUALLY RESPONSIBLE FOR ALL EROSION CONTROL ACTIVITIES.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES, NOT THE CITY OF ATLANTA.
11. ALL TEMPORARY AND PERMANENT SEEDING MUST BE PERFORMED AT THE APPROPRIATE SEASON. IN SUCH INSTANCES WHERE THE ESTABLISHMENT OF VEGETATION IS INOPPORTUNE DUE TO SEASON OR DROUGHT, DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED USING 2 –4" OF MULCH (DS1). ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.
12. THE CITY'S DESIGNEE WILL VERIFY ADEQUATE COVER (100% COVER, 70% DENSITY) OF PERMANENT STABILIZATION (DS3, DS4).
13. SILT FENCES SHALL NOT BE PLACED IN STREAM BUFFER OR FLOODPLAINS, UNLESS UTILIZED FOR THE CONSTRUCTION OF AN EXEMPT ACTIVITY (I.E. ROADWAY DRAINAGE STRUCTURES, SEWER/WATER CROSSINGS, OR DRAINAGE STRUCTURES) PER THE APPROVED PLANS. FOR SUCH DISTURBANCES WITHIN THE BUFFER, THE AREA SHALL BE IMMEDIATELY STABILIZED USING EROSION CONTROL MATTING AND/OR BLANKETS ONCE THE ACTIVITY IS COMPLETE.
14. FOR EACH SITE ON WHICH LAND DISTURBING ACTIVITY OCCURS, EACH ENTITY OR PERSON ACTING AS EITHER A PRIMARY, SECONDARY, OR TERTIARY PERMITTEE, AS DEFINED IN THE STATE GENERAL PERMIT, SHALL HAVE AS A MINIMUM ONE PERSON WHO IS IN RESPONSIBLE CHARGE OF EROSION AND SEDIMENTATION CONTROL ACTIVITIES ON BEHALF OF SAID ENTITY OR PERSON AND MEETS THE APPLICABLE (LEVEL 1A) EDUCATION OR TRAINING CERTIFICATION REQUIREMENTS (O.C.G.A. 12–7–19(A)(2)).
15. SUBCONTRACTORS INVOLVED WITH LAND DISTURBANCE ACTIVITIES SHALL MEET THE EDUCATION REQUIREMENTS (LEVEL 1) DESCRIBED IN O.C.G.A 12–7–19.

SITE SOILS

THE LIMIT OF DISTURBANCE INCLUDES THE FOLLOWING SOIL TYPES AS IDENTIFIED IN THE NRCS WEB SOIL SURVEY:

Ud: URBAN LAND

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL DAVID ANDREW WILSON ENGINEER

GSWCC NO. 0000044976, EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EROSION AND SEDIMENTATION CONTROL LEGEND AND NOTES

DATE:	JUL 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	A. JACOBS/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C–008

SHEET 13 OF 150

USER:DRAIN Spec:AUS–NCSMOD File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–008.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:40 Plot Date: Crain, Angela: 7/8/2022, 12:30 : Layout:13

"
VEGETATIVE PRACTICES

USER: CRAIN, Spencer AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABP4134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-009.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:39 Plot Date: Crain, Angela: 7/8/2022, 12:31 - Layout:14

MATCHLINE (SEE SHEET C-010)

NOTE 1

8" SLUDGE LINE (DIP)

SLUDGE PUMP STATION

SEDIMENTATION BASIN NO. 2

NOTE 10

RAPID MIX TANK

1" CORP STOP W/ 1" CURB COCK ON EXISTING DIP LINE (SIZE UNKNOWN)

1W2(CU)

NOTE 2

C/O

REFER TO SHEET C-016 FOR CONNECTION DETAILS. MODIFY AS NEEDED FOR SIZED DRAIN CONNECTION SEE DETAIL 3 SHEET C-016

4DR(PVC)

FRP SAMPLING POINT INSTRUMENT CABINET (SEE MECH. SHEET M-020)

OLD VORTEX BUILDING

GRIT SETTLING TANK NO. 1

DETRITING TANK NO. 2

GRIT PUMP STATION NO. 2

SEPARATOR

HEAD BOX

SWITCHGEAR BLDG

XFMR

EROSION CONTROL NOTES

Ds1	Ds2	Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Ss

3. ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN THE STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET. PROVIDE PROTECTIVE COVERING TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON SLOPES IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

4. INSTALL DOUBLE ROW TYPE-S SILT FENCE ALONG STREAM TOP OF BANK.

Tr

5. THE CONTRACTOR SHALL REMOVE ONLY SUCH TREES ON OR ALONG THE WORK AS NECESSARY, AND SHALL CAREFULLY PROTECT ALL OTHER TREES ADJACENT TO THE WORK. WORK SHALL BE DONE IN ACCORDANCE WITH CITY OF ATLANTA'S TREE ORDINANCE REQUIREMENTS. FOR THOSE TREES TO BE PROTECTED, TREE PROTECTION ZONES ARE TO BE ESTABLISHED AND TREE PROTECTION FENCING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Sd2-P

STAGING/LAYDOWN AREA (EXISTING PAVED AREA)

INSET B

EFF PARSHALL FLUME

TUNNEL PUMP STATION

ELECTRICAL BUILDING

EXISTING PAVEMENT

VALVE VAULT

EXISTING CONCRETE CHANNEL

500 YR FLOOD PLAIN

100 YR FLOOD PLAIN

SD1-S DOUBLE ROW

CO

N: 1346940.71
E: 2245248.68

25' STREAM BUFFER

REMOVE/REPLACE EX. CHAINLINK FENCE AS NEEDED

BEGIN CHANNEL REPLACEMENT NOTE 4

Ss

SD1-B

NOTES:

1. REMOVE AND REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK. REFER TO 2008 EA WQCF DRAWINGS INCLUDED IN EXHIBIT C.1 FOR ROUTE AND DEPTH OF BURY FOR EXISTING SLUDGE PIPING.
2. THE 1W2(CU) LINE IS BURIED UNDER ABOVE GRADE PLATFORM.
3. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
4. EXISTING CHANNEL IS CONCRETE. PROPOSED DEMOLITION AND REPLACEMENT COMMENCES HERE AND CONTINUES TO CONFLUENCE WITH STREAM BED.
5. TIME SPENT WORKING IN THE CREEK SHALL BE KEPT TO A MINIMUM.
6. REPLACEMENT OF THE TOE-WALL CANNOT START WHEN A RAIN EVENT IS FORECAST IN THE NEXT 72 HOURS. CONTRACTOR IS EXPECTED TO FINISH THE CHANNEL REPLACEMENT WORK WITHIN 72 HOURS.
7. CONTRACTOR TO PROVIDE SLOPE STABILIZATION (Ss) WITHIN THE CREEK BUFFER AS WORK PROGRESSES. ADDITIONAL MEASURES MAY BE REQUIRED BY THE SITE INSPECTOR.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING THE DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED. THE ABOVE MENTIONED BMPS TO BE REMOVED ONCE SANITARY SEWER HAS BEEN INSTALLED AND PERMANENT EROSION PROTECTION HAS BEEN ESTABLISHED. THE CREEK BUFFER AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITIONS IMMEDIATELY FOLLOWING COMPLETION OF WORK IN THAT AREA.
9. TOTAL DISTURBED AREA = 0.91 ACRES.
10. REPLACE APPROXIMATELY 139 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.

INSET B
SCALE: 1" = 30'

0 30' 60'

0 10' 20' 40'

Know what's **below.** **Call** before you dig.

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SEALS

GEORGIA REGISTERED No. 031828 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/8/2022

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 1

DATE: JULY 2022
PROJECT NO.: GABP4134
DESIGNED BY: W. HACKETT/DAW
DRAWN BY: J. BROWN/ADC
CHECKED BY: A. SHARP/DAW

SCALE: 1" = 20'

C-009

SHEET 14 OF 150

MATCHLINE (SEE SHEET C-011)

EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
3. REPLACE TWO (2) EXISTING 6" SLUDGE LINES FROM SOLIDS PROCESSING PUMP STATION TO PROPOSED SLUDGE DEWATERING BUILDING WITH TWO (2) NEW 6" SLUDGE LINES.
4. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED ROUTE AND ELEVATIONS AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATIONS PROVIDED AS GENERAL GUIDANCE.
5. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
6. REPLACE CONCRETE PAD AT BUILDING ENTRANCE TO MATCH EXISTING CONDITIONS.
7. TOTAL DISTURBED AREA = 0.91 ACRES.
8. DEFLECT AROUND EXISTING PIPE AS NEEDED.

PARKING STRIPES AND HANDICAP MARKER IN THE PARKING AREA OF THE FILTER BUILDING SHALL BE RESTRIPE PER EXISTING LAYOUT.

10. CONTRACTOR TO PROVIDE INLET PROTECTION TO ENSURE NEW MANHOLES AND STRUCTURES ARE PROTECTED FROM COLLECTING SEDIMENT DURING CONSTRUCTION.
11. ALL NEW 24" RCP SHALL BE CLASS III.
12. REPLACE A TOTAL OF APPROXIMATELY 31 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
13. REPLACE A TOTAL OF APPROXIMATELY 30 SQUARE YARDS OF CONCRETE PAVEMENT. SEE DETAIL 5 ON SHEET C-016.
14. REPLACE APPROXIMATELY 46 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
15. REPLACE APPROXIMATELY 11 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
16. REPLACE APPROXIMATELY 57 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.

PREVIOUSLY ABANDONED 8" SL
78.33 LF 12DR(DIP) @ 0.96%
8SL(HDPE)
6SL(HDPE)
6SL(HDPE)
NOTE 3
SOLIDS PROCESSING PUMP STATION
NOTE 6
NOTE 2
NOTE 16
MH-5 ELV. RIM 806.00 INV IN 802.00 INV OUT 801.80
LIMITS OF DISTURBANCE
12DR(DIP) @ 1.05%
80.85 LF
NOTE 4
MH (EXISTING) ELV. RIM 807.80 INV IN (12") 800.26 INV IN (18") 799.00 INV IN (24") 796.46 INV OUT (24") 796.46
MH-6 ELV. RIM 807.00 INV IN 800.95 INV OUT 800.75
NOTE 15
46.81 LF 12DR(DIP) @ 1.04%
WASTE WASHWATER PUMP STATION
8SL(HDPE)
NOTE 14
STAGING/LAYDOWN AREA
LIMITS OF DISTURBANCE
NOTE 1
NOTE 9
SANITARY PUMP STATION (EXISTING)
FILTER BUILDING (AND DISINFECTION)
INFLUENT JUNCTION BOX NO. 1
DETRITUS TANK NO. 1
NOTE 13
NOTE 12
12"RCP @ 0.80% YARD INLET TOP = 807.50 FL = 802.62
24" EL 798.65
GRIT PUMP STATION NO. 1
YARD INLET
NOTE 13
XFMR PAD
NOTE 8
NOTE 12
SEDIMENTATION BASIN NO. 1
GRIT SETTLING TANK NO. 1
Sd2-P
500 YR FLOOD PLAIN
100 YR FLOOD PLAIN
24" EL 798.15

TB1 – SW CORNER OF PAD
PLANT NORTH
N: 10006.11
E: 5474.83
Z: 808.01
GRID NORTH
N: 1347293.31
E: 2245450.99
Z: 808.01

NORTH 10200
NORTH 10000
EAST 5200
EAST 5600
EAST 5800

MATCHLINE (SEE SHEET C-009)

Know what's **below.** **Call** before you dig.

0 10' 20' 40'

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER ANDREW WILSON

7/8/2022

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

ARCADIS A Joint Venture
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Atlanta, GA 30339
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 2

DATE: JULY 2022
PROJECT NO.: GBPA134
DESIGNED BY: W. HACKETT/DAW
DRAWN BY: J. BROWN/ADC
CHECKED BY: A. SHARP/DAW

SCALE: 1" = 20'

C-010

SHEET 15 OF 150

U:\ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-010.DWG Scale:1:1 SavedDate:7/8/2022 Time:12:12 Plot Date: Crain, Angela: 7/8/2022, 12:46 Layout:15

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. REPLACE TWO (2) EXISTING SLUDGE LINES CONNECTING PROPOSED SLUDGE DEWATERING BUILDING TO EXISTING SOLIDS PROCESSING PUMP STATION WITH TWO (2) NEW 6" SLUDGE LINES.
3. DEMOLISH AND FILL EXISTING VALVE AND METER VAULTS (SIZES UNKNOWN) LOCATED BENEATH SLUDGE DEWATERING BUILDING FOOTPRINT.
4. EXTEND 3" W2 LINE OFF EXISTING CITY W2 SYSTEM TO NEW SLUDGE DEWATERING BUILDING. CONTRACTOR TO FIELD VERIFY CONNECTION AND ASSOCIATED ROUTING.
5. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
6. REPLACE EXISTING SLUDGE HOLDING TANK OVERFLOW LINE TO PROPOSED MANHOLE.
7. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED PIPE ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATION PROVIDED AS GENERAL GUIDANCE.
8. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
9. RESTORE ANY DISTURBED EXISTING CURB AND GUTTER, CATCH BASIN, MANHOLE COVERS AND ASPHALT ADJACENT TO PROPOSED SLUDGE DEWATERING BUILDING TO MATCH EXISTING CONDITIONS. (SEE CIVIL DETAILS.)
10. CONCRETE APRONS SHALL BE INSTALLED AT DESIGNATED LOCATIONS. APRONS SHALL BE SLOPED FROM ASPHALT TO MEET FFE/SLAB ELEVATION AT EACH ROLL-UP DOOR ELEVATION (SEE CIVIL DETAILS).
11. REFER TO M-010 AND M-011 FOR CONNECTIONS TO EXISTING SLUDGE TANK.
12. INSTALL 8" CHECKMATE INLINE CHECK VALVE OR EQUAL AT THIS LOCATION IMMEDIATELY UPSTREAM OF MANHOLE.
13. CONTRACTOR TO REPLACE ALL PAVEMENT WITHIN THE DISTURBED AREA AROUND THE SLUDGE DEWATERING BUILDING PLUS MILL AND OVERLAY THE STAGING/LAYDOWN AREA. SEE CIVIL DETAILS FOR PAVEMENT DETAIL.
14. CONTRACTOR TO REPLACE ALL PAVED AREAS DAMAGED DURING CONSTRUCTION. REPLACEMENT TO CONSIST OF PAVEMENT MILL AND OVERLAY.
15. CONTRACTOR TO REPAIR ANY CURB AND GUTTER DISTURBED DURING CONSTRUCTION. SEE CIVIL DETAILS.
16. TOP OF SIDEWALK ELEVATION FOR SLUDGE DEWATERING BUILDING IS 826.80 FT. (TYP.) AND SLOPES AWAY FROM BUILDING TO ASPHALT. TIE INTO PROPOSED GRADING.
17. BOLLARDS (7) TO BE FIELD LOCATED AND VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
18. TOTAL DISTURBED AREA = 0.92 ACRES. (2)
19. CONTRACTOR TO CONFIRM THIS LINE AS STORM, SANITARY OR COMBINED WITH FACILITY STAFF. NOT USED
20. SET STORMWATER MANHOLE TOP 2 FT (MIN) ABOVE PROPOSED GRADE.
21. CONSTRUCT HEADER CURB ALONG CONCRETE SIDEWALK.
22. END CURB AND GUTTER. BEGIN HEADER CURB.
23. ADJUST STORMWATER MANHOLE TOP AS NEEDED TO MATCH PROPOSED GRADE.
24. LOCATION AND ELEVATIONS OF EXISTING SITE FEATURES, UTILITIES AND WORK ARE BASED ON THE BEST AVAILABLE INFORMATION INCLUDING TOPOGRAPHIC SURVEY AND RECORD DRAWINGS. EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A UTILITY LOCATE AND FIELD SURVEY TO CONFIRM EXISTING GRADE ELEVATIONS AND DEPTHS AND LOCATIONS OF ALL STRUCTURES, UTILITIES, AND LINEWORK LOCATED WITHIN THE LIMITS OF DISTURBANCE. THE FIELD SURVEY AND UTILITY LOCATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
25. REFER TO LARGE DIAMET… FOR CONSTRUCTION OF S… CONCRETE FILL AROUND … DETAIL IS NOT REQUIRED
26. ADJUST SANITARY SEWER … NEEDED TO MATCH PROP…
27. FILLING OF THE BIORETENTION POND WITH THE PERMEABLE SOIL MATERIAL, MULCH, AND LANDSCAPING OF THE BMP SHOULD NOT OCCUR UNTIL THE FINAL PHASE OF CONSTRUCTION AFTER THE PROPOSED BUILDING AND UTILITIES ARE CONSTRUCTED AND FINAL GRADING FOR THE SITE (EXCEPT WHERE THE BIORETENTION AREA WILL BE CONSTRUCTED) HAS BEEN COMPLETED. ONCE THE SITE IS STABILIZED WITH VEGETATION AND IMPERVIOUS SURFACE COVER, THE SEDIMENT SHALL BE REMOVED FROM THE POND AND FINAL CONSTRUCTION OF THE POND COMPLETED.
28. SEAL EXISTING 24" RCP INTO EX. MANHOLE. PROVIDE CORE AND BOOT FOR NEW 24" RCP INTO MANHOLE.
29. ABANDON IN PLACE EXISTING 24" RCP UNDER BUILDING TO EXISTING STMH. SEE SHEET C-001 OUTSIDE PIPING NOTE NO. 1
30. CONTRA… MANHOL… COLLEC… …ET PROTECTION TO ENSURE NEW …ARE PROTECTED FROM …CONSTRUCTION.

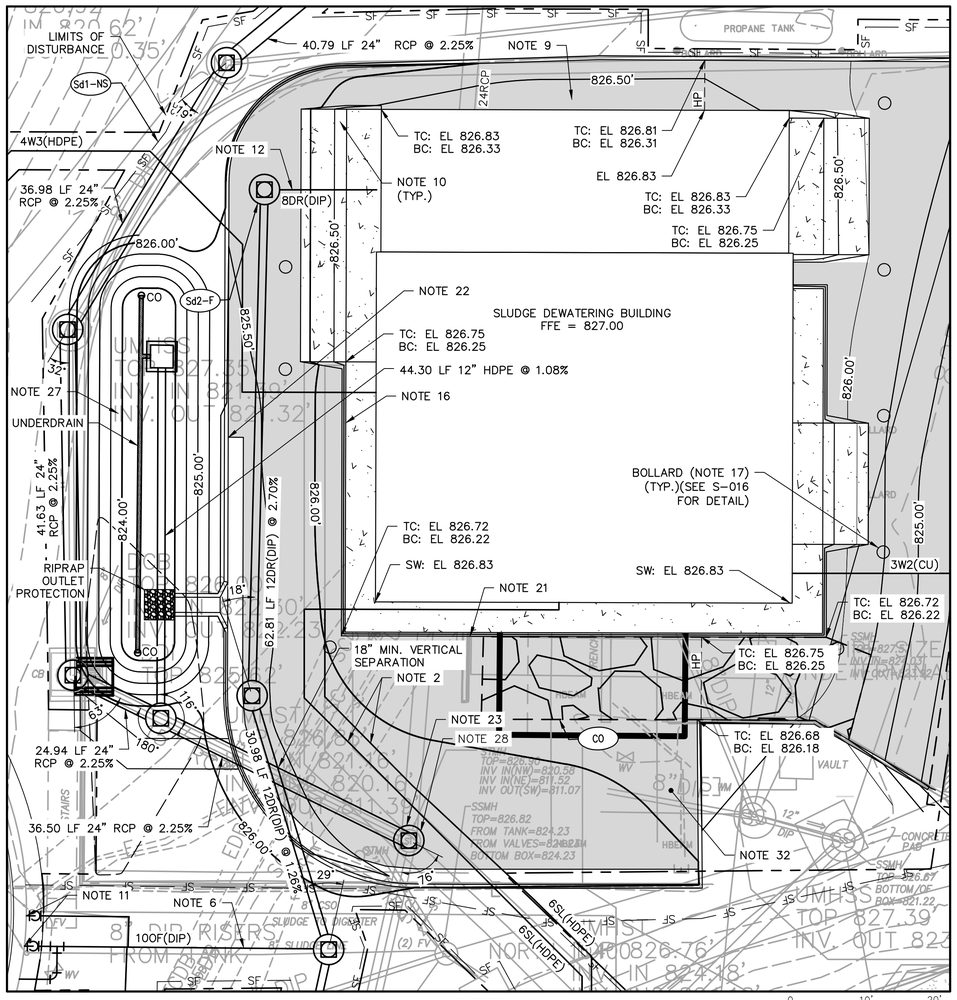
EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION AND APPROVED BY ENGINEER.

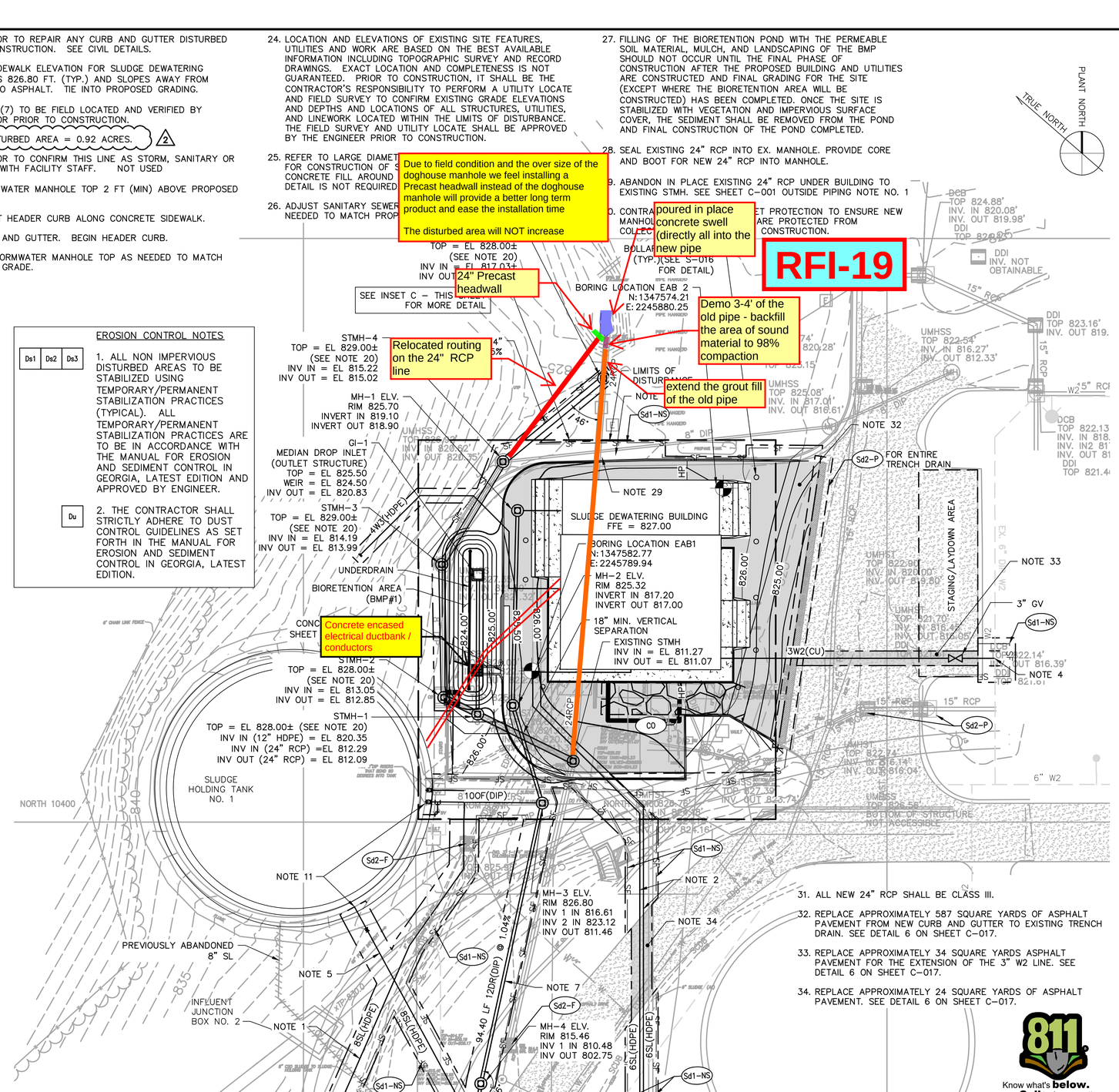
Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.



INSET C

SCALE: 1" = 10'



MATCHLINE (SEE SHEET C-010)

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
2	SEP 2022	REVISED LOD	HG
1	AUG 2022	REVISED SDMH-5 LOCATION	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON

GSWCC NO. 0000044976, EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 3

DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-011

SHEET 16 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PRO\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-011.DWG Scale:1:1 SavedDate:9/9/2022 Time:10:59 Plot Date: Crain, Angela: 9/9/2022, 11:14 -, Layout:16

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #50: Sludge Dewatering Building Final Grading Plan

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jul 17, 2025	**Due Date**	Jul 24, 2025
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Thursday, Jul 17, 2025 at 03:15 PM EDT*

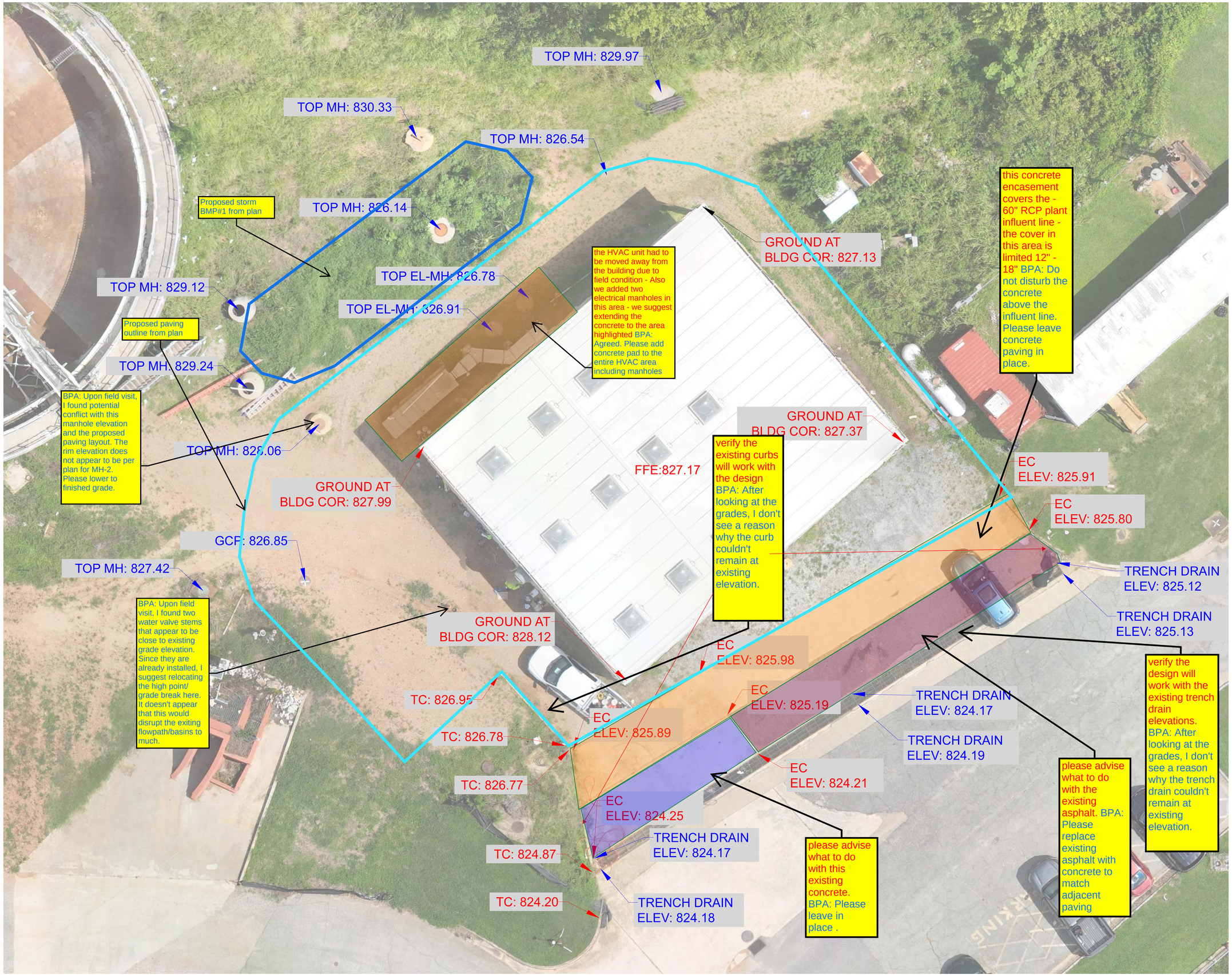
Various items around the sludge dewatering building have changed due to field conditions on the site. Attached is the as built elevations of the area. Please review and provide a final grading plan for the area.

Awaiting an Official Response

Arcadis/BPA: See the attached drawing and notes.

RFI-50

RFI-50


TOP MH: 829.97
TOP MH: 830.33
TOP MH: 826.54
Proposed storm BMP#1 from plan
TOP MH: 826.14
GROUND AT BLDG COR: 827.13
this concrete encasement covers the - 60" RCP plant influent line - the cover in this area is limited 12" - 18" BPA: Do not disturb the concrete above the influent line. Please leave concrete paving in place.
TOP EL-MH: 826.78
TOP MH: 829.12
TOP EL-MH: 826.91
the HVAC unit had to be moved away from the building due to field condition - Also we added two electrical manholes in this area - we suggest extending the concrete to the area highlighted BPA: Agreed. Please add concrete pad to the entire HVAC area including manholes
Proposed paving outline from plan
TOP MH: 829.24
GROUND AT BLDG COR: 827.37
BPA: Upon field visit, I found potential conflict with this manhole elevation and the proposed paving layout. The rim elevation does not appear to be per plan for MH-2. Please lower to finished grade.
TOP MH: 828.06
FFE:827.17
verify the existing curbs will work with the design BPA: After looking at the grades, I don't see a reason why the curb couldn't remain at existing elevation.
EC ELEV: 825.91
GROUND AT BLDG COR: 827.99
EC ELEV: 825.80
GCF: 826.85
TOP MH: 827.42
TRENCH DRAIN ELEV: 825.12
TRENCH DRAIN ELEV: 825.13
BPA: Upon field visit, I found two water valve stems that appear to be close to existing grade elevation. Since they are already installed, I suggest relocating the high point/ grade break here. It doesn't appear that this would disrupt the exiting flowpath/basins to much.
GROUND AT BLDG COR: 828.12
EC ELEV: 825.98
EC ELEV: 825.19
TRENCH DRAIN ELEV: 824.17
TC: 826.95
EC ELEV: 825.89
TC: 826.78
TRENCH DRAIN ELEV: 824.19
verify the design will work with the existing trench drain elevations. BPA: After looking at the grades, I don't see a reason why the trench drain couldn't remain at existing elevation.
EC ELEV: 824.21
TC: 826.77
EC ELEV: 824.25
please advise what to do with the existing asphalt. BPA: Please replace existing asphalt with concrete to match adjacent paving
TRENCH DRAIN ELEV: 824.17
TC: 824.87
please advise what to do with this existing concrete. BPA: Please leave in place .
TC: 824.20
TRENCH DRAIN ELEV: 824.18

RFI-50

the building slab/ corners are per

TOP MH: 829.97

TOP MH: 830.33

TOP MH: 826.54

TOP MH: 826.14

GROUND AT BLDG COR: 827.13

GROUND AT BLDG COR: 827.37

GROUND AT BLDG COR: 827.99

GROUND AT BLDG COR: 828.12

FFE:827.17

EC ELEV: 825.91

EC ELEV: 825.80

EC ELEV: 825.98

EC ELEV: 825.19

EC ELEV: 825.89

EC ELEV: 824.21

EC ELEV: 824.25

TRENCH DRAIN ELEV: 825.12

TRENCH DRAIN ELEV: 825.13

TRENCH DRAIN ELEV: 824.17

TRENCH DRAIN ELEV: 824.19

TRENCH DRAIN ELEV: 824.17

TRENCH DRAIN ELEV: 824.18

TC: 826.95

TC: 826.78

TC: 826.77

TC: 824.87

TC: 824.20

STAGING/LAYDOWN AREA

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
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F: +1 404 355 2429

RFI-01

Project: 21091 East Area Water Quality Control Facility Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #1: Solids Processing Pump Station - Floor Drains

Status	Open		
To	Steve Scarlett City of Atlanta	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Apr 25, 2022	**Due Date**	May 2, 2022
Location		**Project Stage**	Course of Construction
Cost Impact	Yes (Unknown)	**Schedule Impact**	Yes (Unknown)
Spec Section		**Cost Code**	
Drawing Number	M14	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Apr 25, 2022 at 09:21 AM EDT*

After jetting the floor drains in the solids processing pump station we could not get a camera into the drains. The floor drains appear to be rusted thru and draining into the area under the building. We suggest the following:

- Cutting a 2' wide trench into the existing concrete
- Removing the existing floor drains and piping
- Evaluating the existing subgrade (fix if needed)
- Install a embedded trench drain system (Please advise size and type of trench drain) in place of the floor drain system
- Run the new trench drain line to Manhole - 5

Attachments
Solids Proc PS - floor drain sketch.pdf

Awaiting an Official Response

Response:

See attached revised sheets C-008, C-009, C-010, C-011.
See attached new sheets RFI-01A and RFI-01B.

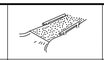
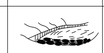
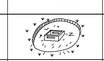
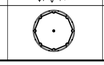
BY: S. Hobi/D. Wilson Date: 9/26/2022

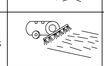
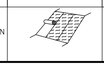
GEORGIA
UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.

MONTH

ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSTALL AND MAINTAIN EROSION CONTROL																
CLEARING AND GRUBBING																
EARTHWORK, GRADING AND SITE CONSTRUCTION																
VEGETATION AND MULCHING																
PERMANENT GRASSING AND GROUND COVER																

811 Know what's **below.** **Call** before you dig.

SITE NOTES:

1. PROJECT IS LOCATED IN THE 15TH DISTRICT, LAND LOT 111, DEKALB COUNTY, GEORGIA.
2. THE TOTAL LAND DISTURBANCE IS 0.92 ACRES. (1)
3. THE TOTAL CONTRIBUTING DRAINAGE AREA IS APPROXIMATELY 41 ACRES.
4. THE RECEIVING WATER FOR THIS PROJECT IS INTRENCHMENT CREEK WHICH SUPPORTS WARM WATER FISHERIES.
5. A PORTION OF THIS SITE DOES LIE WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" OR "A".FIRM MAP NUMBER: 13089C0129J; EFFECTIVE DATE: MAY 16, 2013.
6. 24–HOUR CONTACT AND INSPECTIONS: TBD
   ADDRESS: TBD
   PHONE: TBD
7. NON–EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50–FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25–FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

MANAGEMENT PLAN:

ALL EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND AFTER EVERY RAINFALL. ALL NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO PREVENT FURTHER DAMAGE AND EROSION. STRUCTURES THAT SHALL BE INSPECTED INCLUDE:

1. OUTLET PROTECTION:
   CHECK FOR EROSION AROUND OR BELOW THE RIPRAP AND IF STONES HAVE BEEN DISLODGED, MAKE NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
2. SEEDING, FERTILIZING, AND MULCHING:
   SEEDED AREAS SHALL BE INSPECTED FOR FAILURE AND NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
3. SEDIMENT BARRIER:
   SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE–HALF THE ORIGINAL HEIGHT OF THE BARRIER. SEDIMENT BARRIERS SHALL BE REPLACED PER MANUFACTURER'S RECOMMENDATIONS OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT.
4. STOCKPILES:
   STOCKPILES SHALL BE CHECKED FOR EROSION AND STABILIZED.
5. CONSTRUCTION ENTRANCE/EXIT:
   INSPECT CONSTRUCTION ROAD SURFACE DAILY, MAINTAIN WHEN NEEDED IN A CONDITION TO PREVENT SEDIMENT AND TOPSOIL FROM LEAVING THE SITE. SEDIMENT TRANSPORTED TO MAIN PLANT ROAD AND TO PUBLIC ROADS SHALL BE REMOVED DAILY.
6. PERMANENT CHANNEL:
   MAINTAIN ALL VEGETATION ADJACENT AND IN CHANNEL. IMMEDIATELY REPAIR DAMAGES DUE TO PIPING, SCOUR HOLES, OR BANK FAILURES.
7. TOP SOIL PREPARATION:
   TOP SOIL FOR PERMANENT GRASSING SHALL BE CLEAN OF ROCKS LARGER THAN 1/2 INCH AND BE ABLE TO SUPPORT VEGETATION. TOP SOIL SHALL BE A MINIMUM OF 4 TO 6 INCHES THICK.
8. SLOPE STABILIZATION:
   ALL EROSION CONTROL BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED.

CONSTRUCTION SEQUENCE:

1. FOR EACH STAGE OF CONSTRUCTION THE FOLLOWING SEQUENCE WILL APPLY:
   A. CONFIRM LOCATIONS OF AND CONSTRUCT/INSTALL CONSTRUCTION/TREE PROTECTION FENCES, SILT FENCES, INLET SEDIMENT TRAPS, AND THE CONSTRUCTION ENTRANCE AS SHOWN ON THE DRAWINGS.
   B. CLEAR AND GRUB TO LIMITS REQUIRED FOR CONSTRUCTION AS SHOWN ON THE DRAWINGS. STOCKPILE FILL MATERIAL IN AREAS DESIGNATED FOR STOCKPILES AND DISPOSE OF WASTE MATERIALS.
   C. BEGIN EXCAVATION AND GRADING ACTIVITIES AFTER ALL REQUIRED EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND CONSTRUCTED.
   D. ESTABLISH FINISHED GRADES ON SITE PERIMETER SLOPES AT EARLIEST POSSIBLE DATE. APPLY PERMANENT SOIL STABILIZATION IN ACCORDANCE WITH PLAN DETAILS.
   E. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR MULCH IF LAND–DISTURBING ACTIVITIES CEASE FOR MORE THAN 14 CALENDAR DAYS.
2. THE FOLLOWING SHALL APPLY AFTER CONSTRUCTION STAGES ARE COMPLETE:
   A. AFTER FINAL STABILIZATION FOR THE PROJECT IS ACHIEVED, THE CONTRACTOR SHALL RESTORE THE SITE BY RESTORATION, MULCHING, AND VEGETATION IN ACCORDANCE WITH THE INFRASTRUCTURE CONSTRUCTION PROJECTS NPDES PERMIT GAR100002. THE CONTRACTOR SHALL RESTORE THE DISTURBED AREAS AS THE CONSTRUCTION PROGRESSES BETWEEN MANHOLES.
   B. THE CONTRACTOR SHALL REMOVE THE BMPS ONCE THE DISTURBED AREA HAS BEEN RESTORED. THE BMPS SHALL BE INSPECTED FOR RE–USE FOR THE NEXT SECTION OF BMPS TO BE INSTALLED.

TREE PROTECTION

1. WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE INCH IN DIAMETER OR LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
2. THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY THE ENGINEER AND/OR DEKALB COUNTY.
3. PROTECT THE TRUNKS OF ANY TREES BEING PRESERVED WITHIN THE TEMPORARY OR PERMANENT EASEMENTS WITH STRAPPED ON PLANKING OR SIMILAR PROTECTIVE DEVICE.
4. TREE PROTECTION DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY CLEARING, GRUBBING OR GRADING.

EROSION CONTROL

1. EROSION CONTROL PRACTICES MUST COMPLY WITH THE MINIMUM BEST MANAGEMENT PRACTICES FOR EROSION CONTROL AND SHALL COMPLY WITH THE STANDARDS / SPECIFICATIONS IN THE "MANUAL FOR EROSION CONTROL AND SEDIMENT CONTROL IN GEORGIA", LATEST EDITION.
2. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES AS REQUIRED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER. .
3. IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND WITH THE HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
4. SEDIMENT / EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ANY ADDITIONAL EROSION CONTROL MEASURES AS DIRECTED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER.
5. PERMANENT VEGETATION SHALL BE PLACED AT ALL AREAS GRADED TO FINAL GRADE IMMEDIATELY UPON COMPLETION. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER (DS1). ON SLOPES THAT ARE 2:1 OR STEEPER, MULCH WILL BE ANCHORED.
6. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE PROPERLY FUNCTIONING PRIOR TO ANY LAND DISTURBANCE ACTIVITIES.
7. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
8. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
9. ANY DISTURBED AREAS LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
10. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
11. BUILDING MATERIALS AND BUILDING PRODUCTS NOT IN USE SHALL BE COVERED BY HEAVY PLASTIC.

POLLUTION CONTROLS

1. BMP'S SUCH AS CONSTRUCTION EXITS, WATERING STATIONS, AND SWEEPERS MAY BE UTILIZED TO MINIMIZE OFF–SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST.
2. NON–EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50–FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
3. PETROLEUM BASED PRODUCTS– CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON–SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.
   3.1. SOLVENTS– ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
   3.2. CONCRETE TRUCK WASHING– WASHOUT OF CONCRETE DRUMS AT THE CONSTRUCTION SITE IS PROHIBITED. CONTRACTOR IS TO SELECT LOCATIONS ON THE SITE FOR CONCRETE WASH DOWN THAT MEET THE CONDITIONS OF THE 404 PERMIT AND NPDES STAND ALONE PERMIT. CONCRETE WASH DOWN AREA SHOULD BE OUTSIDE OF THE AREA THAT IS MARKED FOR EXCAVATION AND CAN BE LEFT BEHIND FOLLOWING CONSTRUCTION. CONTRACTOR SHALL SELECT AN EPA RECOMMENDED WASHOUT BMP TO BE USED AND SUBMIT LOCATIONS AND WASH OUT BMP TYPE FOR ENGINEER'S APPROVAL.
   3.3. FERTILIZER/HERBICIDES– THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
   3.4. CONSTRUCTION MATERIALS– NO CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF ACCORDING TO APPLICABLE STATE AND LOCAL REGULATIONS.
4. SOIL CLEANUP AND CONTROL PRACTICES
   4.1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES MADE AVAILABLE TO SITE PERSONNEL.
   4.2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERTY LABELED PLASTIC AND METAL WASTE CONTAINERS.
   4.3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
   4.4. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
   4.5. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1–800–424–8802.
   4.6. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS A 1–800–424–8802.
   4.7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
   4.8. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY A LICENSED PROFESSIONAL.
6. SANITARY UNIT WILL BE ONSITE TO COLLECT ALL SANITARY WASTE DURING CONSTRUCTION ACTIVITY.

404 PERMIT CONDITION NOTES

1. EQUIPMENT STAGING AND MAINTENANCE AREAS ARE PROHIBITED WITHIN 200 FEET OF STREAMS, OR WITHIN 50 FEET OF WETLANDS OR OPEN WATERS, TO MINIMIZE THE POTENTIAL FOR WASH WATER, PETROLEUM PRODUCTS, OR OTHER CONTAMINANTS FROM CONSTRUCTION EQUIPMENT ENTERING WATERS OF THE U.S.
2. UNCURED WASTE CONCRETE, CONSTRUCTION DEBRIS, DEMOLITION DEBRIS OR OTHER WASTE MATERIALS SHALL NOT BE DISCHARGED INTO WATERS OF THE U.S. WASTE MATERIAL SHALL NOT BE DISPOSED OF OR STORED WITHIN 200 FEET OF STREAMS, OR WITHIN 50 FEET OF WETLANDS OR OPEN WATERS, TO MINIMIZE THE POTENTIAL FOR SUCH MATERIALS FROM ENTERING WATERS OF THE U.S.
3. ANY DISCHARGE OF UNCURED CONCRETE INTO THE WATERS OF THE U.S. DURING CONSTRUCTION OF THE DAM OR INTAKE STRUCTURE SHALL BE CONTAINED WITHIN WATERPROOF FORMS UNTIL CURED.
4. ONCE THE PROJECT SITE IS SUFFICIENTLY STABILIZED THROUGH RE–VEGETATION, THE PERMITEE SHALL REMOVE ALL SILT FENCING AND OTHER NON–BIODEGRADABLE EROSION CONTROL MEASURES FROM STREAM BANKS, RIPARIAN AREAS, WETLANDS AND UPLAND AREAS IMMEDIATELY ADJACENT TO OTHER WATERS OF THE U.S. WITHIN 30 DAYS OF COMPLETION OF THIS ACTION, THE PERMITEE SHALL NOTIFY THE CORPS IN WRITING.
5. NO OILS, GREASE, MATERIALS OR OTHER POLLUTANTS WILL BE DISCHARGED FROM THE CONSTRUCTION ACTIVITIES WHICH REACH PUBLIC WATERS.
6. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

CITY OF ATLANTA EROSION CONTROL NOTES

1. PRIOR TO LAND–DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE A PRE–CONSTRUCTION MEETING WITH THE AREA EROSION CONTROL INSPECTOR. CALL (404) 546–1300 TO CONTACT THE INSPECTOR.
2. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
4. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH AND TEMPORARY SEEDING.
5. ANY DISTURBED AREAS REMAINING IDLE FOR 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN, AND REPAIRED AS NECESSARY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON–SITE INSPECTION.
8. SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 – TYPE C TEMPORARY SILT FENCE, OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1993 EDITION, AND BE WIRE REINFORCED.
9. CITY OF ATLANTA, THE PROPERTY OWNER, AND CONTRACTOR ARE EQUALLY RESPONSIBLE FOR ALL EROSION CONTROL ACTIVITIES.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES, NOT THE CITY OF ATLANTA.
11. ALL TEMPORARY AND PERMANENT SEEDING MUST BE PERFORMED AT THE APPROPRIATE SEASON. IN SUCH INSTANCES WHERE THE ESTABLISHMENT OF VEGETATION IS INOPPORTUNE DUE TO SEASON OR DROUGHT, DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED USING 2 –4" OF MULCH (DS1). ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.
12. THE CITY'S DESIGNEE WILL VERIFY ADEQUATE COVER (100% COVER, 70% DENSITY) OF PERMANENT STABILIZATION (DS3, DS4).
13. SILT FENCES SHALL NOT BE PLACED IN STREAM BUFFER OR FLOODPLAINS, UNLESS UTILIZED FOR THE CONSTRUCTION OF AN EXEMPT ACTIVITY (I.E. ROADWAY DRAINAGE STRUCTURES, SEWER/WATER CROSSINGS, OR DRAINAGE STRUCTURES) PER THE APPROVED PLANS. FOR SUCH DISTURBANCES WITHIN THE BUFFER, THE AREA SHALL BE IMMEDIATELY STABILIZED USING EROSION CONTROL MATTING AND/OR BLANKETS ONCE THE ACTIVITY IS COMPLETE.
14. FOR EACH SITE ON WHICH LAND DISTURBING ACTIVITY OCCURS, EACH ENTITY OR PERSON ACTING AS EITHER A PRIMARY, SECONDARY, OR TERTIARY PERMITTEE, AS DEFINED IN THE STATE GENERAL PERMIT, SHALL HAVE AS A MINIMUM ONE PERSON WHO IS IN RESPONSIBLE CHARGE OF EROSION AND SEDIMENTATION CONTROL ACTIVITIES ON BEHALF OF SAID ENTITY OR PERSON AND MEETS THE APPLICABLE (LEVEL 1A) EDUCATION OR TRAINING CERTIFICATION REQUIREMENTS (O.C.G.A. 12–7–19(A)(2)).
15. SUBCONTRACTORS INVOLVED WITH LAND DISTURBANCE ACTIVITIES SHALL MEET THE EDUCATION REQUIREMENTS (LEVEL 1) DESCRIBED IN O.C.G.A 12–7–19.

SITE SOILS

THE LIMIT OF DISTURBANCE INCLUDES THE FOLLOWING SOIL TYPES AS IDENTIFIED IN THE NRCS WEB SOIL SURVEY:

Ud: URBAN LAND

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

RFI-01

NO.	DATE	ISSUED FOR	BY
1	SEP 2022	REVISED LOD	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL DAVID ANDREW WILSON ENGINEER

GSWCC NO. 0000044976, EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EROSION AND SEDIMENTATION CONTROL LEGEND AND NOTES

DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	A. JACOBS/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C–008

SHEET 13 OF 150

User: ACRAIN Spec: AUS–NCSMOD File: \\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02\DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–008.DWG Scale:1:1 SavedDate:9/7/2022 Time:09:52 Plot Date: Crain, Angela; 9/9/2022; 11:16 ; Layout:13

"
VEGETATIVE PRACTICES

User: ACRAIN Spec: AUS-NCSM00 File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-009.DWG Scale:1:1 SavedDate:9/7/2022 Time:09:53 Plot Date: Crain, Angela; 9/9/2022; 11:15 ; Layout:14

MATCHLINE (SEE SHEET C-010)

NOTE 1

8SL(DIP)

1" CORP STOP W/ 1" CURB COCK ON EXISTING DIP LINE (SIZE UNKNOWN)

1W2(CU)

NOTE 2

C/O

REFER TO SHEET C-016 FOR CONNECTION DETAILS. MODIFY AS NEEDED FOR SIZED DRAIN CONNECTION SEE DETAIL 3 SHEET C-016

4DR(PVC)

FRP SAMPLING POINT INSTRUMENT CABINET (SEE MECH. SHEET M-020)

NOTE 10

SLUDGE PUMP STATION

RAPID MIX TANK

OLD VORTEX BUILDING

SEDIMENTATION BASIN NO. 2

GRIT SETTLING TANK NO. 2

DETRITUS TANK NO. 2

GRIT PUMP STATION NO. 2

SEPARATOR

HEAD BOX

SWITCHGEAR BLDG

XFMR

STAGING/LAYDOWN AREA (EXISTING PAVED AREA)

Sd2-P

TRUE NORTH

PLANT NORTH

EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Ss

3. ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN THE STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET. PROVIDE PROTECTIVE COVERING TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON SLOPES IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

4. INSTALL DOUBLE ROW TYPE-S SILT FENCE ALONG STREAM TOP OF BANK.

Tr

5. THE CONTRACTOR SHALL REMOVE ONLY SUCH TREES ON OR ALONG THE WORK AS NECESSARY, AND SHALL CAREFULLY PROTECT ALL OTHER TREES ADJACENT TO THE WORK. WORK SHALL BE DONE IN ACCORDANCE WITH CITY OF ATLANTA'S TREE ORDINANCE REQUIREMENTS. FOR THOSE TREES TO BE PROTECTED, TREE PROTECTION ZONES ARE TO BE ESTABLISHED AND TREE PROTECTION FENCING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

INSET B

EFF PARSHALL FLUME

TUNNEL PUMP STATION

ELECTRICAL BUILDING

500 YR FLOOD PLAIN

100 YR FLOOD PLAIN

SD1-S DOUBLE ROW

CO

N: 1346940.71
E: 2245248.68

EXISTING CONCRETE CHANNEL

25' STREAM BUFFER

REMOVE/REPLACE EX. CHAINLINK FENCE AS NEEDED

BEGIN CHANNEL REPLACEMENT NOTE 4

Ss

SD1-B

NORTH 9800

NORTH 9600

NORTH 9400

EAST 5200

EAST 5400

EAST 5600

STM. SWR. @ 0.30%

12" FL 796.98

12" FL 796.63

2" FL 797.50

15" RCP

INSET B

SCALE: 1" = 30'

0 30' 60'

NOTES:

1. REMOVE AND REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK. REFER TO 2008 EA WQCF DRAWINGS INCLUDED IN EXHIBIT C.1 FOR ROUTE AND DEPTH OF BURY FOR EXISTING SLUDGE PIPING.
2. THE 1W2(CU) LINE IS BURIED UNDER ABOVE GRADE PLATFORM.
3. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
4. EXISTING CHANNEL IS CONCRETE. PROPOSED DEMOLITION AND REPLACEMENT COMMENCES HERE AND CONTINUES TO CONFLUENCE WITH STREAM BED.
5. TIME SPENT WORKING IN THE CREEK SHALL BE KEPT TO A MINIMUM.
6. REPLACEMENT OF THE TOE-WALL CANNOT START WHEN A RAIN EVENT IS FORECAST IN THE NEXT 72 HOURS. CONTRACTOR IS EXPECTED TO FINISH THE CHANNEL REPLACEMENT WORK WITHIN 72 HOURS.
7. CONTRACTOR TO PROVIDE SLOPE STABILIZATION (Ss) WITHIN THE CREEK BUFFER AS WORK PROGRESSES. ADDITIONAL MEASURES MAY BE REQUIRED BY THE SITE INSPECTOR.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING THE DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED. THE ABOVE MENTIONED BMPS TO BE REMOVED ONCE SANITARY SEWER HAS BEEN INSTALLED AND PERMANENT EROSION PROTECTION HAS BEEN ESTABLISHED. THE CREEK BUFFER AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITIONS IMMEDIATELY FOLLOWING COMPLETION OF WORK IN THAT AREA.
9. TOTAL DISTURBED AREA = 0.92 ACRES.
10. REPLACE APPROXIMATELY 139 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.

INSET B

VALVE VAULT

EFF PARSHALL FLUME

TUNNEL PUMP STATION

EXISTING CONCRETE CHANNEL

EXISTING PAVEMENT

ELECTRICAL BUILDING

500 YR FLOOD PLAIN

100 YR FLOOD PLAIN

SD1-S DOUBLE ROW

CO

N: 1346940.71
E: 2245248.68

STM. SWR. @ 0.30%

15" RCP

0 10' 20' 40'

Know what's **below.** **Call** before you dig.

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RFI-01

NO.	DATE	ISSUED FOR	BY
1	SEP 2022	REVISED LOD	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER TIMOTHY ANDREW WILSON

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 1

DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-009

SHEET 14 OF 150

User:ACRAIN Spec:AUS--NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-010.DWG Scale:1:1 SavedDate:9/9/2022 Time:11:00 Plot Date: Crain, Angela: 9/9/2022, 11:13 , Layout:15

MATCHLINE (SEE SHEET C-011)

EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
3. REPLACE TWO (2) EXISTING 6" SLUDGE LINES FROM SOLIDS PROCESSING PUMP STATION TO PROPOSED SLUDGE DEWATERING BUILDING WITH TWO (2) NEW 6" SLUDGE LINES.
4. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED ROUTE AND ELEVATIONS AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATIONS PROVIDED AS GENERAL GUIDANCE.
5. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
6. REPLACE CONCRETE PAD AT BUILDING ENTRANCE TO MATCH EXISTING CONDITIONS.
7. TOTAL DISTURBED AREA = 0.92 ACRES. (1)
8. DEFLECT AROUND EXISTING PIPE AS NEEDED.
9. PARKING STRIPES AND HANDICAP MARKER IN THE PARKING AREA OF THE FILTER BUILDING SHALL BE REDONE PER EXISTING LAYOUT.
10. CONTRACTOR TO PROVIDE INLET PROTECTION TO ENSURE NEW MANHOLES AND STRUCTURES ARE PROTECTED FROM COLLECTING SEDIMENT DURING CONSTRUCTION.
11. ALL NEW 24" RCP SHALL BE CLASS III.
12. REPLACE A TOTAL OF APPROXIMATELY 31 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
13. REPLACE A TOTAL OF APPROXIMATELY 30 SQUARE YARDS OF CONCRETE PAVEMENT. SEE DETAIL 5 ON SHEET C-016.
14. REPLACE APPROXIMATELY 46 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
15. REPLACE APPROXIMATELY 11 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
16. REPLACE APPROXIMATELY 57 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.
17. CONCRETE ENCASE 8" DIP PIPE BELOW SLAB
18. PROVIDE TEMPORARY SUPPORTS TO EXISTING WALL AND COLUMN FOOTING TO ENSURE STABILITY OF STRUCTURE.
19. (1)

NORTH 10200 · EAST 5200 · EAST 5600 · NORTH 10000

PREVIOUSLY ABANDONED 8" SL
78.33 LF 12DR(DIP) @ 0.96%
8SL(HDPE) · 6SL(HDPE) · 6SL(HDPE)
SOLIDS PROCESSING PUMP STATION
NOTE 3 · NOTE 6 · NOTE 2 · NOTE 17 & 18 (1)
MH-5 ELV. RIM 806.00 INV IN 802.00 INV OUT 801.80
80.85 LF 12DR(DIP) @ 1.05%
LIMITS OF DISTURBANCE
NOTE 16
56.39 LF 8DR(DIP) @ 0.60%
5.50 LF 8DR(DIP) @ 2.00%
MH-6B ELV. RIM 809.50± INV IN 805.48 INV OUT 805.38
MH-6A ELV. RIM 808.00 INV IN 805.04 INV OUT 804.94
NOTE 4
91.01 LF 8DR(DIP) @ 0.60%
PROPOSED 8"DIP ABOVE EX. 30"RCP WITH ±7.2" CLEARANCE PROVIDE CONCRETE ENCASEMENT AT 30" RCP STORM CROSSING. (1)
MH (EXISTING) ELV. RIM 807.80 INV IN (12") 800.26 INV IN (18") 799.00 INV IN (24") 796.46 INV OUT (24") 796.46
NOTE 15
MH-6 ELV. RIM 807.00 INV IN (8") 804.39 INV IN (12") 800.95 INV OUT (12") 800.75 (1)
WASTE WASHWATER PUMP STATION
46.81 LF 12DR(DIP) @ 1.04%
8SL(HDPE)
NOTE 14
NOTE 1 · NOTE 9
LIMITS OF DISTURBANCE
STAGING/LAYDOWN AREA
INFLUENT JUNCTION BOX NO. 1
FILTER BUILDING (AND DISINFECTION)
SANITARY PUMP STATION (EXISTING)
DETRITUS TANK NO. 1
NOTE 13 · NOTE 12
Sd2-P
TB1 – SW CORNER OF PAD
PLANT NORTH
N: 10006.11
E: 5474.83
Z: 808.01
GRID NORTH
N: 1347293.31
E: 2245450.99
Z: 808.01
500 YR FLOOD PLAIN
100 YR FLOOD PLAIN
24" EL 798.15
12"RCP @ 1.00% YARD INLET NORTH 10000 TOP = 807.50 FL = 802.62
YARD INLET
GRIT PUMP STATION NO. 1
GRIT SETTLING TANK NO. 1
SEDIMENTATION BASIN NO. 1
XFMR PAD
NOTE 8 · NOTE 12
PLANT NORTH · TRUE NORTH

MATCHLINE (SEE SHEET C-009)

811 Know what's **below.** **Call** before you dig.

0 10' 20' 40'

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RFI-01

NO.	DATE	ISSUED FOR	BY
1	SEP 2022	REVISED LOD, ADDED 8" DIP FOR TRENCH DRAIN	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER ANDREW WILSON

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 2

DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-010

SHEET 15 OF 150

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. REPLACE TWO (2) EXISTING SLUDGE LINES CONNECTING PROPOSED SLUDGE DEWATERING BUILDING TO EXISTING SOLIDS PROCESSING PUMP STATION WITH TWO (2) NEW 6" SLUDGE LINES.
3. DEMOLISH AND FILL EXISTING VALVE AND METER VAULTS (SIZES UNKNOWN) LOCATED BENEATH SLUDGE DEWATERING BUILDING FOOTPRINT.
4. EXTEND 3" W2 LINE OFF EXISTING CITY W2 SYSTEM TO NEW SLUDGE DEWATERING BUILDING. CONTRACTOR TO FIELD VERIFY CONNECTION AND ASSOCIATED ROUTING.
5. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
6. REPLACE EXISTING SLUDGE HOLDING TANK OVERFLOW LINE TO PROPOSED MANHOLE.
7. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED PIPE ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATION PROVIDED AS GENERAL GUIDANCE.
8. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
9. RESTORE ANY DISTURBED EXISTING CURB AND GUTTER, CATCH BASIN, MANHOLE COVERS AND ASPHALT ADJACENT TO PROPOSED SLUDGE DEWATERING BUILDING TO MATCH EXISTING CONDITIONS. (SEE CIVIL DETAILS.)
10. CONCRETE APRONS SHALL BE INSTALLED AT DESIGNATED LOCATIONS. APRONS SHALL BE SLOPED FROM ASPHALT TO MEET FFE/SLAB ELEVATION AT EACH ROLL-UP DOOR ELEVATION (SEE CIVIL DETAILS).
11. REFER TO M-010 AND M-011 FOR CONNECTIONS TO EXISTING SLUDGE TANK.
12. INSTALL 8" CHECKMATE INLINE CHECK VALVE OR EQUAL AT THIS LOCATION IMMEDIATELY UPSTREAM OF MANHOLE.
13. CONTRACTOR TO REPLACE ALL PAVEMENT WITHIN THE DISTURBED AREA AROUND THE SLUDGE DEWATERING BUILDING PLUS MILL AND OVERLAY THE STAGING/LAYDOWN AREA. SEE CIVIL DETAILS FOR PAVEMENT DETAIL.
14. CONTRACTOR TO REPLACE ALL PAVED AREAS DAMAGED DURING CONSTRUCTION. REPLACEMENT TO CONSIST OF PAVEMENT MILL AND OVERLAY.
15. CONTRACTOR TO REPAIR ANY CURB AND GUTTER DISTURBED DURING CONSTRUCTION. SEE CIVIL DETAILS.
16. TOP OF SIDEWALK ELEVATION FOR SLUDGE DEWATERING BUILDING IS 826.80 FT. (TYP.) AND SLOPES AWAY FROM BUILDING TO ASPHALT. TIE INTO PROPOSED GRADING.
17. BOLLARDS (7) TO BE FIELD LOCATED AND VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
18. TOTAL DISTURBED AREA = 0.92 ACRES. (2)
19. CONTRACTOR TO CONFIRM THIS LINE AS STORM, SANITARY OR COMBINED WITH FACILITY STAFF. NOT USED
20. SET STORMWATER MANHOLE TOP 2 FT (MIN) ABOVE PROPOSED GRADE.
21. CONSTRUCT HEADER CURB ALONG CONCRETE SIDEWALK.
22. END CURB AND GUTTER. BEGIN HEADER CURB.
23. ADJUST STORMWATER MANHOLE TOP AS NEEDED TO MATCH PROPOSED GRADE.
24. LOCATION AND ELEVATIONS OF EXISTING SITE FEATURES, UTILITIES AND WORK ARE BASED ON THE BEST AVAILABLE INFORMATION INCLUDING TOPOGRAPHIC SURVEY AND RECORD DRAWINGS. EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A UTILITY LOCATE AND FIELD SURVEY TO CONFIRM EXISTING GRADE ELEVATIONS AND DEPTHS AND LOCATIONS OF ALL STRUCTURES, UTILITIES, AND LINEWORK LOCATED WITHIN THE LIMITS OF DISTURBANCE. THE FIELD SURVEY AND UTILITY LOCATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
25. REFER TO LARGE DIAMETER MANHOLE BASE STANDARD DETAIL FOR CONSTRUCTION OF STORMWATER MANHOLES. 3,000 PSI CONCRETE FILL AROUND PIPE WITHIN MANHOLE AS SHOWN ON DETAIL IS NOT REQUIRED.
26. ADJUST SANITARY SEWER MANHOLE RIM ELEVATIONS AS NEEDED TO MATCH PROPOSED GRADE IN PAVED AREAS.
27. FILLING OF THE BIORETENTION POND WITH THE PERMEABLE SOIL MATERIAL, MULCH, AND LANDSCAPING OF THE BMP SHOULD NOT OCCUR UNTIL THE FINAL PHASE OF CONSTRUCTION AFTER THE PROPOSED BUILDING AND UTILITIES ARE CONSTRUCTED AND FINAL GRADING FOR THE SITE (EXCEPT WHERE THE BIORETENTION AREA WILL BE CONSTRUCTED) HAS BEEN COMPLETED. ONCE THE SITE IS STABILIZED WITH VEGETATION AND IMPERVIOUS SURFACE COVER, THE SEDIMENT SHALL BE REMOVED FROM THE POND AND FINAL CONSTRUCTION OF THE POND COMPLETED.
28. SEAL EXISTING 24" RCP INTO EX. MANHOLE. PROVIDE CORE AND BOOT FOR NEW 24" RCP INTO MANHOLE.
29. ABANDON IN PLACE EXISTING 24" RCP UNDER BUILDING TO EXISTING STMH. SEE SHEET C-001 OUTSIDE PIPING NOTE NO. 1
30. CONTRACTOR TO PROVIDE INLET PROTECTION TO ENSURE NEW MANHOLES AND STRUCTURES ARE PROTECTED FROM COLLECTING SEDIMENT DURING CONSTRUCTION.

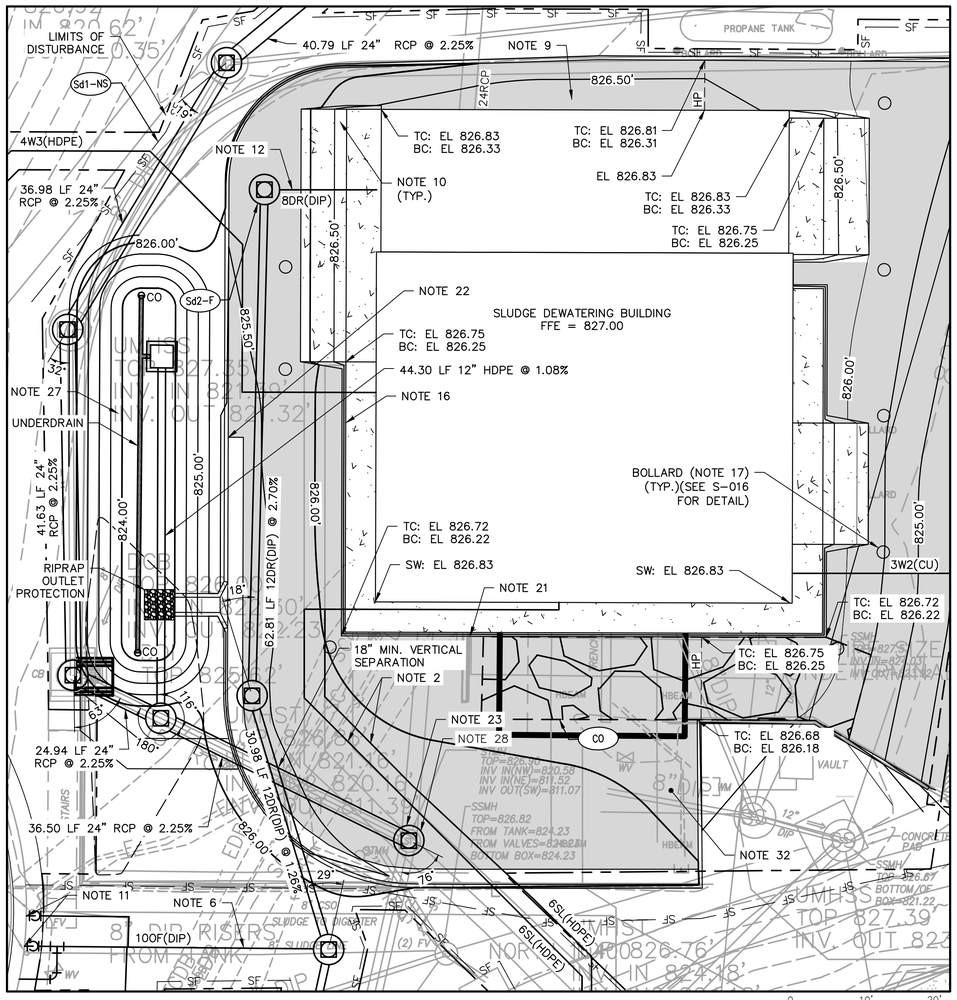
EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION AND APPROVED BY ENGINEER.

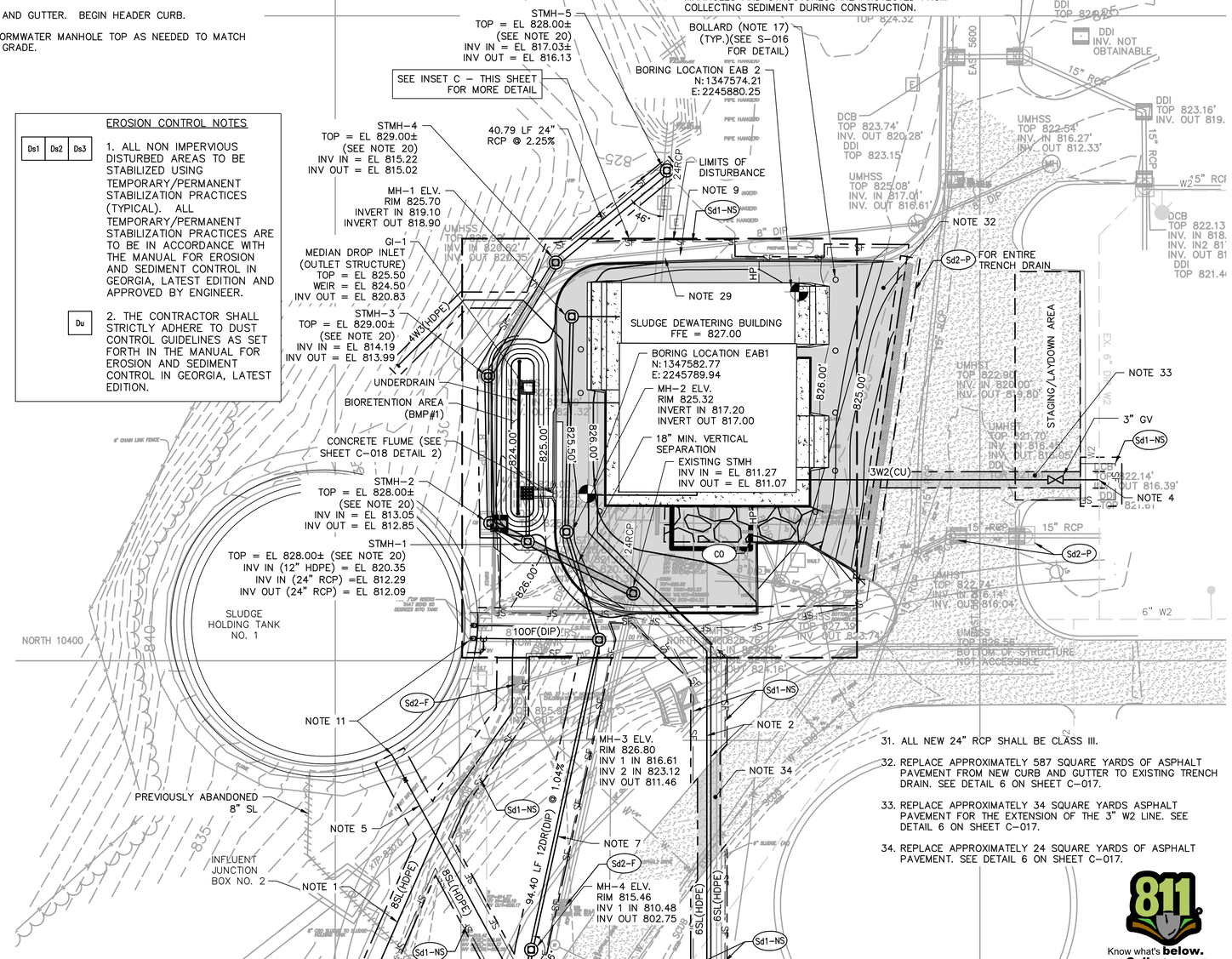
Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.



INSET C

SCALE: 1" = 10'



MATCHLINE (SEE SHEET C-010)

31. ALL NEW 24" RCP SHALL BE CLASS III.
32. REPLACE APPROXIMATELY 587 SQUARE YARDS OF ASPHALT PAVEMENT FROM NEW CURB AND GUTTER TO EXISTING TRENCH DRAIN. SEE DETAIL 6 ON SHEET C-017.
33. REPLACE APPROXIMATELY 34 SQUARE YARDS ASPHALT PAVEMENT FOR THE EXTENSION OF THE 3" W2 LINE. SEE DETAIL 6 ON SHEET C-017.
34. REPLACE APPROXIMATELY 24 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.

Know what's **below.** **Call** before you dig.

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

RFI-01

NO.	DATE	ISSUED FOR	BY
2	SEP 2022	REVISED LOD	HG
1	AUG 2022	REVISED SDMH-5 LOCATION	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 3

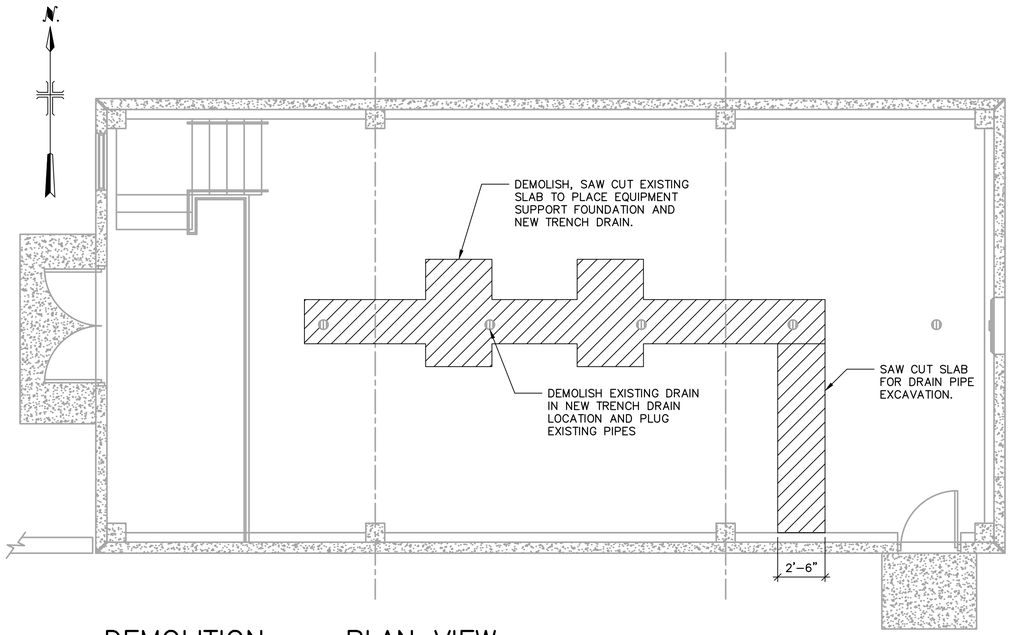
DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-011

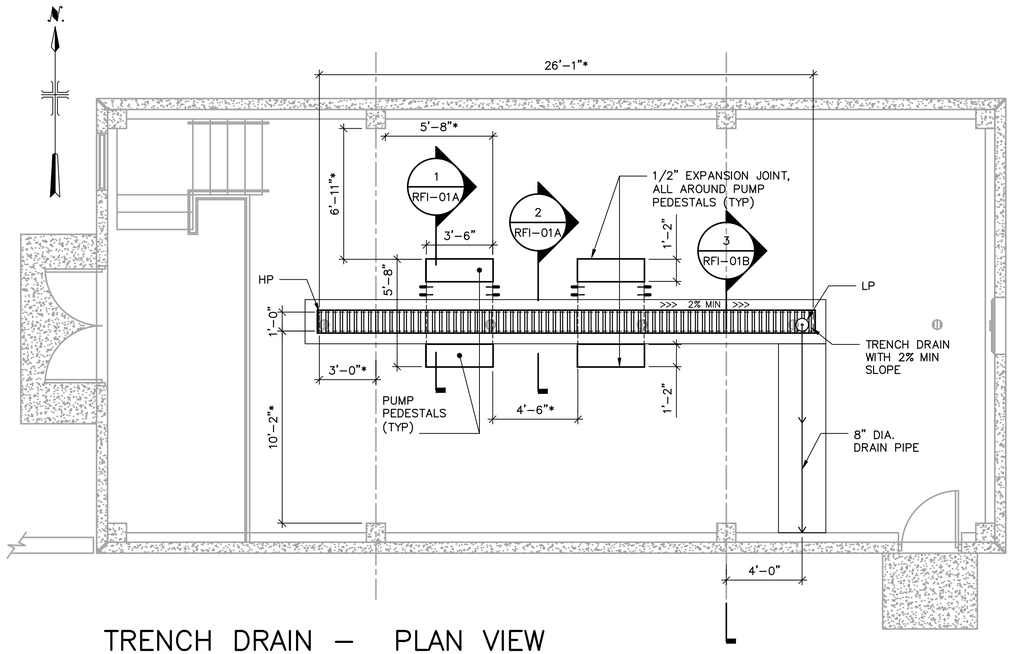
SHEET 16 OF 150

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DEMOLITION – PLAN VIEW

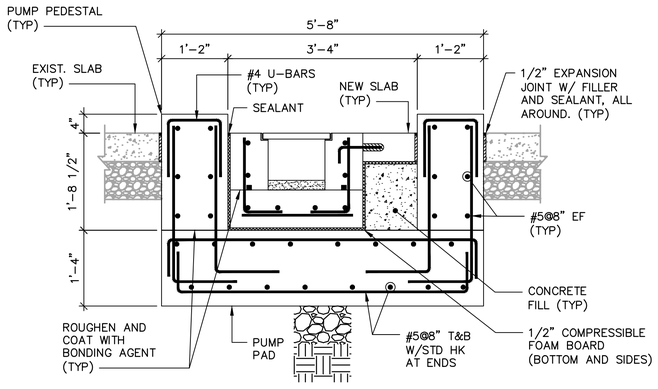
SCALE : 1/4" = 1'-0"



TRENCH DRAIN – PLAN VIEW

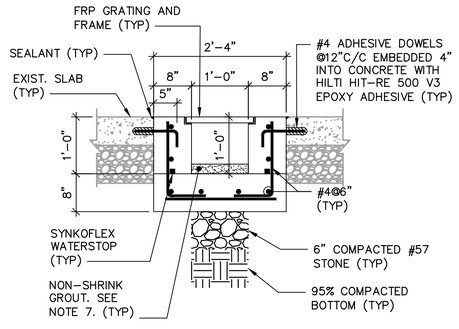
SCALE : 1/4" = 1'-0"

NOTES:
1. HP = HIGH POINT.
2. LP = LOW POINT.
3. CONCRETE ENCASE PIPE BELOW FOUNDATION SLAB.
4. 8" DIAMETER PIPE DRAIN TO EXIT THE BUILDING 12" BELOW THE WALL FOUNDATION.
5. WHEN EXCAVATING BELOW OR NEAR THE EXISTING WALL AND COLUMN FOOTINGS. PROVIDE TEMPORARY SUPPORTS TO ENSURE STABILITY OF STRUCTURE.
6. FIELD VERIFY ALL DIMENSIONS MARKED WITH (*).
7. APPLY NON-SHRINK GROUT TO THE BOTTOM OF THE TRENCH DRAIN TO CREATE 2% SLOPE.



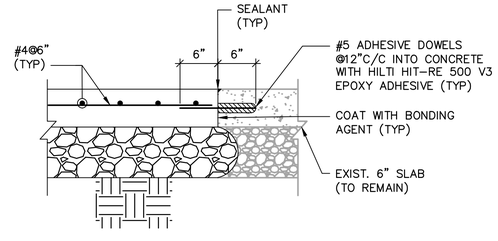
1 RFI-01A
SECTION

SCALE : 3/4" = 1'-0"



2 RFI-01A
SECTION

SCALE : 3/4" = 1'-0"



TYPICAL SLAB REPAIR DETAIL

SCALE : 1" = 1'-0"

ARCADIS

LEGAL ENTITY:
ARCADIS U.S., INC.

CONSULTANTS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER HOUSAM HOBI

SEALS

ISSUED FOR CONSTRUCTION

ATLANTA, GEORGIA
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENT

ARCADIS PROJ. NO. XXXXXXXX.XXXX

RFI-01

NO.	DATE	ISSUED FOR	BY
0	SEP 2022	RFI-01	HDG

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DATE: SEPTEMBER 2022
PROJECT NO.: XXX-XXX
FILE NAME: STRUCT_BP2TRENCH
DESIGNED BY: H. HOBI
DRAWN BY: J. SAIRE
CHECKED BY: H. HOBI

SHEET TITLE

STRUCTURAL

TRENCH DRAIN

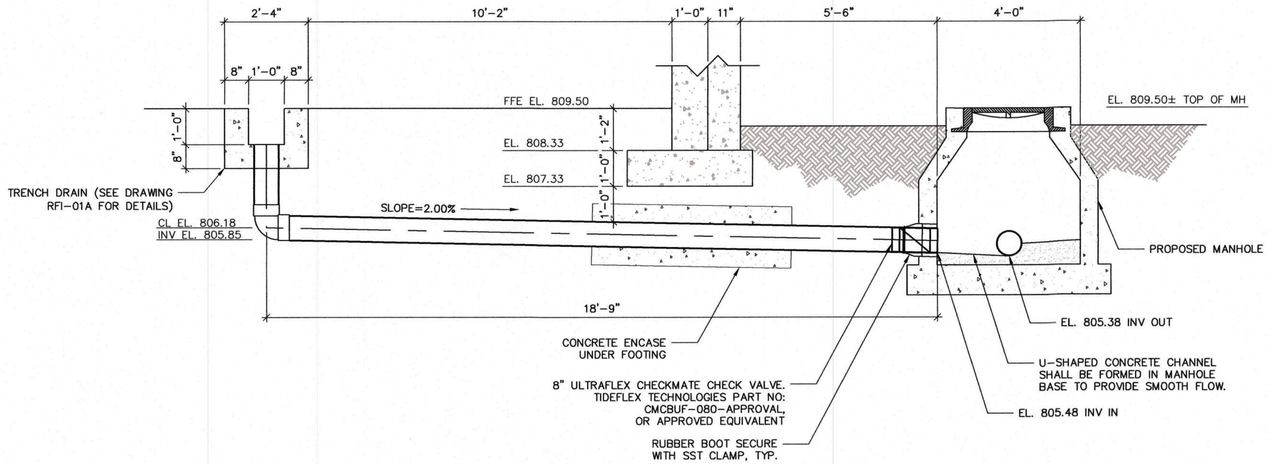
SOLIDS PROCESSING PUMP STATION

SCALE: AS SHOWN

RFI-01A

SHEET 1 OF 2

User: JSAIREYANEZ Spec: AUS-NCSMOD File: C:\USERS\JSAIREYANEZ\ARCADIS\WATER STRUCTURAL SOUTH - GENERAL\MISC PROJECTS\CITY OF ATLANTA - EAST AREA_BP#2&BP#3\BP2&BP3\BP2\RFI-01 TRENCH DRAIN DESIGN\DWG\STRUCT_BP2TRENCH.DWG Scale:1:1/4 SavedDate:9/16/2022 Time:10:28 Plot Date: Sahra Yanez, Julio; 9/



3 RFI-01A **SECTION**

SCALE: 1" = 2'-0"

ARCADIS

LEGAL ENTITY:
ARCADIS U.S., INC.

CONSULTANTS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON
9/21/2022

SEALS

ISSUED FOR CONSTRUCTION

ATLANTA, GEORGIA
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENT

ARCADIS PROJ. NO. 30105595

RFI-01

NO.	DATE	ISSUED FOR	BY
0	SEP 2022	RFI-01B	DAW

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DATE: SEPTEMBER 2022
PROJECT NO.: GABPA134
FILE NAME: RFI-01B
DESIGNED BY: D. WILSON
DRAWN BY: A. CRAIN
CHECKED BY: D. WILSON

SHEET TITLE

CIVIL

TRENCH DRAIN

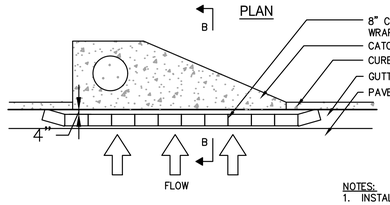
SOLIDS PROCESSING PUMP STATION

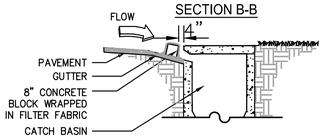
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RFI-01B

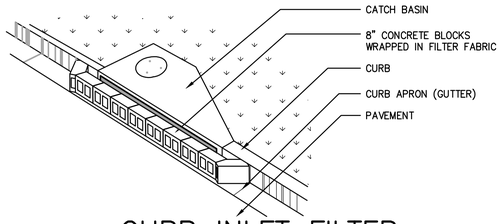
SHEET 2 OF 2

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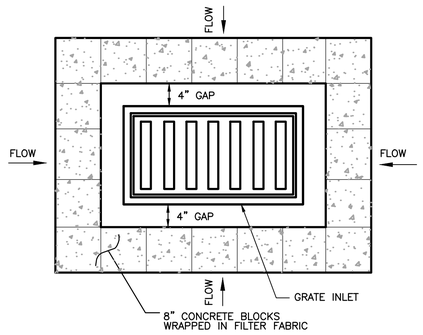




NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.



CURB INLET FILTER
Sd2-P
N.T.S.

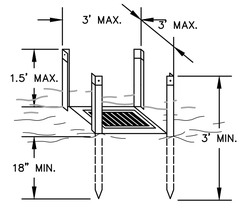


INSTALLATION:
1. INSTALL INLET SEDIMENT TRAP IMMEDIATELY AFTER PAVING OR IF PAVING CURRENTLY EXISTS. USE 8" CONCRETE BLOCK WRAPPED IN FILTER FABRIC. PROVIDE A 4" GAP BETWEEN TRAP AND INLET TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
2. FACE OPENINGS IN BLOCKS OUTWARD.

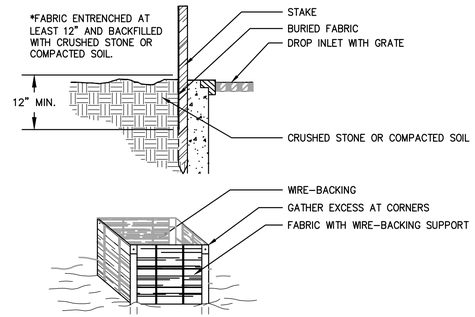
MAINTENANCE:
THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN.

INLET SEDIMENT TRAP (FOR DROP INLET USE)
Sd2-P
N.T.S.

STEEL FRAME AND SILT FENCE INSTALLATION

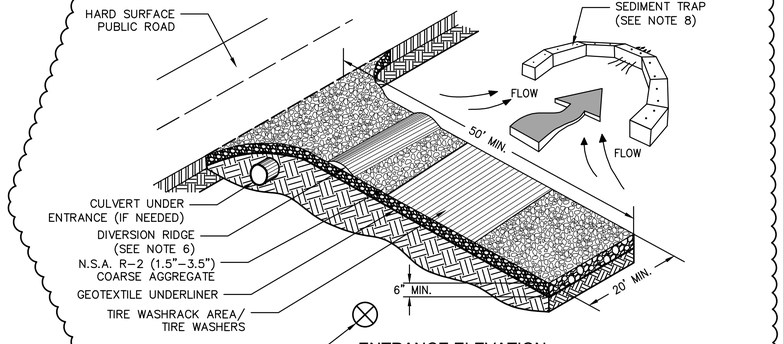


NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

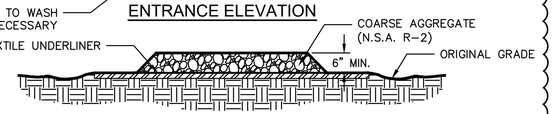


FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION
Sd2-F
N.T.S.

EXIT DIAGRAM



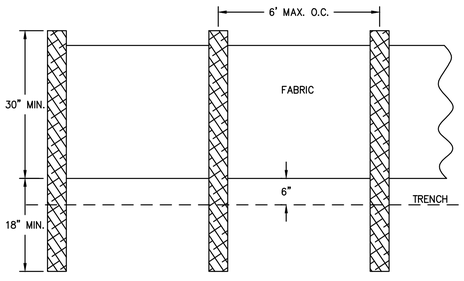
ENTRANCE ELEVATION



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

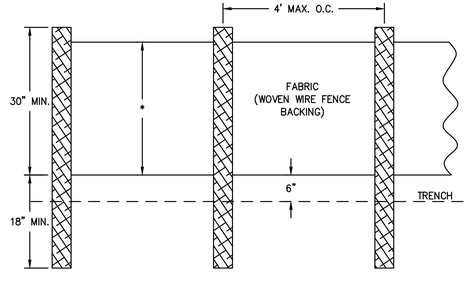
CRUSHED STONE CONSTRUCTION EXIT
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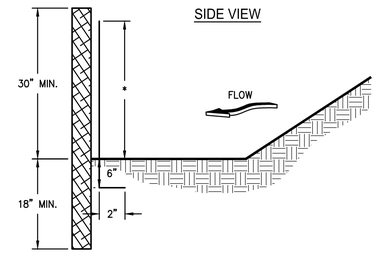
NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
3. SILT FENCE - TYPE NON-SENSITIVE (SD1-NS) SHALL MEET THE SPECIFICATIONS OF SILT FENCE, TYPE C AS DESCRIBED IN SECTION 171 OF THE "GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS", 2013 EDITION.

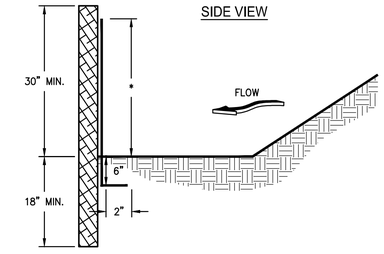
SILT FENCE - TYPE NON-SENSITIVE
Sd1-NS
N.T.S.

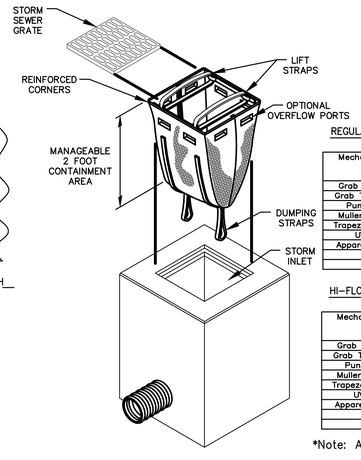


NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
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SILT FENCE - TYPE SENSITIVE
Sd1-S
N.T.S.







DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)

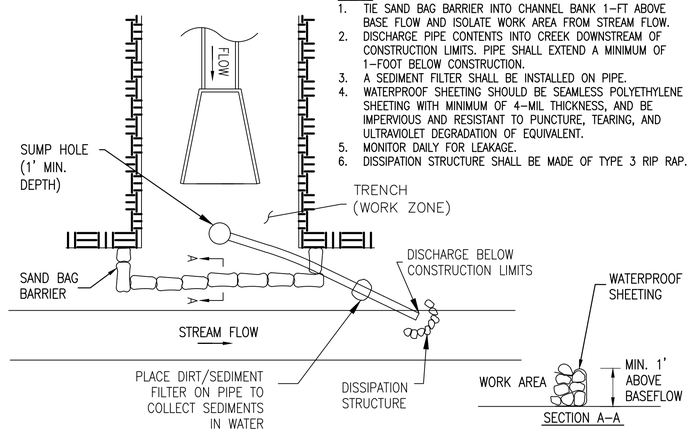
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec⁻¹	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows

INLET SEDIMENT TRAP (FOR DROP INLET USE)
Sd2-P
N.T.S.



NOTES:
1. TIE SAND BAG BARRIER INTO CHANNEL BANK 1-FT ABOVE BASE FLOW AND ISOLATE WORK AREA FROM STREAM FLOW.
2. DISCHARGE PIPE CONTENTS INTO CREEK DOWNSTREAM OF CONSTRUCTION LIMITS. PIPE SHALL EXTEND A MINIMUM OF 1-FOOT BELOW CONSTRUCTION.
3. A SEDIMENT FILTER SHALL BE INSTALLED ON PIPE.
4. WATERPROOF SHEETING SHOULD BE SEAMLESS POLYETHYLENE SHEETING WITH MINIMUM OF 4-MIL THICKNESS, AND BE IMPERVIOUS AND RESISTANT TO PUNCTURE, TEARING, AND ULTRAVIOLET DEGRADATION OF EQUIVALENT.
5. MONITOR DAILY FOR LEAKAGE.
6. DISSIPATION STRUCTURE SHALL BE MADE OF TYPE 3 RIP RAP.

SEDIMENT BARRIER (SAND BAGS)
Sd1-B
N.T.S.

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www.arcadis-us.com

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
EROSION CONTROL DETAILS 1

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	A. JACOBS/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C-012

SHEET 17 OF 150

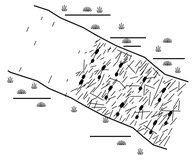
User: ACRAIN Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-012.DWG Scale:1:1 SavedDate:7/6/2022 Time:12:13 Plot Date: Crain, Angela: 7/8/2022, 12:33 Layout:17

SEEDING SCHEDULE TEMPORARY COVER

SPECIES	BROADCAST RATES – PLS PER ACRE	BROADCAST RATES – PLS PER 1000 SQ. FT.	PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATED PERMISSIBLE BUT MARGINAL DATES.) J F M A M J J A S O N D
BARLEY (HORDEUM VULGARE)			
ALONE	3 BU. (144 LBS.)	3.3 LB.	
IN MIXTURES	½ BU. (24 LBS.)	0.6 LB.	
LESPEDEZA, ANNUAL (LEZPEDEZA STRIATA)			
ALONE	40 LBS.	0.9 LB.	
IN MIXTURES	10 LBS.	0.2 LB.	
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)			
ALONE	4 LBS.	0.1 LB.	
IN MIXTURES	2 LBS.	0.05 LB.	
MILLET, BROWNTOP (PANCIUM FASCICULATUM)			
ALONE	40 LBS.	0.9 LB.	
IN MIXTURES	10 LBS.	0.2 LB.	
MILLET, PEARL (PENNESETUM GLAUCUM)			
ALONE	50 LBS.	1.1 LB.	
OATS (AVENA SATIVA)			
ALONE	4 BU. (128 LBS.)	2.9 LB.	
IN MIXTURES	1 BU. (32 LBS.)	0.7 LB.	
RYE (SECALE CEREALE)			
ALONE	3 BU. (168 LBS.)	3.9 LB.	
IN MIXTURES	½ BU. (28 LBS.)	0.6 LB.	
RYE (SECALE CEREALE)			
ALONE	3 BU. (168 LBS.)	3.9 LB.	
IN MIXTURES	½ BU. (28 LBS.)	0.6 LB.	
RYEGRASS, ANNUAL (LOLIUM TEMULENTUM)			
ALONE	40 LBS.	0.9 LB.	
SUDANGRASS (SORGHUM SUDANESE)			
ALONE	60 LBS.	1.4 LB.	
WHEAT (TRITICUM AESTIVUM)			
ALONE	3 BU. (180 LBS.)	4.1 LB.	
IN MIXTURES	½ BU. (30 LBS.)	0.7 LB.	

LIME: APPLY AT A RATE OF ONE TON PER ACRE

FERTILIZER: APPLY 500–700 POUNDS OF 10–10–10 OR EQUIVALENT PER ACRE



ESTABLISHING A TEMPORARY PROTECTION FOR DISTURBED AREAS USING SPECIFIC MULCH MATERIALS

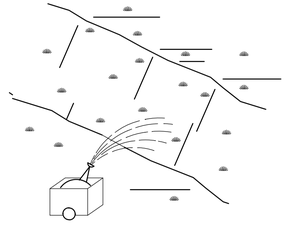
1. MULCH MATERIALS SHALL CONSIST OF DRY STRAW OR HAY AT 2.5 TONS PER ACRE, WOOD CHIPS AT 6 TO 9 TONS PER ACRE, EROSION CONTROL FABRIC.
2. THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHICH MAY BE SUBJECTED TO EROSION CONTROL FOR 6 MONTHS OR LESS AND CAN BE STABILIZED WITH A MULCH COVER.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING)

SEEDING SCHEDULE PERMANENT COVER

SPECIES	BROADCAST RATES – PLS PER ACRE	BROADCAST RATES – PLS PER 1000 SQ. FT.	PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATED PERMISSIBLE BUT MARGINAL DATES.) J F M A M J J A S O N D
BERMUDA, SPRIOS (CYNODON DACTYLON) COASTAL COMMON OR TIFT 44	40 CU. FT. OR SOD PLUGS 3'X3'	0.9 CU. FT.	
BERMUDA, COMMON (CYNODON DACTYLON)			HULLED SEED
ALONE	10 LBS.	0.2 LB.	
W/ OTHER PERRENIALS	6 LBS.	0.1 LB.	UNHULLED SEED
FESCUE, TALL (FESTUCA ARUNDINACEA)			
ALONE	50 LBS.	1.1 LB.	
W/OTHER PERRENIALS	30 LBS.	0.7 LB.	
CROWNVTECH (CORONILLA VARIA) W/WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS.	0.3 LB.	
REED CANARY GRASS (PHARLARIS ARUNDINACEA)			
ALONE	50 LBS.	1.1 LB.	
W/OTHER PERRENIALS	30 LBS.	0.7 LB.	
CENTIPEDE (EREMOCHLOA OPHIUROIDES)	BLACK SOD ONLY		
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)			
ALONE	4 LBS.	0.1 LB.	
W/OTHER PERRENIALS	2 LBS.	0.05 LB.	
LESPEDEZA, SERICEA (LESPEDEZA CUNEATA)			
SCARIFIED	60 LBS.	1.4 LB.	
UNSCARIFIED	75 LBS.	1.7 LB.	
SEED–BEARING HAY	3 TONS	138 LB.	

NOTE:
1. YOU MAY USE ANY OTHER SPECIES IF APPROVED BY MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
2. ALL FERTILIZER RATE AND APPLICATION, SEED QUALITY, SEEDBED PREPERATION, INNOCULANTS, PLANTING, AND MULCHING SHALL COMPLY WITH MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
3. APPLICATION RATES FOR LIME, FERTILIZER, AND SEED SHALL BE IN ACCORDANCE WITH THE MORE STRINGENT REQUIREMENTS OF SECTION 32 92 00 OR THE RATES LISTED ABOVE.



ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS.

1. < 12 MONTHS OR UNTIL ESTABLISHMENT OF FINISHED GRADE OR PERMANENT VEGETATION.
2. SITE PREPARATION:
   - GRADING AND SHAPING
   - SEEDBED PREPARATION
   - APPLY LIME AND FERTILIZER
   - PLANT SEEDINGS, SELECT SPECIES BY SEASON AND REGION
   - APPLY MULCHING MATERIAL IF NEEDED
   - IRRIGATE IF NEEDED BUT NOT @ RATE TO CAUSE EROSION
3. PLANTING DATES DEPEND ON SPECIES AND REGION (MOUNTAIN, PIEDMONT OR COASTAL)

NOTES:
CONTRACTOR SHALL STABILIZE ALL AREAS WITH TEMPORARY VEGETATION THAT ARE TO BE EXPOSED WITHOUT STORM WATER PROTECTION FOR LONGER THAN 7 DAYS.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)

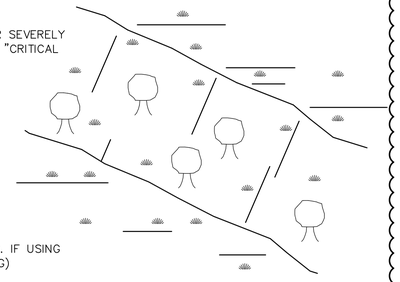
FERTILIZER REQUIREMENTS PERMANENT COVER

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N–P–K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST	6–12–12	1500 lbs./AC.	50–100 lbs./AC. 1/2/
	SECOND	6–12–12	1000 lbs./AC.	——
	MAINTENANCE	10–10–10	400 lbs./AC.	30 lbs./AC.
2. COOL SEASON GRASSES & LEGUMES	FIRST	6–12–12	1500 lbs./AC.	0–50 lbs./AC. 1/
	SECOND	10–10–10	1000 lbs./AC.	——
	MAINTENANCE	10–10–10	400 lbs./AC.	——
3. GROUND COVERS	FIRST	10–10–10	1300 lbs./AC. 3/	——
	SECOND	10–10–10	1300 lbs./AC. 3/	——
	MAINTENANCE	10–10–10	1100 lbs./AC.	——
4. PINE SEEDLINGS	FIRST	20–10–5	ONE 21–GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	——
5. SHRU LESPEDEZA	FIRST	0–10–10	700 lbs./AC.	——
	MAINTENANCE	0–10–10	700 lbs./AC. 4/	——
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10–10–10	500 lbs./AC.	30 lbs./AC. 5/
7. WARM SEASON GRASSES	FIRST	6–12–12	1500 lbs./AC.	50–100 lbs./AC. 2/6/
	SECOND	6–12–12	800 lbs./AC.	50–100 lbs./AC. 2/
	MAINTENANCE	10–10–10	400 lbs./AC.	30 lbs./AC.
8. WARM SEASON GRASSES & LEGUMES	FIRST	6–12–12	1500 lbs./AC.	50 lbs./AC. 6/
	SECOND	0–10–10	1000 lbs./AC.	——
	MAINTENANCE	0–10–10	400 lbs./AC.	——

LIME: APPLY AT A RATE OF ONE TON PER ACRE

1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

ESTABLISHING A PERMANENT VEGETATIVE COVER AS A DISTURBED AREA.



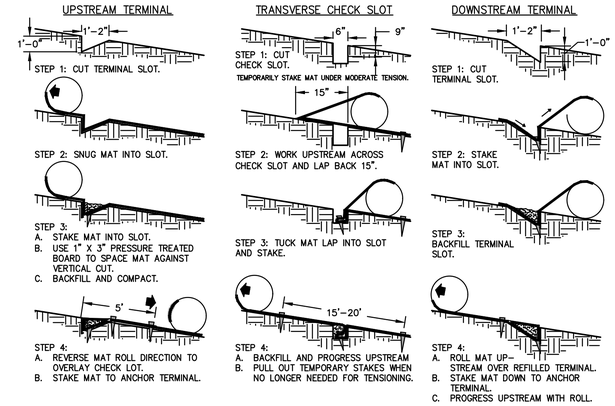
1. APPLICABLE ON HIGHLY ERODIBLE OR SEVERELY ERODED AREAS, SOMETIMES CALLED "CRITICAL AREAS" INCLUDING:
   - CUT OR FILL SLOPES
   - EARTH SPILLWAYS
   - BORROW AREAS
   - CHANNEL BANKS
   - BERMS
   - ROADSIDES
   - SPOIL AREAS
   - GULLIED LANDS
2. GRADING AND SHAPING REQ'D. WHERE FEASIBLE AND PRACTICAL.
3. SEEDBED PREPARATION (NOT REQ'D. IF USING HYDRAULIC SEEDING AND FERTILIZING)

SLOPE	SEEDBED
3:1 OR FLATTER	> 4" DEEP
2:1 TO 3:1	1" TO 4" DEEP
2:1 OR STEEPER	DEPRESSIONS EVERY 6"–8" WITH HAND TOOL

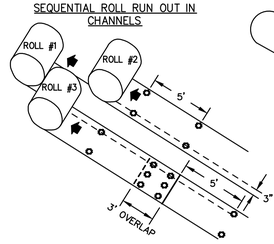
4. HAVE SOIL ANALYZED FOR LIME AND FERTILIZER RATE AND UTILIZE ANALYSIS TO DETERMINE LIME AND FERTILIZER RATE.
5. MULCH ALL SLOPES STEEPER THAN 3%, IN BOTTOM OF SPILLWAYS, AND ON ROAD BANKS.
6. ANCHOR MULCH IMMEDIATELY.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

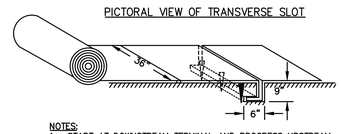
BLANKET AND MATTING CROSS-SECTIONS



SEQUENTIAL ROLL RUN OUT IN CHANNELS



PICTORAL VIEW OF TRANSVERSE SLOT



NOTES:
1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID–CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.
7. REFER TO THE "GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS, 2013 EDITION. THE CONTRACTOR MAY ELECT TO USE EITHER SECTION 712 – FIBERGLASS BLANKET, SECTION 713 – ORGANIC AND SYNTHETIC MATERIAL FIBER BLANKET (EXCEPT DO NOT USE TYPE II WOOD FIBER BLANKET), SECTION 714 – JUTE MESH EROSION CONTROL ON SLOPES.

Ss SLOPE STABILIZATION

DEFINITION

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

CONDITIONS

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF–SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHOD AND MATERIALS

A. TEMPORARY METHODS

MULCHES. SEE STANDARD DS1 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB–TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2 – DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY–ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB–TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING–TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

B. PERMANENT METHODS

PERMANENT VEGETATION. SEE STANDARD DS3 –DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP – TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR–CONSTRUCTION ROAD STABILIZATION.

Du DUST CONTROL ON DISTURBED AREAS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
EROSION CONTROL DETAILS 2

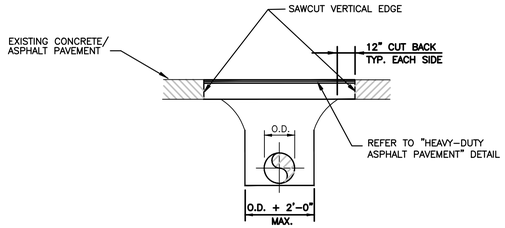
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: A. JACOBS/DAW
DRAWN BY: J. BROWN/ADC
CHECKED BY: A. SHARP/DAW

SCALE: NONE

C–013

SHEET 18 OF 150

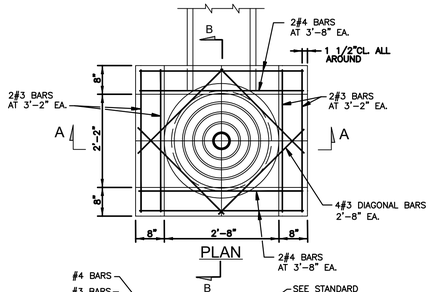
User:ACRAIN Spec:AUS–NCSMOD File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–013.DWG Scale:1:1 SavedDate:7/6/2022 Time:12:12 Plot Date: Crain, Angela: 7/8/2022, 12:33 Layout:18



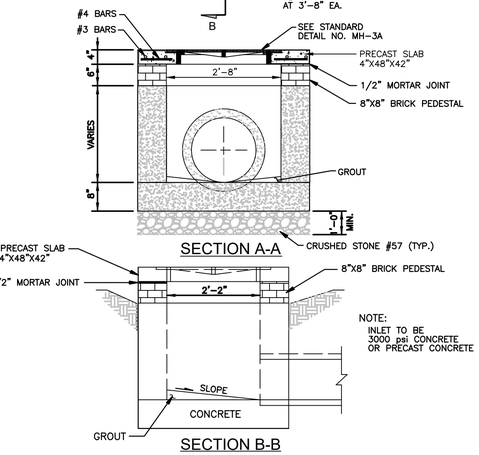
ASPHALT PAVEMENT

1 C-014 TYPE 1 PAVEMENT REPLACEMENT

SCALE: N.T.S.



PLAN

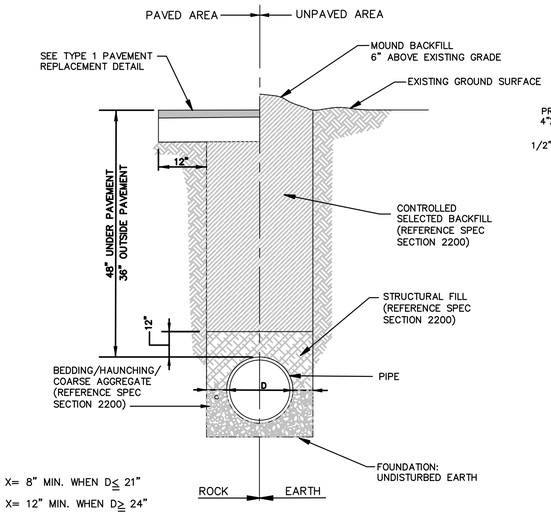


SECTION A-A

SECTION B-B

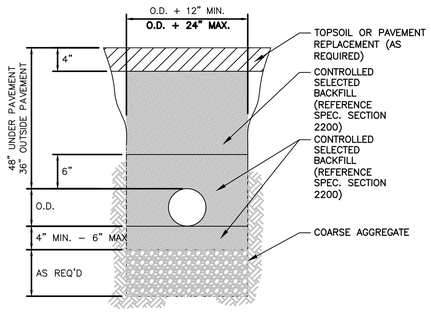
3 C-014 STANDARD DROP INLET YARD INLET

SCALE: N.T.S.



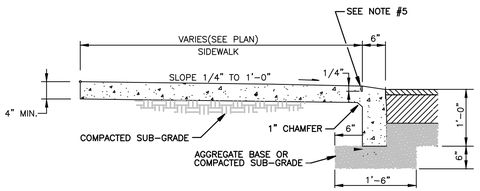
2 C-014 DIP BEDDING AND HAUNCHING

SCALE: N.T.S.



2A C-014 PVC & HDPE ≤ 12" PIPE DIA. BEDDING DETAIL

SCALE: N.T.S.



NOTES:

1. SIDEWALK SHALL BE SCRIBED WITH TRANSVERSE CONTROL JOINTS IN SQUARES EQUAL TO SIDEWALK WIDTH BUT NOT TO EXCEED 10 FEET.
2. CONCRETE SHALL BE 3,000 P.S.I. MIN. STRENGTH.
3. EXPANSION JOINTS SHALL EXTEND ACROSS THE FULL WIDTH OF THE SIDEWALK. CONTROL JOINTS SHALL BE LOCATED ON EACH SIDE OF A DRIVEWAY AND NOT MORE THAN 100 FEET APART.
4. PREFORMED BITUMINOUS MATERIAL SHALL BE PLACED BETWEEN ALL FIXED OBJECTS AND THE NEW CONCRETE SIDEWALK.
5. 1/4" TOOLED JOINT BETWEEN CURB AND SIDEWALK.

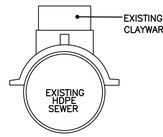
4 C-014 STANDARD MONOLITHIC SIDEWALK AND CURB

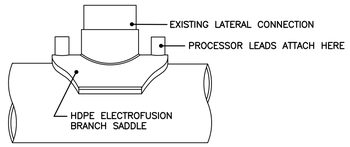
SCALE: N.T.S.

TYPICAL CONNECTION TO HIGH DENSITY POLYETHELYNE (HDPE) PIPE USING ELECTRIC FUSION SADDLE (DIAMETER RANGE 6-inch TO 24-inch)

TYPICAL CONNECTION TO HDPE– NOTES

1. ENSURE AREA OF PIPE WHERE FUSING TO BE DONE IS CLEAN AFTER SCRAPING USING APPROVED SCRAPING TOOL. MAKING SURE THAT 0.001–INCH TO 0.010–INCH ONLY IS REMOVED. LIMITED USE OF ISOPROPYL ACID IS PERMITTED TO PREPARE FUSION AREA AFTER SCRAPING.
2. CHECK PIPE FOR OUT–OF–ROUND CONDITION. IF AREA TO BE FUSED IS FOUND TO BE OUT–OF–ROUND REPLACE OUT–OF–ROUND SECTION OF PIPE IF REQUIRED PRIOR TO MAKING CONNECTION. USE A 0.015–INCH FEELER GAGE TO CHECK GAP BETWEEN PIPE AND FITTING.
3. USE HOLE SAW BEFORE PLACING FITTING TO CUT AN ENTRANCE HOLE SAME AS INSIDE DIAMETER OF BRANCH SADDLE FOR T–CLAMP TO BE INSERTED THROUGH.
4. IDENTIFY LOCATION OF FITTING TO BE INSTALLED ON PIPE AND MARK WITH NON–GREASY MARKER. CAREFULLY ARRANGE FOR CONCENTRIC PLACEMENT OF SADDLE OVER HOLE AND RESTRAIN USING T–CLAMP.
5. ATTACH PROCESSOR LEADS TO FITTING AND PROCEED WITH FUSION.
6. KEEP PIPE AND FITTING FULLY RESTRAINED UNTIL AFTER THE PIPING HAS COMPLETED THE ENTIRE FUSION CYCLE AND COMPLETED THE RECOMMENDED COOLING TIME. (NOTE TIME REQUIRED BEFORE CLAMP REMOVAL AND MARK IT ON FITTING IF NECESSARY).
7. ASTM D 2513 /3035.
8. BACKFILL PER CITY SPECIFIC "SEWER AND ACCESSORIES" REQUIREMENTS.
9. ENSURE ALL SUBMITTALS COMPLY WITH THE DEPARTMENT OF WATERSHED MANAGEMENT SITE DEVELOPMENT PLAN REVIEW.
10. FOR CONNECTION DETAILS > 24–INCH DIAMETER SPECIFIC CONSTRUCTION DETAILS SHALL BE PROPOSED BY DEVELOPER AND SHALL BE SUBJECT TO CITY STANDARD.





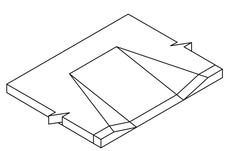
LATERAL SIZE			
4–INCH		6–INCH	
6"X4" IPS	DR11	8"X6" IPS	DR17
		10"X6" IPS	DR17
		12"X6" IPS	DR17
		14"X6" IPS	DR17
		16"X6" IPS	DR17
		18"X6" IPS	DR17
		24"X6" IPS	DR17

5 C-014 CONNECTION TO POLYETHELYNE PIPE

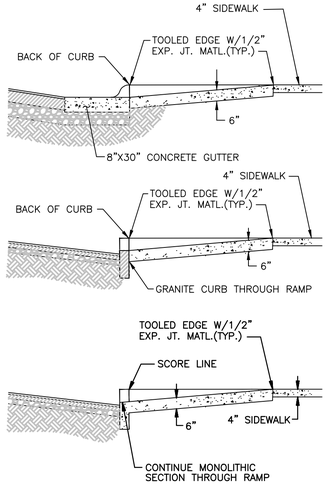
SCALE: N.T.S.

NOTES:

1. CONCRETE SHALL BE 3000 PSI
2. EXPANSION JOINTS SHALL BE IN ACCORDANCE WITH AASHTO M153 OR M213
3. SURFACE TEXTURE OF RAMP SHALL BE STABLE, FIRM AND SLIP–RESISTANT CAST–IN–PLACE TRUNCATED DOME TILE OR OTHER SURFACE. TEXTURE TO BE APPROVED BY THE ENGINEER.
4. SLOPE OF THE RAMP SHALL BE 1:12.
5. RAMPS SHALL BE ADA COMPLIANT.



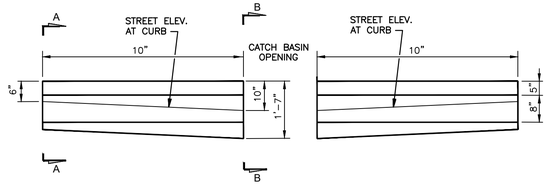
ISOMETRIC



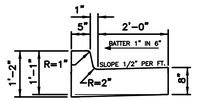
SECTIONS

6 C-014 STANDARD WHEELCHAIR RAMP

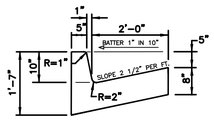
SCALE: N.T.S.



ELEVATION



SECTION A-A



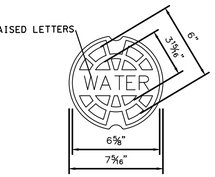
SECTION B-B

NOTES:.

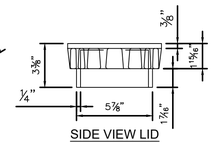
1. SECTIONS, WHERE DIRECTED BY THE ENGINEER MAY BE CONSTRUCTED IN UNIFORM LENGTHS OF TWENTY (20) FT. ON TANGENT. LENGTH MAY BE REDUCED FOR CLOSURE AND AT CORNERS TO NO LESS THAN SIX(6) FEET.
2. CONCRETE CURB AND GUTTER SHALL BE IN ACCORDANCE WITH GEORGIA DOT. SPECIFICATIONS SECTION 441.

7 C-014 CONCRETE CURB AND GUTTER

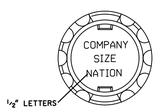
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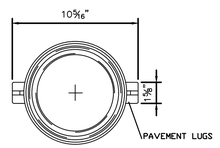
TOP VIEW LID



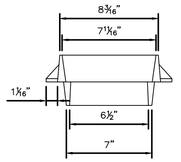
SIDE VIEW LID



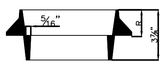
BOTTOM VIEW LID



TOP VIEW RISER



SIDE VIEW RISER



RISER SECTION VIEW

TOLERANCE SHOULD BE ±1/16" PER FOOT UNLESS OTHERWISE SPECIFIED

8 C-014 BURIED VALVE BOX & RISER

SCALE: N.T.S.

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

ARCADIS BPA A Joint Venture
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Atlanta, GA 30339
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MISCELLANEOUS CIVIL DETAILS 1

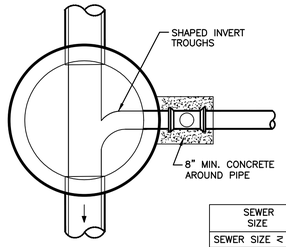
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C-014

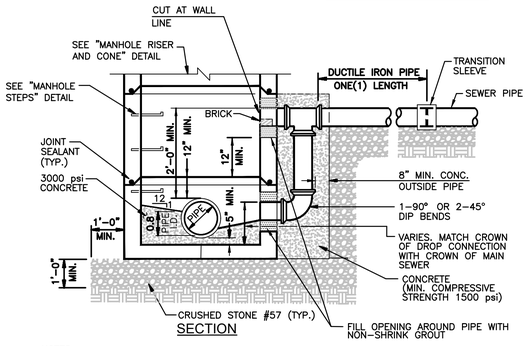
SHEET 19 OF 150

User: ACRAIN Spec: AUS-NCSM0D File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-014.DWG Scale:1:1 SavedDate: 7/6/2022 Time:12:11 Plot Date: Crain, Angela: 7/8/2022, 12:34 - Layout:19



PLAN

SEWER SIZE	DROP SIZE
SEWER SIZE ≤ 12"	SEWER SIZE
16"–20"	12"
24"–30"	18"
36" AND OVER	24"

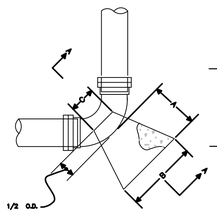


SECTION

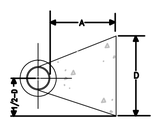
NOTES:
1. POUR CONCRETE AGAINST UNDISTURBED EARTH OR FORM. IF FORMED, FILL VOID UNDER PIPE WITH CRUSHED STONE.
2. OUTSIDE DROPS SHOULD BE USED AT SANITARY SEWER MANHOLES FOR DROPS 2-FEET OR GREATER (INLET PIPE INVERT TO OUTLET PIPE INVERT)

1 C-015 MANHOLE BASE WITH DROP CONNECTION

SCALE: N.T.S.



ELEVATION



SECTION A

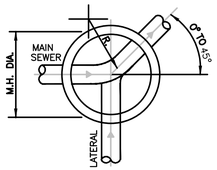
MINIMUM DIMENSIONS IN FEET FOR CONCRETE BLOCKING

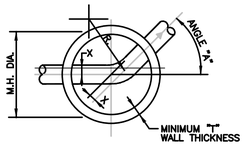
BEND	SIZE	A	B	C	D	VOLUME CUBIC YARD
11 ¼°	6"	1.0	1.0	7"	1.0	0.03
	8"	1.0	1.25	7"	1.0	0.04
	12"	1.0	2.0	11"	2.0	0.1
	16"	2.0	3.0	15"	2.0	0.3
	20"	2.0	3.0	19"	3.0	0.5
	24"	3.0	4.0	22"	3.0	0.8
22 ½°	6"	1.0	1.5	7"	1.0	0.04
	8"	1.0	2.0	7"	2.0	0.1
	12"	2.0	3.0	11"	2.0	0.3
	16"	2.0	4.0	15"	3.0	0.6
	20"	3.0	5.0	19"	3.0	0.1
	24"	4.0	6.0	22"	4.0	2.3
45°	6"	1.5	2.0	7"	1.5	0.11
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	3.0	0.7
	16"	3.0	5.0	15"	4.0	1.4
	20"	4.0	6.0	19"	5.0	2.8
	24"	5.0	8.0	22"	6.0	5.0
90°	6"	1.75	2.5	7"	2.0	0.2
	8"	2.0	3.0	7"	3.0	0.4
	12"	4.0	6.0	11"	4.0	2.1
	16"	4.0	7.0	15"	5.0	3.1
	20"	5.0	8.0	19"	7.0	5.3
	24"	6.0	10.0	22"	8.0	10.5
TEES AND PLUGS	6"	1.5	2.0	7"	1.75	0.13
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	4.0	0.8
	16"	3.0	5.0	15"	5.0	1.8
	20"	4.0	7.0	19"	6.0	3.9
	24"	5.0	8.0	22"	7.0	5.5

NOTES:
1. SOIL CONDITIONS SHALL BE VERIFIED BY THE ENGINEER BEFORE THRUST BLOCK DESIGN IS IMPLEMENTED.
2. DIMENSION OF THRUST BLOCK IS BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 LBS. PER SQUARE INCH TEST PRESSURE.
3. CONCRETE SHALL BE CLASS B, 3000 P.S.I. HIGH EARLY.
4. USE 6" SIZE DIMENSIONS FOR 4" PIPE

2 C-015 TYPICAL HORIZONTAL THRUST BOX

SCALE: N.T.S.





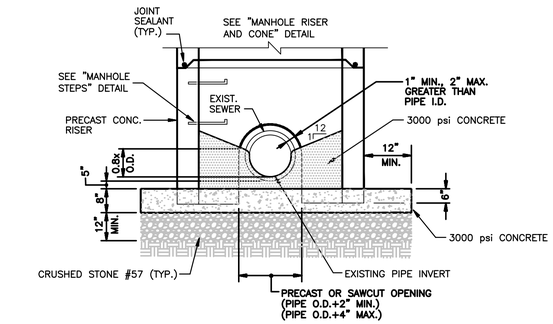
STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS

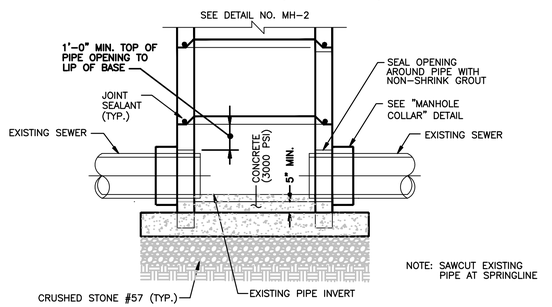
PIPE SIZE	ANGLE "A"	M.H. DIA.	"T"	"X"
8" TO 15"	0° TO 90°	4'–0"	5"	0"
18" TO 24"	0° TO 60°	4'–0"	5"	0"
18" TO 24"	60° TO 90°	5'–0"	6"	6"
27" TO 30"	0° TO 30°	5'–0"	6"	0"
27" TO 30"	30° TO 60°	5'–0"	6"	6"
27" TO 30"	60° TO 90°	6'–0"	7"	8"
36"	0° TO 90°	6'–0"	7"	0"
42"	0° TO 90°	7'–0"	8"	8"
42"	0° TO 60°	8'–0"	9"	6"
48"	0° TO 45°	8'–0"	9"	6"
48"	60° TO 90°	12'–0"	13"	6"
54"	0° TO 60°	8'–0"	9"	6"
54"	60° TO 90°	12'–0"	13"	6"
60"	0° TO 30°	8'–0"	9"	0"
60"	30° TO 45°	8'–0"	9"	6"
60"	45° TO 60°	10'–0"	11"	6"
60"	60° TO 90°	12'–0"	13"	8"

NOTE:
MINIMUM ℄ RADIUS (R) OF M.H. INVERT = 1.5 x PIPE DIAMETER

3 C-015 MANHOLE PLAN & DIAMETERS

SCALE: N.T.S.

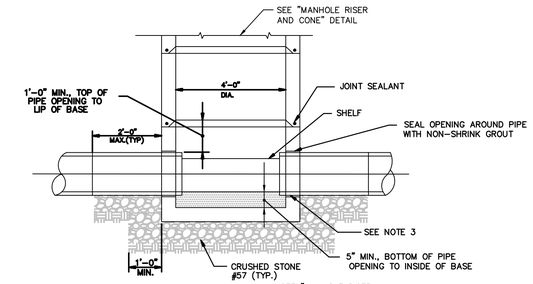




NOTE: SAWCUT EXISTING PIPE AT SPRINGLINE

4 C-015 MANHOLE OVER EXISTING SEWER

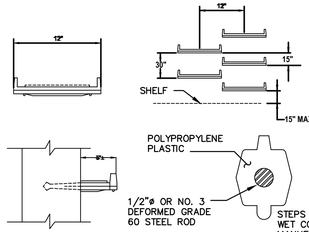
SCALE: N.T.S.



NOTES:
1. SHELF AND INVERT SHALL BE TROWEL FINISHED
2. IF BRICK USED AS FILLER, PROVIDE MINIMUM 2 INCHES CONCRETE OVER BRICK
3. IF CROWN OF INFLUENT PIPE IS 2 FEET OR MORE ABOVE CROWN OF EFFLUENT PIPE, SEE "MANHOLE BASE WITH DROP CONNECTION" DETAIL

5 C-015 MANHOLE BASE

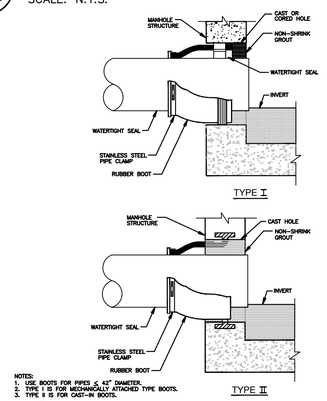
SCALE: N.T.S.



STEPS SHALL BE PLACED INTO WET CONCRETE WALL DURING MANUFACTURE OR MORTORED INTO HOLES AFTER CONCRETE HAS SET

6 C-015 MANHOLE STEPS

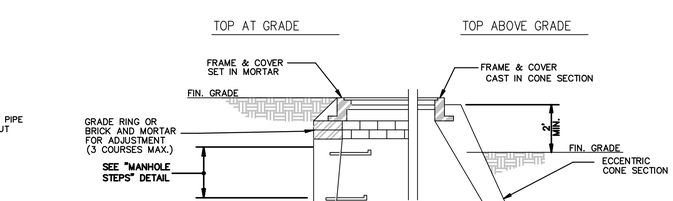
SCALE: N.T.S.



NOTES:
1. USE BOOTS FOR PIPES ≤ 42" DIAMETER.
2. TYPE I IS FOR MECHANICALLY ATTACHED TYPE BOOTS.
3. TYPE II IS FOR CAST–IN BOOTS.

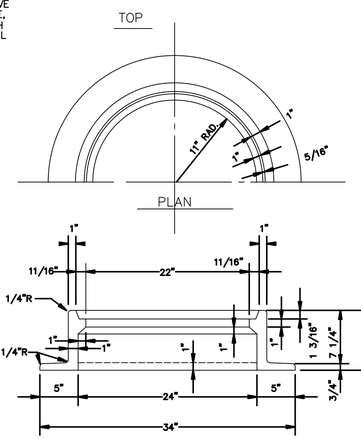
7 C-015 BOOT CONNECTION

SCALE: N.T.S.

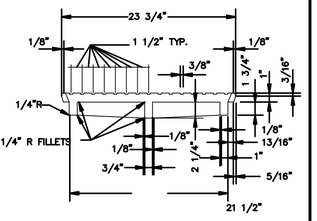


8 C-015 MANHOLE RISER AND CONE

SCALE: N.T.S.



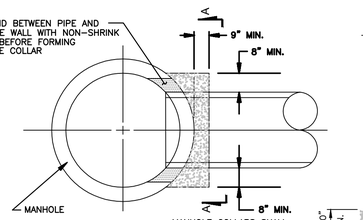
NOTE:
(1) RIM AND COVER TO BE GRAY IRON CASTING ACCORDING TO ASTM A–48–30.
(2) RIM AND COVER MUST BE FITTED BEFORE LEAVING SHOP.
(3) SANITARY SEWER OR STORM SEWER LETTERS AS REQUIRED
(4) SOLID COVER AS REQUIRED



SECTION

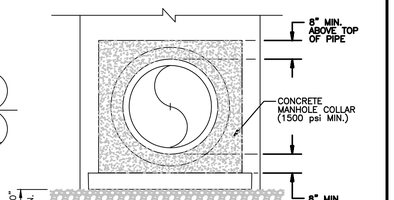
9 C-015 FRAME AND COVER

SCALE: N.T.S.



PLAN

MANHOLE COLLARS SHALL BE USED FOR SEWER CONNECTIONS TO MANHOLES:
I.) IF EXIST. MANHOLE IS BRICK
2.) IF SEWER > 42" DIAMETER.
3.) IF MANHOLE IS CONSTRUCTED OVER EXIST. SEWER.
4.) TO REPAIR TYPE II BOOT CONNECTION.



SECTION A-A

10 C-015 MANHOLE COLLAR

SCALE: N.T.S.

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SEALS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MISCELLANEOUS CIVIL DETAILS 2

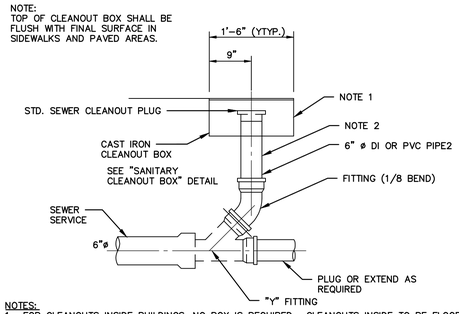
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C–015

SHEET 20 OF 150

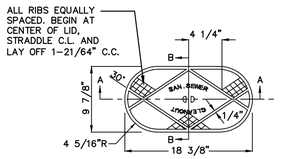
User: ACRAIN Spec: AUS–NCSMOD File: \\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–015.DWG Scale:1:1 SavedDate:7/6/2022 Time:12:10 Plot Date: Crain, Angela: 7/8/2022, 12:34 - Layout:20



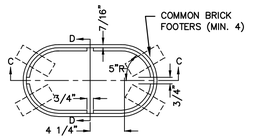
NOTES:
1. FOR CLEANOUTS INSIDE BUILDINGS, NO BOX IS REQUIRED. CLEANOUTS INSIDE TO BE FLOOR PIPE PENETRATIONS WITH COVER PLATE FLUSH WITH FFE.
2. FOR CLEANOUTS ON PRESSURE LINES, USE RESTRAINED JOINT PIPE AND FITTINGS, CAP WITH BLIND FLANGE.

1 C-016 SERVICE CONNECTION CLEANOUT

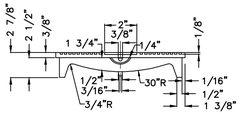
SCALE: N.T.S.



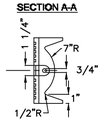
PLAN



PLAN

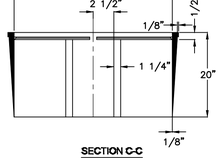


SECTION A-A

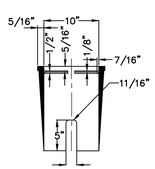


SECTION B-B

LID



SECTION C-C



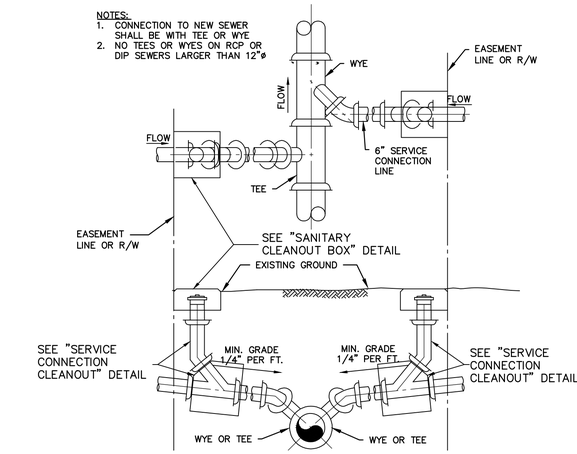
SECTION D-D

BOX

NOTES:
1. UNLESS NOTED OTHERWISE, CAST IRON SHALL CONFORM TO A.S.T.M. SPECIFICATIONS A48 FOR CLASS 20 GREY IRON CASTINGS.
2. FINISHED CASTINGS SHALL BE COATED INSIDE WITH COAL TAR PITCH VARNISH AS INDICATED IN A.W.W.A. SPECIFICATIONS C110, LATEST REVISION. COATING MAY BE APPLIED COLD AND SHALL BE SMOOTH, GLOSSY, NOT BRITTLE WHEN COLD, NOT STICKY WHEN EXPOSED TO THE SUN, AND SHALL ADHERE TO THE METAL AT ALL TEMPERATURES.
3. WHEN COATING IS COMPLETE, LID SHALL FIT SNUGLY WITHOUT ROCKING

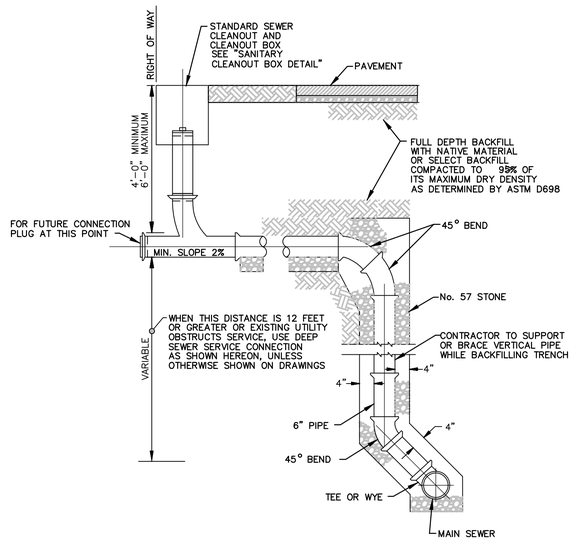
2 C-016 SANITARY CLEANOUT BOX

SCALE: N.T.S.



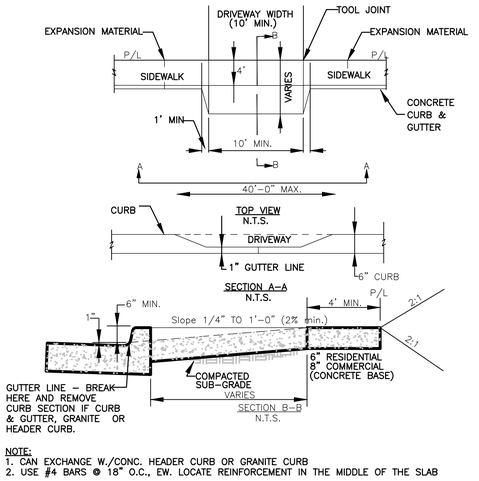
3 C-016 SERVICE CONNECTION ON NEW SEWERS

SCALE: N.T.S.



4 C-016 DEEP SEWER CONNECTION

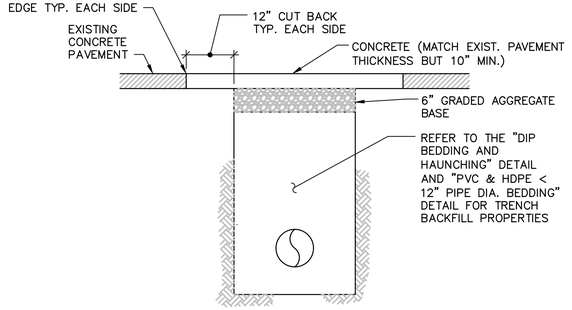
SCALE: N.T.S.



NOTE:
1. CAN EXCHANGE W./CONC. HEADER CURB OR GRANITE CURB
2. USE #4 BARS @ 18" O.C., EW. LOCATE REINFORCEMENT IN THE MIDDLE OF THE SLAB

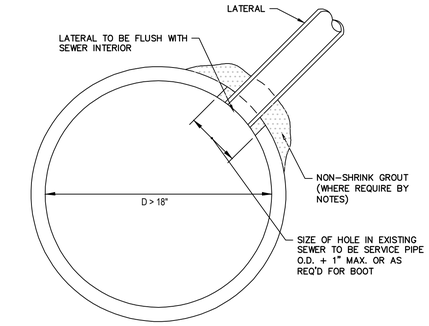
6 C-016 CONCRETE APRON DETAIL

SCALE: N.T.S.



5 C-016 CONCRETE PAVEMENT

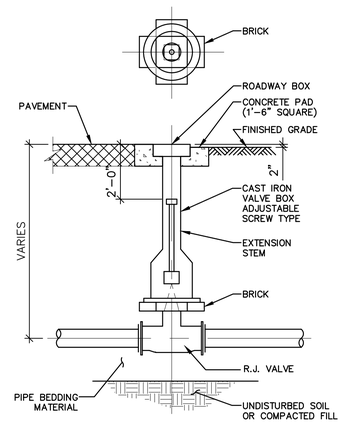
SCALE: N.T.S.



NOTES:
1. HOLE IN EXISTING SEWER SHALL BE CORED.
2. CONNECT SERVICE TO EXISTING SEWER WITH:
   - BOOT ON RCP SEWERS.
   - TAPPING SADDLE ON DIP SEWERS.
   - NON-SHRINK GROUT ON BRICK SEWERS.
   - BOOT OR NON-SHRINK GROUT ON VCP SEWERS.
   - MANUFACTURED SADDLE ON PVC PIPE SEWERS.

8 C-016 LATERAL SEWER CONNECTION

SCALE: N.T.S.



NOTES:
1. FOR PLUG VALVES, INSTALL VALVE WITH OPERATOR STEM IN THE HORIZONTAL ORIENTATION.

7 C-016 TYPICAL BURIED VALVE AND VALVE BOX INSTALLATION DETAIL

SCALE: N.T.S.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MISCELLANEOUS CIVIL DETAILS 3

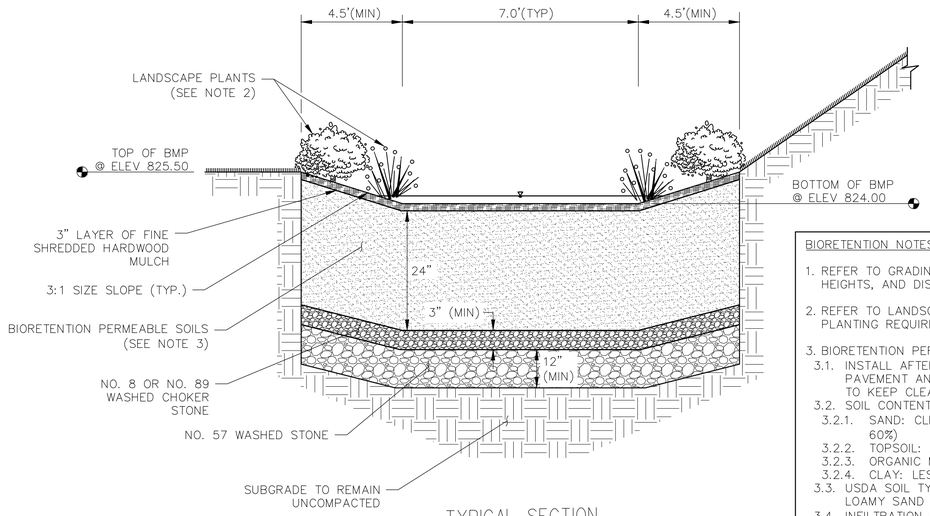
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	W. GRUBBS/DAW

SCALE: NONE

C-016

SHEET 21 OF 150

User: ACRAIN Spec: AUS-NCSM00 File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-016.DWG Scale:1:1 SavedDate: 7/6/2022 Time:12:09 Plot Date: Crain, Angela: 7/8/2022, 12:35 : Layout:21



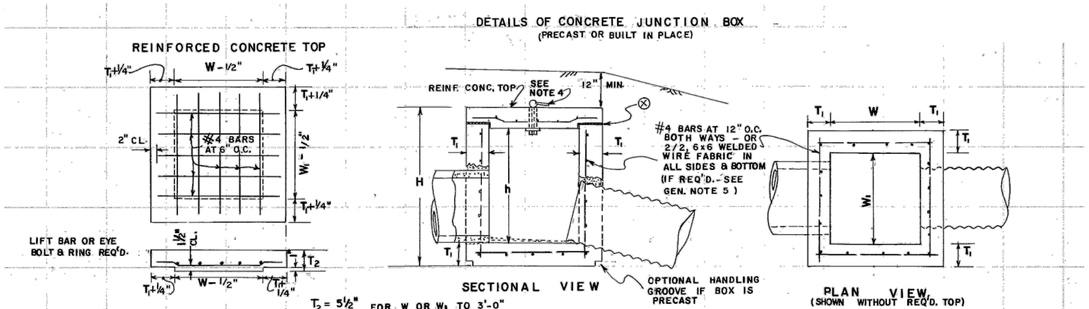
TYPICAL SECTION

BIORETENTION NOTES:

1. REFER TO GRADING PLAN FOR BANK SLOPES, HEIGHTS, AND DISTANCES.
2. REFER TO LANDSCAPE PLAN AND DETAILS FOR PLANTING REQUIREMENTS
3. BIORETENTION PERMEABLE SOILS:
   - 3.1. INSTALL AFTER STRUCTURES AND/OR PAVEMENT AND MAJOR GRADING ACTIVITIES TO KEEP CLEAN
   - 3.2. SOIL CONTENT:
     - 3.2.1. SAND: CLEAN WASHED SAND (35% – 60%)
     - 3.2.2. TOPSOIL: 20% – 30% TOPSOIL
     - 3.2.3. ORGANIC MATTER: 10% – 25%
     - 3.2.4. CLAY: LESS THAN 15%
   - 3.3. USDA SOIL TYPES: SANDY LOAM OR LOAMY SAND
   - 3.4. INFILTRATION RATE: 0.5 INCHES/HOUR (MIN), 4 INCHES/HOUR (MAX)
   - 3.5. PHOSPHORUS INDEX (P-INDEX): LESS THAN 30
   - 3.6. pH: BETWEEN 6 AND 8
   - 3.7. EXCHANGE CAPACITY (CEC): GREATER THAN 10 MILLIEQUIVALENTS (MEQ) PER 100 GRAMS OF DRY WEIGHT

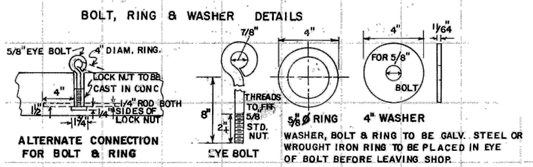
1 C-017 BIORETENTION AREA DETAILS

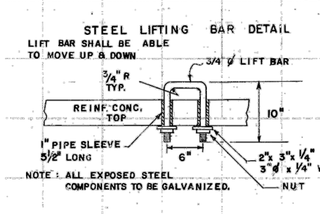
SCALE: N.T.S.



DIMENSIONS FOR BRICK OR REINF. CONC. BOX

	PIPE SIZE	MIN. W OR W	MIN. h	MIN. H
SEE GEN. NOTE NO.3	15"	2'-0"	1'-9"	2'-9"
	18"	2'-3"	2'-1"	3'-1"
	24"	2'-10"	2'-8"	3'-8"
	30"	3'-5"	3'-3"	4'-3"
	36"	4'-0"	3'-10"	4'-9"
	42"	4'-7"	4'-5"	5'-5"
	48"	5'-2"	5'-0"	6'-0"

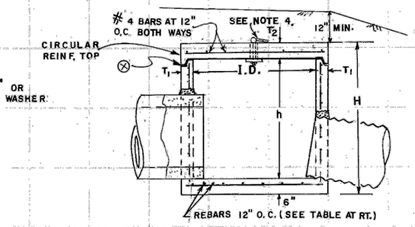




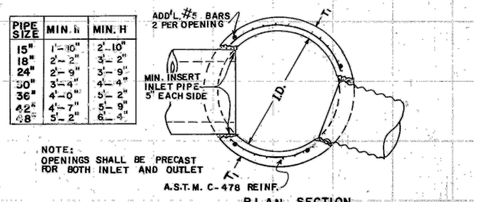
DETAILS OF CIRCULAR PRECAST JUNCTION BOX

(REINFORCING AND DESIGN SHALL COMPLY WITH A.S.T.M. C-478 EXCEPT AS OTHERWISE SHOWN. MATERIALS SHALL COMPLY WITH GA. STD SPECIFICATIONS FOR PRECAST MANHOLES)

I.D.	T_1 (MIN.)	T_2 (MIN.)	MAX. PIPE CONC.	MAX. PIPE C.M.P.	REBARS IN BOTTOM
4'-0"	5"	6"	30"	36"	#5
5'-0"	5"	8"	42"	48"	#5
6'-0"	6"	8"	48"	54"	#6



PIPE SIZE	MIN. h	MIN. H
15"	1'-10"	2'-10"
18"	2'-2"	3'-2"
24"	2'-9"	3'-9"
30"	3'-4"	4'-4"
36"	4'-0"	5'-2"
42"	4'-7"	5'-9"
48"	5'-2"	6'-4"



GENERAL NOTES:

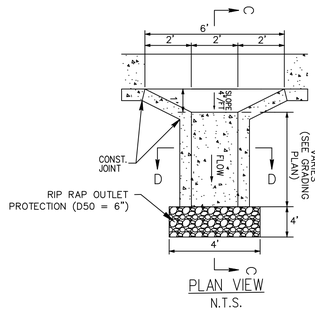
1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
2. ILLUSTRATED PIPES, PIPE JOINTS, ALIGNMENT, SIZES, ETC. ARE SHOWN AS REPRESENTATIVE, ACTUAL REQUIREMENTS VARY PER LOCATION AS INDICATED IN THE PLANS.
3. JUNCTION BOXES DO NOT HAVE TO BE CONSTRUCTED SQUARE. W & W1 DIMENSIONS MAY VARY ACCORDING TO PIPE SIZE.
4. ALL JUNCTION BOX TOPS SHALL BE EQUIPPED WITH EITHER AN EYE BOLT & RING (SHOWN) OR A LIFTING BAR (ALTERNATE).
5. REINFORCING IS REQUIRED FOR ALL PRECAST JUNCTION BOXES. REINFORCING MAY BE OMITTED FOR BUILT IN PLACE CONCRETE BOXES NOT OVER 10 FT. DEEP AND NOT LARGER THAN 3' x 5'. CONSTRUCTION JOINTS PERMITTED IF DOWELED OR KEYED. ALL JUNCTION BOX TOPS SHALL BE REINFORCED.

0 ADDITIONAL NOTES:

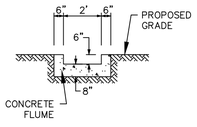
1. JUNCTION BOX DETAIL WAS TAKEN FROM GDOT STANDARD DETAIL 9031U.
2. SHEET INCLUDES DETAIL DESIGN BY OTHERS.
3. ENGINEER SEAL IS FOR ARCADIS DESIGN ONLY.

4 C-017 JUNCTION BOX DETAIL

SCALE: N.T.S.



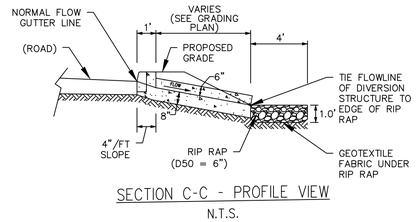
PLAN VIEW
N.T.S.



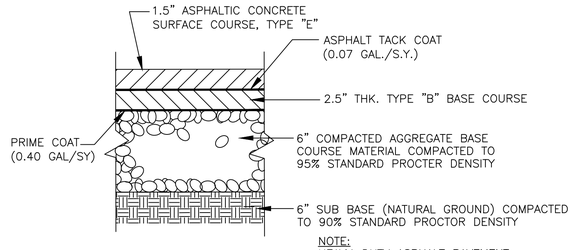
SECTION D-D - FRONT VIEW
N.T.S.

2 C-017 CONCRETE FLUME DETAIL

SCALE: N.T.S.



SECTION C-C - PROFILE VIEW
N.T.S.



NOTE:
HEAVY-DUTY ASPHALT PAVEMENT TO BE CONSTRUCTED PER SPECIFICATION SECTION 02510

3 C-017 HEAVY-DUTY ASPHALT PAVEMENT SECTION

SCALE: N.T.S.

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/15/2022

GSWCC NO. 0000044976, EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

GREEN INFRASTRUCTURE DETAILS 1

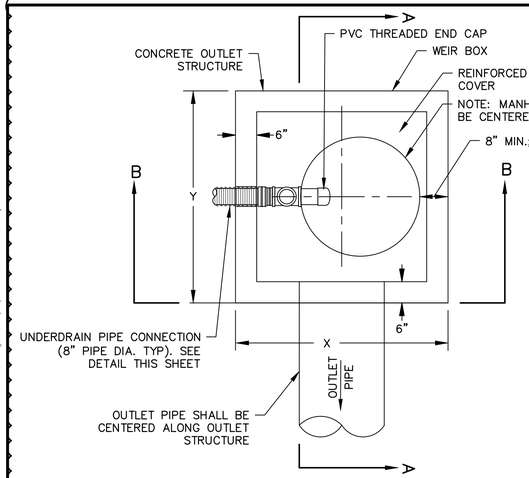
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	A. HAGEN/DAW
DRAWN BY:	D. LAMB/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

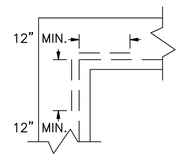
C-017

SHEET 22 OF 150

User: ACRAIN Spec: AUS-NOSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-017-GI.DWG Scale:1:1 SavedDate:7/6/2022 Time:11:59 Plot Date: Crain, Angela; 7/8/2022; 12:50 ; Layout:22

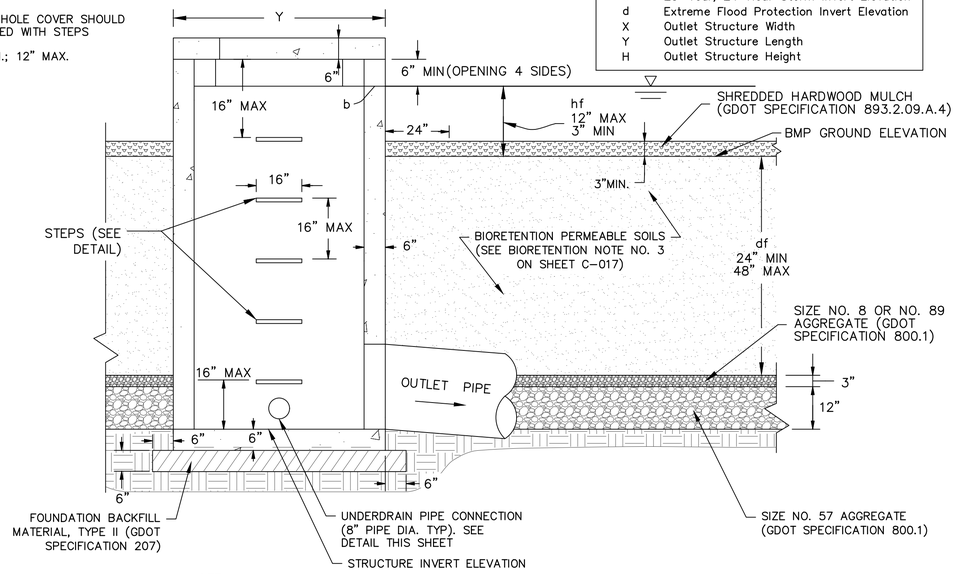


OUTLET STRUCTURE PLAN VIEW



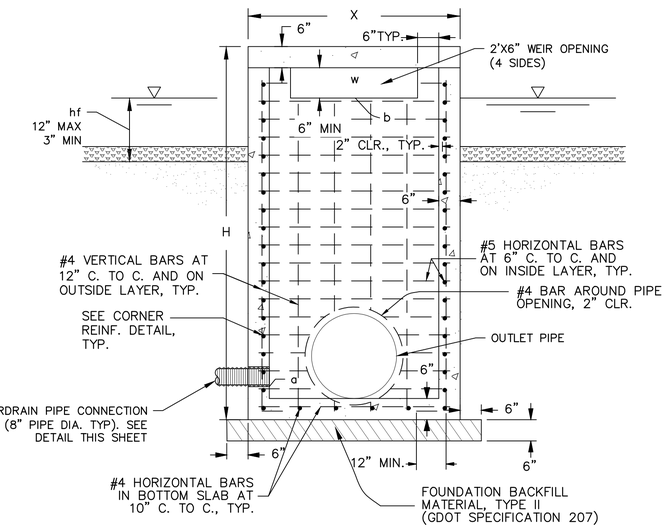
CORNER REINFORCING DETAIL

SYMBOL	DEFINITION
a	Underdrain Pipe Invert Elevation
b	Outlet Structure Weir Elevation
c	25-Year, 24-Hour Storm Invert Elevation
d	Extreme Flood Protection Invert Elevation
X	Outlet Structure Width
Y	Outlet Structure Length
H	Outlet Structure Height

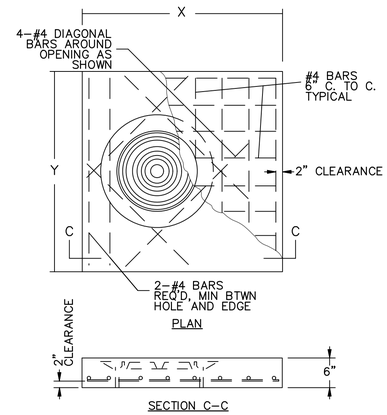


NOTE:
SEE SECTION B-B FOR REINFORCING.

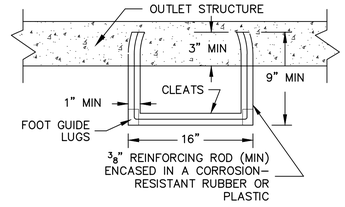
SECTION A-A



SECTION B-B



REINFORCED CONCRETE COVER

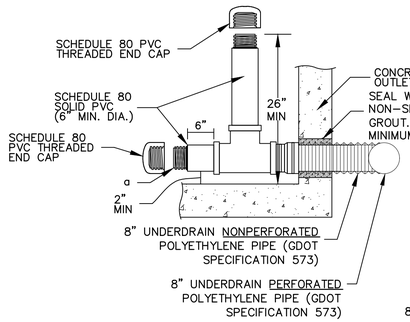


MIN. VERTICAL LOAD RESISTANCE = 400 LBS
MIN. PULLOUT RESISTANCE = 700 LBS

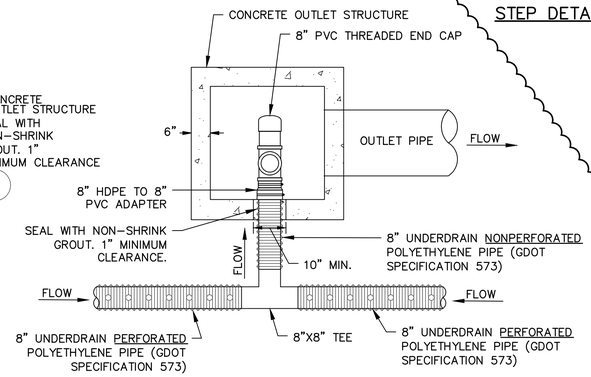
NOTE:

PLASTIC OR RUBBER COATED STEPS LISTED IN THE GA D.O.T. QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED.

STEP DETAIL



SECTION VIEW



PLAN VIEW

NOTES:

1) ALL JOINTS AND CONNECTION SHALL BE WATERTIGHT AND HAVE ELASTOMERIC SEALS THAT MEET THE REQUIREMENTS OF ASTM F 477.

2) BIORETENTION BASINS SIZED FOR RUNOFF REDUCTION SHALL BE CAPPED AT THE UPTURNED PIPE AND AT INVERT A. BIORETENTION BASINS WITH AN INTERNAL WATER STORAGE ZONE SHALL BE CAPPED AT INVERT A ONLY. STANDARD BIORETENTION BASINS SHALL NOT BE CAPPED.

UNDERDRAIN PIPE CONNECTION DETAIL

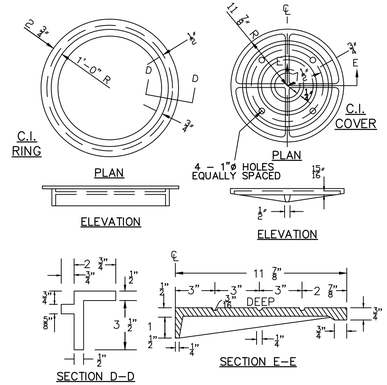
Outlet Structure Dimensions					
Pipe Diameter	Min X	Min Y	Max X or Y	Min H	Max H
12"	4'	4'	7'-6"	5'-2"	8'-0"
15"	4'	4'	7'-6"	5'-2"	8'-0"
18"	4'	4'	7'-6"	5'-2"	8'-0"
24"	4'	4'	7'-6"	5'-2"	8'-0"
30"	5'	4'	7'-6"	6'-0"	8'-3"
36"	5'	4'	7'-6"	6'-0"	8'-3"
42"	6'	4'	7'-6"	7'-0"	8'-3"
48"	6'	4'	7'-6"	7'-0"	8'-3"

NOTES:

1) DIMENSIONS THAT EXCEED MAXIMUM X OR MAXIMUM Y WILL REQUIRE INDIVIDUAL STRUCTURAL DESIGN.

2) OUTLET STRUCTURE SHALL BE CONSTRUCTED AT EVEN 1' INCREMENTS.

3) 4'X4' OUTLET STRUCTURES SHALL HAVE A MAXIMUM HEIGHT OF 8'.



CASTING DETAILS

GENERAL NOTES:

1) CONCRETE OUTLET STRUCTURES SHALL BE PRECAST

2) BIORETENTION BASINS SHALL NOT BE USED FOR DETENTION.

3) A LANDSCAPE PLAN SHALL BE PROVIDED FOR BIORETENTION BASINS.

4) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE OUTLET STRUCTURE ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE BIORETENTION BASIN.

5) IF POST-CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE CITY OF ATLANTA. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

OUTLET STRUCTURE DESIGN DATA						
X	Y	H	Event	INVERT ELEV.	UNDERDRAIN DIA. (IN)	WEIR LEN. w (FT)
4	4	5.50	a	820.83	8	N/A
			b	824.50	N/A	2
			c	824.66	N/A	N/A
			d	824.70	N/A	N/A

STRUCTURE INVERT ELEV. = 820.50
OUTLET PIPE DIA. = 12IN
OUTLET PIPE LENGTH = PER PLAN
OUTLET PIPE HEADWALL = N/A
AVERAGE PONDING DEPTH (hf) = 6IN
BMP GROUND ELEVATION = 824.00

STRUCTURE TOP ELEV. = 825.50
OUTLET PIPE SLOPE = PER PLAN (1% MIN)
OUTLET PIPE INVERT = 820.83
SOIL MIX DEPTH (df) = 2.0FT

0

1 OUTLET STRUCTURE DETAIL

C-018 SCALE: N.T.S.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON
7/6/2022

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

ARCADIS BPA
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

GREEN INFRASTRUCTURE DETAILS 2

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	A. HAGEN/DAW
DRAWN BY:	D. LAMB/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: NONE

C-018

SHEET 23 OF 150

User: ACRAIN Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-018-GI.DWG Scale:1:1 SavedDate: 7/6/2022 Time:12:01 Plot Date: Crain, Angela: 7/8/2022, 12:52 - Layout:23

Plant Schedule					
QTY	**Botanical Name**	**Common Name**	**Size**	**Rt. Ball**	**Specifications**
Shrubs					
2	Aesculus pariviflora	Bottlebrush Buckeye	3 Gal.	Container	Healthy, vigorous, full, well rooted
6	Cephalanthus occidentalis	Common Buttonbush	3 Gal.	Container	Healthy, vigorous, full, well rooted
16	Aronia arbutifolia	Red Chokeberry	3 Gal.	Container	Healthy, vigorous, full, well rooted
5	Ilex glabra	Inkberry	3 Gal.	Container	Healthy, vigorous, full, well rooted
Zone 3-Shoreline Fringe (24" O.C. AVG. SPACING) EL. 824.0-824.5					
52	Andropogon glomeratus	Bushy Broom Grass	4" Pot	Container	Healthy, vigorous, full, well rooted
36	Chasmanthium latifolium	Upland Sea-Oats	4" Pot	Container	Healthy, vigorous, full, well rooted
28	Coreopsis tinctoria	Dwarf Tickseed	4" Pot	Container	Healthy, vigorous, full, well rooted
23	Lobelia cardinalis	Cardinal Flower	4" Pot	Container	Healthy, vigorous, full, well rooted
21	Osmunda cinnamomea	Cinnamon Fern	4" Pot	Container	Healthy, vigorous, full, well rooted
Zone 4-Riparian Fringe (24" O.C. AVG. SPACING) EL. 824.5-825.0					
20	Rudbeckia laciniata	Greenhead Coneflower	4" Pot	Container	Healthy, vigorous, full, well rooted
16	Vernonia gigantea	Ironweed	4" Pot	Container	Healthy, vigorous, full, well rooted
13	Eupatorium fistolosum	Joe Pye Weed	4" Pot	Container	Healthy, vigorous, full, well rooted
9	Sorghastrum nutans	Yellow Indian Grass	4" Pot	Container	Healthy, vigorous, full, well rooted
Zone 6-Upland Slopes (12" O.C. AVG. SPACING) from EL. 825					
636	Chamaecyparis thyoides	False Cypress	4" Pot	Container	Healthy, vigorous, full, well rooted

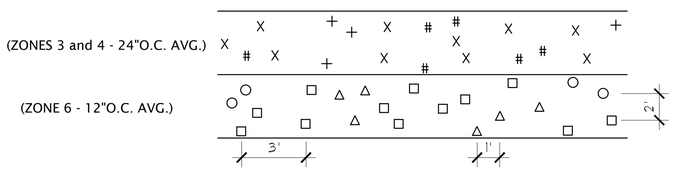
PLANTING SEASONS:

1. WOODY PLANT MATERIAL SHALL BE PLANTED BETWEEN SEPTEMBER 15 AND MARCH 15.
2. AQUATIC/WETLAND PLANT MATERIAL SHALL BE PLANTED BETWEEN APRIL 1 AND JUNE 15.

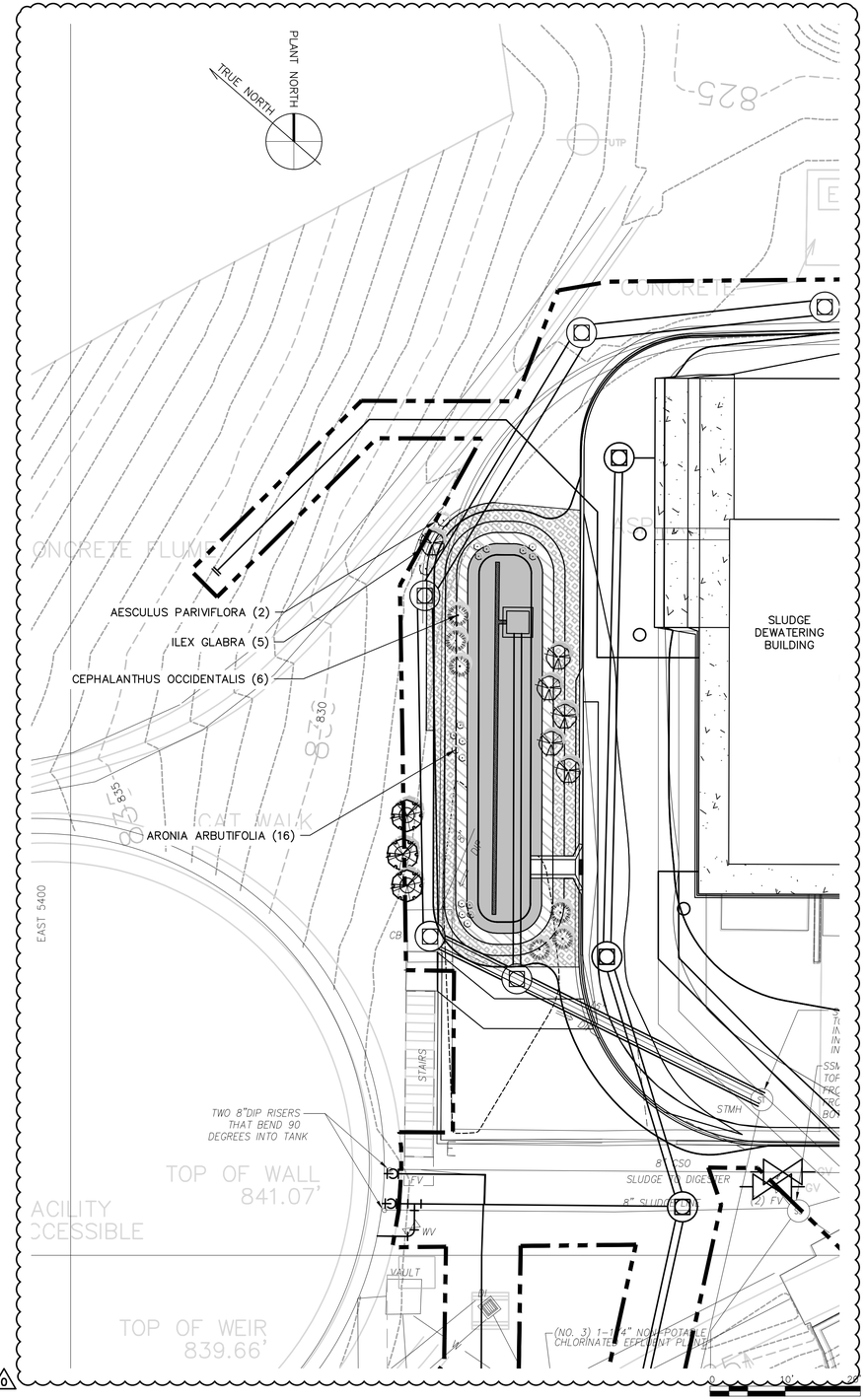
NOTE: ALL PLANTS SHALL BE TRUE SPECIES AS SPECIFIED IN THE PLANT SCHEDULE. NO VARIETIES OR CULTIVARS WILL BE ACCEPTED AS SUBSTITUTES.

ZONE PLANT SPACING: ZONE PLANTS SHALL BE INSTALLED IN A RANDOM FASHION WITH STAGGERED, IRREGULAR SPACING BETWEEN 1' AND 3' ON CENTER. FOR EACH ZONE, THE CONTRACTOR SHALL INCORPORATE A RANDOM MIXTURE OF THE SPECIFIED PLANTS THROUGHOUT THAT ZONE.

WOODY PLANT SPACING: SHRUBS SHALL BE INSTALLED IN A RANDOM FASHION WITH STAGGERED, IRREGULAR SPACING BETWEEN 5' AND 10' ON CENTER. PLANTING PLANS ILLUSTRATE PLANT GROUPINGS AND APPROXIMATE LOCATIONS. ADJUSTMENTS MAY BE REQUIRED BASED ON FIELD CONDITIONS.



PLAN: TYPICAL AQUATIC/RIPARIAN PLANT DISTRIBUTION
N.T.S.



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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON 7/8/2022

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

LANDSCAPING PLAN

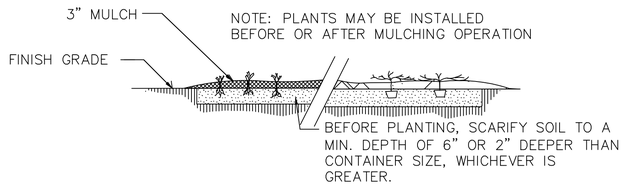
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. DARTNELL/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. HAGAN/DAW

SCALE: AS SHOWN

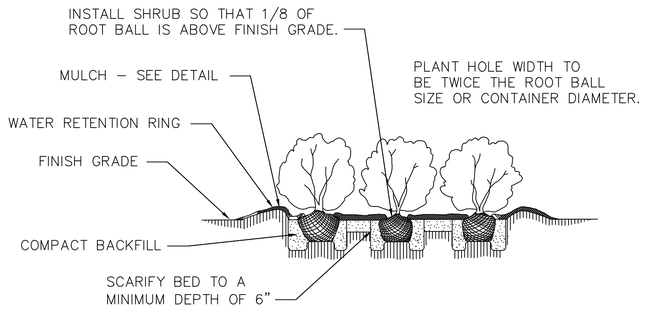
C-019

SHEET 24 OF 150

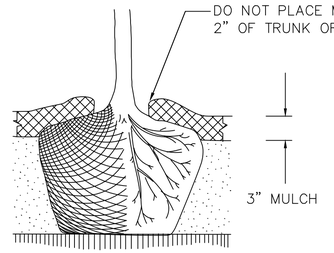
User: ACRAIN Spec: AUS-NCSM0D File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-019.DWG Scale:1:1 SavedDate:7/7/2022 Time:11:46 Plot Date: Crain, Angela 7/8/2022, 12:37 - Layout:24



GROUND COVER/ BEDDING PLANT DETAIL



SHRUB BED PLANTING DETAIL



MULCH DETAIL

GROUND COVER, SHRUB BED AND MULCH NOTES:

1. APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLET OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
2. ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES AS SPECIFIED BY INTERNATIONAL SOCIETY OF ARBORICULTURE.
3. ALL SHRUBS AND SPREADING GROUND COVERS SHALL BE LOCATED A MINIMUM OF THREE (3) FEET FROM THE EDGE OF BEDS. SHRUBS AND GROUND COVERS NEED TO BE PLACED AT LEAST THREE (3) FEET FROM THE EDGE OF BEDS TO ALLOW FOR MATURE GROWTH AND TO AVOID CONFLICTS WITH PEDESTRIAN TRAFFIC, CURBS, OR GRASSED AREAS.

GENERAL PLANTING NOTES:

1. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT SCHEDULE AND, THE PLANTING PLAN, THE PLAN WILL TAKE PRECEDENCE OVER THE SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY CALCULATIONS AND THE LIABILITY PERTAINING TO THOSE QUANTITIES AND ANY OTHER RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS.
2. THE CONTRACTOR SHALL NOT CHANGE OR SUBSTITUTE PLANT VARIETIES OR SPECIES WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.
3. ALL LANDSCAPE MATERIAL SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1–2004) AND ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.
4. THE CONTRACTOR SHALL MAKE PERIODIC INSPECTIONS OF THE PROJECT DURING THE WARRANTY PERIOD TO ENSURE THAT THE ESTABLISHMENT RATE OF GROWTH IS ADEQUATE. ANY METHODS OR PRODUCTS DEEMED NOT NORMAL OR DETRIMENTAL TO GOOD PLANT GROWTH SHALL BE REPORTED TO THE CITY IN WRITING. FAILURE TO INSPECT AND REPORT WILL BE INTERPRETED AS APPROVAL, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL REPLACEMENTS.
5. REFER TO CIVIL ENGINEERING PLANS FOR GRADING INFORMATION.
6. DO NOT SCALE FROM DRAWING.
7. NEW SHRUB PLANTING IS TO BE A MINIMUM OF 36" AWAY FROM EXISTING TREES.
8. PLANTING PLAN IS FOR THE LOCATION AND IDENTIFICATION OF VEGETATION ONLY. NO OTHER WORK IS TO BE PERFORMED BASED ON THIS PLAN.
9. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE OF ALL PLANTING PITS AND PLANT BEDS PRIOR TO INSTALLATION.
10. TOPSOIL WILL BE STOCKPILED WITHIN LAYDOWN AREAS (WITH APPROPRIATE EROSION CONTROLS) FOR RE–USE IN LANDSCAPE WORK. IF ADDITIONAL TOPSOIL IS NEEDED TO COMPLETE THE WORK, CONTRACTOR SHALL IMPORT TOPSOIL AS SPECIFIED.

    PROVIDE NEW TOPSOIL THAT IS FERTILE, FRIABLE, NATURAL LOAM, SURFACE SOIL, REASONABLY FREE OF ROOTS, STUMPS AND LARGE STONES AND FREE OF BRUSH, WEEDS, LITTER, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.

    OBTAIN TOPSOIL FROM A COMMERCIAL SOURCE. OBTAIN TOPSOIL ONLY FROM NATURALLY, WELL DRAINED SITES WHERE TOPSOIL OCCURS IN A DEPTH OF NOT LESS THAN 4 INCHES. DO NOT OBTAIN FROM BOGS OR MARSHES.
11. QUALITY OF PLANT MATERIAL:

    ALL PLANTS SHALL BE FREE OF DISEASE AND/OR INSECTS, AND SHALL HAVE A HEALTHY ROOT SYSTEM WITH NO CIRCLING OR KINKED ROOTS. CONTAINER PLANTS SHALL NOT BE ROOT BOUND.

    TREES SHALL HAVE STRAIGHT TRUNKS,DENSE CANOPIES AND STRONG BRANCHING WITH GOOD CROTCH ANGLES.

    ALL PLANT MATERIAL SHALL BE SUFFICIENTLY WATERED TO WET THE ENTIRE ROOT BALL WITHIN TWO HOURS OF PLANTING.
12. MAINTENANCE: CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL FROM THE TIME IT IS INSTALLED UNTIL FINAL ACCEPTANCE OR WHEN THE OWNER TAKES OVER MAINTENANCE, WHICHEVER OCCURS FIRST. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO MOWING, EDGING, WEEDING, WATERING, PRUNING, ETC.
13. WARRANTY PERIOD: CONTRACTOR SHALL PROVIDE A TWO–YEAR WARRANTY ON ALL TREES AND ONE–YEAR WARRANTY ON ALL OTHER PLANT MATERIAL AND LABOR. WARRANTY PERIOD SHALL BEGIN UPON FINAL COMPLETION OR WHEN THE OWNER TAKES OVER MAINTENANCE, WHICHEVER OCCURS FIRST.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

LANDSCAPE PLAN – NOTES AND DETAILS

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: A. HAGEN/DAW
DRAWN BY: D. LAMB/ADC
CHECKED BY: A. SHARP/DAW

SCALE: NONE

C–020

SHEET 25 OF 150

User: ACRAIN Spec: AUS–NCSMOD File: \\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA002DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C–020.DWG Scale:1:1 SavedDate:7/7/2022 Time:06:08 Plot Date: Crain, Angela; 7/8/2022; 12:37 ; Layout:25

DWG. ABBREV.	ITEM	SYMBOL
	GATE VALVE	
	KNIFE VALVE	K
	PLUG VALVE	
	BUTTERFLY VALVE	
	BALL VALVE	
	BALL CHECK VALVE	
	3-WAY BALL VALVE	
	DIAPHRAGM VALVE	
	HOSE BIBB	HB
	PRESSURE REDUCING VALVE	
	BACK PRESSURE VALVE	
	GLOBE VALVE	
	3-WAY PLUG VALVE	
	ANGLE VALVE	
	CHECK VALVE	
	NEEDLE VALVE	
	RELIEF VALVE	
	PINCH VALVE	
	ROTAMETER	
	UNION	
	INSECT SCREEN	
	FLEXIBLE HOSE	
SG	SLUICE GATE	
SLG	FABRICATED SLIDE GATE	
	PULSATION DAMPENER	
	CALIBRATION STANDPIPE (COLUMN)	
W	WEIR	W
	QUICK DISCONNECT COUPLING	
	STATIC MIXER	
	SPLIT SLEEVE COUPLING	
	DEMISTER	

DWG. ABBREV.	ITEM	SYMBOL
	TELESCOPING VALVE	T
	FLAP VALVE	
	MUD VALVE	
WS	WATER SURFACE	
	ORIFICE PLATE	
	PIPE: 6" & SMALLER	
	PIPE: 8" & LARGER	
	FLANGE	
BF	BLIND FLANGE	BF BF
PO	PUSH ON JOINT	
	SLEEVE COUPLING	
	RESTRAINED SLEEVE COUPLING	
FE	FLOW RATE CONTROLLER	
FE	VENTURI FLOW METER	
FE	MAGNETIC FLOW METER	
	WELDED	
	EXISTING PIPE & FACILITIES	
	PROPOSED PIPE & FACILITIES	
	EXISTING PIPE & FACILITIES TO BE REMOVED	
	EXISTING PIPE & FACILITIES TO BE ABANDONED	
	INSULATION (PIPE 8" & SMALLER)	
	INSULATION (PIPE 10" & LARGER)	
GR	GROOVED COUPLING (PIPE 8" & SMALLER)	
GR	GROOVED COUPLING (PIPE 10" & LARGER)	
	FLEXIBLE CONNECTOR	
	FLEX. CONN. W/ CONTROL RODS	

DWG. ABBREV.	ITEM	SYMBOL
	WYE STRAINER	
G	GAUGE	
	DIRECTION OF FLOW	
	PITCH PIPE DOWN IN DIRECTION OF ARROW	
	CONCENTRIC REDUCER	
F.O.T.	ECCENTRIC REDUCER FLAT ON TOP	
F.O.B.	ECCENTRIC REDUCER FLAT ON BOTTOM	
A	ANCHOR	
	SPECTACLE FLANGE	
	LIMITS OF WORK (TRADE, CONTRACT, ETC.)	
	MATERIAL CHANGE	
	POINT OF CONNECTION NEW WORK TO EXISTING WORK	
	NEW CONCRETE	
	EXISTING CONCRETE	

ACTUATORS

	MOTOR OPERATED	M
	SOLENOID OPERATED	S
	DIAPHRAGM	D
	CYLINDER - HYDRAULIC	H
	CYLINDER - PNEUMATIC	P
	EQUIPMENT MOTOR	M

WALL CASTINGS

FLG x PO	FLANGE AND PUSH ON JOINT	WATERSTOP
PO x PO	PUSH ON JOINT AND PUSH ON JOINT	
PO x PE	PUSH ON JOINT AND PLAIN END	
FLG x FLG	FLANGE AND FLANGE	
FLG x PE	FLANGE AND PLAIN END	

EQUIPMENT NUMBERING CONVENTION

P3011 EQUIPMENT NUMBER TAG

GENERAL NOTES

1 THE CONTRACTOR SHALL MAKE ALL REQUIRED FIELD MEASUREMENTS TO VERIFY EXISTING AND CONTRACT INTERFACE DIMENSIONS, LOCATIONS, AND OTHER CONDITIONS.

2. WHEN MAKING NEW CONNECTIONS TO EXISTING PIPING, THE CONTRACTOR MAY, AT HIS OPTION:

   A. REPLACE PIPING BACK TO NEAREST FITTING.
   B. USE SLEEVE COUPLING OR FLANGE ADAPTERS (RESTRAINED ON PRESSURE LINES).

3. REFER TO STRUCTURAL DRAWINGS FOR COVER PLATES, HATCHES, GRATING AND RAILING DETAILS.

4 ALL PIPING UNDER CONCRETE SLABS OR STRUCTURES SHALL BE ENCASED IN CONCRETE, UNLESS OTHERWISE NOTED, REFER TO STRUCTURAL DRAWINGS.

5. ALL PIPING ENCASED IN CONCRETE SHALL HAVE PUSH-ON JOINTS AT ALL STRUCTURAL EXPANSION JOINTS.

6. PROVIDE EXPANSION JOINTS WITH CONTROL RODS FOR ALL EXPOSED PIPING CROSSING STRUCTURAL EXPANSION JOINTS.

7. ALL DIMENSIONS LOCATING EQUIPMENT ARE FROM FINISHED WALL SURFACES OR COLUMN CENTERLINES.

8. WALL AND FLOOR SLEEVES SHALL BE LARGE ENOUGH TO ACCOMMODATE FLANGES IF REQUIRED. FLOOR SLEEVES SHALL PROJECT AT LEAST 4-IN. ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN, REFER SLEEVE TO DETAILS.

9. PROVIDE WALL FITTINGS WITH WATERSTOP FOR ALL BURIED AND SUBMERGED PIPELINES AND FOR PIPING LOCATED WITHIN 2 FT. OF MAXIMUM WATER SURFACE. WALL FITTINGS 4-IN AND LARGER - DUCTILE IRON, 3-IN AND SMALLER - 316L STAINLESS STEEL.

10. ALL PIPE PENETRATIONS THROUGH INTERIOR AND EXTERIOR WALLS AND FLOORS SHALL BE SEALED WATERTIGHT. ROOF PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH DETAILS.

11. ALL FLEXIBLE CONNECTORS, INCLUDING EXPANSION JOINTS AND SLEEVE COUPLINGS SUBJECT TO PRESSURE SHALL BE RESTRAINED AS INDICATED OR AS REQUIRED FOR EXPANSION AND FOR FLEXIBILITY.

12. PROVIDE ALL LIQUID PIPING WITH 3/4 " LOW POINT DRAINS AND 3/4 " HIGH POINT VENTS. DRAINS AND VENTS TO INCLUDE BALL VALVE AND CAP.

13. PROVIDE 2" BALL VALVE WITH 1-1/4" HOSE CONN. ADAPTER AT HORIZONTAL CENTERLINE OF PIPE FOR SAMPLE CONNECTIONS WHERE SHOWN.

14. SMALL PIPING (SAMPLE, SERVICE WATER, ETC.) IS SHOWN DIAGRAMATICALLY: FIELD ROUTE SUBJECT TO APPROVAL OF THE ENGINEER. SMALL PIPE ROUTING MUST NOT INTERFERE WITH ACCESS TO OR OPERATION OF ANY OTHER PIPE, VALVE, OR EQUIPMENT.

15. PROVIDE WALL MOUNTED SIGNS, IN ACCORDANCE WITH SPECIFICATIONS REQUIREMENTS FOR ALL EXTERIOR WALL PENETRATIONS, INDICATING PIPE ORIGIN OR DESTINATION AND PIPE LABEL.

16 FOR PUMP SEAL WATER, VENT, DRAIN, PRESSURE GAUGE, VALVING AND PIPING SEE DETAILS.

17. ALL COMPONENTS SHOWN IN DARKER LINEWEIGHT ARE NEW OR TO BE REPLACED.

18. THIS IS A STANDARD SYMBOL SHEET. NOT ALL ITEMS SHOWN ARE USED ON THIS PROJECT.

19. STANDARD DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SUMILAR SITUATIONS OCCURING ON THIS PROJET UNLESS OTHERWISE NOTED.

CHEMICAL NOTES

1. EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS ALL PIPE ELEVATIONS ARE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

2. EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS, PIPE ROUTING IS TO BE DETERMINED BY THE CONTRACTOR SUBJECT TO APPROVAL BY THE ENGINEER. SMALL PIPE ROUTING MUST NOT INTERFERE WITH ACCESS TO OR OPERATION OF ANY OTHER PIPE, VALVE, OR EQUIPMENT.

3. PIPE UNIONS SHALL BE PROVIDED AT ALL PIPING CONNECTIONS TO AND FROM EQUIPMENT AND AS SHOWN ON SYSTEM SCHEMATICS.

4. LOCATE BACK PRESSURE VALVES, VENT VALVES, AND ASSOCIATED ITEMS NO HIGHER THAN 6 FT ABOVE THE OPERATING LEVEL. ALL EXCEPTIONS SHALL BE APPROVED BY THE ENGINEER.

5. HORIZONTAL RUNS OF CPVC, PVC AND ALL OTHER PLASTIC PIPE OR TUBING SHALL BE SUPPORTED ON FIBERGLASS OR TYPE 316SS ANGLE OR UNISTRUT WITH A MAXIMUM HANGER SPACING OF 5 FT. SUPPORT VERTICLE RUNS WITH CLAMPS AT A MAXIMUM SPACING OF 3 FT. ON CENTER, SEE SPECIFICATIONS.

6. ALL EQUIPMENT REQUIRING VENTING TO ATMOSPHERE SHALL HAVE VENTS LOCATED AWAY FROM ANY BUILDING OPENINGS.

7. PROVIDE HOSE ON ALL DRAINS FOR METERING PUMP DISCHARGE LINES OF THE SAME SIZE AS INDICATED ON DRAWINGS AND TERMINATED 12" ABOVE FINISHED FLOOR.

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NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MECHANICAL LEGEND AND NOTES

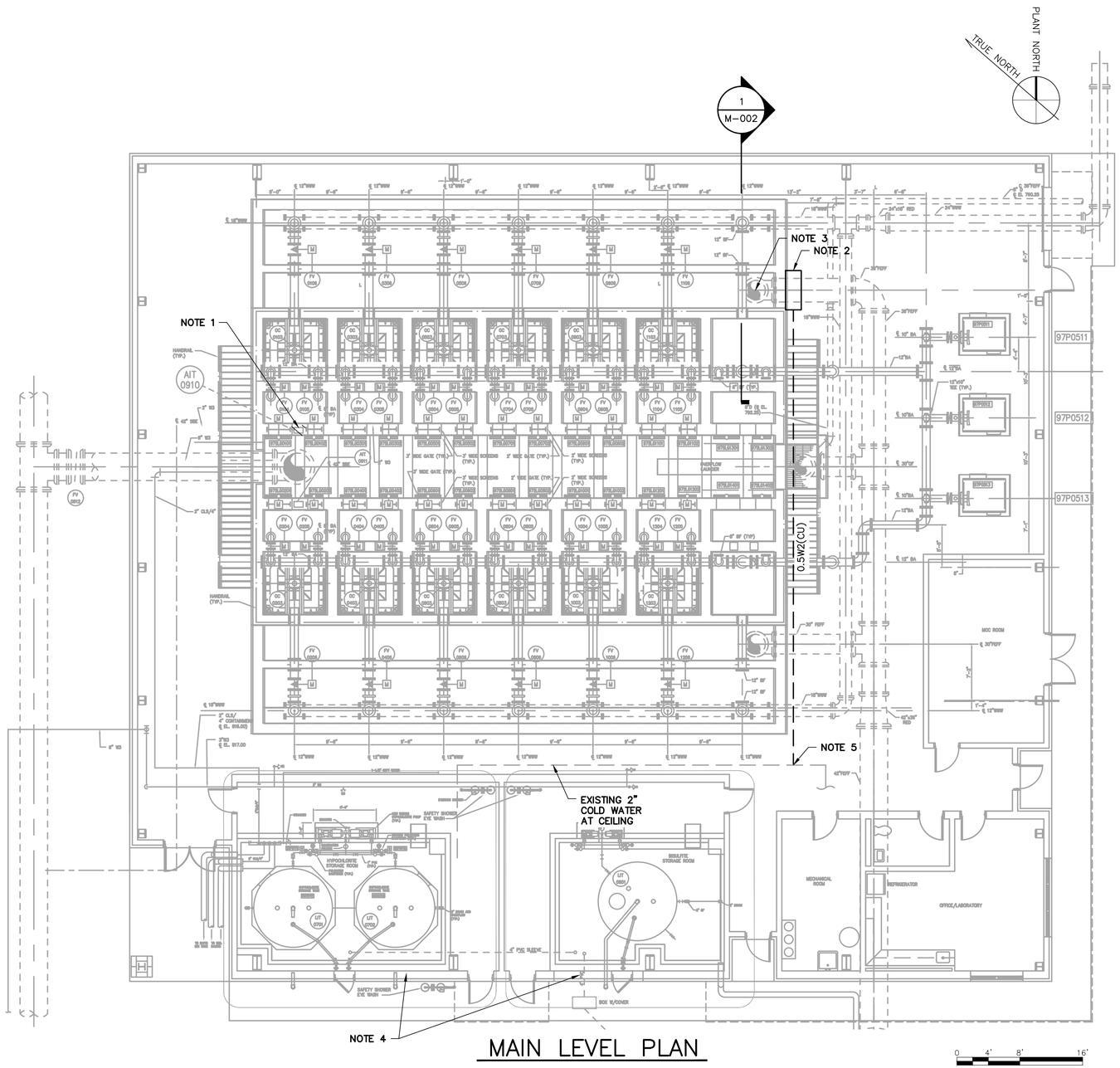
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: NONE

M-001

SHEET 26 OF 150

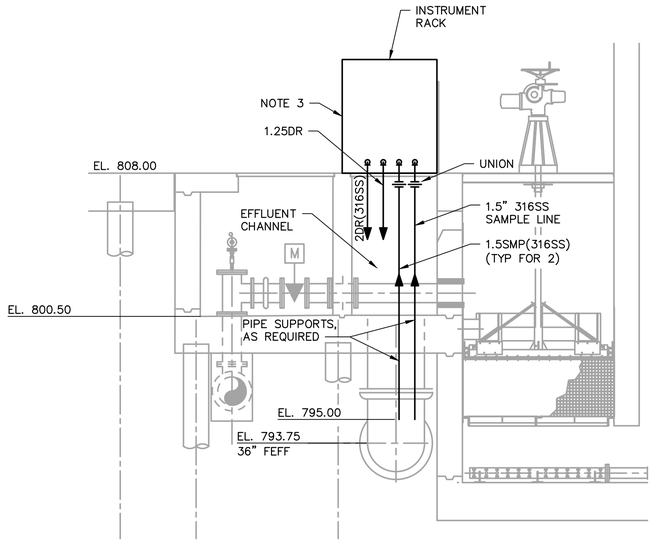
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MAIN LEVEL PLAN

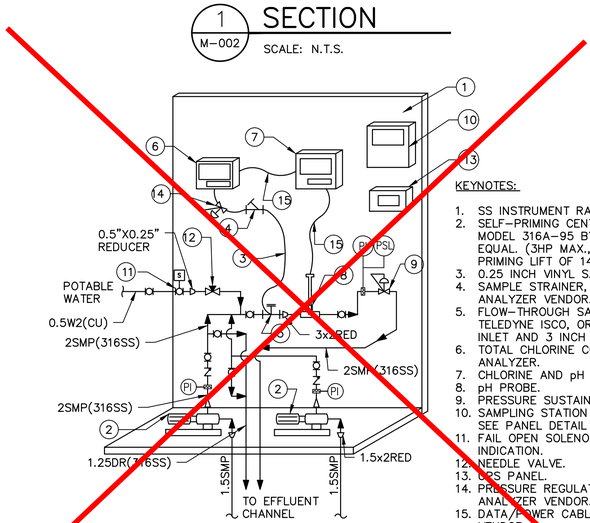
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



1/M-002 SECTION

SCALE: N.T.S.



KEYNOTES:

1. SS INSTRUMENT RACK/SKID
2. SELF-PRIMING CENTRIFUGAL PUMP, MODEL 316A-95 BY AMT PUMPS, OR EQUAL. (3HP MAX., 15 GPM, TDH 55 FT, PRIMING LIFT OF 14')
3. 0.25 INCH VINYL SAMPLE TUBING.
4. SAMPLE STRAINER, FROM CHLORINE ANALYZER VENDOR.
5. FLOW-THROUGH SAMPLE CHAMBER BY TELEDYNE ISCO, OR EQUAL. 2 INCH INLET AND 3 INCH OUTLET.
6. TOTAL CHLORINE COLORIMETRIC ANALYZER.
7. CHLORINE AND pH DUAL TRANSMITTER.
8. pH PROBE.
9. PRESSURE SUSTAINING VALVE.
10. SAMPLING STATION CONTROL PANEL. SEE PANEL DETAIL ON I-023.
11. FAIL OPEN SOLENOID VALVE W/ POSITION INDICATION.
12. NEEDLE VALVE.
13. UPS PANEL.
14. PRESSURE REGULATOR, BY CHLORINE ANALYZER VENDOR.
15. DATA/POWER CABLE. BY TRANSMITTER VENDOR.

A/M-002 SAMPLING POINT NO. 2

SCALE: N.T.S.

Deleted Per RFI-49

NOTES:

1. REMOVE EXISTING CHLORINE ANALYZER UNIT AT INFLUENT END OF CHANNEL.
2. INSTALL NEW INSTRUMENT RACK AS SHOWN ON DETAIL A. TWO (2) SELF-PRIMING CENTRIFUGAL PUMPS (DUTY/STANDBY) TO BE INSTALLED ON THE RACK.
3. PRIOR TO FABRICATION CONTRACTOR TO SUBMIT AN INSTRUMENT RACK LAYOUT FOR ENGINEER'S APPROVAL.
4. SEE SHEET M-019 & M-021 FOR SODIUM HYPOCHLORITE & SODIUM BISULFITE CHEMICAL SYSTEM MODIFICATIONS.
5. TIE IN TO EXISTING 2" COLD WATER PIPE AT CEILING. PROVIDE 1/2" ISOLATION VALVE.

REFERENCE DRAWINGS: M-31, M-32, M-33 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT

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SEALS

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

FILTER BUILDING MODIFICATION PLAN AND CODED NOTES

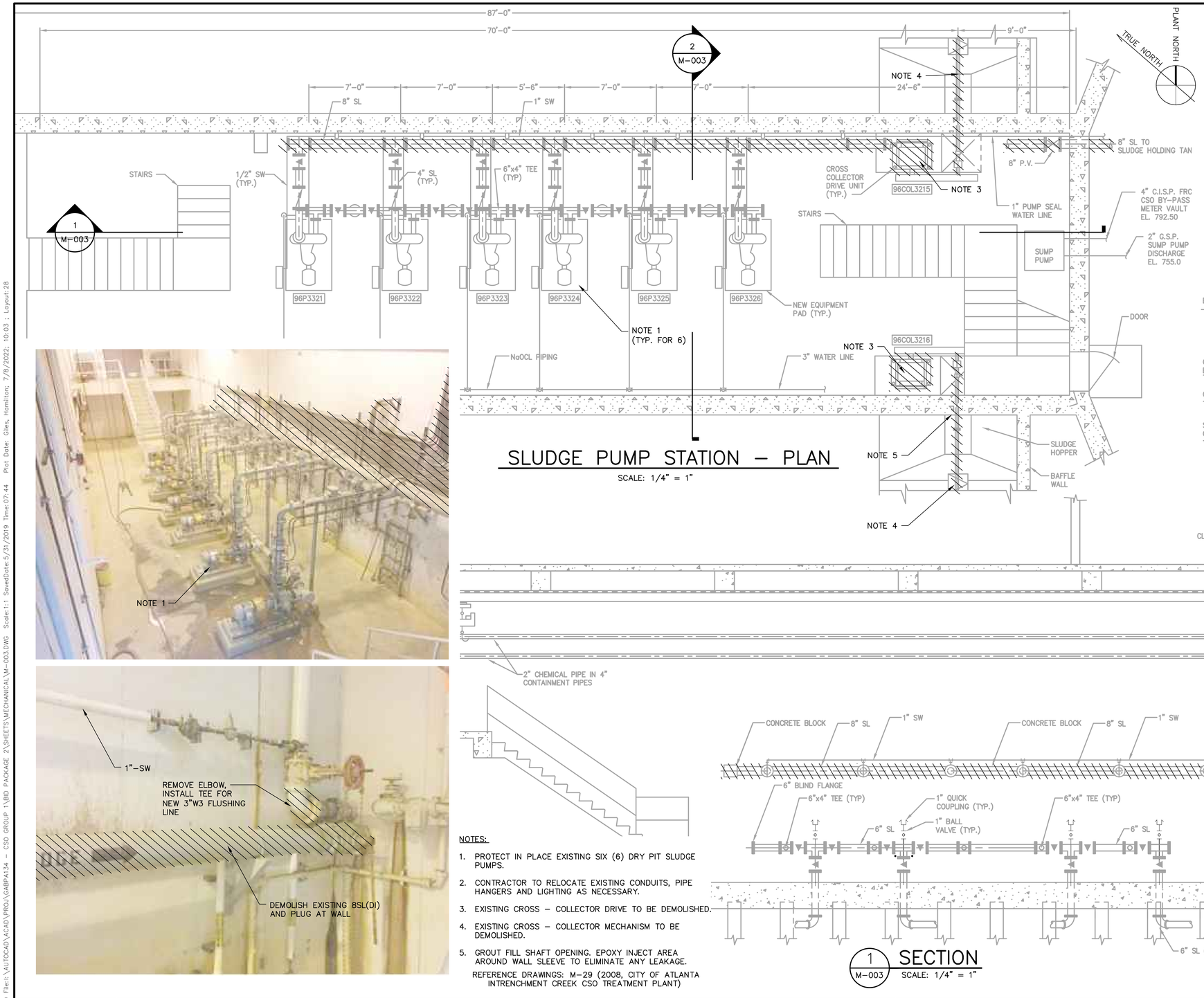
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: AS SHOWN

M-002

SHEET 27 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-002.DWG Scale:1:1 SavedDate:12/8/2020 Time:11:26 Plot Date: Giles, Hamilton; 7/8/2022; 10:01 ; Layout:27



NOTES:

1. PROTECT IN PLACE EXISTING SIX (6) DRY PIT SLUDGE PUMPS.
2. CONTRACTOR TO RELOCATE EXISTING CONDUITS, PIPE HANGERS AND LIGHTING AS NECESSARY.
3. EXISTING CROSS – COLLECTOR DRIVE TO BE DEMOLISHED.
4. EXISTING CROSS – COLLECTOR MECHANISM TO BE DEMOLISHED.
5. GROUT FILL SHAFT OPENING. EPOXY INJECT AREA AROUND WALL SLEEVE TO ELIMINATE ANY LEAKAGE.

REFERENCE DRAWINGS: M-29 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT)

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE PUMP STATION DEMOLITION PLAN AND SECTIONS

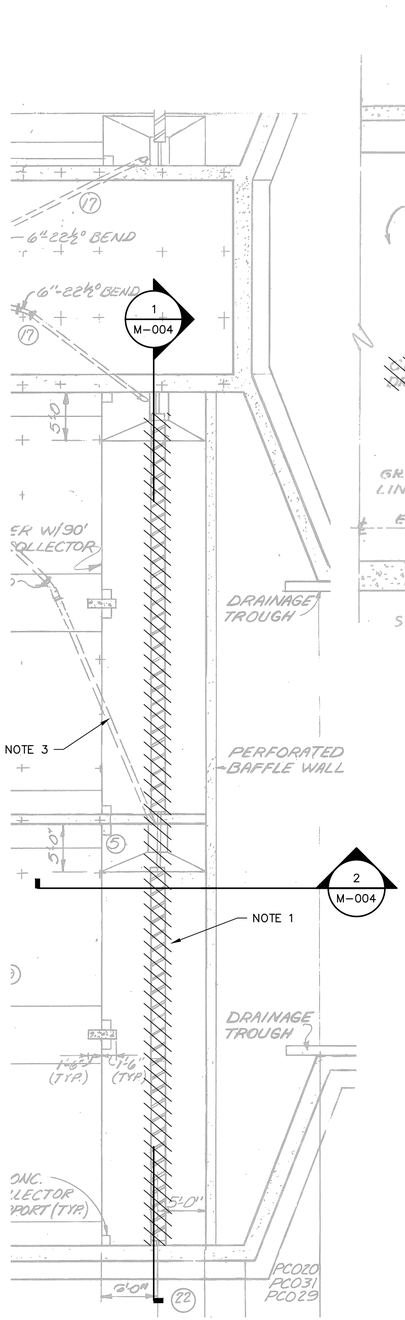
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: 1/4"=1'

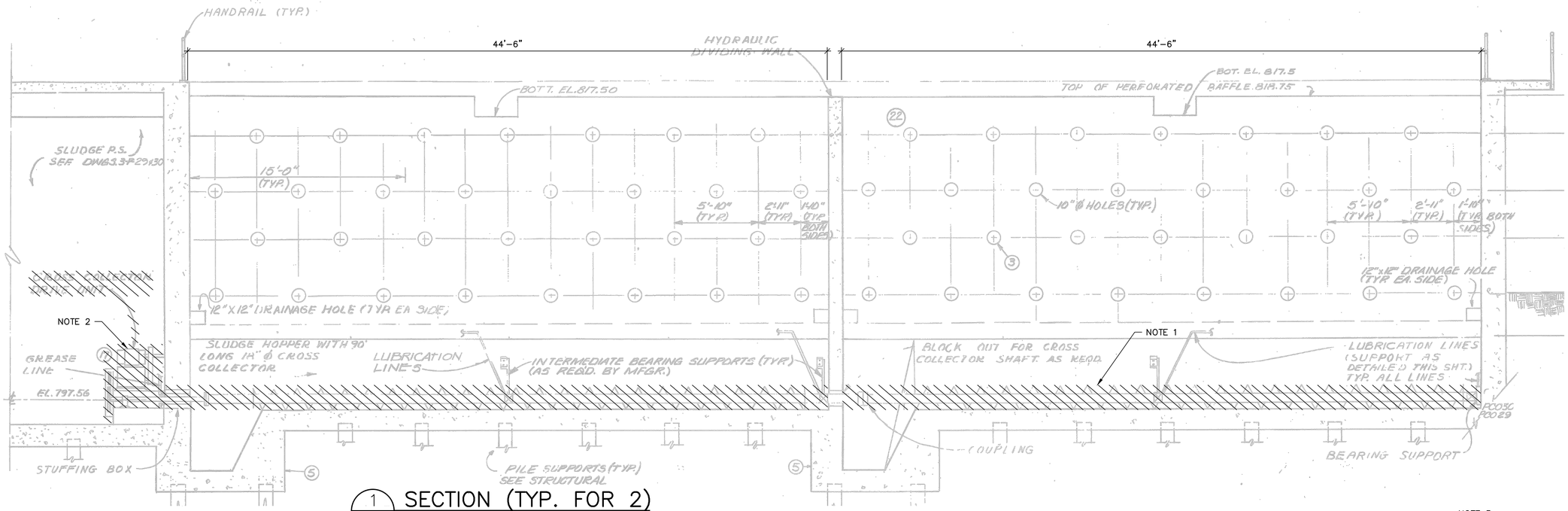
M-003

SHEET 28 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-003.DWG Scale:1:1 SavedDate:5/31/2019 Time:07:44 Plot Date: Giles, Hamilton; 7/8/2022; 10:03 ; Layout:28

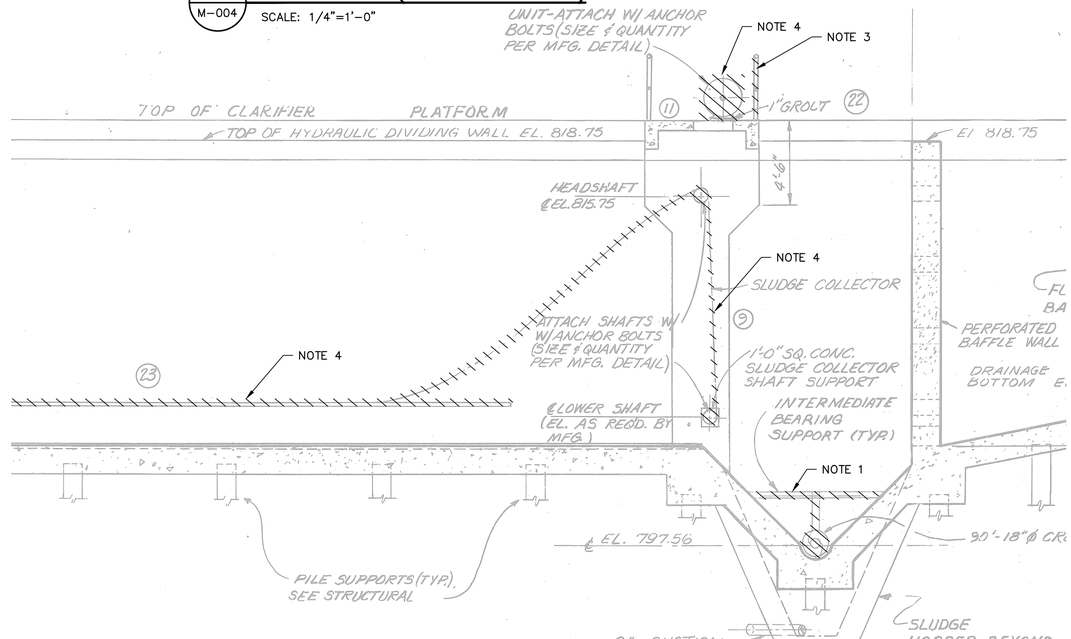


SEDIMENTATION SLUDGE COLLECTION BASIN PLAN (TYP. FOR 2)



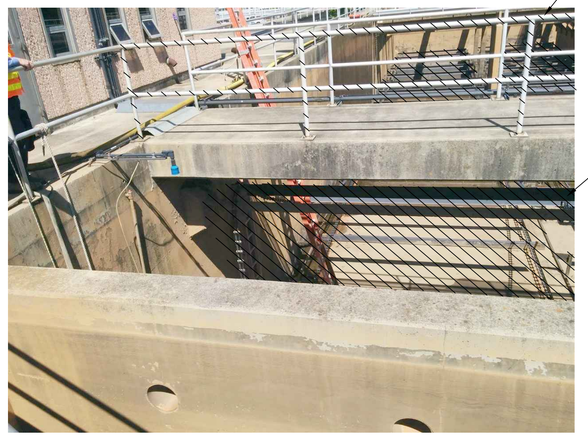
1 M-004 SECTION (TYP. FOR 2)

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



2 M-004 SECTION (TYP.)

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



NOTES:

1. EXISTING CROSS COLLECTOR MECHANISMS TO BE DEMOLISHED.
2. EXISTING CROSS COLLECTOR DRIVES TO BE DEMOLISHED. SEAL SHAFT OPENINGS WATERTIGHT.
3. SEGMENTS OF EXISTING HANDRAIL TO BE DEMOLISHED TO ALLOW FOR INSTALLATION OF NEW CONCRETE PLATFORMS FOR PUMP MAINTENANCE. COORDINATE WITH NEW WORK.
4. DEMOLISH EXISTING CHAIN AND FLIGHT SLUDGE COLLECTORS, INCLUDING DRIVES, SHAFTS, SPROCKETS, CHAIN, FLIGHTS, SUPPORTS, AND EQUIPMENT MOUNTS. REFER TO EXHIBIT C5, SHOP DRAWINGS OF SEDIMENTATION BASIN SLUDGE COLLECTORS, 1983 AND 2006.
5. NOTES APPLY TO BOTH SEDIMENTATION BASINS.
6. CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING OUT BASINS OF RESIDUAL SLUDGE PRIOR TO CONTRACTOR BEGINNING WORK. 3 FT OF SLUDGE REMAINS IN BASIN NO. 2. BASIN NO. 2 IS OUT OF SERVICE UNTIL STRUCTURAL REPAIRS ARE MADE. AN ADDITIVE ALTERNATE TO THE CONTRACT IS REQUESTED FOR REMOVAL AND DISPOSAL OF SLUDGE FROM BASIN NO. 1.

REFERENCE DRAWINGS: 3-P-22, 3-P-25, 3-P-26
(1981 INTRENCHMENT CREEK COMBINED SEWER
OVERFLOW TREATMENT FACILITY)

0 2' 4' 8'

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SEALS

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN DEMOLITION PLAN AND SECTIONS

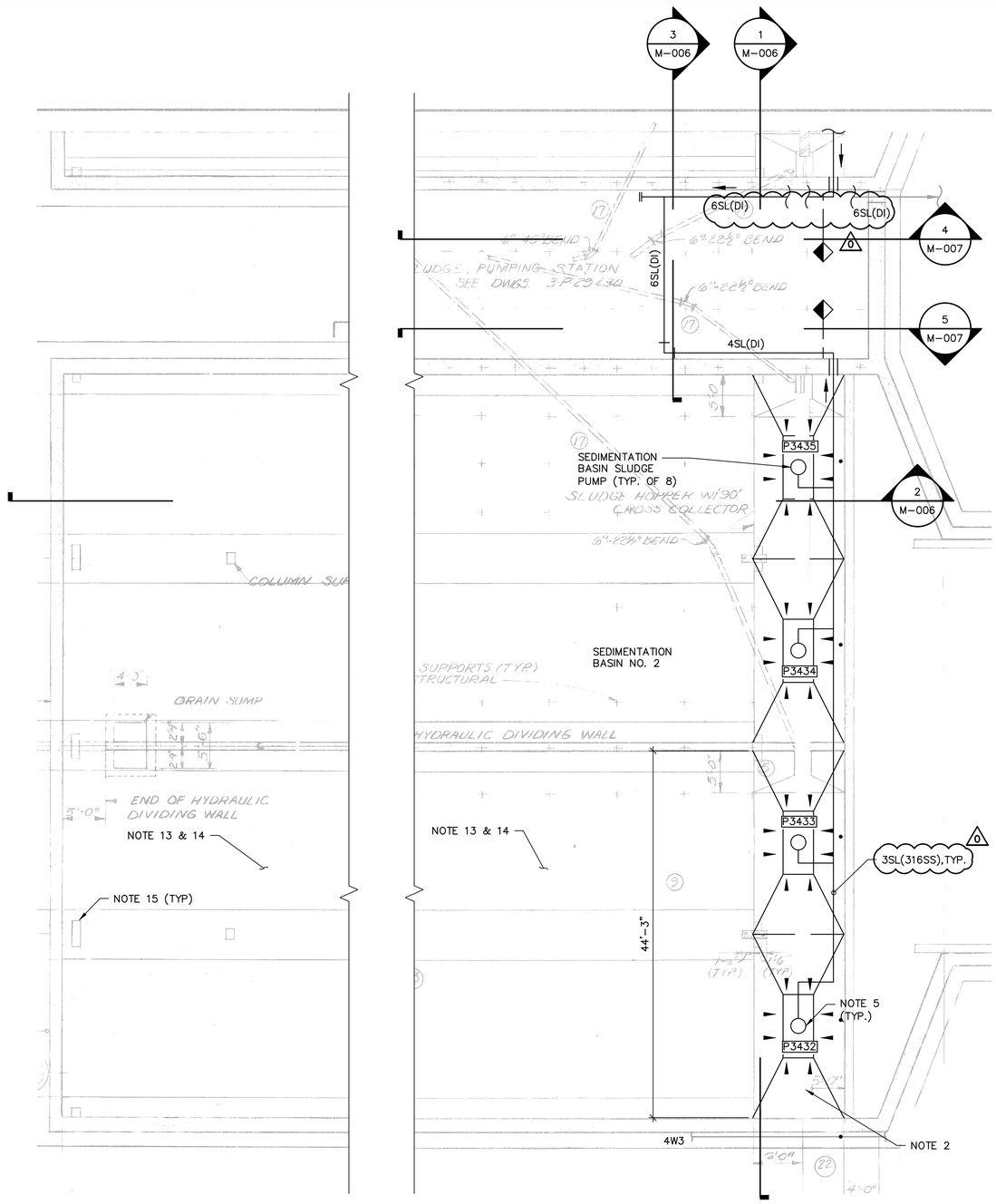
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

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

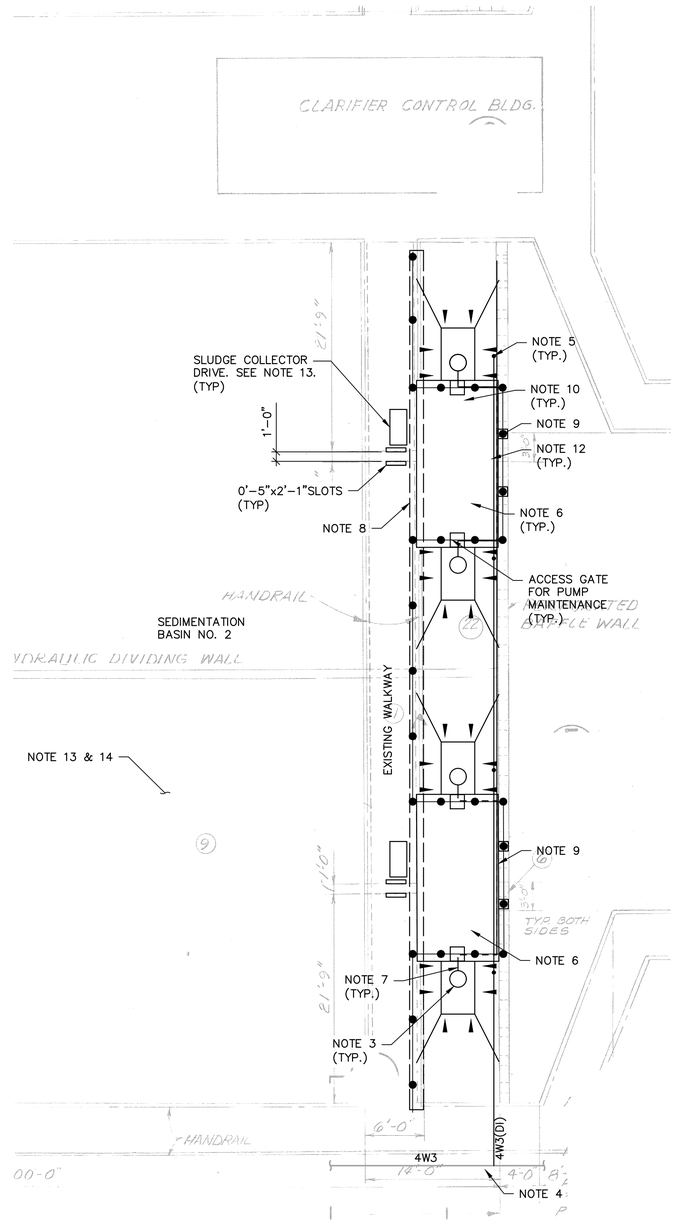
M-004

SHEET 29 OF 150

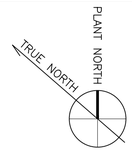
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SEDIMENTATION BASIN BOTTOM PLAN (TYP. FOR 2)



SEDIMENTATION BASIN TOP PLAN (TYP. FOR 2)



NOTES (APPLY TO BOTH BASINS):

1. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS.
2. NEW GROUT, SEE S-008.
3. INSTALL EIGHT (8) NEW SUBMERSIBLE RECESSED IMPELLER PUMPS [FOUR (4) IN EACH BASIN].
4. CONNECT TO EXISTING 4" W3 TO FEED FLUIDIZING WATER TO SLUDGE PUMPS. FOR SEDIMENTATION BASIN 1, USE PLANT WATER FROM EXISTING 4" W3 RUNNING ALONG NORTH OF BASIN.
5. INSTALL NEW 1.25" FLUIDIZING WATER LINE, TYPE 316SS, FOR EACH PUMP. SEE DETAIL A ON SHEET M-007.
6. INSTALL NEW CONCRETE PLATFORMS FOR PUMP MAINTENANCE. SEE STRUCTURAL DRAWING FOR DETAILS.
7. INSTALL NEW STAINLESS STEEL GUIDE RAILS PER MANUFACTURER RECOMMENDATIONS.
8. REMOVE EXISTING HANDRAIL AT NEW PLATFORMS.
9. INSTALL NEW HANDRAIL FOR PLATFORMS WITH ACCESS GATES FOR PUMP MAINTENANCE.
10. INSTALL PEDESTAL BASES FOR PORTABLE DAVIT CRANES.
11. ALL EXPOSED PIPING SHALL BE HEAT TRACED AND INSULATED.
12. INSTALL ENCLOSURES FOR FLUIDIZING WATER ROTAMETERS. SEE INSTRUMENTATION DRAWING FOR DETAILS.
13. INSTALL 8 NEW CHAIN AND FLIGHT SLUDGE COLLECTORS [4 IN EACH BASIN] AS SPECIFIED IN SECTION 11345. EACH GEARMOTOR WILL DRIVE 2 SLUDGE COLLECTORS. REFER TO EXHIBIT C1, 1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY DRAWINGS, FOR STRUCTURAL DIMENSIONS AND DETAILS. REFER TO EXHIBIT C5, ENVIREX/US FILTER SHOP DRAWINGS FOR INTRENCHMENT CREEK CSO SLUDGE COLLECTORS, FOR EXISTING EQUIPMENT INSTALLATION DETAILS AND DIMENSIONS.
14. SLUDGE COLLECTOR CHAINS, FLIGHTS, RAILS, AND SUPPORTS NOT SHOWN FOR CLARITY.
15. CONCRETE SUPPORTS FOR SLUDGE COLLECTOR IDLER SHAFTS AND SPROCKETS. REFER TO 1983 SHOP DRAWINGS FOR AS-BUILT SUPPORT DIMENSIONS.

REFERENCE DRAWINGS: 3-P-22 AND 3-P-23 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

0 4' 8' 16'

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN AND SLUDGE PUMPING PLAN

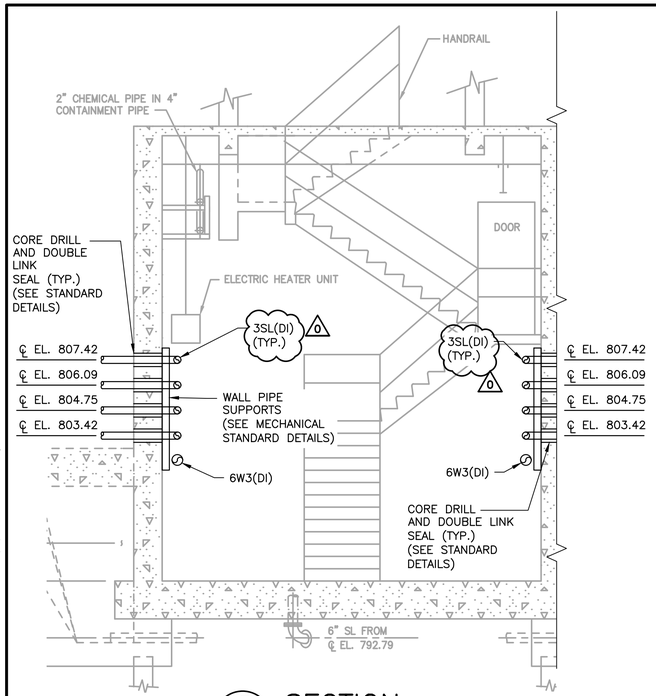
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: 1/8"=1'

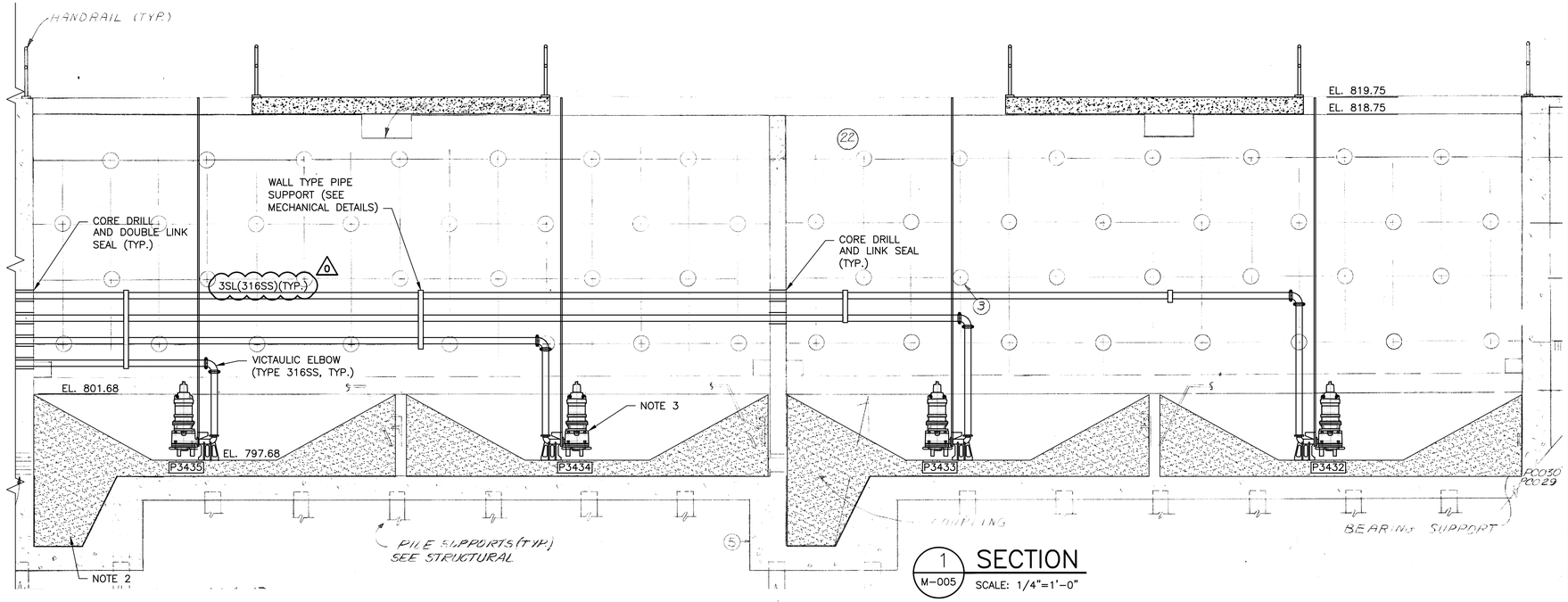
M-005

SHEET 30 OF 150

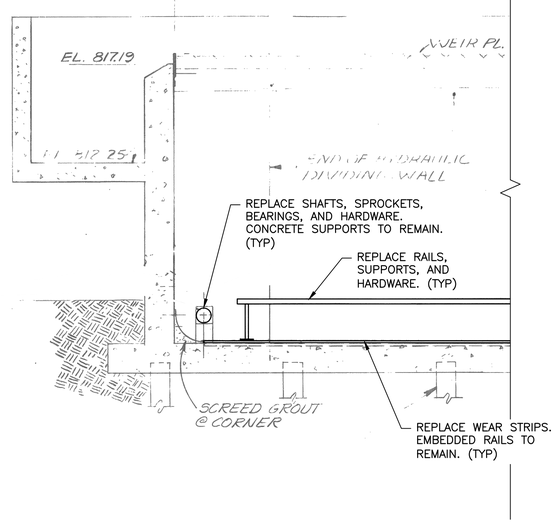
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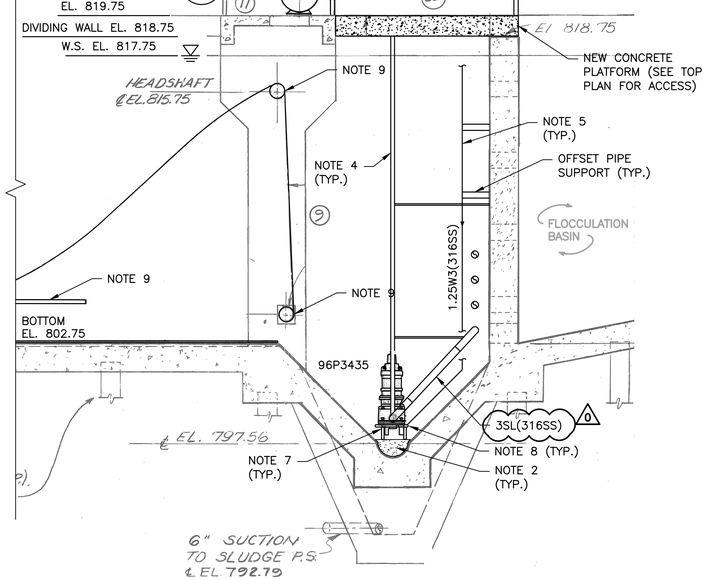


3 M–005 **SECTION**
SCALE: 1/4"=1'–0"



1 M–005 **SECTION**
SCALE: 1/4"=1'–0"





2 M–005 **SECTION**
SCALE: 1/4"=1'–0"

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS.
2. PLACE NEW GROUT FILL TO RESHAPE EACH SUMP AS SHOWN.
3. INSTALL EIGHT (8) NEW SUBMERSIBLE RECESSED IMPELLER PUMPS [FOUR (4) IN EACH BASIN].
4. INSTALL NEW 316 STAINLESS STEEL GUIDERAILS AND SUPPORT BRACKETS PER MANUFACTURER RECOMMENDATIONS.
5. INSTALL NEW FLUIDIZING WATER LINE IN EACH SLUDGE SUMP.
6. EXPOSED PIPE IN UNCONDITIONED AREAS SHALL BE HEAT TRACED AND INSULATED.
7. MOUNT 1.25" STAINLESS STEEL SPARGER RING TO THE FLOOR OF SUMP.
8. 1.25W3 CONNECTS AT SPARGER RING (FLANGED CONNECTION).
9. REPLACE EXISTING SLUDGE COLLECTOR DRIVES, CHAINS, FLIGHTS, SPROCKETS, SHAFTS, RAILS, BEARINGS, MOUNTING BRACKETS, AND ANCILLARY EQUIPMENT PER SECTION 11345. REFER TO EXHIBIT C1, 1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY DRAWINGS, FOR STRUCTURAL DIMENSIONS AND DETAILS. REFER TO EXHIBIT C5, ENVIREX/US FILTER SHOP DRAWINGS FOR INTRENCHMENT CREEK CSO SLUDGE COLLECTORS, FOR EXISTING EQUIPMENT INSTALLATION DETAILS AND DIMENSIONS.

REFERENCE DRAWINGS: 3–P–25, 3–P–26 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY), M–29 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT)

0 2' 4' 8'

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN AND SLUDGE PUMPING SECTIONS AND DETAILS 1

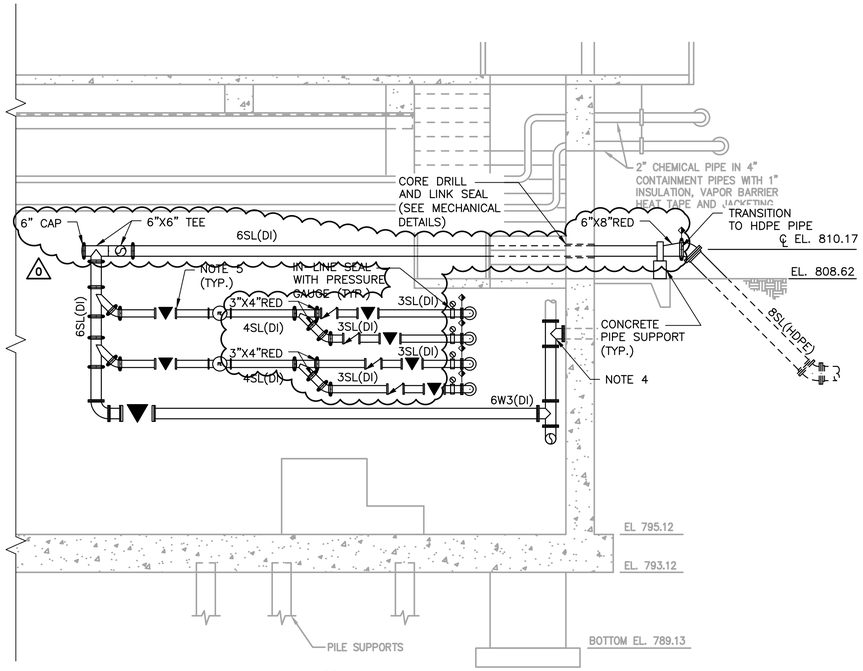
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: 1/4" = 1'

M–006

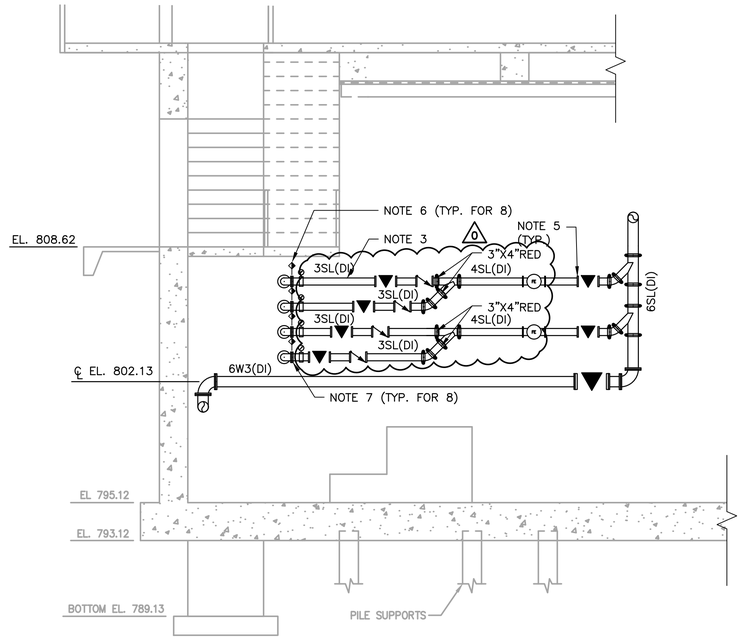
SHEET 31 OF 150

User:HDGILES Spec:AUS–NCSM00 File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–006.DWG Scale:1:1 SavedDate:7/1/2022 Time:14:11 Plot Date: Giles, Hamilton: 7/8/2022, 10:10 : Layout: 31



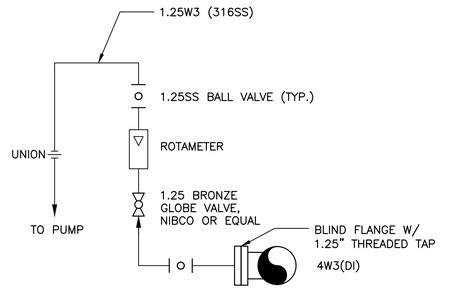
4 M-005 **SECTION**

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



5 M-005 **SECTION**

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



A M-005 **FLUIDIZING WATER CONNECTION**

SCALE: N.T.S.

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS.
2. INTERIOR OF SLUDGE PUMP STATION IS A CONDITIONED SPACE. EXPOSED PIPE IN UNCONDITIONED AREAS SHALL BE HEAT TRACED AND INSULATED.
3. ALL DUCTILE IRON SLUDGE PIPING IN SLUDGE PUMP STATION TO BE GROOVED-JOINT, UNLESS OTHERWISE NOTED. W3 PIPING TO BE FLANGED JOINT.
4. TIE-IN TO EXISTING WATER PIPE.
5. ALL NEW VALVES INSTALLED AT ELEVATION HIGHER THAN 6FT SHALL BE PROVIDED WITH CHAIN WHEEL ACTUATORS.
6. MATERIAL CHANGE FROM 316SS TO DI.
7. JOINTS AT 316SS TO DI SHALL BE FLANGED.

REFERENCE DRAWINGS: M-28, M-29 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT)

0 2' 4' 8'

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN AND SLUDGE PUMPING SECTIONS AND DETAILS 2

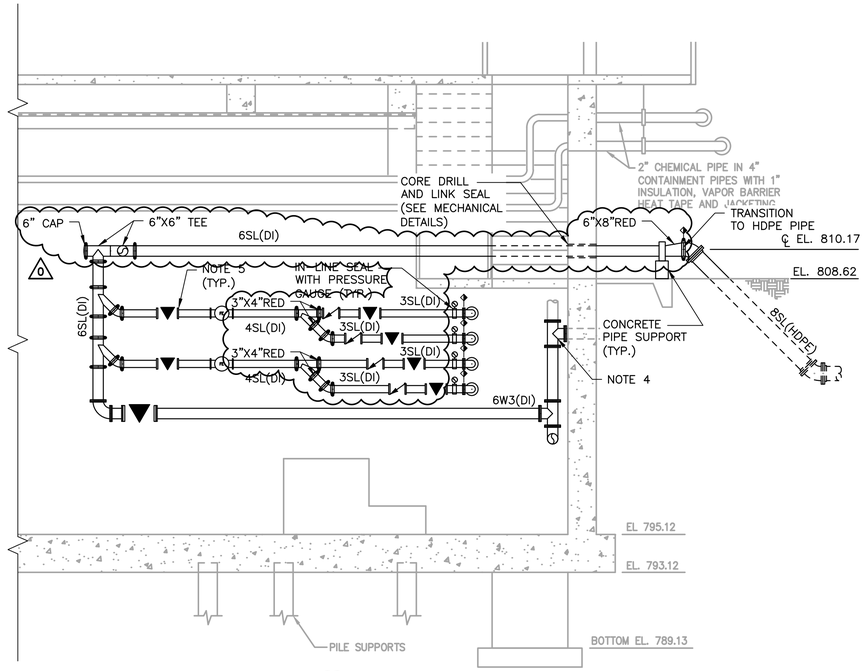
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: J. BROWN
CHECKED BY: A. SHARP

SCALE: 1/4" = 1'

M-007

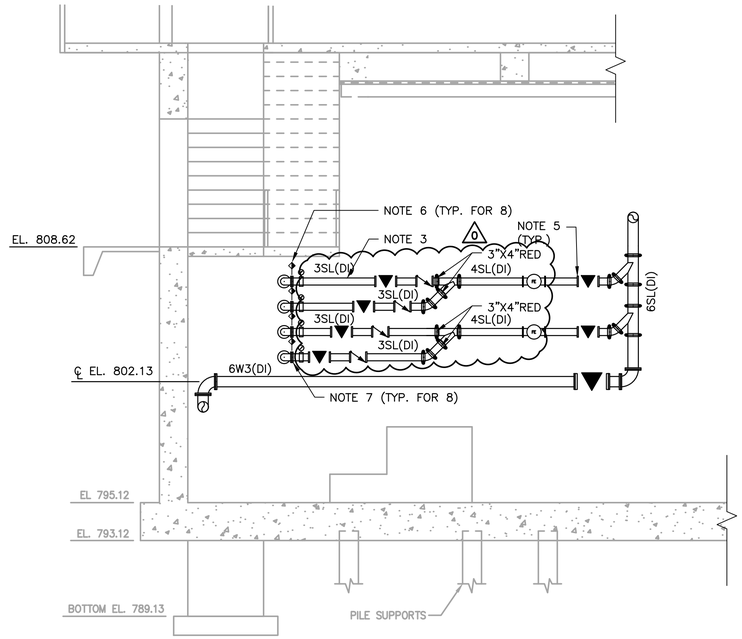
SHEET 32 OF 150

User:HDGILES Spec:AIS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-007.DWG Scale:1:1 SavedDate:7/1/2022 Time:15:37 Plot Date: Giles, Hamilton; 7/8/2022; 10:13 ; Layout:32



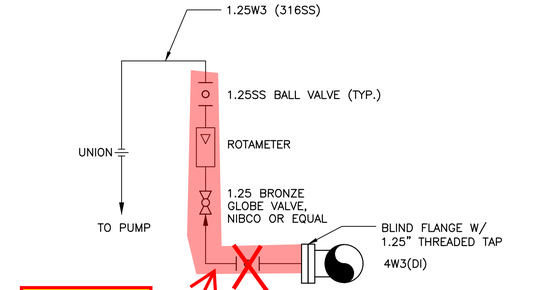
4 M-005 **SECTION**

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



5 M-005 **SECTION**

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



M-005 **DIZING WATER CONNECTION**

SCALE: N.T.S.

RFI-46

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS.
2. INTERIOR OF SLUDGE PUMP STATION IS A CONDITIONED SPACE. EXPOSED PIPE IN UNCONDITIONED AREAS SHALL BE HEAT TRACED AND INSULATED.
3. ALL DUCTILE IRON SLUDGE PIPING IN SLUDGE PUMP STATION TO BE GROOVED-JOINT, UNLESS OTHERWISE NOTED. W3 PIPING TO BE FLANGED JOINT.
4. TIE-IN TO EXISTING WATER PIPE.
5. ALL NEW VALVES INSTALLED AT ELEVATION HIGHER THAN 6FT SHALL BE PROVIDED WITH CHAIN WHEEL ACTUATORS.
6. MATERIAL CHANGE FROM 316SS TO DI.
7. JOINTS AT 316SS TO DI SHALL BE FLANGED.

REFERENCE DRAWINGS: M-28, M-29 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT)

0 2' 4' 8'

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN AND SLUDGE PUMPING SECTIONS AND DETAILS 2

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: J. BROWN
CHECKED BY: A. SHARP

SCALE: 1/4" = 1'

M-007

SHEET 32 OF 150

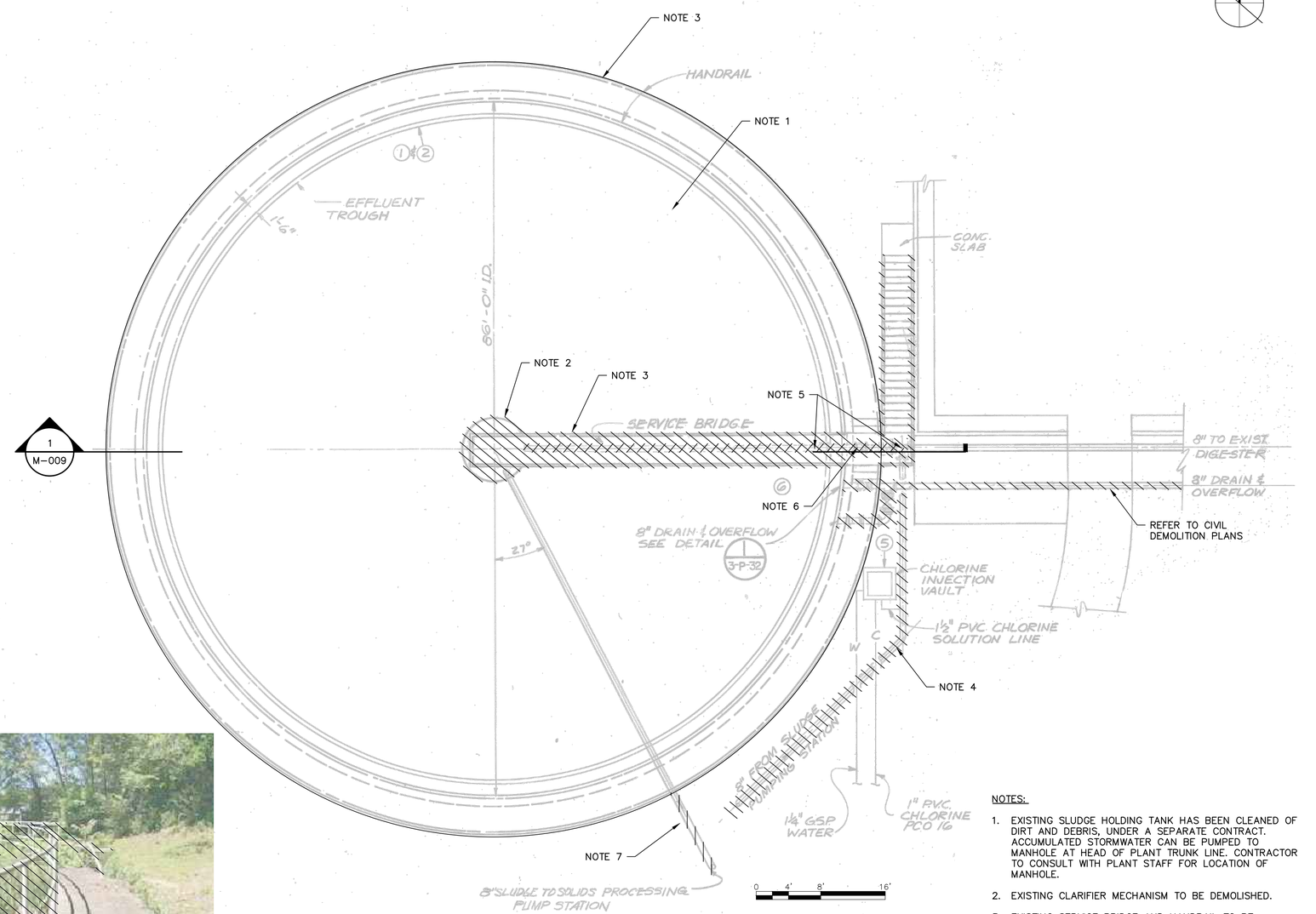
User:HDGILES Spec:AIS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-007.DWG Scale:1:1 SavedDate:7/1/2022 Time:15:37 Plot Date: Giles, Hamilton; 7/8/2022; 10:13 ; Layout:32











1
M-009

SLUDGE HOLDING TANK PLAN

SCALE: 1/8"=1'

NOTES:

1. EXISTING SLUDGE HOLDING TANK HAS BEEN CLEANED OF DIRT AND DEBRIS, UNDER A SEPARATE CONTRACT. ACCUMULATED STORMWATER CAN BE PUMPED TO MANHOLE AT HEAD OF PLANT TRUNK LINE. CONTRACTOR TO CONSULT WITH PLANT STAFF FOR LOCATION OF MANHOLE.
2. EXISTING CLARIFIER MECHANISM TO BE DEMOLISHED.
3. EXISTING SERVICE BRIDGE AND HANDRAIL TO BE DEMOLISHED.
4. DEMOLISH EXISTING 8" SLUDGE PIPE.
5. DEMOLISH EXISTING 8" INFLUENT TO CENTER WELL, 8" PLUG VALVE W/ ELECTRIC OPERATOR AND EXTENDED ACTUATOR, MOUNTING AND PLUG 8" PIPE TO EXISTING DIGESTER.
6. REMOVE EXISTING LEVEL INSTRUMENT.
7. COORDINATE EXTENT OF DEMOLITION WITH NEW WORK.

REFERENCE DRAWING: 3-P-31 (1981, INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK DEMOLITION PLAN

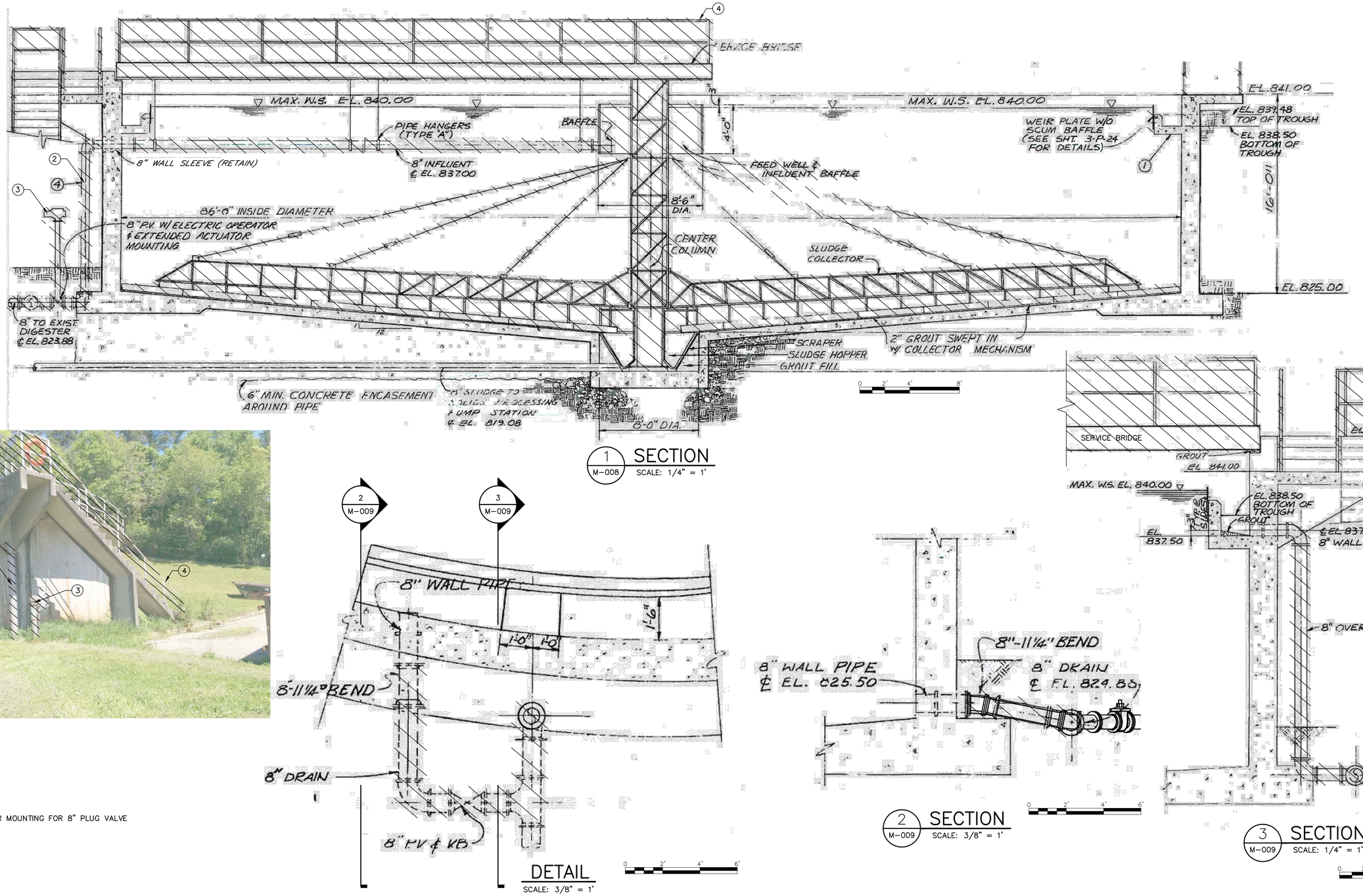
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: J. BROWN
CHECKED BY: W. GRUBBS

SCALE: AS SHOWN

M-008

SHEET 33 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-008.DWG Scale:1:1 SavedDate:8/11/2020 Time:12:39 Plot Date: Giles, Hamilton; 7/8/2022; 10:15 ; Layout:33



1 M-008 **SECTION**
SCALE: 1/4" = 1'

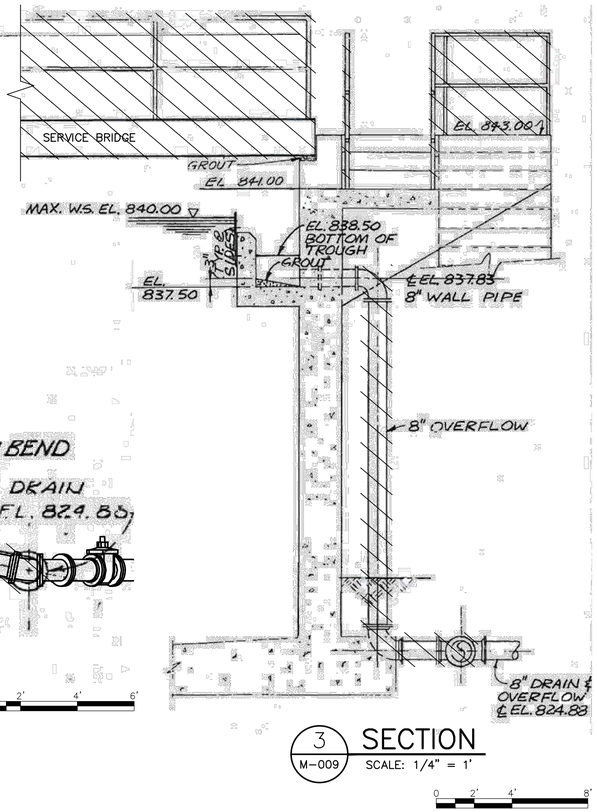


KEYNOTES:

1. 8" OVERFLOW
2. 8" INFLUENT
3. EXTENDED ACTUATOR MOUNTING FOR 8" PLUG VALVE
4. HANDRAIL

DETAIL
SCALE: 3/8" = 1'

2 M-009 **SECTION**
SCALE: 3/8" = 1'



3 M-009 **SECTION**
SCALE: 1/4" = 1'

REFERENCE DRAWING: 3-P-32 (1981, INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK DEMOLITION SECTIONS

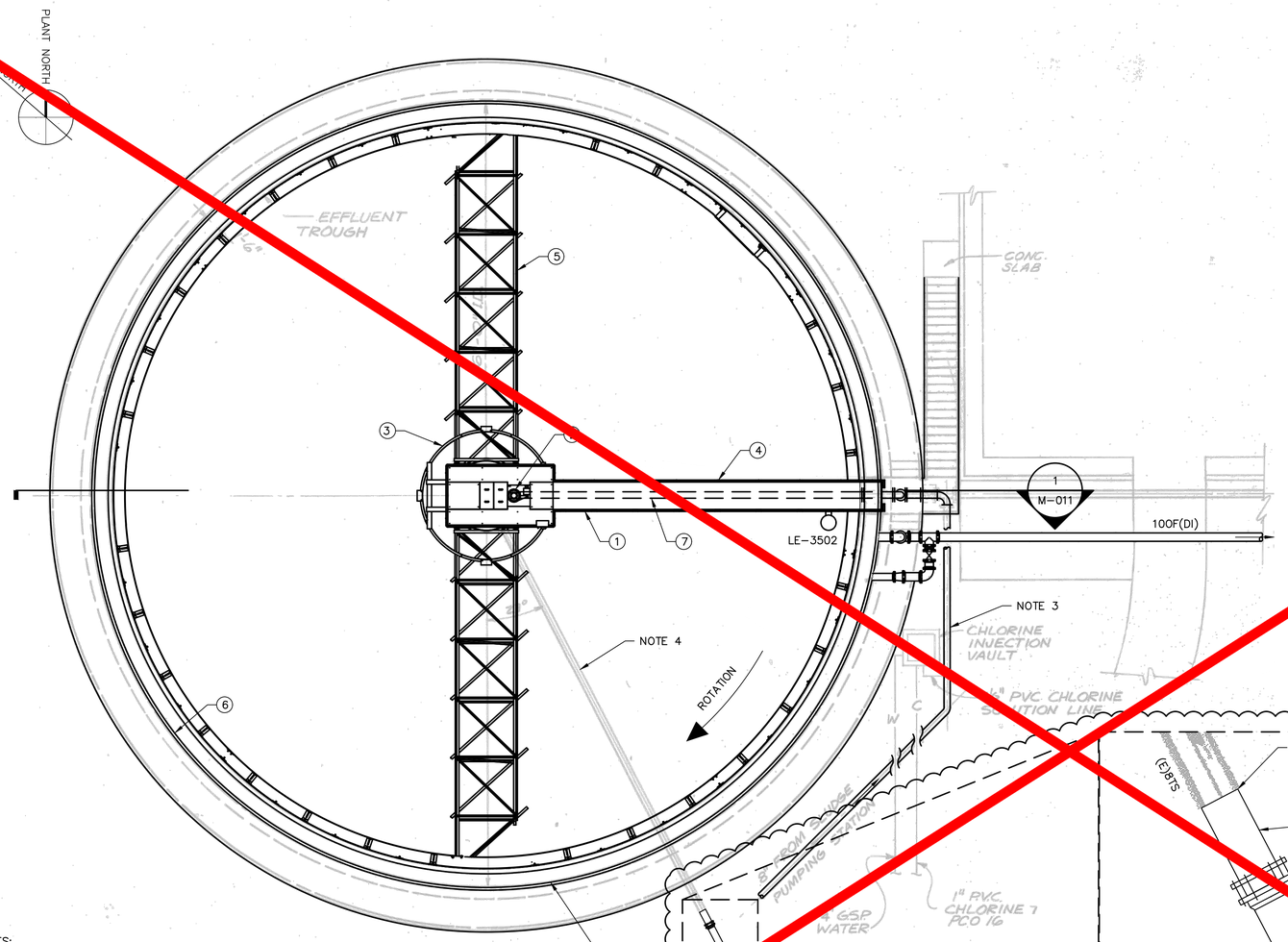
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: AS SHOWN

M-009

SHEET 34 OF 150

User:HDGILES Spec:AUS-NCSM00 File:I:\AUTOCAD\ACAD\PRO\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-009.DWG Scale:1:1 SavedDate:2/27/2019 Time:17:23 Plot Date: Giles, Hamilton, 7/8/2022, 10:18 ; Layout:34



KEYNOTES:

1. 3'–0" WIDE WALKWAY WITH 1–1/4" ALUMINUM GRATING.
2. 80" DRIVE UNIT WITH TORQUE CONTROL DEVICE, 148,000 FT–LBS CONT. RUNNING TORQUE.
3. INFLUENT FEEDWELL.
4. ALUMINUM HANDRAIL WITH TOEBOARD.
5. RAKE ARMS.
6. EFFLUENT TROUGH
7. 8" INFLUENT PIPE

NOTES:

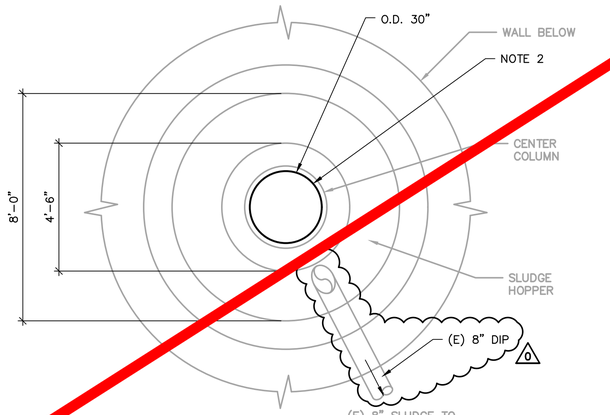
1. CONTRACTOR TO FIELD VERIFY EXISTING TANK DIMENSIONS PRIOR TO FABRICATION OF NEW MECHANISM.
2. NEW CENTER COLUMN TO BE INSTALLED IN THE EXISTING SLUDGE HOPPER. CONTRACTOR TO ENSURE THAT THE NEW COLUMN FITS IN THE EXISTING STRUCTURE.
3. INSTALL NEW 8SL PIPE USING EXISTING 8SL LINE ROUTE.
4. CLEAN EXISTING SL LINE UNDER TANK. CONDUCT CCTV INSPECTION. REUSE EXISTING PIPING IF NO MAJOR DAMAGE IS PRESENT. △0

REFERENCE DRAWING: 3–P–31 (1987 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

SLUDGE HOLDING TANK PLAN

SCALE: 1/8" = 1'–0"

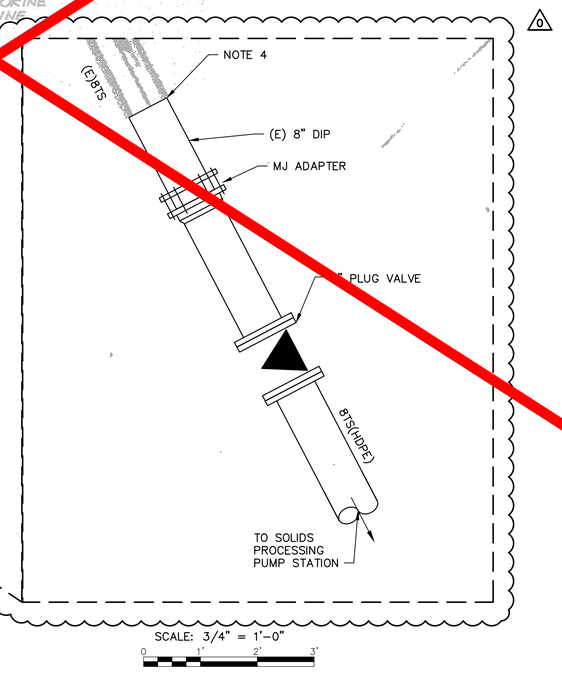
0 4' 8' 16'



PLAN @ ELEVATION 822.0

SCALE: 3/8" = 1'–0"

0 2' 4' 6'



SCALE: 3/4" = 1'–0"

0 1' 2' 3'

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK PLAN

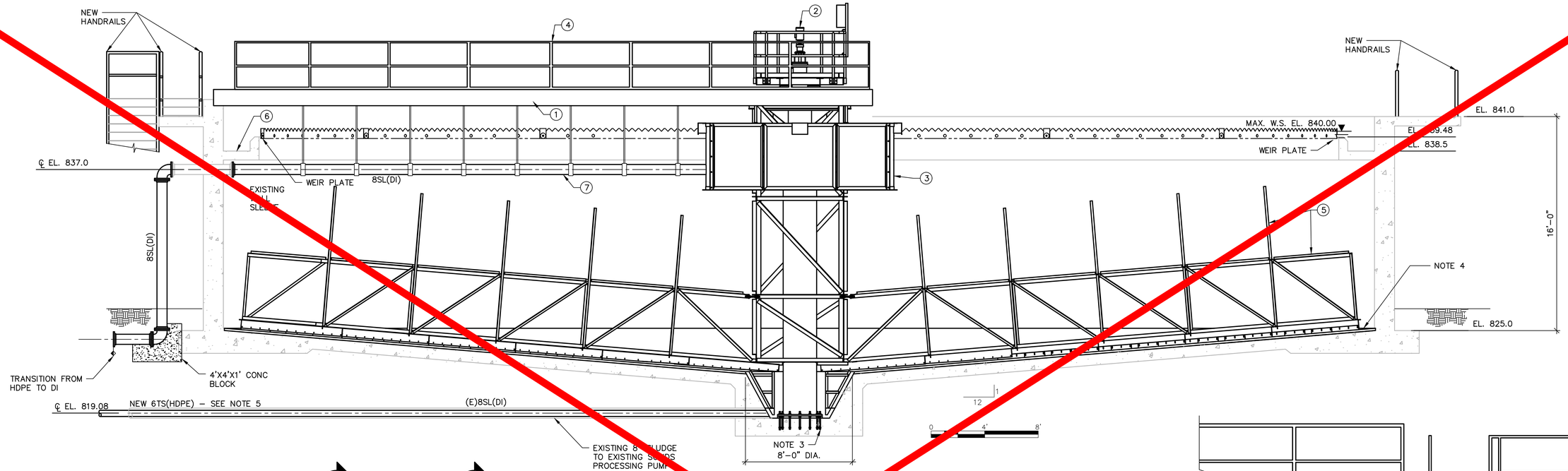
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: R. KUNZ
CHECKED BY: A. SHARP

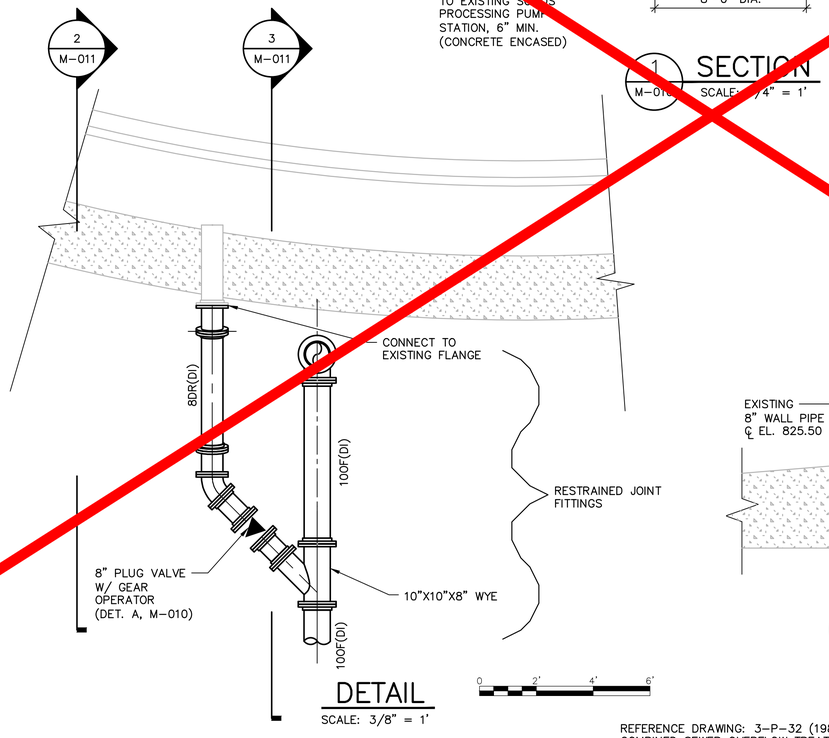
SCALE: AS SHOWN

M–010

SHEET 35 OF 150

User: GILES Spec: AUS–NCSM00 File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–010.DWG Scale:1:1 SavedDate: 7/8/2022 Time:10:30 Plot Date: Giles, Hamilton; 7/8/2022; 11:45 ; Layout:35



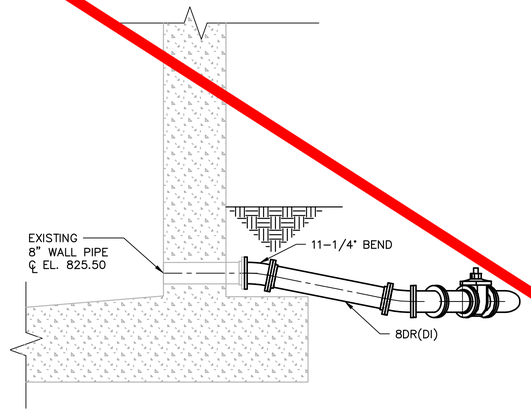


DETAIL

SCALE: 3/8" = 1'

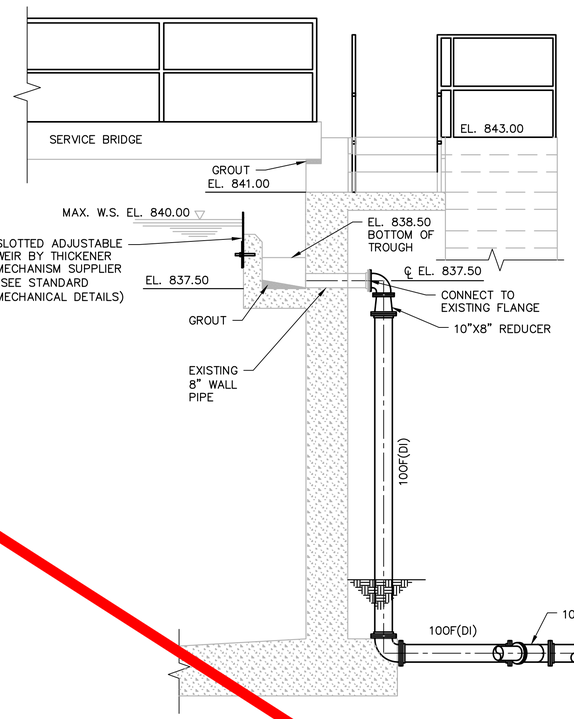
1 SECTION

M-011 SCALE: 1/4" = 1'



2 SECTION

M-011 SCALE: 3/8" = 1'



7 SECTION

M-011 SCALE: 1/4" = 1'

0 2' 4' 8'

KEYNOTES:

1. 3'–0" WIDE WALKWAY WITH 1–1/4" ALUMINUM GRATING.
2. 80" DRIVE UNIT WITH TORQUE CONTROL DEVICE, 148,000 FT–LBS CONT. RUNNING TORQUE.
3. INFLUENT FEEDWELL.
4. ALUMINUM HANDRAIL WITH TOEBOARD.
5. RAKE ARMS.
6. EFFLUENT TROUGH
7. 8" INFLUENT PIPE

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING TANK DIMENSIONS PRIOR TO FABRICATION OF NEW MECHANISM.
2. NEW CENTER COLUMN TO BE INSTALLED IN THE EXISTING SLUDGE HOPPER. CONTRACTOR TO ENSURE THAT THE NEW COLUMN FITS IN THE EXISTING STRUCTURE.
3. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.
4. NEW GROUT TOPPING. REFER TO STRUCTURAL DRAWINGS.
5. EXISTING PIPE TO BE SLIPLINED W/6–INCH HDPE.
6. COAT INTERIOR CONCRETE SURFACES OF TANK, INCLUDING TANK WALL, FLOOR, SLUDGE SUMP, AND OVERFLOW TROUGH UP TO ELEV. 839.48'.

REFERENCE DRAWING: 3–P–32 (1981, INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK SECTIONS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

SCALE: AS SHOWN

M–011

SHEET 36 OF 150

Use Profile: Specs AUS–NCSM0D File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–011.DWG Scale:1:1 SavedDate:6/27/2022 Time:15:01 Plot Date: Giles, Hamilton; 7/8/2022; 10:30 ; Layout:36

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 East Area Water Quality Control Facility Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #2: 8" Thickened Sludge Line @ Sludge Holding Tank

Status	Open		
To	Steve Scarlett City of Atlanta	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Apr 25, 2022	**Due Date**	May 2, 2022
Location		**Project Stage**	Course of Construction
Cost Impact	TBD	**Schedule Impact**	No
Spec Section		**Cost Code**	
Drawing Number	M10	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-02

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Apr 25, 2022 at 12:25 PM EDT*

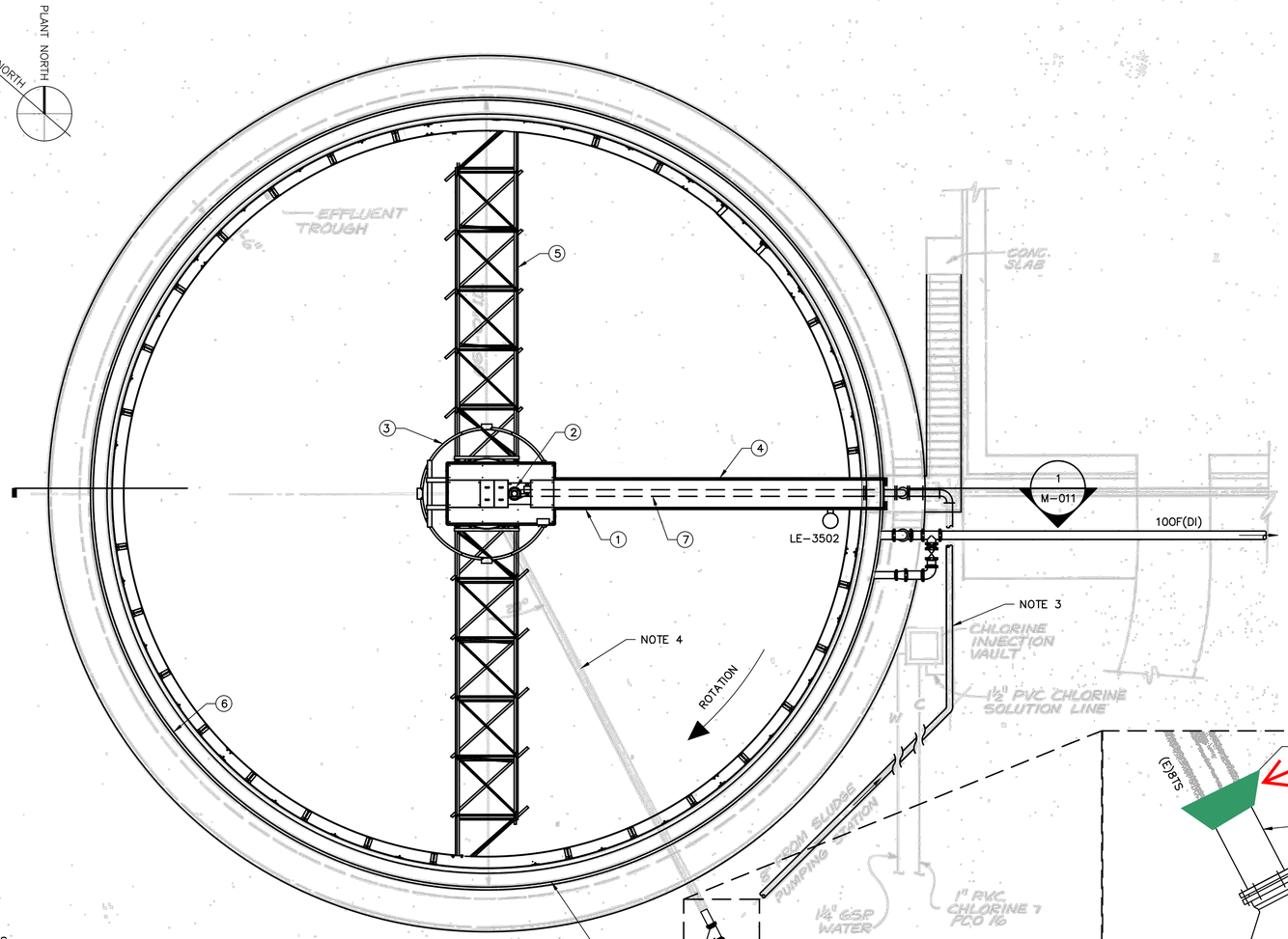
We've jetted and videoed the 8" thickened sludge line under the sludge holding tank. After reviewing the video, we recommend the following:

- Leaving the 8" pipe under the tank as is
- Install a 8" x 6" reducer outside the tank footprint - see sketch
- A credit can be given for the work not performed

Awaiting an Official Response

Response:
The existing 8" line under the sludge holding tank can be left as-is. Alternatively, it is recommended, if the Client approves of the cost to provide an 8" CIPP liner in the 8" pipe under the sludge holding tank.

BY: T. Tittle/D. Wilson Date: 6/20/2022



KEYNOTES:

1. 3'–0" WIDE WALKWAY WITH 1–1/4" ALUMINUM GRATING.
2. 80" DRIVE UNIT WITH TORQUE CONTROL DEVICE, 148,000 FT–LBS CONT. RUNNING TORQUE.
3. INFLUENT FEEDWELL.
4. ALUMINUM HANDRAIL WITH TOEBOARD.
5. RAKE ARMS.
6. EFFLUENT TROUGH
7. 8" INFLUENT PIPE

NOTES:

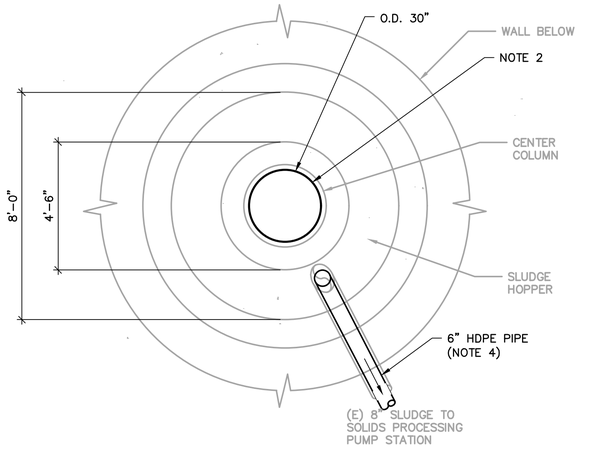
1. CONTRACTOR TO FIELD VERIFY EXISTING TANK DIMENSIONS PRIOR TO FABRICATION OF NEW MECHANISM.
2. NEW CENTER COLUMN TO BE INSTALLED IN THE EXISTING SLUDGE HOPPER. CONTRACTOR TO ENSURE THAT THE NEW COLUMN FITS IN THE EXISTING STRUCTURE.
3. INSTALL NEW 8SL PIPE USING EXISTING 8SL LINE ROUTE.
4. CLEAN EXISTING SL LINE UNDER TANK. CONDUCT CCTV INSPECTION. SLIPLINE EXISTING 8" LINE WITH 6" HDPE, GROUT FILL ANNULAR SPACE.

REFERENCE DRAWING: 3–P–31 (1981, INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

SLUDGE HOLDING TANK PLAN

SCALE: 1/8" = 1'–0"

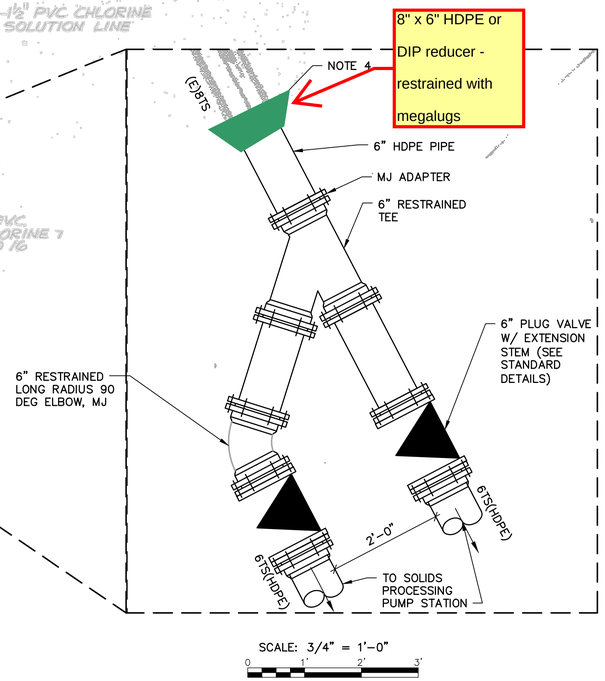
0 4' 8' 16'



PLAN @ ELEVATION 822.0

SCALE: 3/8" = 1'–0"

0 2' 4' 6'



SCALE: 3/4" = 1'–0"

0 1' 2' 3'

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

RFI-02

NO.	DATE	ISSUED FOR	BY
0	JUL 2019	BIDDING	HG

SEALS

GEORGIA REGISTERED P.E. PE011536 PROFESSIONAL ENGINEER HAMILTON DAY GILES

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK PLAN

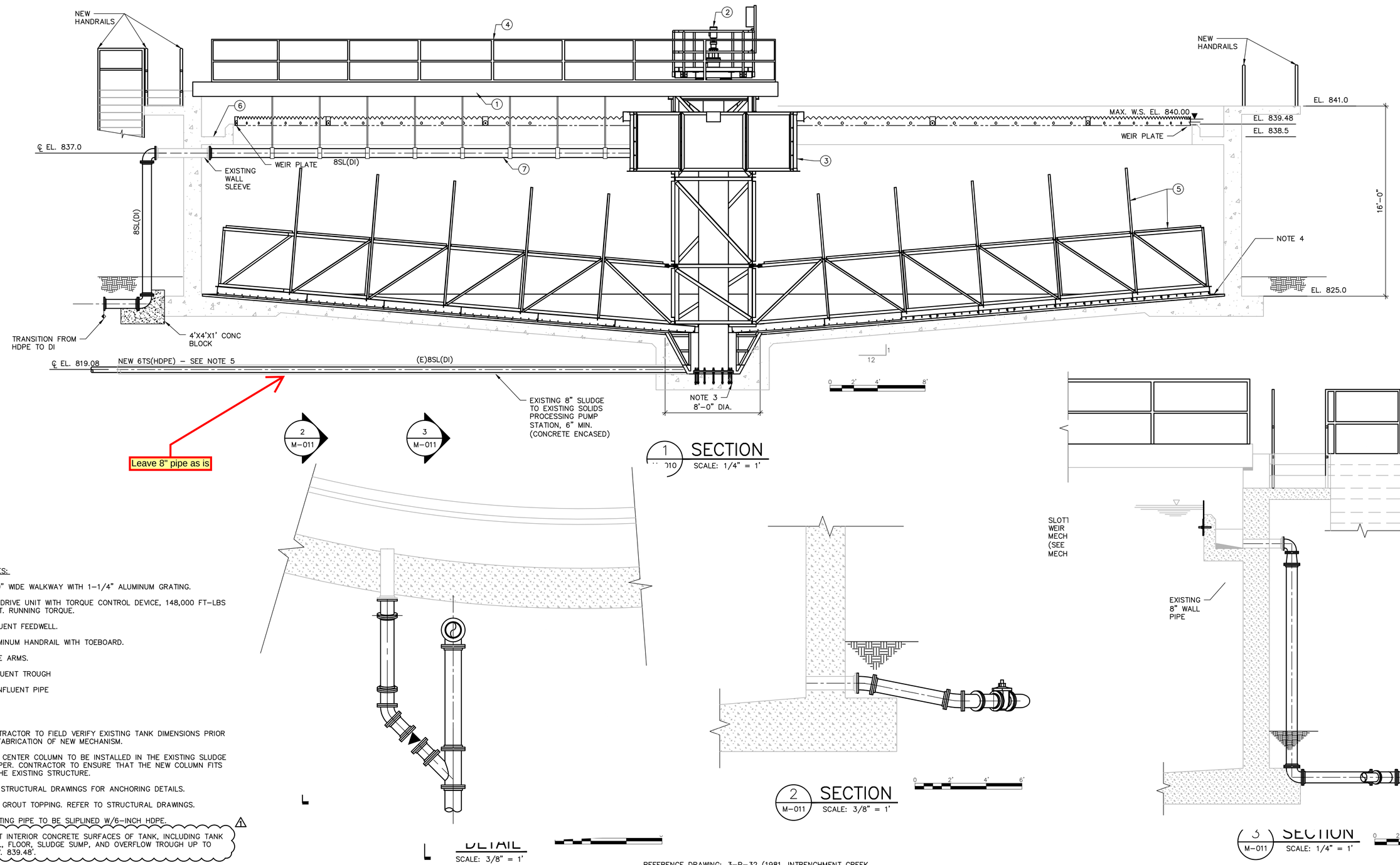
DATE:	JULY 2019
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	R. KUNZ
CHECKED BY:	A. SHARP

SCALE: AS SHOWN

M–010

SHEET 35 OF 150

User: TTHOMAS Spec: AUS–NCSM0D File: I:\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–010.DWG Scale:1:1 SavedDate:2/28/2019 Time:13:59 Plot Date: Thomas, Travis; 7/31/2019; 08:18 ; Layout:35



KEYNOTES:

1. 3'–0" WIDE WALKWAY WITH 1–1/4" ALUMINUM GRATING.
2. 80" DRIVE UNIT WITH TORQUE CONTROL DEVICE, 148,000 FT–LBS CONT. RUNNING TORQUE.
3. INFLUENT FEEDWELL.
4. ALUMINUM HANDRAIL WITH TOEBOARD.
5. RAKE ARMS.
6. EFFLUENT TROUGH
7. 8" INFLUENT PIPE

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING TANK DIMENSIONS PRIOR TO FABRICATION OF NEW MECHANISM.
2. NEW CENTER COLUMN TO BE INSTALLED IN THE EXISTING SLUDGE HOPPER. CONTRACTOR TO ENSURE THAT THE NEW COLUMN FITS IN THE EXISTING STRUCTURE.
3. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.
4. NEW GROUT TOPPING. REFER TO STRUCTURAL DRAWINGS.
5. EXISTING PIPE TO BE SLIPLINED W/6–INCH HDPE.
6. COAT INTERIOR CONCRETE SURFACES OF TANK, INCLUDING TANK WALL, FLOOR, SLUDGE SUMP, AND OVERFLOW TROUGH UP TO ELEV. 839.48'.

REFERENCE DRAWING: 3–P–32 (1981, INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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RFI-02

NO.	DATE	ISSUED FOR	BY
1	APR 2021	UPDATES DURING BID	HG
0	NOV 2020	BIDDING	HG

SEALS

GEORGIA REGISTERED 04-15-2021 No. PE041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK SECTIONS

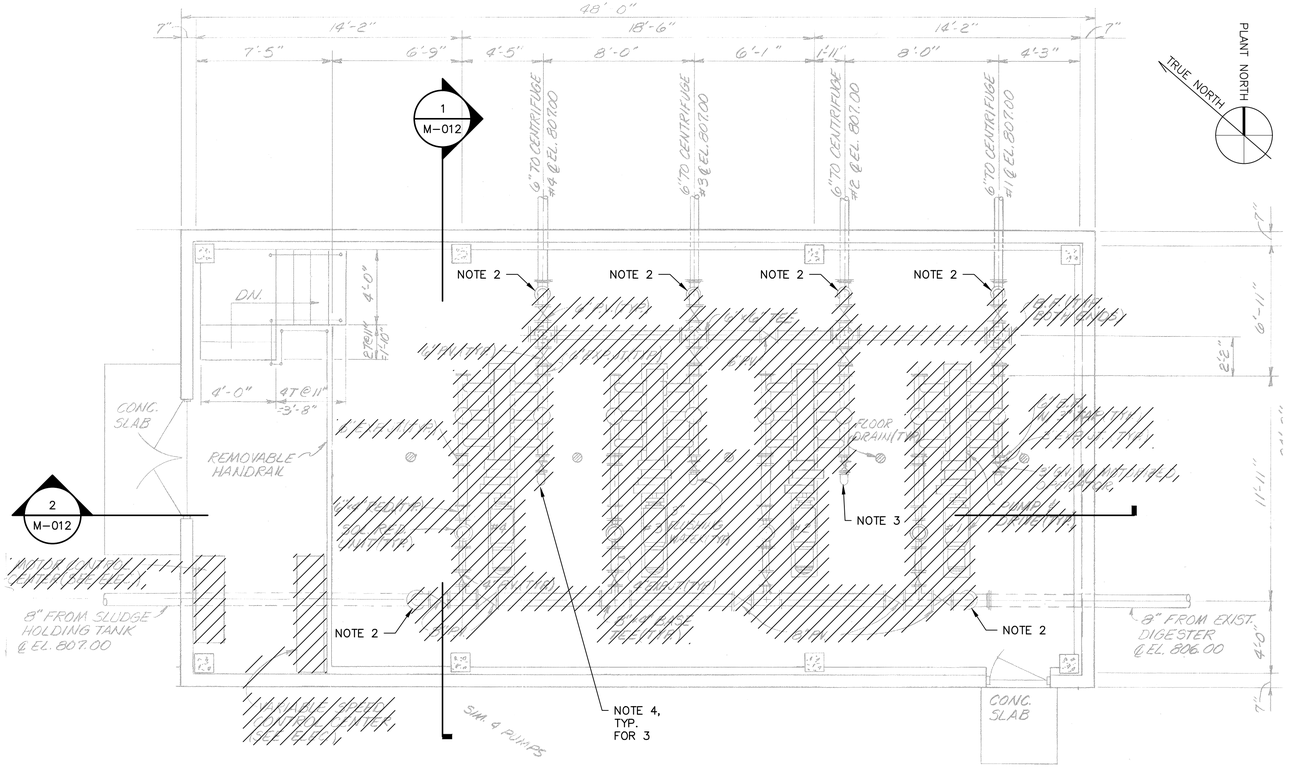
DATE:	NOV 2020
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

SCALE: AS SHOWN

M–011

SHEET 36 OF 150

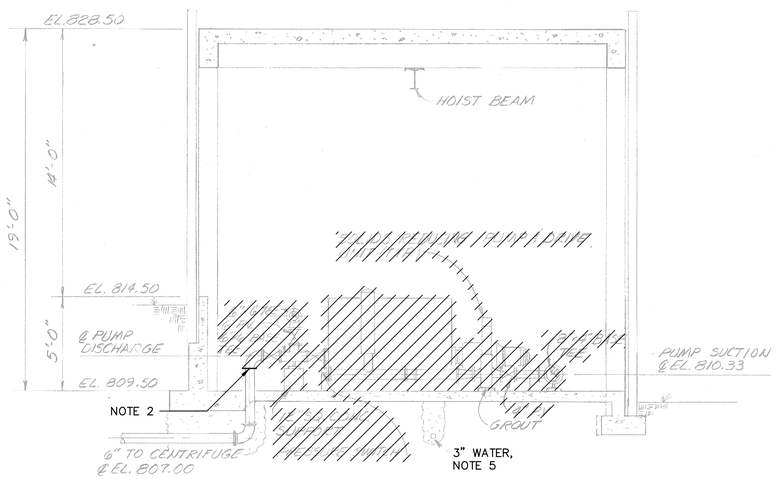
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SOLIDS PROCESSING PUMP STATION PLAN

SCALE: 1/4" = 1'

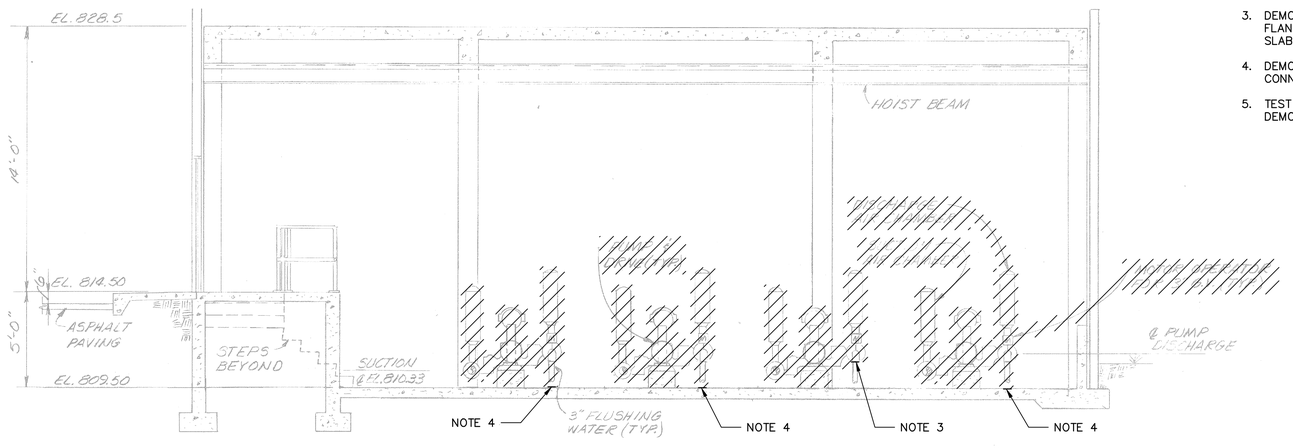
0 2' 4' 8'



1 M-012 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'



2 M-012 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
2. DEMOLISH EXISTING PIPING TO FLANGE ABOVE SLAB.
3. DEMOLISH EXISTING FLUSHING WATER CONNECTION TO FLANGE CONNECTION WITH 3" GATE VALVE ABOVE SLAB.
4. DEMOLISH THE EXISTING 3" FLUSHING WATER CONNECTION TO SLAB AND CAP.
5. TEST EXISTING 3" FLUSHING WATER SYSTEM PRIOR TO DEMOLITION.

REFERENCE DRAWING 3-P-33 (1981 – INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION DEMOLITION PLAN AND SECTIONS

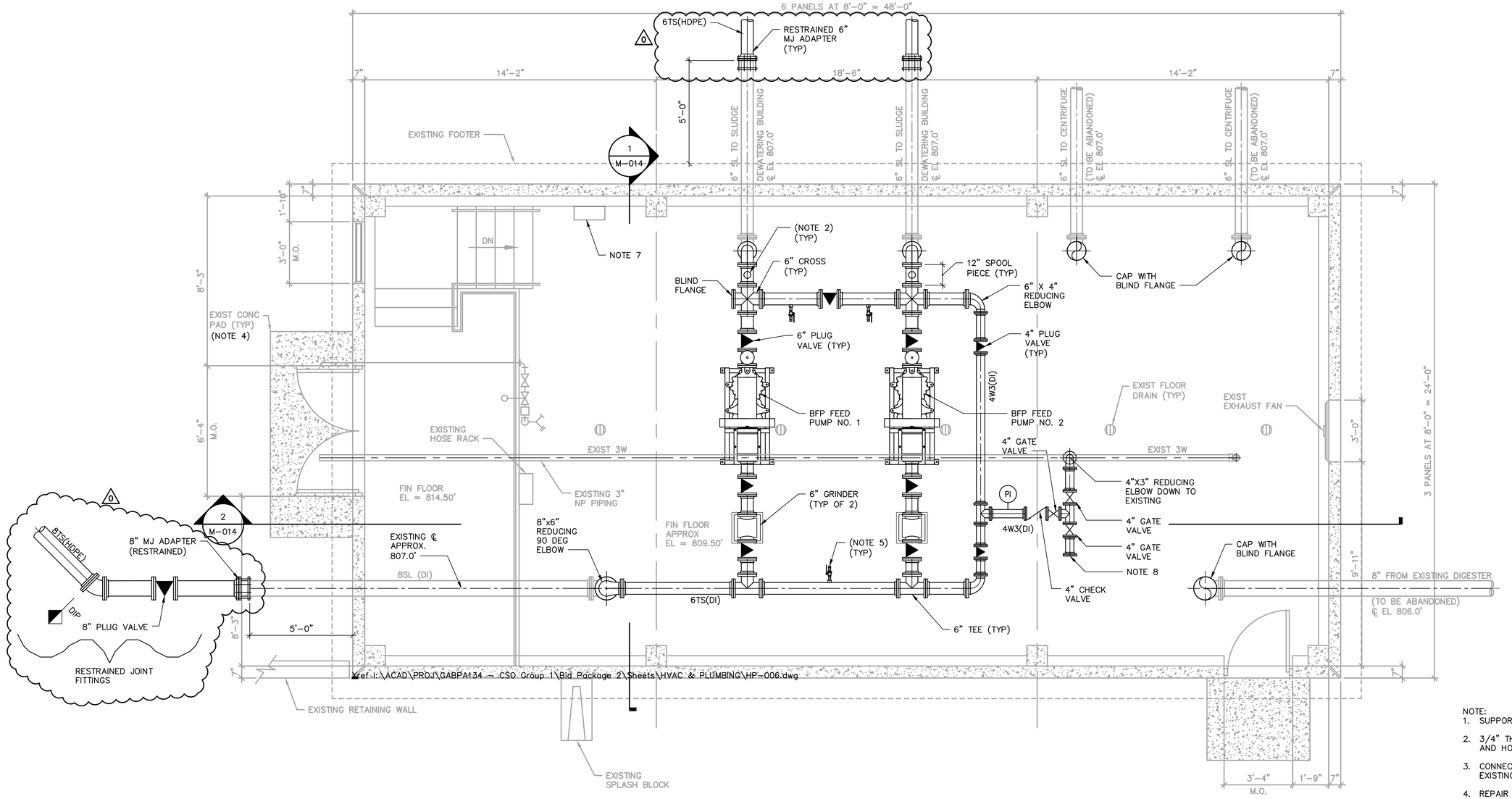
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

SCALE: 1/4" = 1'

M-012

SHEET 37 OF 150

User: HDGILES Sync: AUS-NCSM01 File:\\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-012.DWG Scale:1:1 SavedDate:8/8/2018 Time:11:17 Plot Date: Giles, Hamilton: 7/8/2022, 10:32 : Layout: 37



SOLIDS PROCESSING PUMP STATION PLAN

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

NOTE:
1. SUPPORT ALL PIPING AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. CONNECT NEW 3" FLUSHING WATER PIPE TO EXISTING FLANGED 3" PIPE ABOVE SLAB.
4. REPAIR EXISTING SLAB AND ASSOCIATED GRADING.
5. 3/4" THREADED CONNECTION, 3/4" BALL VALVE, 3/4" NIPPLE AND 3/4" QUICK COUPLING IN 316 SS.
6. PLUG VALVE STEMS TO BE MOUNTED HORIZONTALLY.
7. PROVIDE PORTABLE EYEWASH STATION MOUNTED TO WALL. STATION SHALL BE PORTA STREAM II OR APPROVED EQUAL.
8. BLIND FLANGE FOR FUTURE PLANT WATER CONNECTION.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

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

M-013

SHEET 38 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-013.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:47 Plot Date: Giles, Hamilton: 7/8/2022; 11:49 ; Layout:38

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #31: Solids Proc PS underground water line

Status	Open		
To	**Scott Miller - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jun 13, 2023	**Due Date**	Jun 20, 2023
Location		**Project Stage**	Course of Construction
Cost Impact		**Schedule Impact**	TBD
Spec Section		**Cost Code**	
Drawing Number	m-13	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-31

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Tuesday, Jun 13, 2023 at 10:09 AM EDT*

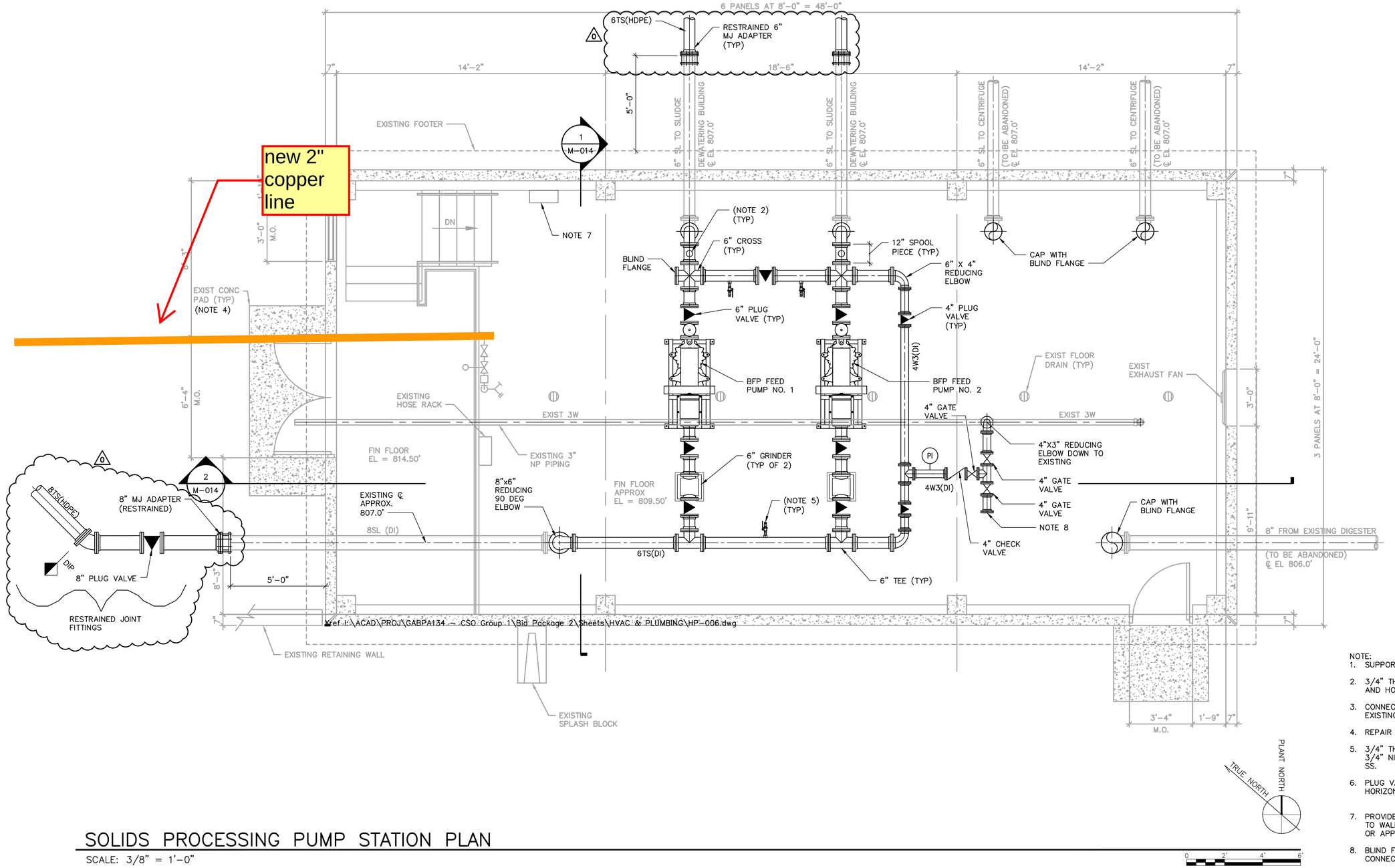
The existing water line feeding the solids proc. pump station had multiple holes in it. We propose installing a new 2" copper line from the existing valve into the building. The line can be up sized to 4" once exposed in the building.

Awaiting an Official Response

Answer **From Hamilton Giles Arcadis** *on Thursday, June 15, 2023 at 1:24 PM EDT*

Proceed with installation of new water line. Provide largest line size that will fit through the opening.

User:HDGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-013.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:47 Plot Date: Giles, Hamilton; 7/8/2022; 11:49 ; Layout:38



SOLIDS PROCESSING PUMP STATION PLAN

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

NOTE:
1. SUPPORT ALL PIPING AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. CONNECT NEW 3" FLUSHING WATER PIPE TO EXISTING FLANGED 3" PIPE ABOVE SLAB.
4. REPAIR EXISTING SLAB AND ASSOCIATED GRADING.
5. 3/4" THREADED CONNECTION, 3/4" BALL VALVE, 3/4" NIPPLE AND 3/4" QUICK COUPLING IN 316 SS.
6. PLUG VALVE STEMS TO BE MOUNTED HORIZONTALLY.
7. PROVIDE PORTABLE EYEWASH STATION MOUNTED TO WALL. STATION SHALL BE PORTA STREAM II OR APPROVED EQUAL.
8. BLIND FLANGE FOR FUTURE PLANT WATER CONNECTION.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

RFI-31

SEALS

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

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

M-013

SHEET 38 OF 150

Solids Processing Pump Station

we can get a 2" line thru this existing hole

new 2" copper line

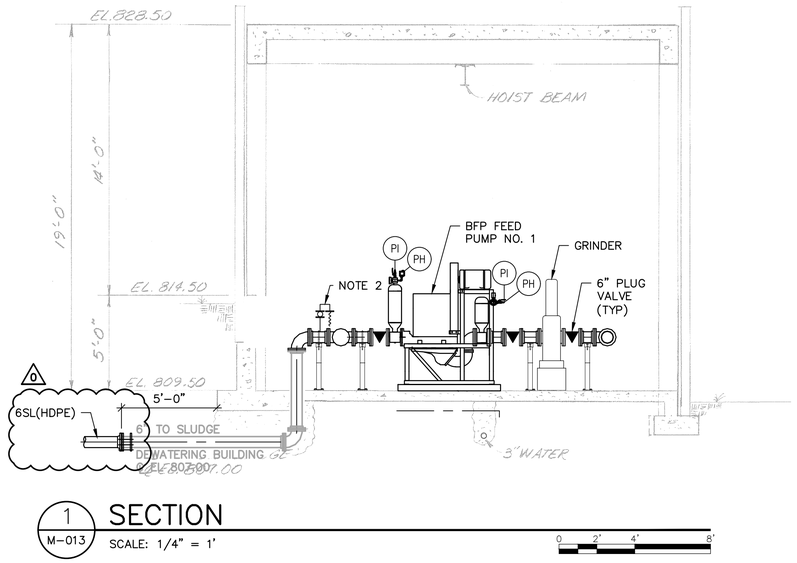
new 2" valve, valve stem, and valve box

existing 3" threaded - it is in operation - we will leave it open and abandon it in place - left opened

RFI-31

3" existing valve threaded, it is in operation and is closed

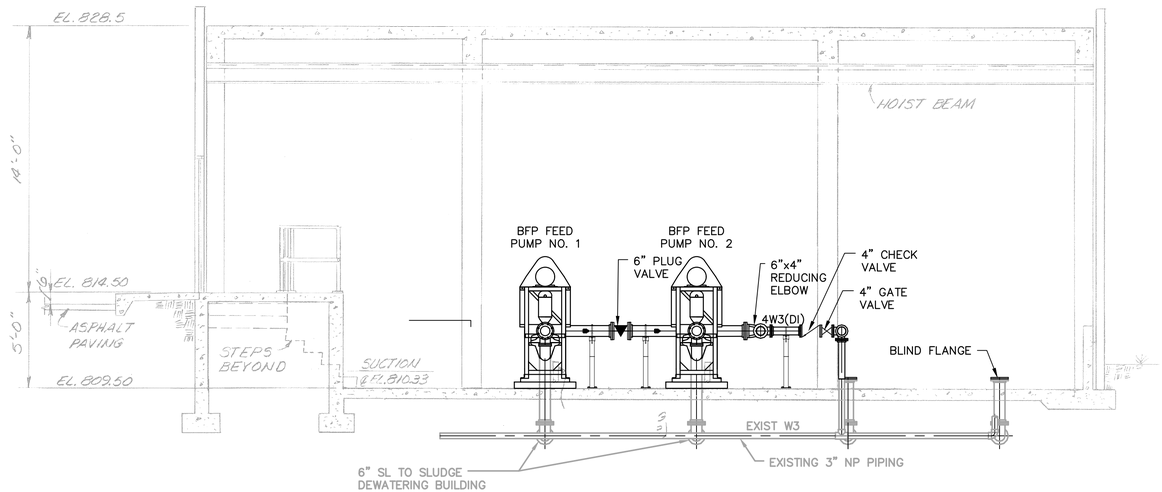
RFI-31



1 / M-013 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'



2 / M-013 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'

LIST OF REFURBISHMENT ACTIVITIES

WORK ITEM	DESCRIPTION	NOTES
G1	CLEAN BUILDING INTERIOR	SEE SPEC SECTION 09900, PAINTING
G2	REPAINT ALL WALLS	SEE SPEC SECTION 09900, PAINTING
G3	REPAIR VISIBLE CRACKS IN CONCRETE FLOORS AND WALLS. SEAL ALL CONCRETE JOINTS.	
M1	CLEAN ALL EXISTING FLOOR DRAIN LINES ALL THE WAY TO TRICKLING FILTER EFFLUENT CHANNEL DISCHARGE. REPLACE ALL FLOOR DRAINS.	
M2	CLEAN GRIT AND SLUDGE FROM INTERIOR OF EXISTING SLUDGE PIPING	
M3	CLEAN EXTERIOR OF EXISTING METAL PIPING TO REMOVE PAINT	SEE SPEC SECTION 09900, PAINTING
M4	TEST ALL EXISTING WATER PIPING (W1, W2, AND W3) AND HOSE BIBBS	
M5	MANUFACTURER'S REPRESENTATIVE TO INSPECT AND REPAIR EXISTING HOIST. MFG IS SHAW BOX/DRESSER, CAPACITY 2-TONS.	

NOTES:
1. MOUNT PUMP FRAMES TO EQUIPMENT PAD WITH MANUFACTURER RECOMMENDED ANCHOR BOLTS. SHIM AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. PROVIDE RIGID PIPE SUPPORTS FOR PUMP SUCTION AND DISCHARGE PIPING.
4. PROVIDE SUPPORTS FOR FLUSHING WATER PIPING.
5. COST OF CRACK AND JOINT REPAIR SHALL BE PAID FROM ALLOWANCE 3.3, UNFORESEEN CONDITIONS.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION SECTIONS AND DETAILS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

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

M-014

SHEET 39 OF 150

User: HDGILES Sync: AUS-NCSMOD File: I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-014.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:34 Plot Date: Giles, Hamilton; 7/8/2022; 10:39 ; Layout:39

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F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
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atlanta, Georgia 30318
P: 404-355-3976

RFI #22: Solids Processing Pump Station Water Line Modifications

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 28, 2022	**Due Date**	Jan 4, 2023
Location		**Project Stage**	Course of Construction
Cost Impact	TBD	**Schedule Impact**	TBD
Spec Section		**Cost Code**	
Drawing Number	M13 & M14	**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-22

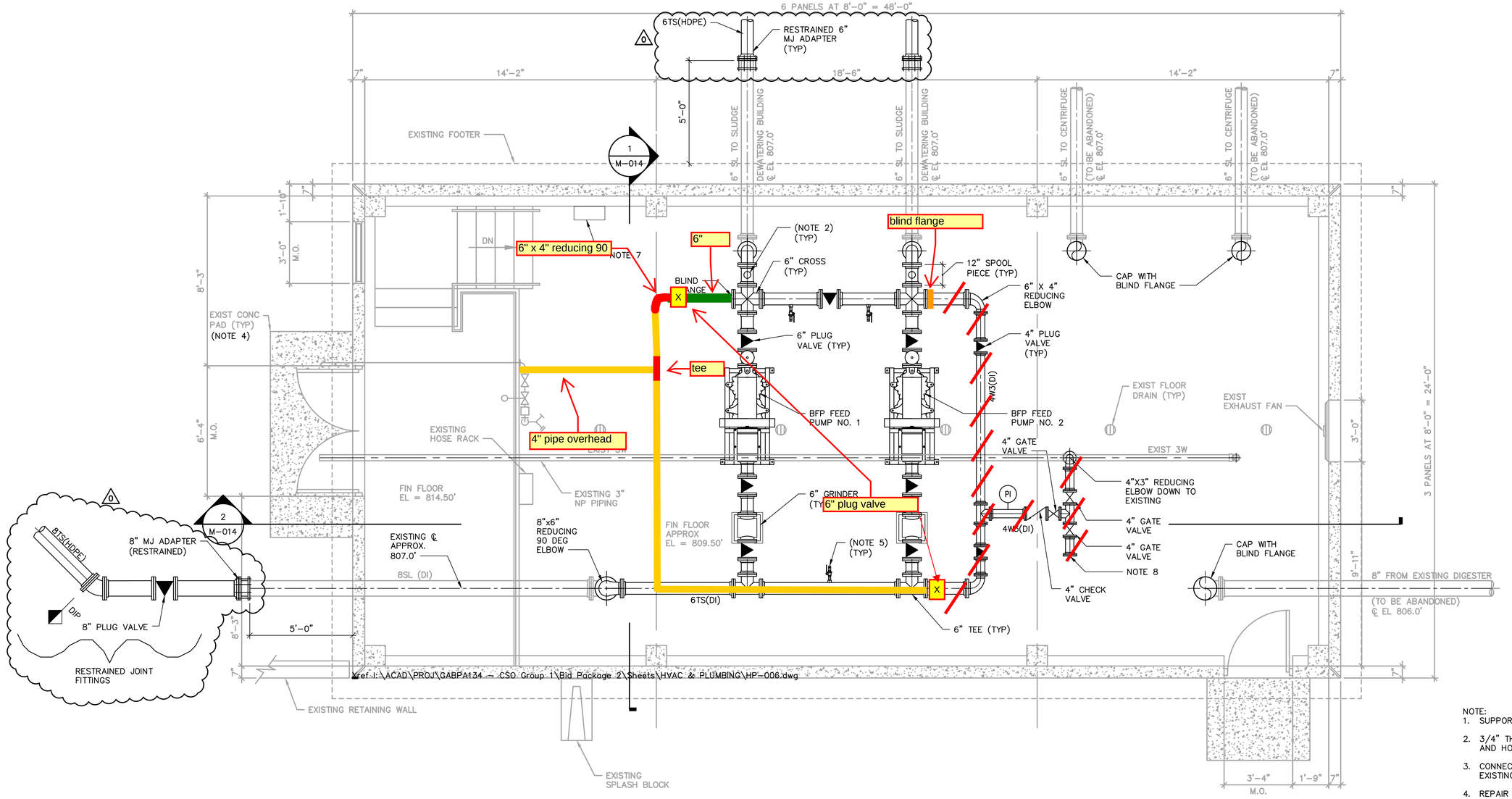
Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Wednesday, Dec 28, 2022 at 10:44 AM EST*

The existing W3 water line shown under the slab on M13 & M14 was not in satisfactory condition and was demoed with the modifications to the floor. We can install new water lines per the attached sketch. Please advise. Note any increase or decrease in price will be determined after final designs are complete. Please advise.

Awaiting an Official Response



NOTE:
1. SUPPORT ALL PIPING AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. CONNECT NEW 3" FLUSHING WATER PIPE TO EXISTING FLANGED 3" PIPE ABOVE SLAB.
4. REPAIR EXISTING SLAB AND ASSOCIATED GRADING.
5. 3/4" THREADED CONNECTION, 3/4" BALL VALVE, 3/4" NIPPLE AND 3/4" QUICK COUPLING IN 316 SS.
6. PLUG VALVE STEMS TO BE MOUNTED HORIZONTALLY.
7. PROVIDE PORTABLE EYEWASH STATION MOUNTED TO WALL. STATION SHALL BE PORTA STREAM II OR APPROVED EQUAL.
8. BLIND FLANGE FOR FUTURE PLANT WATER CONNECTION.

SOLIDS PROCESSING PUMP STATION PLAN

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

User:HDGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-013.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:47 Plot Date: Giles, Hamilton: 7/8/2022; 11:49 ; Layout:38

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Fax: 770-435-2666
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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

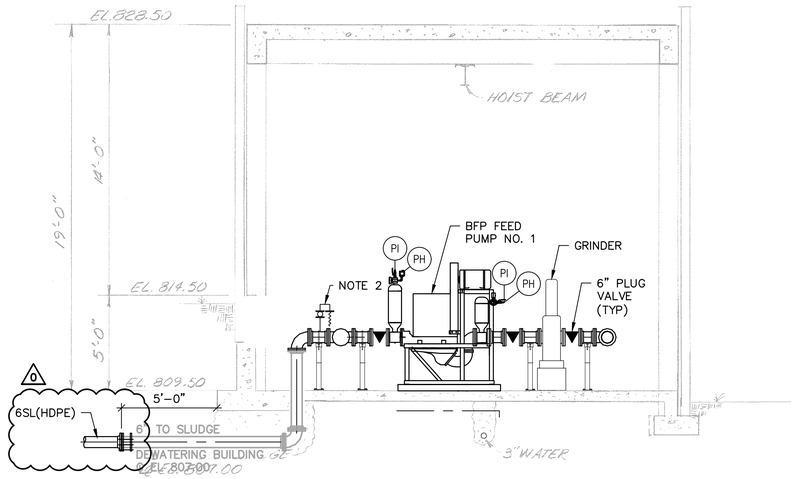
SOLIDS PROCESSING PUMP STATION PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

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

M-013

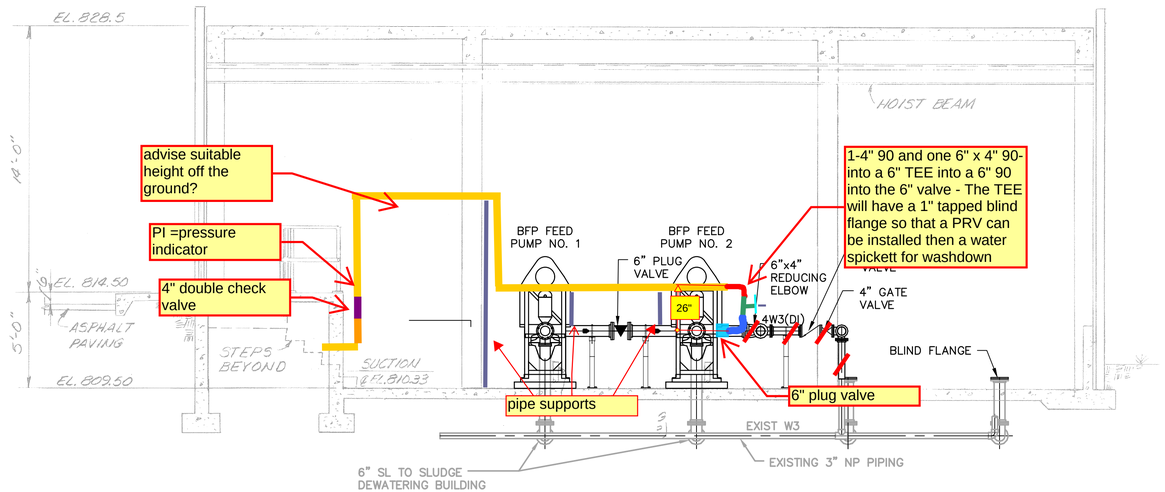
SHEET 38 OF 150



1 M-013 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'



2 M-013 SECTION

SCALE: 1/4" = 1'

0 2' 4' 8'

LIST OF REFURBISHMENT ACTIVITIES

WORK ITEM	DESCRIPTION	NOTES
G1	CLEAN BUILDING INTERIOR	SEE SPEC SECTION 09900, PAINTING
G2	REPAINT ALL WALLS	SEE SPEC SECTION 09900, PAINTING
G3	REPAIR VISIBLE CRACKS IN CONCRETE FLOORS AND WALLS. SEAL ALL CONCRETE JOINTS.	
M1	CLEAN ALL EXISTING FLOOR DRAIN LINES ALL THE WAY TO TRICKLING FILTER EFFLUENT CHANNEL DISCHARGE. REPLACE ALL FLOOR DRAINS.	
M2	CLEAN GRIT AND SLUDGE FROM INTERIOR OF EXISTING SLUDGE PIPING	
M3	CLEAN EXTERIOR OF EXISTING METAL PIPING TO REMOVE PAINT	SEE SPEC SECTION 09900, PAINTING
M4	TEST ALL EXISTING WATER PIPING (W1, W2, AND W3) AND HOSE BIBBS	
M5	MANUFACTURER'S REPRESENTATIVE TO INSPECT AND REPAIR EXISTING HOIST. MFG IS SHAW BOX/DRESSER, CAPACITY 2-TONS.	

NOTES:
1. MOUNT PUMP FRAMES TO EQUIPMENT PAD WITH MANUFACTURER RECOMMENDED ANCHOR BOLTS. SHIM AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. PROVIDE RIGID PIPE SUPPORTS FOR PUMP SUCTION AND DISCHARGE PIPING.
4. PROVIDE SUPPORTS FOR FLUSHING WATER PIPING.
5. COST OF CRACK AND JOINT REPAIR SHALL BE PAID FROM ALLOWANCE 3.3, UNFORESEEN CONDITIONS.

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2022

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RFI-22

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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RESURGENS 1847 ATLANTA,GA 1961

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION SECTIONS AND DETAILS

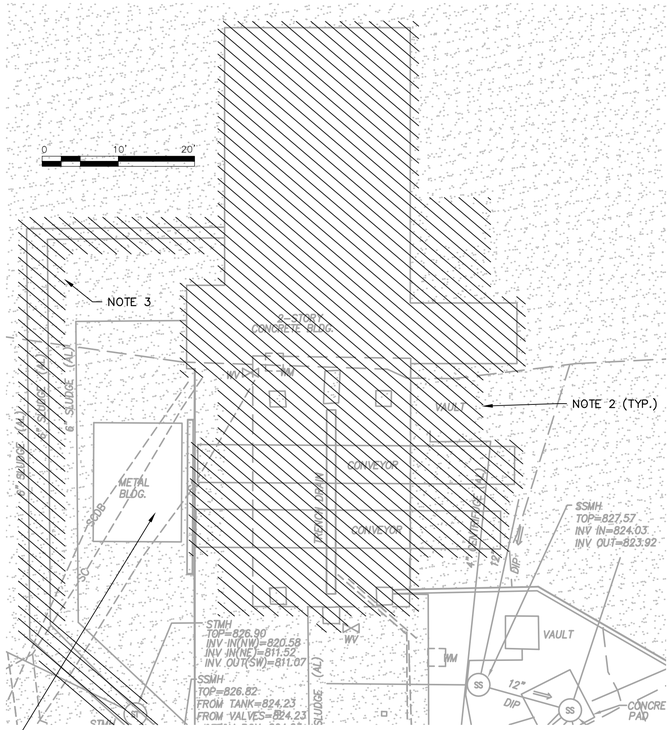
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

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

M-014

SHEET 39 OF 150

User:HDGILES Spec:AUS-NCSMOD File:\\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-014.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:34 Plot Date: Giles, Hamilton; 7/8/2022; 10:39 ; Layout:39



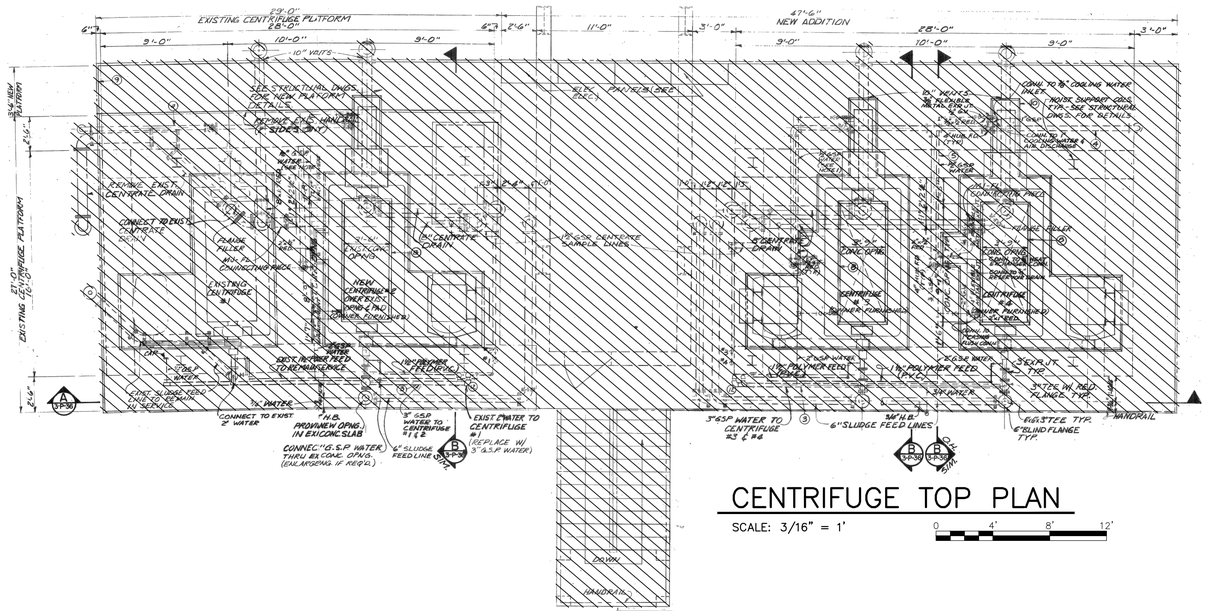


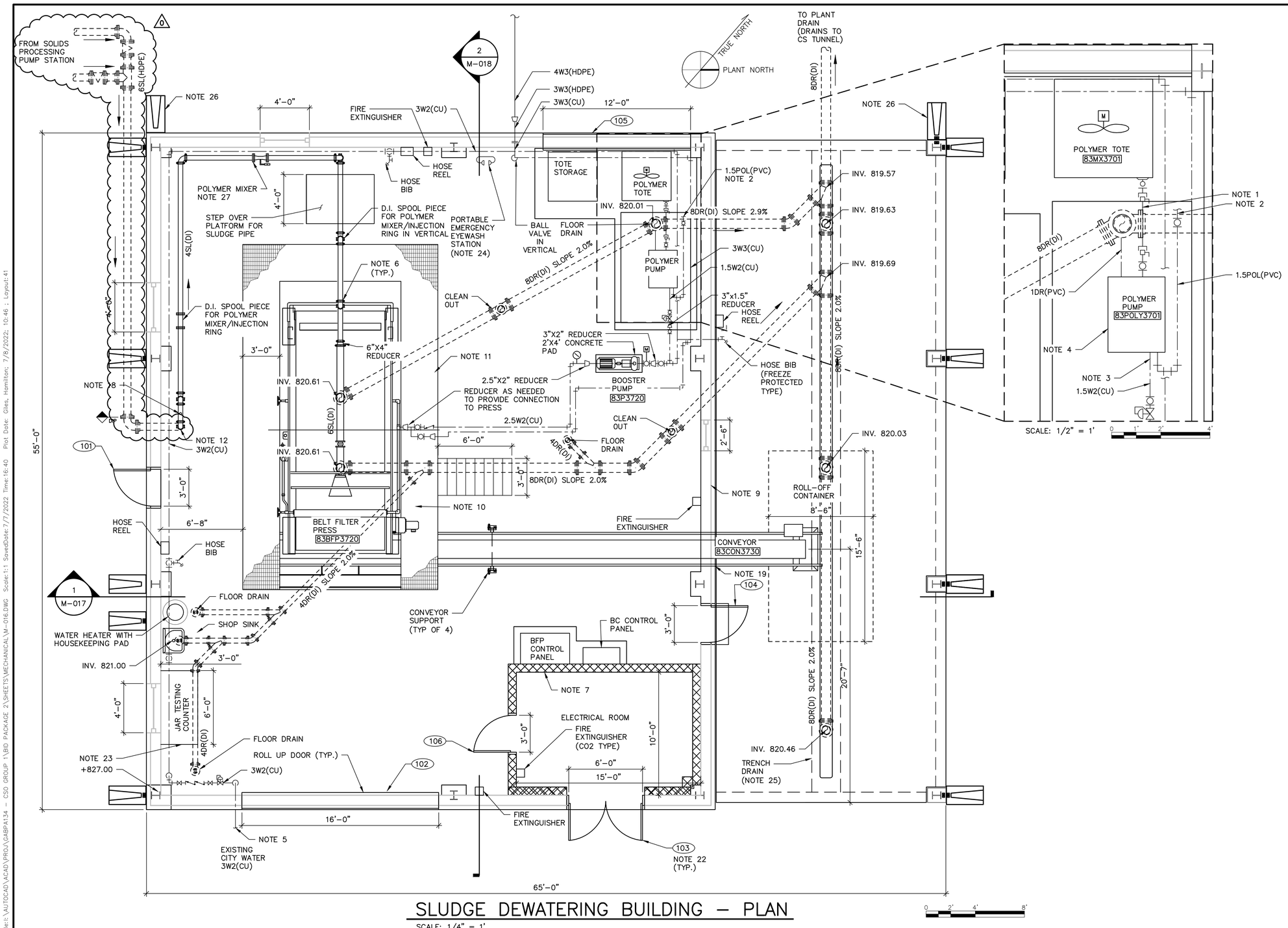
RELOCATE METAL BUILDING AND ROLL-OFF CONTAINERS (CONTRACTORS TO COORDINATE W/ PLANT STAFF FOR THE NEW LOCATION.)(NOTE 6)

NOTES:

1. DEMOLISH EXISTING CENTRIFUGE STRUCTURE AND FOUNDATION SUPPORTS.
2. DEMOLISH & FILL EXISTING VAULTS & BOXES LOCATED BENEATH PROPOSED SLUDGE DEWATERING BUILDING FOOTPRINT.
3. DEMOLISH AS NOTED ON CIVIL DRAWINGS.
4. CONTRACTOR TO COORDINATE WITH CITY DURING DEMOLITION AND SALVAGE EQUIPMENT AS REQUESTED BY THE CITY.
5. CONTRACTOR TO COORDINATE AND EXECUTE REROUTE OF EXISTING CABLE CURRENTLY RUNNING ACROSS PLATFORM FRAME WITH PLANT STAFF.
6. EXISTING CONTAINERS & BUILDING TO BE MOVED BY CONTRACTOR, TO LOCATION ON SITE, SUITABLE TO THE CITY.
7. HOIST ON CENTRIFUGE PLATFORM IS NOT OPERATIONAL AND CANNOT BE USED DURING CONSTRUCTION.

REFERENCE DRAWINGS: 3-P-34, 3-P-35 AND 3-P-36 (INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY, 1981)


EXISTING CENTRIFUGE PLATFORM
28'-0"
47'-6"
NEW ADDITION
SEE STRUCTURAL DWGS. FOR NEW PLATFORM DETAILS
DECK EXT. HANDRAIL ON 3 SIDES (TYP.)
RELOCATE EXIST. CENTRATE DRAIN
CONNECT TO EXIST. CENTRATE DRAIN
EXISTING CENTRIFUGE #1
NEW CENTRIFUGE #2 (OWNER FURNISHED)
EXIST. SLUDGE FEED LINE TO REMAIN IN SERVICE
CONNECT TO EXIST 2" WATER
EXIST. WATER TO CENTRIFUGE #1 & #2
EXIST WATER TO CENTRIFUGE #1 & #2 (REPLACE W/ 3" G.S.P. IF WATER)
CONNECT G.S.P. WATER THRU EX. CONC. OPNG. (CORE DRILL IF REQ'D.)
6" SLUDGE FEED LINE TO #2
EXIST. CENTRIFUGE #3
EXIST. CENTRIFUGE #4
NEW CENTRIFUGE #3 (OWNER FURNISHED)
NEW CENTRIFUGE #4 (OWNER FURNISHED)
HOIST SUPPORT COLUMN SEE STRUCTURAL DWGS.
CONNECT TO EXIST. HANDRAIL
BELT GUARD
HANDRAIL
3"GSP WATER TO CENTRIFUGE #3 & #4
6"SLUDGE FEED LINES
4"W.U.D.
3"STEEL W/ RED FLANGE, TYP.
6"DIA. STEEL BLIND FLANGE TYP.
3" WATER
1½" POLYMER FEED
2" GSP WATER
1½" POLYMER FEED
3" GSP WATER
3" GSP WATER
3" GSP WATER



SLUDGE DEWATERING BUILDING – PLAN

SCALE: 1/4" = 1'

NOTES:

1. PROVIDE 1" HOSE (KANAFLEX 110CL OR APPROVED EQUAL) OF SUFFICIENT LENGTH FOR TOTE. COORDINATE LOCATIONS WITH OWNER. PROVIDE CONNECTION TO TOTE VALVE AS REQUIRED BY TOTE MANUFACTURER. INCLUDE ANY PIPE AND FITTINGS NECESSARY TO PROVIDE A QUICK CONNECT END CONNECTION.
2. ROUTE POL–PVC PIPES TO THE LOCATIONS REQUIRED FOR POLYMER MIXER/INJECTION RINGS. THE FINAL LOCATIONS FOR POLYMER INJECTION TO BE DETERMINED DURING START–UP AND TESTING.
3. PROVIDE FITTINGS NECESSARY TO MAKE UP CONNECTIONS TO POLYMER PUMP SYSTEMS.
4. PACKAGED POLYMER SYSTEM (INCLUDING PUMP) TO BE PROVIDED ON SKID BY VENDOR.
5. CONTRACTOR TO CONNECT TO EXISTING CITY WATER SYSTEM. FIELD VERIFY & ADJUST ROUTING AS NEEDED.
6. FOR ALL INTERIOR ABOVE GROUND SL PIPE CONNECTIONS USE GROOVED JOINT COUPLINGS AS INDICATED.
7. CMU WALLS.
8. BELT FILTER PRESS VENDOR TO PACKAGE PRESS, MOTOR, BOOSTER PUMP, PLATFORM, CONTROL PANEL AND POLYMER MIXER.
9. BASE 30" OF PERIMETER WALL IS CONCRETE.
10. PROVIDE 36" CLEARANCE ON WALKWAY AROUND BELT FILTER PRESS.
11. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
12. MATERIAL TRANSITIONS FROM HDPE BELOW GRADE TO DI ABOVE GRADE/SLAB.
13. PROVIDE A MINIMUM OF 2 INCHES BETWEEN TOP OF LOAD SKIRT AND BELT PRESS DISCHARGE POINT
14. FIELD LOCATE PIPING. COORDINATE LOCATION OF TIE–INS WITH BELT PRESS SUPPLIER. PROVIDE 3 INCH EQUIPMENT PAD FOR THE NEW BOOSTER PUMPS.
15. ALL POLYMER SOLUTION VALVES SHALL BE TRUE UNION PVC BALL VALVES UNLESS NOTED OTHERWISE.
16. ALL PIPING TO BE SUPPORTED PER THE SPECIFICATIONS.
17. ALL CHEMICAL SOLUTION PIPING TO BE SCH. 80 PVC UNLESS NOTED OTHERWISE.
18. PROVIDE 1" 316SS BALL VALVE WITH EXTENSION LEVER. HARD PIPE DISCHARGE WITH PVC SCH 80. TO 3–FT ABOVE FLOOR, AND RUBBER HOSE TO 1–FT ABOVE FLOOR.
19. PROVIDE WALL OPENING AS REQ'D IN WALL TO ALLOW CONVEYOR AND FRAME TO PASS. REINFORCE OPENING AS REQ'D. PROVIDE WEATHER STRIPS, FLEXIBLE CLEAR TYPE AT WALL OPENING TO PREVENT WIND AND RAIN FROM ENTERING BUILDING. OPENING SHALL BE TRIMMED WITH ALUMINUM SLEEVE AND INTERIOR AND EXTERIOR FLASHING.
20. LOCATION OF PIPE AS SHOWN MAY BE SUBJECT TO CHANGE BASED ON BELT PRESS SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PIPING WITH ENGINEER AND SUPPLIER AT NO ADDITIONAL COST TO THE OWNER.
21. COORDINATE EXACT FAN OPENINGS REQ'D WITH FAN SUPPLIER.
22. FOR DOOR SCHEDULES, REFERENCE SHEET S–015.
23. COUNTER TO BE HAMILTON SCIENTIFIC LABORATORY TABLE – MODULAR STEEL OR EQUAL.
24. CONTRACTOR TO PROVIDE PORTABLE EYEWASH STATION AND ASSOCIATED MOUNTING. EYEWASH STATION SHALL BE A PORTASTREAM II EYEWASH STATION OR APPROVED EQUAL.
25. REMOVABLE GRATING TO BE INSTALLED OVER TRENCH DRAIN.
26. ROUTE ROOF DRAINS AT THESE LOCATIONS TO DISCHARGE TO THE PLANT WEST SIDE OF THE SLUDGE DEWATERING BUILDING.
27. PROVIDE FLANGE JOINTS FOR POLYMER MIXER UNITS.
28. INSULATE EXPOSED SL, W2, AND W3 LINES WITHIN BUILDING.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL 7-8-22 HAMILTON DAY GILES ENGINEER

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	C. MARTINI
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M–016

SHEET 41 OF 150

User:HGILES Spec:AUS–NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–016.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:40 Plot Date: Giles, Hamilton; 7/8/2022; 10:46 ; Layout:41

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F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #20: Sludge Dewatering Building Water Lines

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 1, 2022	**Due Date**	Dec 8, 2022
Location		**Project Stage**	
Cost Impact	Yes (Unknown)	**Schedule Impact**	TBD
Spec Section		**Cost Code**	
Drawing Number	M-016	**Reference**	RFI-20
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Thursday, Dec 1, 2022 at 10:51 AM EST*

see the proposed routing on the potable water lines and new valves and actual field conditions.

The belt press manufacturer has asked what pressure the supply line for the booster pump will be?
Please advise the routing and source for this line as the plant doesn't have W3 water as shown on M-16?

Attachments
RFI 20 sludge dewatering building water lines.pdf

Awaiting an Official Response

Answer

Route shown on attached C-011 for W2 building supply is acceptable.

Install 3" copper W3 lines through building slab for later use. Terminate outside building with gate valve in buried valve box just beyond extent of sidewalk. Terminate inside the building using a loose copper sweat cap with top of pipe at 6" above FFEL. Provide credit estimate for interior and exterior piping that will not be installed. See markups on attached C-011 & M-016.

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. REPLACE TWO (2) EXISTING SLUDGE LINES CONNECTING PROPOSED SLUDGE DEWATERING BUILDING TO EXISTING SOLIDS PROCESSING PUMP STATION WITH TWO (2) NEW 6" SLUDGE LINES.
3. DEMOLISH AND FILL EXISTING VALVE AND METER VAULTS (SIZES UNKNOWN) LOCATED BENEATH SLUDGE DEWATERING BUILDING FOOTPRINT.
4. EXTEND 3" W2 LINE OFF EXISTING CITY W2 SYSTEM TO NEW SLUDGE DEWATERING BUILDING. CONTRACTOR TO FIELD VERIFY CONNECTION AND ASSOCIATED ROUTING.
5. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
6. REPLACE EXISTING SLUDGE HOLDING TANK OVERFLOW LINE TO PROPOSED MANHOLE.
7. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED PIPE ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATION PROVIDED AS GENERAL GUIDANCE.
8. ~~CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET.~~ NOT USED
9. RESTORE ANY DISTURBED EXISTING CURB AND GUTTER, CATCH BASIN, MANHOLE COVERS AND ASPHALT ADJACENT TO PROPOSED SLUDGE DEWATERING BUILDING TO MATCH EXISTING CONDITIONS. (SEE CIVIL DETAILS.)
10. CONCRETE APRONS SHALL BE INSTALLED AT DESIGNATED LOCATIONS. APRONS SHALL BE SLOPED FROM ASPHALT TO MEET FFE/SLAB ELEVATION AT EACH ROLL-UP DOOR ELEVATION (SEE CIVIL DETAILS).
11. REFER TO M-010 AND M-011 FOR CONNECTIONS TO EXISTING SLUDGE TANK.
12. INSTALL 8" CHECKMATE INLINE CHECK VALVE OR EQUAL AT THIS LOCATION IMMEDIATELY UPSTREAM OF MANHOLE.
13. CONTRACTOR TO REPLACE ALL PAVEMENT WITHIN THE DISTURBED AREA AROUND THE SLUDGE DEWATERING BUILDING PLUS MILL AND OVERLAY THE STAGING/LAYDOWN AREA. SEE CIVIL DETAILS FOR PAVEMENT DETAIL.
14. CONTRACTOR TO REPLACE ALL PAVED AREAS DAMAGED DURING CONSTRUCTION. REPLACEMENT TO CONSIST OF PAVEMENT MILL AND OVERLAY.
15. CONTRACTOR TO REPAIR ANY CURB AND GUTTER DISTURBED DURING CONSTRUCTION. SEE CIVIL DETAILS.
16. TOP OF SIDEWALK ELEVATION FOR SLUDGE DEWATERING BUILDING IS 826.80 FT. (TYP.) AND SLOPES AWAY FROM BUILDING TO ASPHALT. TIE INTO PROPOSED GRADING.
17. BOLLARDS (7) TO BE FIELD LOCATED AND VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
18. TOTAL DISTURBED AREA = 0.92 ACRES. (2)
19. CONTRACTOR TO CONFIRM THIS LINE AS STORM, SANITARY OR COMBINED WITH FACILITY STAFF. NOT USED
20. SET STORMWATER MANHOLE TOP 2 FT (MIN) ABOVE PROPOSED GRADE.
21. CONSTRUCT HEADER CURB ALONG CONCRETE SIDEWALK.
22. END CURB AND GUTTER. BEGIN HEADER CURB.
23. ADJUST STORMWATER MANHOLE TOP AS NEEDED TO MATCH PROPOSED GRADE.
24. LOCATION AND ELEVATIONS OF EXISTING SITE FEATURES, UTILITIES AND WORK ARE BASED ON THE BEST AVAILABLE INFORMATION INCLUDING TOPOGRAPHIC SURVEY AND RECORD DRAWINGS. EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A UTILITY LOCATE AND FIELD SURVEY TO CONFIRM EXISTING GRADE ELEVATIONS AND DEPTHS AND LOCATIONS OF ALL STRUCTURES, UTILITIES, AND LINEWORK LOCATED WITHIN THE LIMITS OF DISTURBANCE. THE FIELD SURVEY AND UTILITY LOCATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
25. REFER TO LARGE DIAMETER MANHOLE BASE STANDARD DETAIL FOR CONSTRUCTION OF STORMWATER MANHOLES. 3,000 PSI CONCRETE FILL AROUND PIPE WITHIN MANHOLE AS SHOWN ON DETAIL IS NOT REQUIRED.
26. ADJUST SANITARY SEWER MANHOLE RIM ELEVATIONS AS NEEDED TO MATCH PROPOSED GRADE IN PAVED AREAS.
27. FILLING OF THE BIORETENTION POND WITH THE PERMEABLE SOIL MATERIAL, MULCH, AND LANDSCAPING OF THE BMP SHOULD NOT OCCUR UNTIL THE FINAL PHASE OF CONSTRUCTION AFTER THE PROPOSED BUILDING AND UTILITIES ARE CONSTRUCTED AND FINAL GRADING FOR THE SITE (EXCEPT WHERE THE BIORETENTION AREA WILL BE CONSTRUCTED) HAS BEEN COMPLETED. ONCE THE SITE IS STABILIZED WITH VEGETATION AND IMPERVIOUS SURFACE COVER, THE SEDIMENT SHALL BE REMOVED FROM THE POND AND FINAL CONSTRUCTION OF THE POND COMPLETED.
28. SEAL EXISTING 24" RCP INTO EX. MANHOLE. PROVIDE CORE AND BOOT FOR NEW 24" RCP INTO MANHOLE.
29. ABANDON IN PLACE EXISTING 24" RCP UNDER BUILDING TO EXISTING STMH. SEE SHEET C-001 OUTSIDE PIPING NOTE NO. 1
30. CONTRACTOR TO PROVIDE INLET PROTECTION TO ENSURE NEW MANHOLES AND STRUCTURES ARE PROTECTED FROM COLLECTING SEDIMENT DURING CONSTRUCTION.

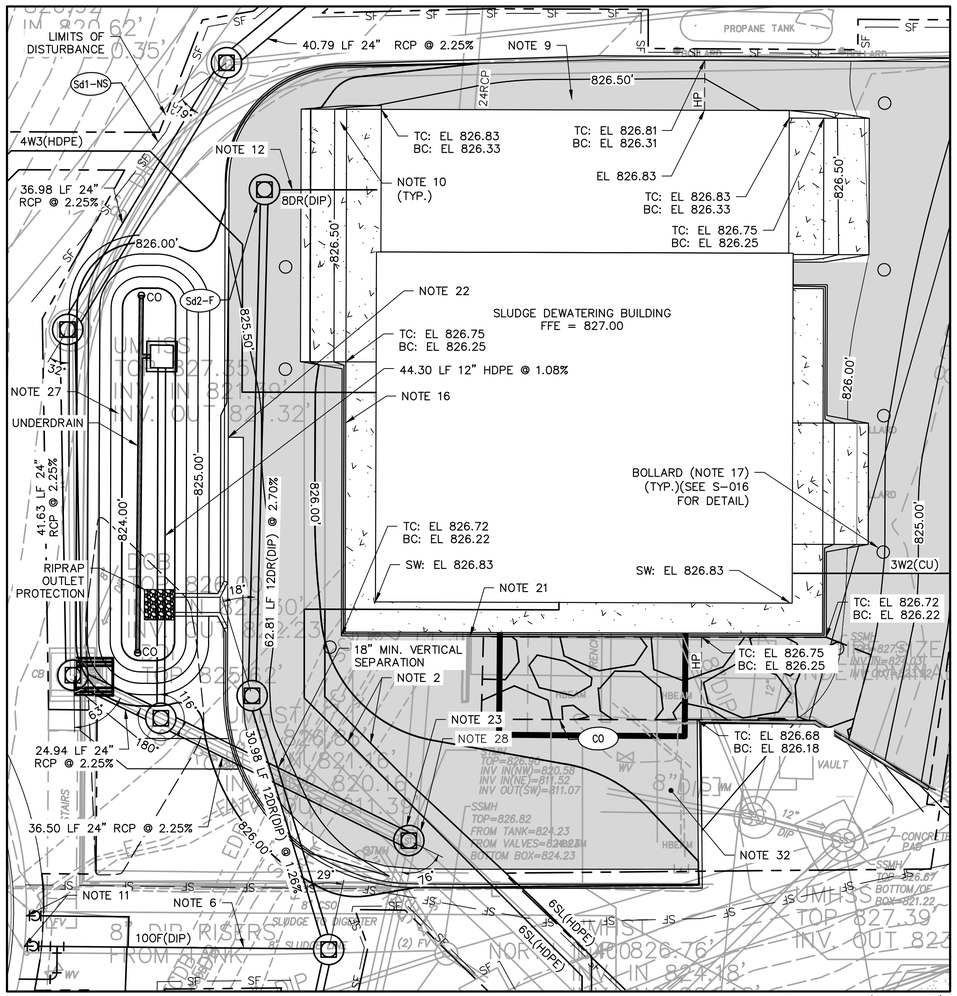
EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION AND APPROVED BY ENGINEER.

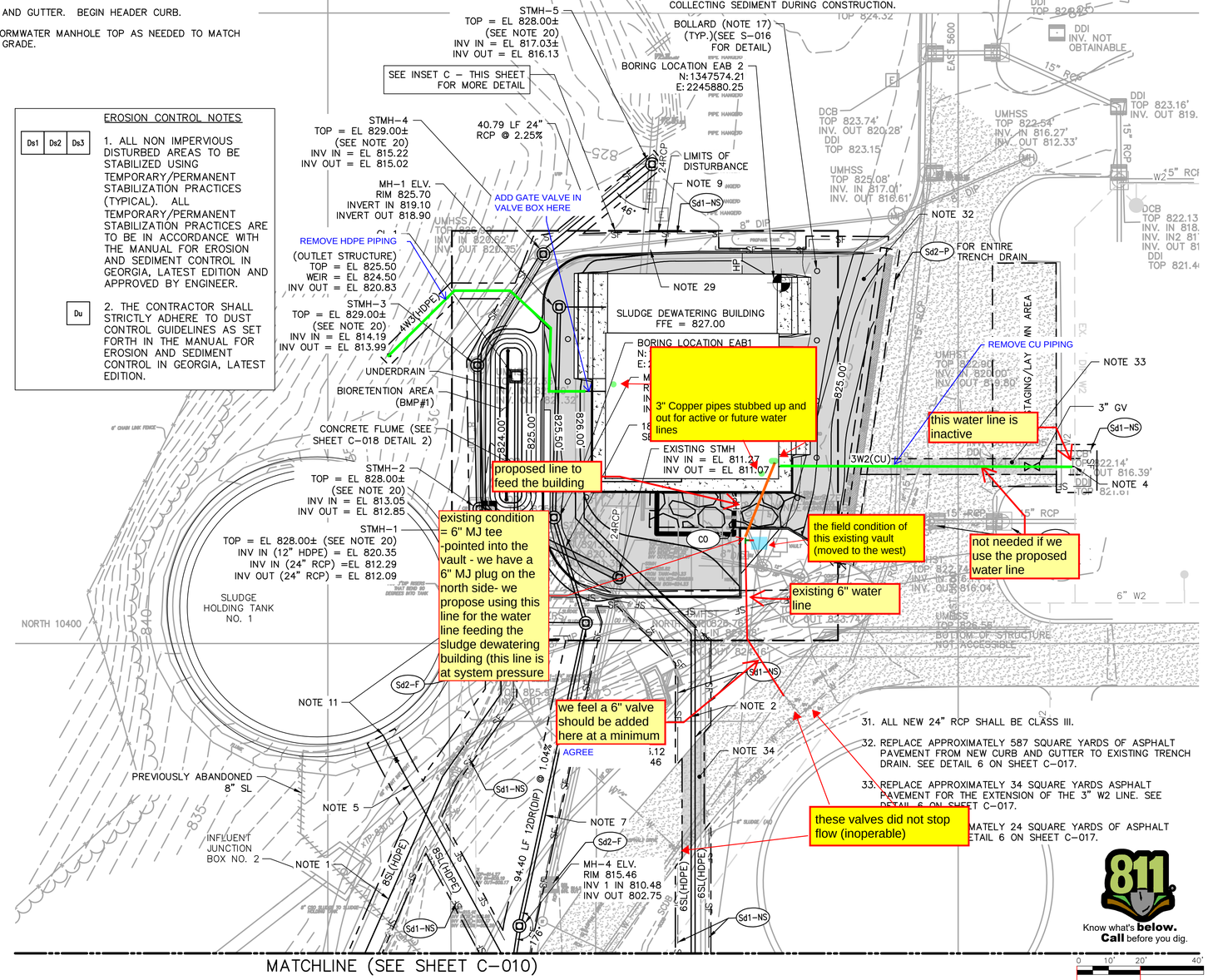
Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.



INSET C

SCALE: 1" = 10'



MATCHLINE (SEE SHEET C-010)

31. ALL NEW 24" RCP SHALL BE CLASS III.
32. REPLACE APPROXIMATELY 587 SQUARE YARDS OF ASPHALT PAVEMENT FROM NEW CURB AND GUTTER TO EXISTING TRENCH DRAIN. SEE DETAIL 6 ON SHEET C-017.
33. REPLACE APPROXIMATELY 34 SQUARE YARDS ASPHALT PAVEMENT FOR THE EXTENSION OF THE 3" W2 LINE. SEE DETAIL 6 ON SHEET C-017.
[illegible] APPROXIMATELY 24 SQUARE YARDS OF ASPHALT [illegible] DETAIL 6 ON SHEET C-017.

811 Know what's **below.** **Call** before you dig.

0 10' 20' 40'

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NO.	DATE	ISSUED FOR	BY
2	SEP 2022	REVISED LOD	HG
1	AUG 2022	REVISED SDMH-5 LOCATION	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER J. ANDREW WILSON

GSWCC NO. 0000044976. EXPIRES 10/02/2022.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 3

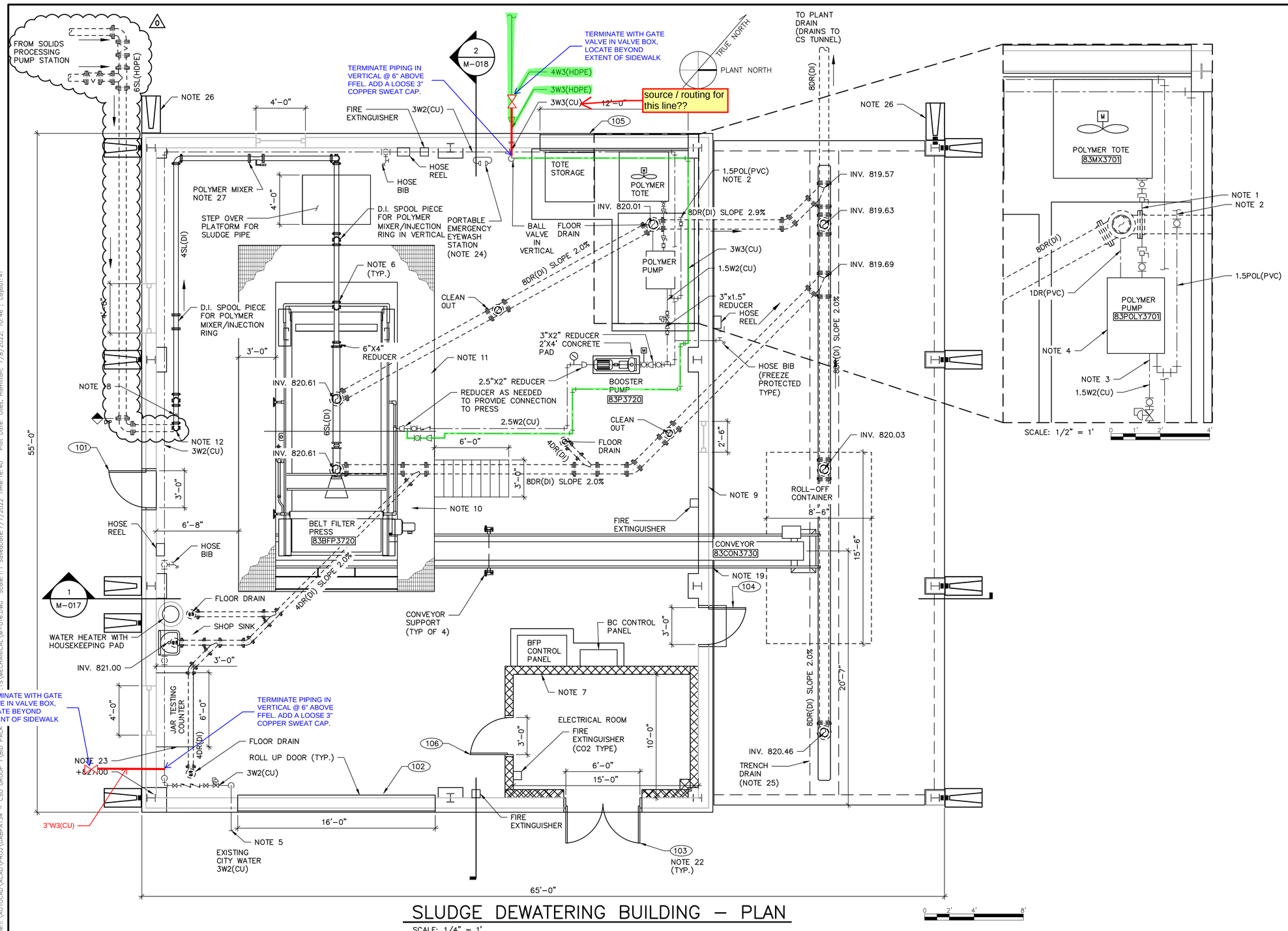
DATE:	SEPTEMBER 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

C-011

SHEET 16 OF 150

User: AGRAIN Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-011.DWG Scale:1:1 SavedDate:9/9/2022 Time:10:59 Plot Date: Crain, Angela 9/9/2022, 11:14 , Layout:16



SLUDGE DEWATERING BUILDING – PLAN

SCALE: 1/4" = 1'

NOTES:

1. PROVIDE 1" HOSE (KANAFLEX 110CL OR APPROVED EQUAL) OF SUFFICIENT LENGTH FOR TOTE. COORDINATE LOCATIONS WITH OWNER. PROVIDE CONNECTION TO TOTE VALVE AS REQUIRED BY TOTE MANUFACTURER. INCLUDE ANY PIPE AND FITTINGS NECESSARY TO PROVIDE A QUICK CONNECT END CONNECTION.
2. ROUTE POL–PVC PIPES TO THE LOCATIONS REQUIRED FOR POLYMER MIXER/INJECTION RINGS. THE FINAL LOCATIONS FOR POLYMER INJECTION TO BE DETERMINED DURING START–UP AND TESTING.
3. PROVIDE FITTINGS NECESSARY TO MAKE UP CONNECTIONS TO POLYMER PUMP SYSTEMS.
4. PACKAGED POLYMER SYSTEM (INCLUDING PUMP) TO BE PROVIDED ON SKID BY VENDOR.
5. CONTRACTOR TO CONNECT TO EXISTING CITY WATER SYSTEM. FIELD VERIFY & ADJUST ROUTING AS NEEDED.
6. FOR ALL INTERIOR ABOVE GROUND SL PIPE CONNECTIONS USE GROOVED JOINT COUPLINGS AS INDICATED.
7. CMU WALLS.
8. BELT FILTER PRESS VENDOR TO PACKAGE PRESS, MOTOR, BOOSTER PUMP, PLATFORM, CONTROL PANEL AND POLYMER MIXER.
9. BASE 30" OF PERIMETER WALL IS CONCRETE.
10. PROVIDE 36" CLEARANCE ON WALKWAY AROUND BELT FILTER PRESS.
11. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
12. MATERIAL TRANSITIONS FROM HDPE BELOW GRADE TO DI ABOVE GRADE/SLAB.
13. PROVIDE A MINIMUM OF 2 INCHES BETWEEN TOP OF LOAD SKIRT AND BELT PRESS DISCHARGE POINT
14. FIELD LOCATE PIPING. COORDINATE LOCATION OF TIE–INS WITH BELT PRESS SUPPLIER. PROVIDE 3 INCH EQUIPMENT PAD FOR THE NEW BOOSTER PUMPS.
15. ALL POLYMER SOLUTION VALVES SHALL BE TRUE UNION PVC BALL VALVES UNLESS NOTED OTHERWISE.
16. ALL PIPING TO BE SUPPORTED PER THE SPECIFICATIONS.
17. ALL CHEMICAL SOLUTION PIPING TO BE SCH. 80 PVC UNLESS NOTED OTHERWISE.
18. PROVIDE 1" 316SS BALL VALVE WITH EXTENSION LEVER. HARD PIPE DISCHARGE WITH PVC SCH 80. TO 3–FT ABOVE FLOOR, AND RUBBER HOSE TO 1–FT ABOVE FLOOR.
19. PROVIDE WALL OPENING AS REQ'D IN WALL TO ALLOW CONVEYOR AND FRAME TO PASS. REINFORCE OPENING AS REQ'D. PROVIDE WEATHER STRIPS, FLEXIBLE CLEAR TYPE AT WALL OPENING TO PREVENT WIND AND RAIN FROM ENTERING BUILDING. OPENING SHALL BE TRIMMED WITH ALUMINUM SLEEVE AND INTERIOR AND EXTERIOR FLASHING.
20. LOCATION OF PIPE AS SHOWN MAY BE SUBJECT TO CHANGE BASED ON BELT PRESS SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PIPING WITH ENGINEER AND SUPPLIER AT NO ADDITIONAL COST TO THE OWNER.
21. COORDINATE EXACT FAN OPENINGS REQ'D WITH FAN SUPPLIER.
22. FOR DOOR SCHEDULES, REFERENCE SHEET S–015.
23. COUNTER TO BE HAMILTON SCIENTIFIC LABORATORY TABLE – MODULAR STEEL OR EQUAL.
24. CONTRACTOR TO PROVIDE PORTABLE EYEWASH STATION AND ASSOCIATED MOUNTING. EYEWASH STATION SHALL BE A PORTASTREAM II EYEWASH STATION OR APPROVED EQUAL.
25. REMOVABLE GRATING TO BE INSTALLED OVER TRENCH DRAIN.
26. ROUTE ROOF DRAINS AT THESE LOCATIONS TO DISCHARGE TO THE PLANT WEST SIDE OF THE SLUDGE DEWATERING BUILDING.
27. PROVIDE FLANGE JOINTS FOR POLYMER MIXER UNITS.
28. INSULATE EXPOSED SL, W2, AND W3 LINES WITHIN BUILDING.

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

RFI-20

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL 7-8-22 ENGINEER HAMILTON DAY GILES

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING PLAN

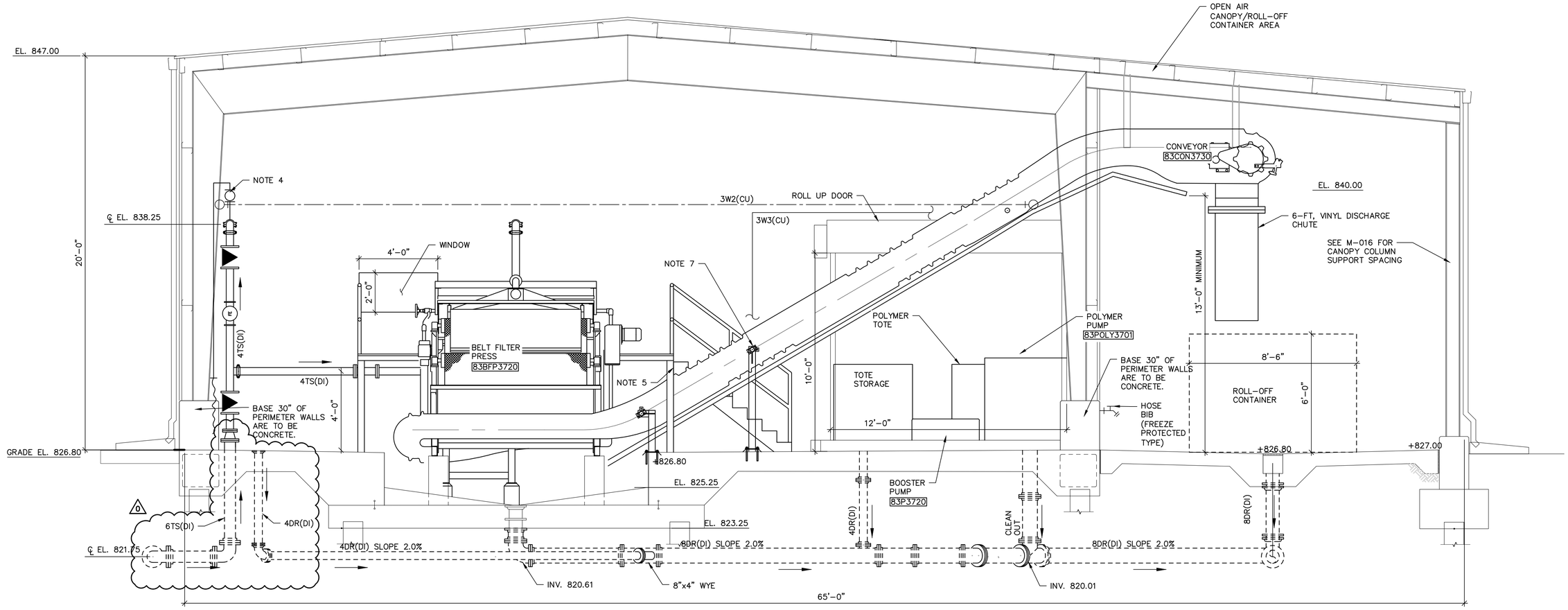
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	C. MARTINI
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M–016

SHEET 41 OF 150

User:HGILES Spec:AUS–NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 3\DRAWINGS\MECHANICAL\M–016.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:40 Plot Date: Giles, Hamilton; 7/8/2022; 10:46 ; Layout:41



1 / M-016 SLUDGE DEWATERING BUILDING – SECTION

NOTES:

1. CONTRACTOR SHALL COORDINATE LOCATION OF BELT CONVEYOR & BELT PRESS.
2. PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN TOP OF LOAD SKIRT & BELT PRESS DISCHARGE POINT.
3. ALL POLYMER SOLUTION PIPING SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE.
4. 1" TYPE 316SS BALL VALVE.
5. CONTRACTOR TO PROVIDE MINIMUM CLEARANCE BETWEEN CONVEYOR AND PLATFORM RECOMMENDED BY MANUFACTURER.
6. PIPES LOCATED BENEATH SLAB SHALL BE ENCASED IN CONCRETE. SEE SHEET S-012 FOR DETAIL.
7. CONVEYOR SUPPORTS SHALL BE INCLUDED IN MANUFACTURER'S SCOPE OF SUPPLY AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.

0 2' 4' 6'

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RFI-20

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS

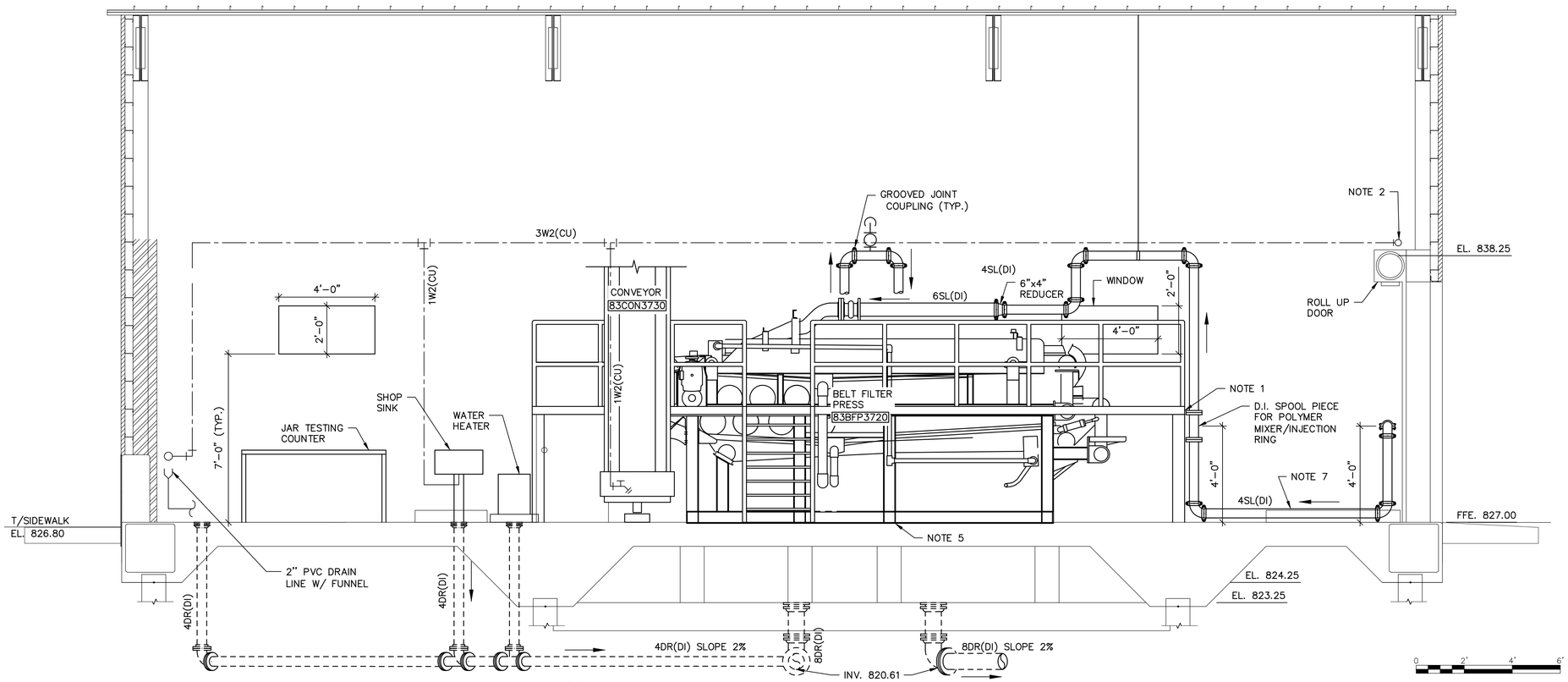
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: 3/8"=1'

M-017

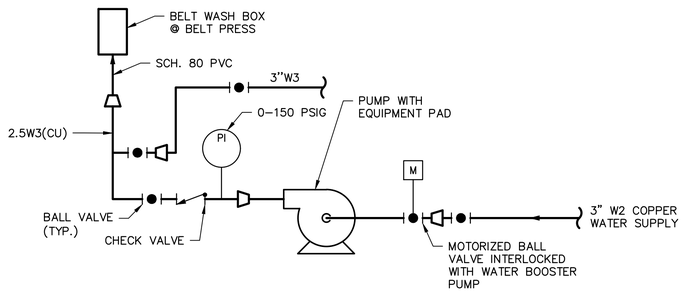
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User:HDGILES Spec:AUS-NCSM00 File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-017.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:04 Plot Date: Giles, Hamilton; 7/8/2022; 10:48 ; Layout:42



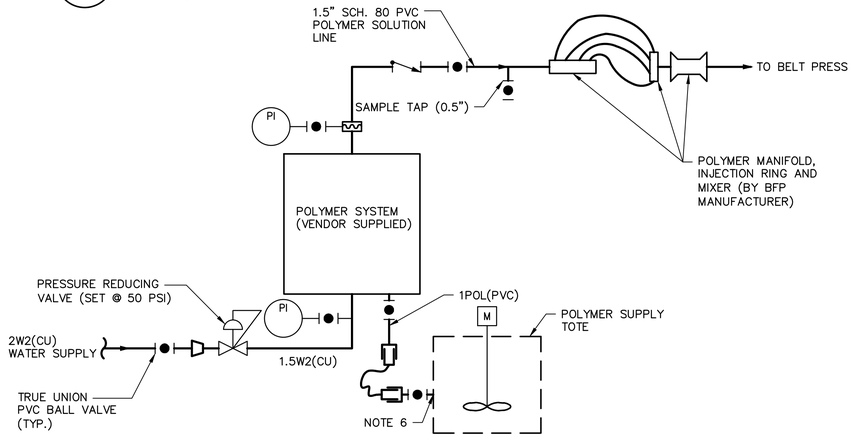
2 / M-016 SLUDGE DEWATERING BUILDING – SECTION

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



WATER BOOSTER PUMP SCHEMATIC DETAIL

SCALE: N.T.S.



POLYMER FEED SYSTEM SCHEMATIC DETAIL

SCALE: N.T.S.

NOTES:

1. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
2. COORDINATE ROUTING OF W2 AND W3 LINES TO AVOID CONFLICTS WITH ADJACENT LINES AND VALVES.
3. NO P-TRAP ON FLOOR DRAINS IN SLUDGE DEWATERING BUILDING (TYP.). SEE HVAC AND PLUMBING DETAIL SHEETS FOR FLOOR DRAIN DETAILS.
4. PIPE LOCATED BENEATH SLABS SHALL BE ENCASED IN CONCRETE. SEE SHEET S-012 FOR DETAIL.
5. LOCATE PIERS AND SUPPORTS; FURNISH AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
6. PROVIDE CONNECTIONS AS NECESSARY FOR HOSE CONNECTION TO POLYMER TOTE.
7. PROVIDE ALUMINUM STEP OVER PLATFORM. SUBMIT PLAN TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS AND DETAILS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M-018

SHEET 43 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-018.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:09 Plot Date: Giles, Hamilton; 7/7/2022; 17:31 ; Layout:43

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #42: Belt Press Sludge Feed Line

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jun 14, 2024	**Due Date**	Jun 21, 2024
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-42

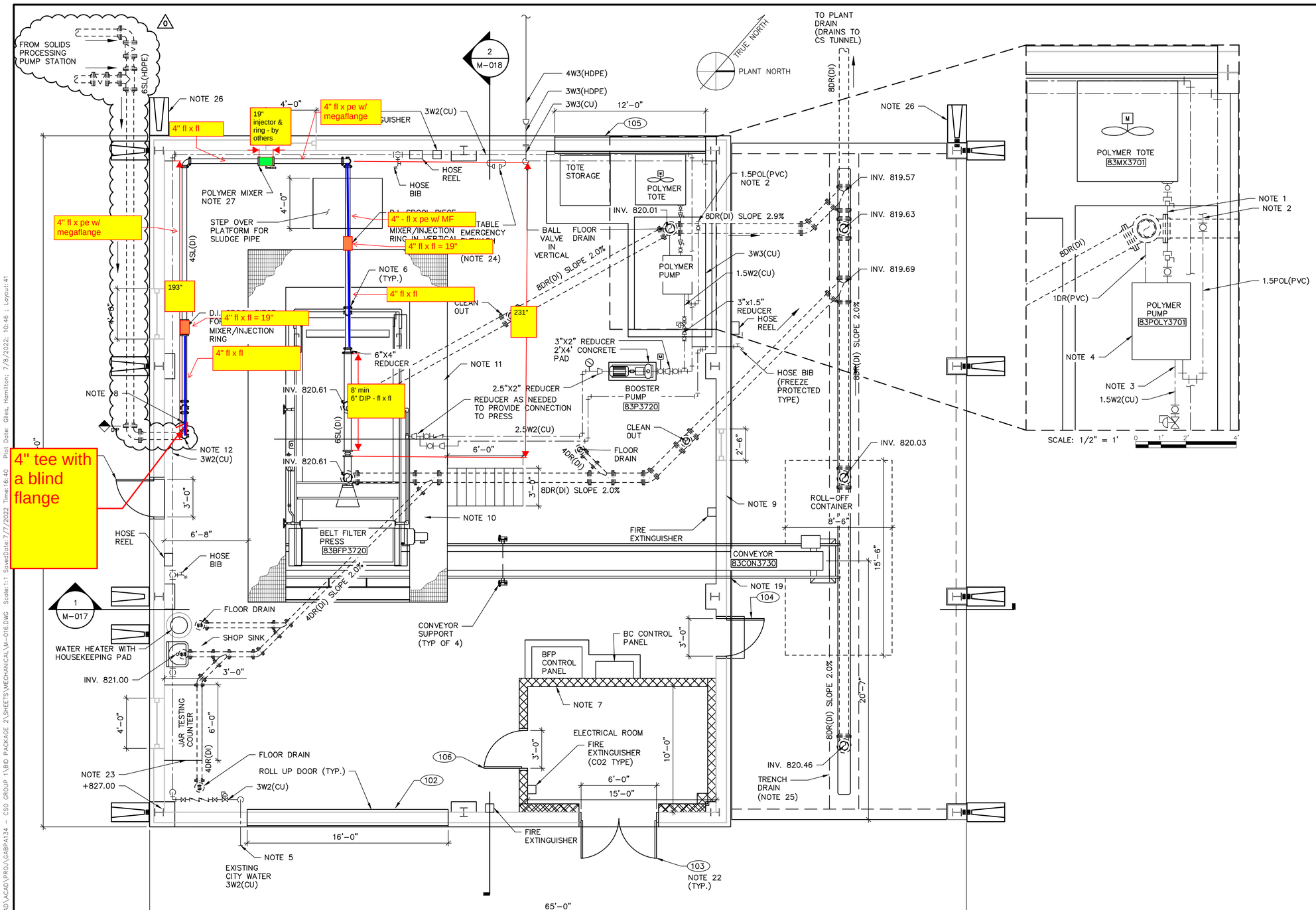
Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Friday, Jun 14, 2024 at 03:21 PM EDT*

we propose running the belt press feed line at a constant elevation in the belt press room. See the attached plan. This would keep all pipe off the ground and help with long term maintenance. Also, if the polymer injection point needs to be swapped around Lakeshore will assist with labor and equipment for this effort. Also please advise any additional details needed to install the 1" ball valve per note 18 on M-16.

Awaiting an Official Response



SLUDGE DEWATERING BUILDING – PLAN

SCALE: 1/4" = 1'

NOTES:

1. PROVIDE 1" HOSE (KANAFLEX 110CL OR APPROVED EQUAL) OF SUFFICIENT LENGTH FOR TOTE. COORDINATE LOCATIONS WITH OWNER. PROVIDE CONNECTION TO TOTE VALVE AS REQUIRED BY TOTE MANUFACTURER. INCLUDE ANY PIPE AND FITTINGS NECESSARY TO PROVIDE A QUICK CONNECT END CONNECTION.
2. ROUTE POL–PVC PIPES TO THE LOCATIONS REQUIRED FOR POLYMER MIXER/INJECTION RINGS. THE FINAL LOCATIONS FOR POLYMER INJECTION TO BE DETERMINED DURING START–UP AND TESTING.
3. PROVIDE FITTINGS NECESSARY TO MAKE UP CONNECTIONS TO POLYMER PUMP SYSTEMS.
4. PACKAGED POLYMER SYSTEM (INCLUDING PUMP) TO BE PROVIDED ON SKID BY VENDOR.
5. CONTRACTOR TO CONNECT TO EXISTING CITY WATER SYSTEM. FIELD VERIFY & ADJUST ROUTING AS NEEDED.
6. FOR ALL INTERIOR ABOVE GROUND SL PIPE CONNECTIONS USE GROOVED JOINT COUPLINGS AS INDICATED.
7. CMU WALLS.
8. BELT FILTER PRESS VENDOR TO PACKAGE PRESS, MOTOR, BOOSTER PUMP, PLATFORM, CONTROL PANEL AND POLYMER MIXER.
9. BASE 30" OF PERIMETER WALL IS CONCRETE.
10. PROVIDE 36" CLEARANCE ON WALKWAY AROUND BELT FILTER PRESS.
11. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
12. MATERIAL TRANSITIONS FROM HDPE BELOW GRADE TO DI ABOVE GRADE/SLAB.
13. PROVIDE A MINIMUM OF 2 INCHES BETWEEN TOP OF LOAD SKIRT AND BELT PRESS DISCHARGE POINT
14. FIELD LOCATE PIPING. COORDINATE LOCATION OF TIE–INS WITH BELT PRESS SUPPLIER. PROVIDE 3 INCH EQUIPMENT PAD FOR THE NEW BOOSTER PUMPS.
15. ALL POLYMER SOLUTION VALVES SHALL BE TRUE UNION PVC BALL VALVES UNLESS NOTED OTHERWISE.
16. ALL PIPING TO BE SUPPORTED PER THE SPECIFICATIONS.
17. ALL CHEMICAL SOLUTION PIPING TO BE SCH. 80 PVC UNLESS NOTED OTHERWISE.
18. PROVIDE 1" 316SS BALL VALVE WITH EXTENSION LEVER. HARD PIPE DISCHARGE WITH PVC SCH 80. TO 3–FT ABOVE FLOOR, AND RUBBER HOSE TO 1–FT ABOVE FLOOR.
19. PROVIDE WALL OPENING AS REQ'D IN WALL TO ALLOW CONVEYOR AND FRAME TO PASS. REINFORCE OPENING AS REQ'D. PROVIDE WEATHER STRIPS, FLEXIBLE CLEAR TYPE AT WALL OPENING TO PREVENT WIND AND RAIN FROM ENTERING BUILDING. OPENING SHALL BE TRIMMED WITH ALUMINUM SLEEVE AND INTERIOR AND EXTERIOR FLASHING.
20. LOCATION OF PIPE AS SHOWN MAY BE SUBJECT TO CHANGE BASED ON BELT PRESS SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PIPING WITH ENGINEER AND SUPPLIER AT NO ADDITIONAL COST TO THE OWNER.
21. COORDINATE EXACT FAN OPENINGS REQ'D WITH FAN SUPPLIER.
22. FOR DOOR SCHEDULES, REFERENCE SHEET S–015.
23. COUNTER TO BE HAMILTON SCIENTIFIC LABORATORY TABLE – MODULAR STEEL OR EQUAL.
24. CONTRACTOR TO PROVIDE PORTABLE EYEWASH STATION AND ASSOCIATED MOUNTING. EYEWASH STATION SHALL BE A PORTASTREAM II EYEWASH STATION OR APPROVED EQUAL.
25. REMOVABLE GRATING TO BE INSTALLED OVER TRENCH DRAIN.
26. ROUTE ROOF DRAINS AT THESE LOCATIONS TO DISCHARGE TO THE PLANT WEST SIDE OF THE SLUDGE DEWATERING BUILDING.
27. PROVIDE FLANGE JOINTS FOR POLYMER MIXER UNITS.
28. INSULATE EXPOSED SL, W2, AND W3 LINES WITHIN BUILDING.

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RFI-42

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL 7-8-22 ENGINEER HAMILTON DAY GILES

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RESURGENS 1879 ATLANTA, GA. 30303

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

SHEET TITLE
SLUDGE DEWATERING BUILDING PLAN

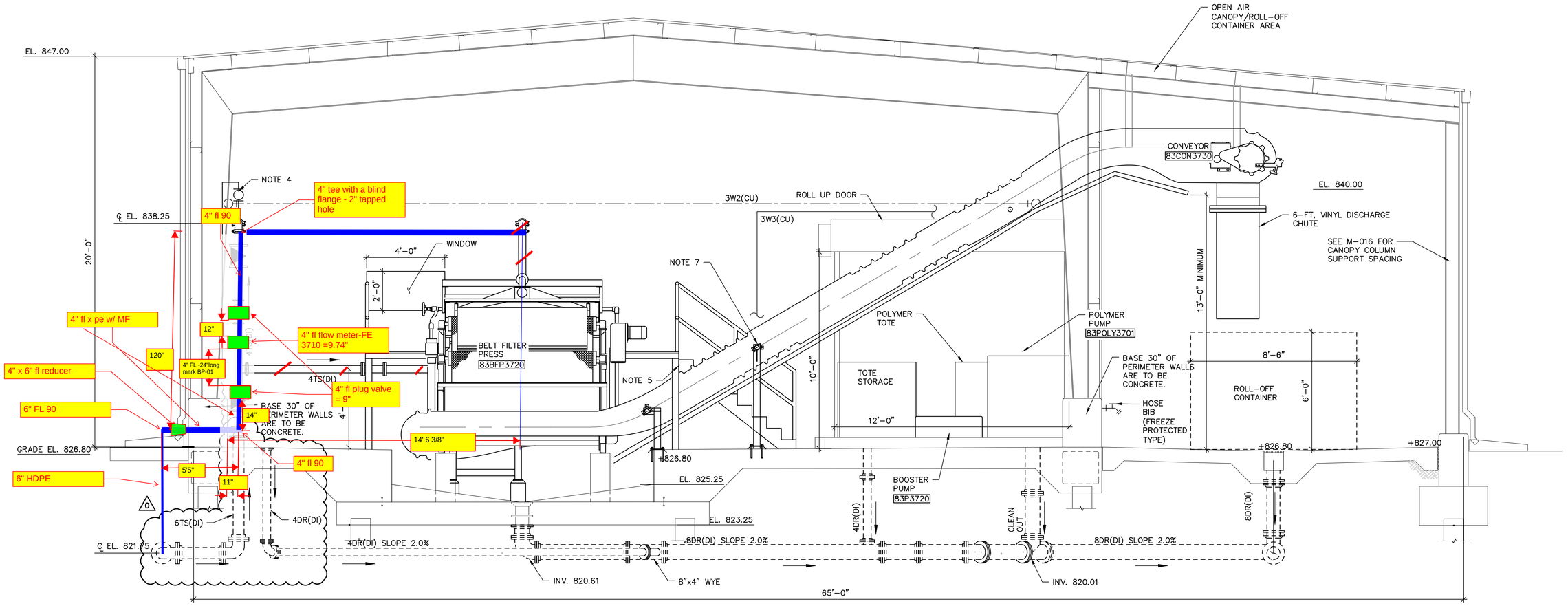
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: W. HACKETT
DRAWN BY: C. MARTINI
CHECKED BY: W. GRUBBS

SCALE: AS SHOWN

M–016

SHEET 41 OF 150

User:HGILES Spec:AUS–NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–016.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:40 Plot Date: Giles, Hamilton; 7/8/2022; 10:46 ; Layout:41



1 / M-016 SLUDGE DEWATERING BUILDING – SECTION

NOTES:

1. CONTRACTOR SHALL COORDINATE LOCATION OF BELT CONVEYOR & BELT PRESS.
2. PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN TOP OF LOAD SKIRT & BELT PRESS DISCHARGE POINT.
3. ALL POLYMER SOLUTION PIPING SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE.
4. 1" TYPE 316SS BALL VALVE.
5. CONTRACTOR TO PROVIDE MINIMUM CLEARANCE BETWEEN CONVEYOR AND PLATFORM RECOMMENDED BY MANUFACTURER.
6. PIPES LOCATED BENEATH SLAB SHALL BE ENCASED IN CONCRETE. SEE SHEET S-012 FOR DETAIL.
7. CONVEYOR SUPPORTS SHALL BE INCLUDED IN MANUFACTURER'S SCOPE OF SUPPLY AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.

0 2' 4' 6'

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W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS

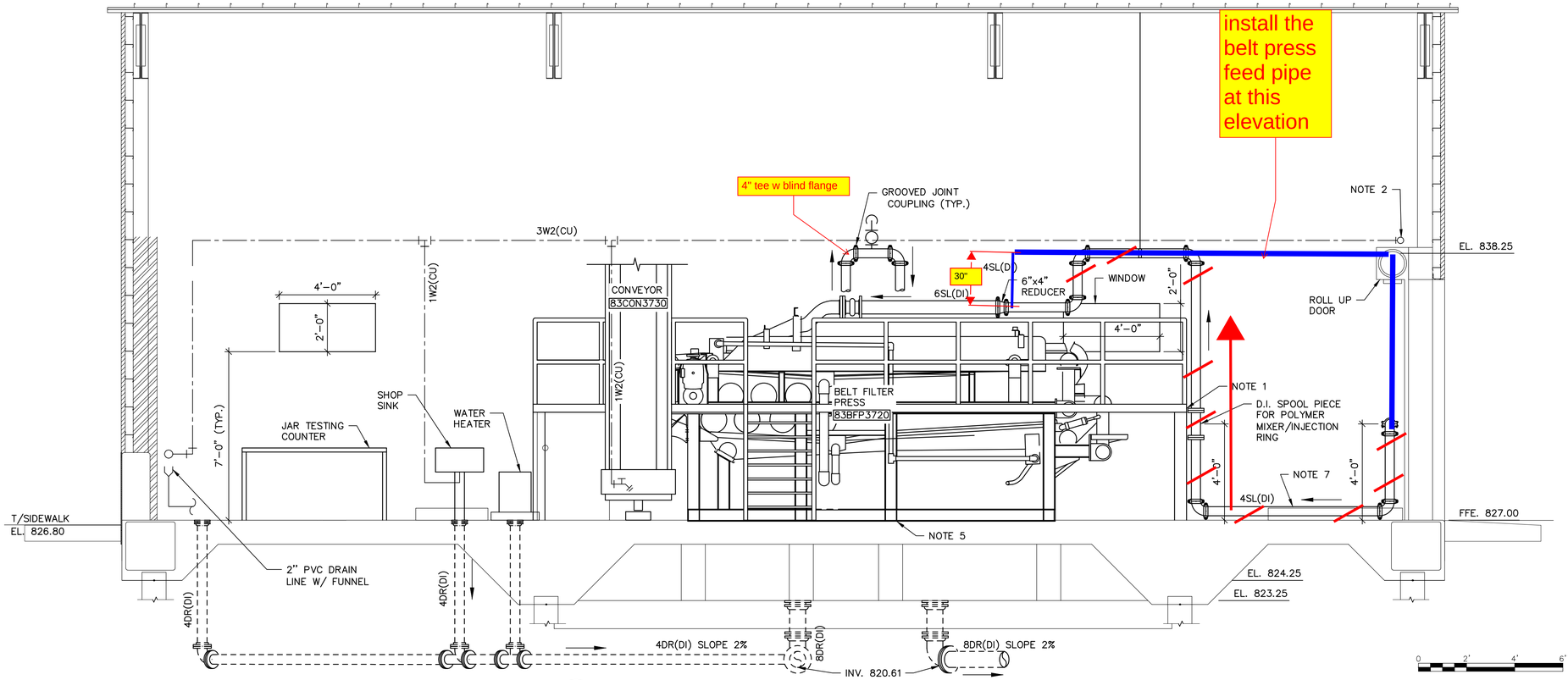
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: 3/8"=1'

M-017

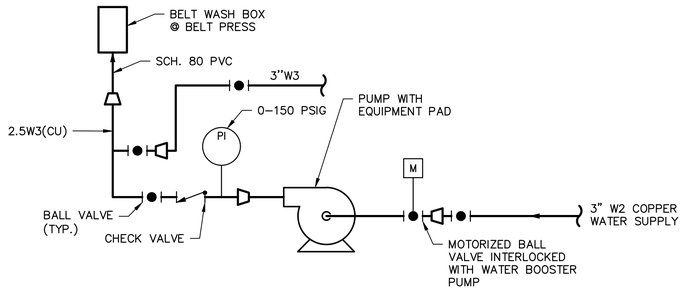
SHEET 42 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-017.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:04 Plot Date: Giles, Hamilton; 7/8/2022; 10:48 ; Layout:42



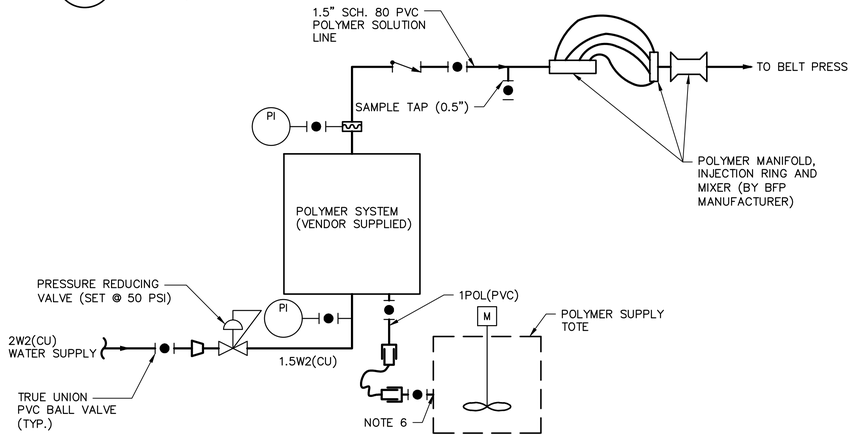
2 / M-016 SLUDGE DEWATERING BUILDING – SECTION

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



WATER BOOSTER PUMP SCHEMATIC DETAIL

SCALE: N.T.S.



POLYMER FEED SYSTEM SCHEMATIC DETAIL

SCALE: N.T.S.

NOTES:

1. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
2. COORDINATE ROUTING OF W2 AND W3 LINES TO AVOID CONFLICTS WITH ADJACENT LINES AND VALVES.
3. NO P-TRAP ON FLOOR DRAINS IN SLUDGE DEWATERING BUILDING (TYP.). SEE HVAC AND PLUMBING DETAIL SHEETS FOR FLOOR DRAIN DETAILS.
4. PIPE LOCATED BENEATH SLABS SHALL BE ENCASED IN CONCRETE. SEE SHEET S-012 FOR DETAIL.
5. LOCATE PIERS AND SUPPORTS; FURNISH AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
6. PROVIDE CONNECTIONS AS NECESSARY FOR HOSE CONNECTION TO POLYMER TOTE.
7. PROVIDE ALUMINUM STEP OVER PLATFORM. SUBMIT PLAN TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS AND DETAILS

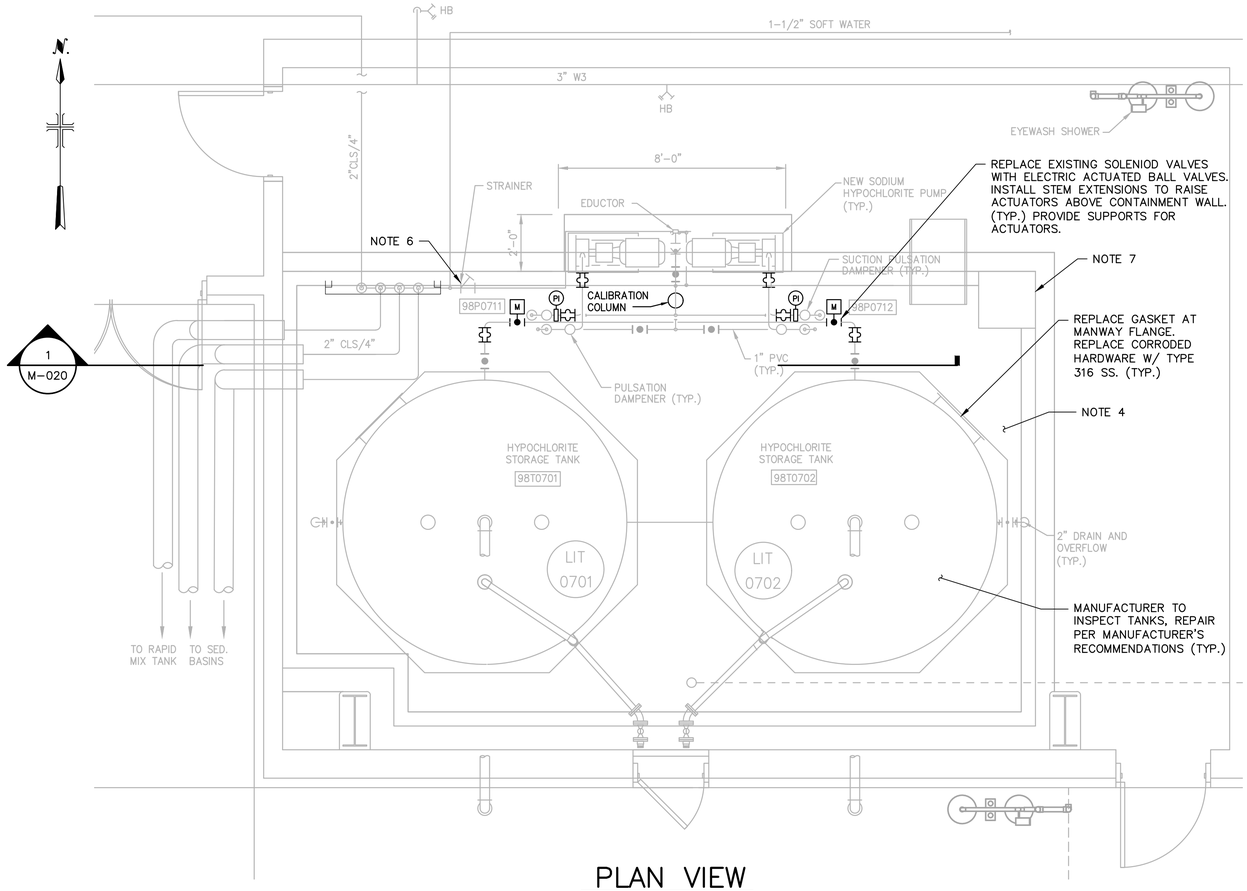
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SCALE: AS SHOWN

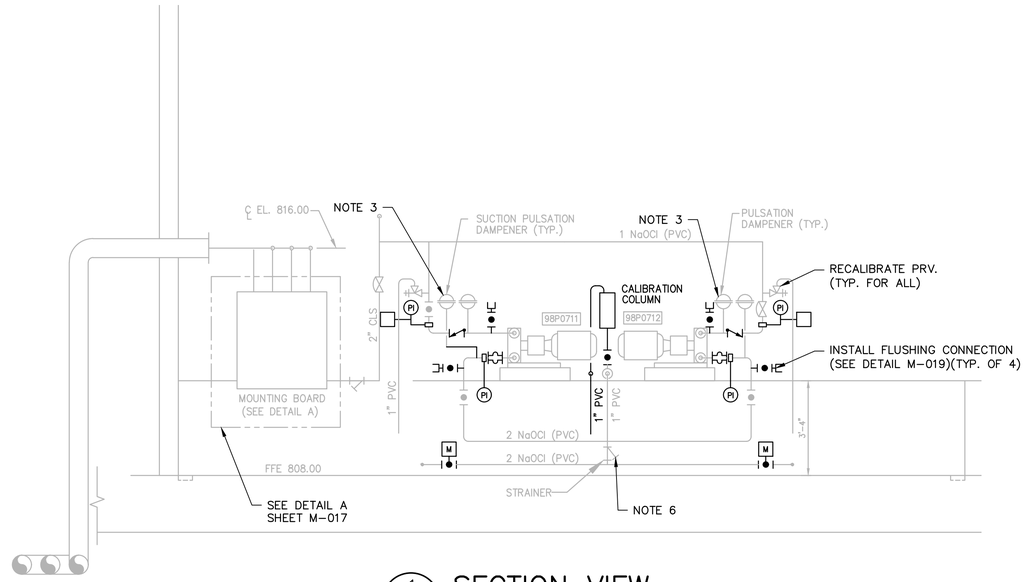
M-018

SHEET 43 OF 150

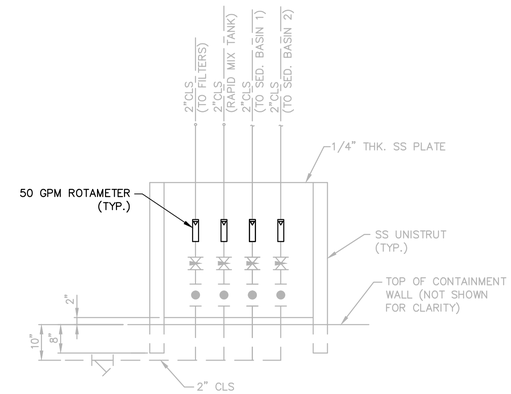
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PLAN VIEW



1 M-019 SECTION VIEW



A M-019 DETAIL

NOTES:

1. LOCATIONS OF PIPING AND VALVES ARE APPROXIMATE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
2. REPLACE ALL CORRODED HARDWARE WITH TYPE 316SS.
3. REPLACE PRESSURE GAUGE AND SCHRADER FITTINGS. INSPECT DIAPHRAGMS AND REPLACE IF DAMAGED OR DETERIORATED. CHARGE TO RECOMMENDED PRESSURE. TYPICAL FOR ALL PULSATION DAMPENERS AND ACCUMULATORS.
4. REMOVE EXISTING COATING WITHIN CONTAINMENT AREA AND SUMP, REPAIR DAMAGED CONCRETE, PREPARE AREA. RECOAT WITH NEW CHEMICAL RESISTANT COATING SYSTEM.
5. PLANT WATER PIPING AND VALVES NOT SHOWN FOR CLARITY. RECERTIFY BACKFLOW PREVENTER. REPLACE SOLENOID VALVE. REPLACE CORRODED STEEL PARTS WITH TYPE 316 STAINLESS STEEL.
6. CLEAN OUT STRAINERS. INSPECT AND REPLACE BROKEN PARTS.
7. INSTALL STEM EXTENSIONS ON CONTAINMENT SUMP VALVE ACTUATOR TO POSITION ACTUATOR HANDLE ABOVE CONTAINMENT WALL. INSPECT CONTAINMENT SUMP ISOLATION VALVE, REPLACE BROKEN COMPONENTS. REPLACE GASKETS AND O-RINGS.
8. PIPE SUPPORTS WITHIN CHEMICAL ROOM SHALL BE FRP. ANCHORS WITHIN CONTAINMENT AREA SHALL BE TITANIUM.
9. CHEMICAL TANK AND PUMP INSPECTION AND REPAIR SHALL BE PAID FROM ALLOWANCE 3.5.
10. INSPECTION AND REPAIR OF EQUIPMENT OTHER THAN CHEMICAL TANKS AND PUMPS WHICH ARE NOT SPECIFICALLY CALLED OUT OR SHOWN AS BEING REPLACED SHALL BE PAID OUT OF ALLOWANCE 3.3. EXAMPLE IS REPLACEMENT OR CORRODED STEEL PARTS OR PIPE SUPPORTS OR INSPECTION AND REPAIR/REPLACEMENT OF DAMAGED OR BROKEN COMPONENTS. CONTRACTOR TO INSPECT AND PROVIDE COST ESTIMATE AND REPORT DESCRIBING NEEDED REPAIRS FOR REVIEW BY CITY.
11. CITY SHALL BE RESPONSIBLE FOR REMOVAL OF BULK CHEMICAL FROM STORAGE TANKS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF RESIDUAL CHEMICAL AND PREPARATION OF TANKS FOR INSPECTION.

0 2' 4' 6'

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EAWQCF SODIUM HYPOCHLORITE SYSTEM PLAN AND SECTIONS

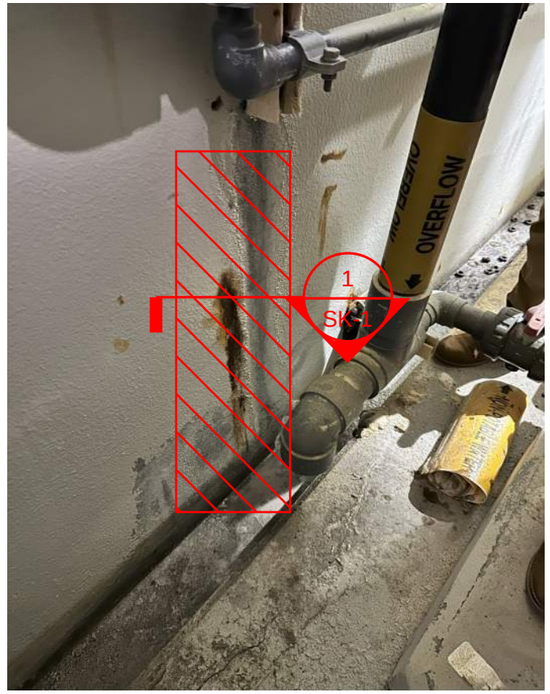
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: H. GIACOMIN
DRAWN BY: J. BROWN
CHECKED BY: W. GRUBBS

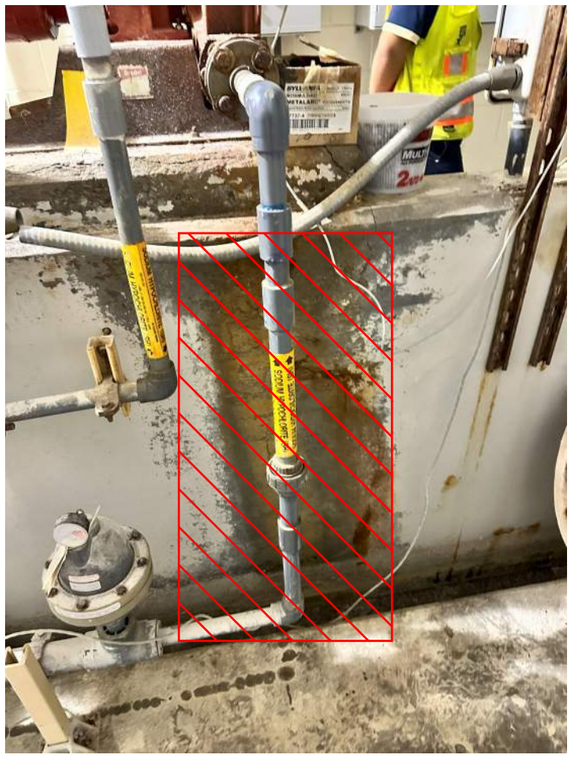
SCALE: 3/8" = 1'

M-019

SHEET 44 OF 150

User:HGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-019.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:11 Plot Date: Giles, Hamilton: 7/8/2022, 10:50 ; Layout:44





CONTRACTOR TO CHIP OUT CONCRETE AROUND THE SPALLED REBAR. REFER SK-2 FOR DETAIL.

EXISTING CONCRETE WALL

CONTRACTOR TO NOT COMPRISE THE REBAR CONNECTION TO EXISTING SLAB

EXISTING CONCRETE SLAB

1 WALL ELEVATION

SCALE: 3/4" = 1'-0"

NOTE:

1. CONTRACTOR TO VERIFY DIMENSIONS OF THE WALL, SPACING, TYPE, DIAMETER. HORIZONTAL AND VERTICAL CONFIGURATION OF REBAR.
2. CONTRACTOR TO TREAT AND PERFORM REPAIRS ON ALL AREAS CONTAINING EXPOSED REBAR.
3. REPAIR EXPOSED REBAR AND SPALLED CONCRETE AS PER SPECIFICATION 03 01 30 - REPAIR AND REHABILITATION OF CAST-IN PLACE CONCRETE; SECTION 3.9

3.9 REPAIR OF EXPOSED REINFORCING

A. Remove, by abrasive blasting or hydro blasting, all corrosion, foreign materials, and unsound concrete from area to be repaired.

B. Surface shall be visually dry before applying corrosion inhibitor. Liberally apply corrosion inhibitor to achieve coverage of 100 square feet per gallon in two or more coats, by allowing corrosion inhibitor to soak into substrate. Time between coats shall be the longer of: one hour, or as recommended by corrosion inhibitor manufacturer. Apply using rollers, brushes, or hand-pressure spray equipment.

C. After applying final coat of corrosion inhibitor, minimum cure time of 24 hours is required.

D. Provide high-pressure wash to surfaces to be repaired to remove filmy residue from corrosion inhibitor.

RFI-47

REF:

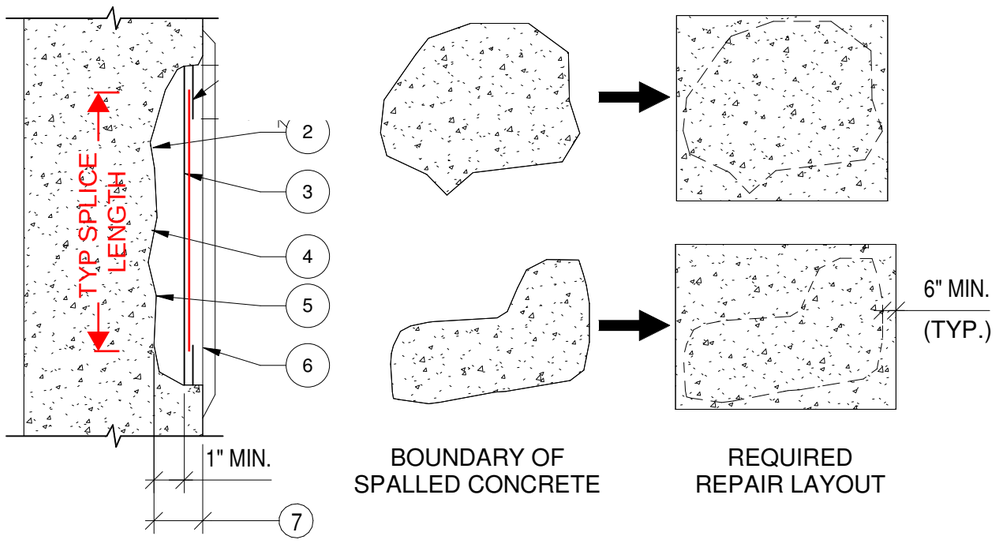
ARCADIS Design & Consultancy for natural and built assets

CITY OF ATLANTA - EAST AREA BP2 & BP 3

RFI 47 - SODIUM HYPOCHLORITE EXPOSED REBAR

04/07/2024

SK – 1



SECTION

ELEVATION

1. DO NOT CUT REINFORCING UNLESS NECESSARY TO REMOVE ALL DETERIORATED CONCRETE.

2. REMOVE ALL DETERIORATED CONCRETE TO SOUND CONCRETE. CHIP CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8-INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.

3. WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, ENGINEER TO REVIEW CONDITION OF CORRODED REBARS PRIOR TO REPAIR. REPLACEMENT IS REQUIRED WHERE LOSS OF REBAR CROSS SECTION IS OVER 25%. AFTER REPAIR WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST. REMOVE CONCRETE TO A DEPTH OF 1-INCH MINIMUM BEHIND REINFORCING BAR AS SHOWN.

4. SURFACE SHALL BE DAMP BUT FREE OF STANDING WATER.

5. INSTALL CONCRETE REPAIR MATERIALS PER THE MANUFACTURER'S REQUIREMENTS.

6. REPAIR MORTAR SHALL BE ADDED SO THAT THE MINIMUM COVER OVER EXISTING REINFORCING STEEL IS 2.5".

7. THE CONTRACTOR SHALL BE PERMITTED TO PLACE REPAIR MORTAR RESULTING IN LOCALLY RAISED AREAS, WHERE NEEDED TO PROVIDE COVER. TRANSITION TO EXISTING SURFACE WITH 4:1 OR FLATTER SLOPE.

8. REFER TO THE GENERAL NOTES FOR ADDITIONAL EXISTING CONCRETE NOTES, SPECIFIED PRODUCTS AND REQUIREMENTS FOR COORDINATION OF WORK.

9. FOR BID PURPOSES, ASSUME TOTAL DEPTH OF REPAIR IS 4-INCHES.

10. CUT EXISTING CORRODED REINFORCING BAR AS REQUIRED AND SPLICE NEW REBAR SAME SIZE.

NOTE:

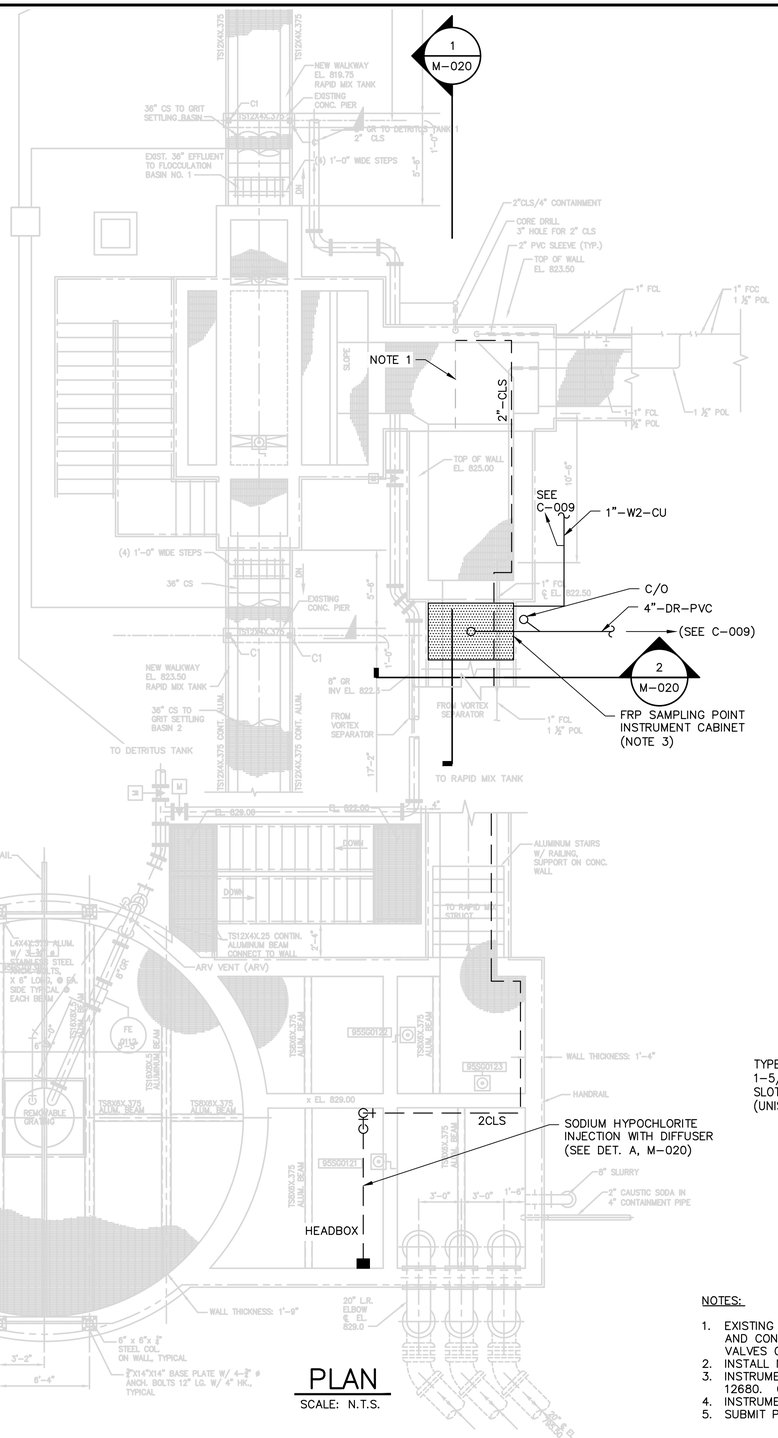
1. AFTER TREATMENT OF REBAR, CONTRACTOR TO FOLLOW MANUFACTURERS RECOMMENDATIONS FOR APPLICATION OF 32 HIGH MOD LPL BONDING AGENT TO THE ENTIRETY OF WALL SECTION. (SEE PRODUCT SPECIFICATIONS IN NEXT PAGE)

2. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR APPLICATION OF SIKA QUICK VOH MORTAR. CONTRACTOR TO ENSURE MIN 2.5" LIFT ALL ALONG THE ENTIRETY OF WALL SECTION. (SEE PRODUCT SPECIFICATIONS IN NEXT PAGE)

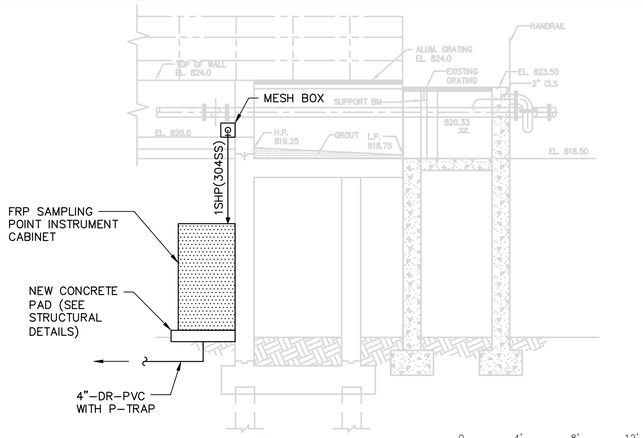
3. PROVIDE 2" CHAMFER AROUND WALL CORNERS.

RFI-47

REF:

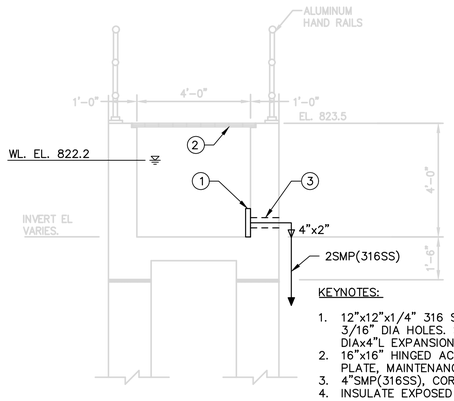


PLAN
SCALE: N.T.S.



1 M-020 SECTION
SCALE: 3/16" = 1'-0"

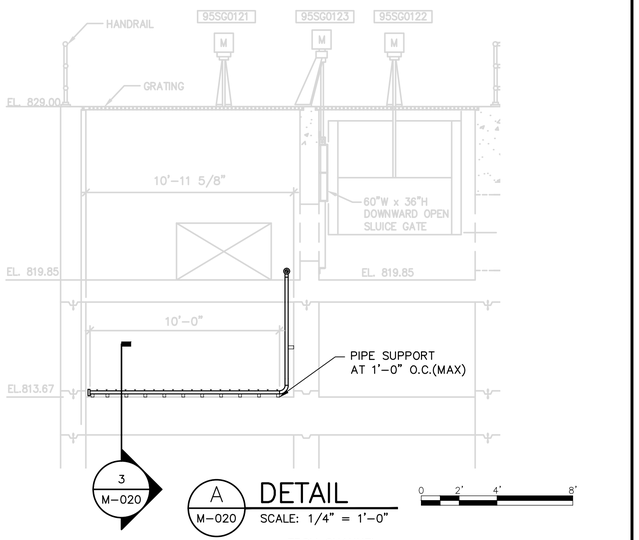




KEYNOTES:

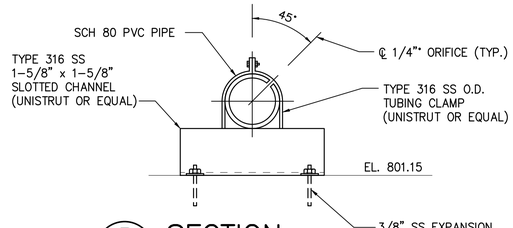
1. 12"x12"x1/4" 316 SS PERFORATED PLATE WITH 3/16" DIA HOLES. SECURE WITH (4) 1/2" DIAx4"L EXPANSION ANCHORS.
2. 16"x16" HINGED ACCESS HATCH FOR PERFORATED PLATE, MAINTENANCE WITH LOCKABLE HASP.
3. 4"SMP(316SS), CORE DRILL, DOUBLE LINK SEAL.
4. INSULATE EXPOSED SAMPLE PIPING.

2 M-020 SECTION
SCALE: 3/8" = 1'-0"

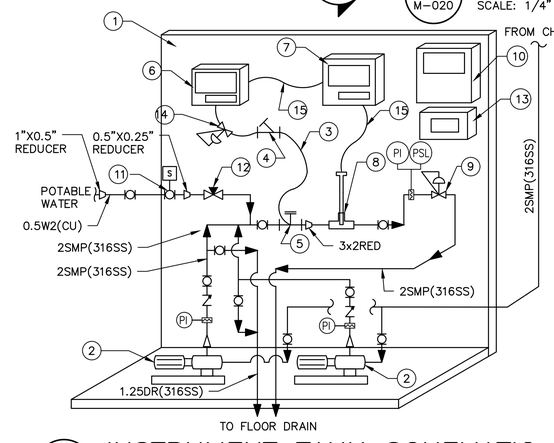


3 M-020

A M-020 DETAIL
SCALE: 1/4" = 1'-0"



3 M-020 SECTION
SCALE: N.T.S.



KEYNOTES:

1. SS INSTRUMENT RACK/SKID
2. SELF-PRIMING CENTRIFUGAL PUMP, MODEL 316A-95 BY AMT PUMPS, OR EQUAL. (3HP MAX., 15 GPM, TDH 55 FT)
3. 0.25 INCH VINYL SAMPLE TUBING.
4. SAMPLE STRAINER, FROM CHLORINE ANALYZER VENDOR.
5. FLOW-THROUGH SAMPLE CHAMBER BY TELEDYNE ISCO, OR EQUAL. 2 INCH INLET AND 3 INCH OUTLET.
6. TOTAL CHLORINE COLORIMETRIC ANALYZER.
7. CHLORINE AND pH DUAL TRANSMITTER.
8. pH PROBE, UNION MOUNT.
9. PRESSURE SUSTAINING VALVE.
10. SAMPLING STATION CONTROL PANEL. SEE PANEL DETAIL ON I-023.
11. FAIL OPEN SOLENOID VALVE W/ POSITION INDICATION.
12. NEEDLE VALVE.
13. UPS PANEL.
14. PRESSURE REGULATOR, BY CHLORINE ANALYZER VENDOR.
15. DATA/POWER CABLE. BY TRANSMITTER VENDOR.

B M-020 INSTRUMENT TANK SCHEMATIC
SCALE: N.T.S.

NOTES:

1. EXISTING DIFFUSER PIPE (LOCATION SHOWN IS APPROXIMATE) TO REMAIN. INSTALL TEE IN EXISTING PIPING AND CONNECT NEW 2" CLS PIPE TO CONVEY SODIUM HYPOCHLORITE TO HEADBOX. INSTALL ISOLATION BALL VALVES ON EACH BRANCH TO PROVIDE ABILITY TO SELECT DIFFUSER.
2. INSTALL NEW 2" CLS PIPE PARALLEL TO EXISTING 1" FCL AND 1 1/2" POL LINES.
3. INSTRUMENT CABINET TO BE INSTALLED UNDER OVERHEAD CHANNEL. REFER TO SPECIFICATION SECTION 12680. CONTRACTOR TO POUR CONCRETE SLAB FOR INSTRUMENT CABINET PER STRUCTURAL DETAILS.
4. INSTRUMENTS, ELECTRICAL AND SAMPLE TANK SHALL BE MOUNTED ON STAINLESS STEEL MOUNTING RACK.
5. SUBMIT PLAN OF INSTRUMENT CABINET FOR APPROVAL.

REFERENCE DRAWINGS: S-14, M-14, M-15, M-16, M-17 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SODIUM HYPOCHLORITE DOSING AND SAMPLING POINT

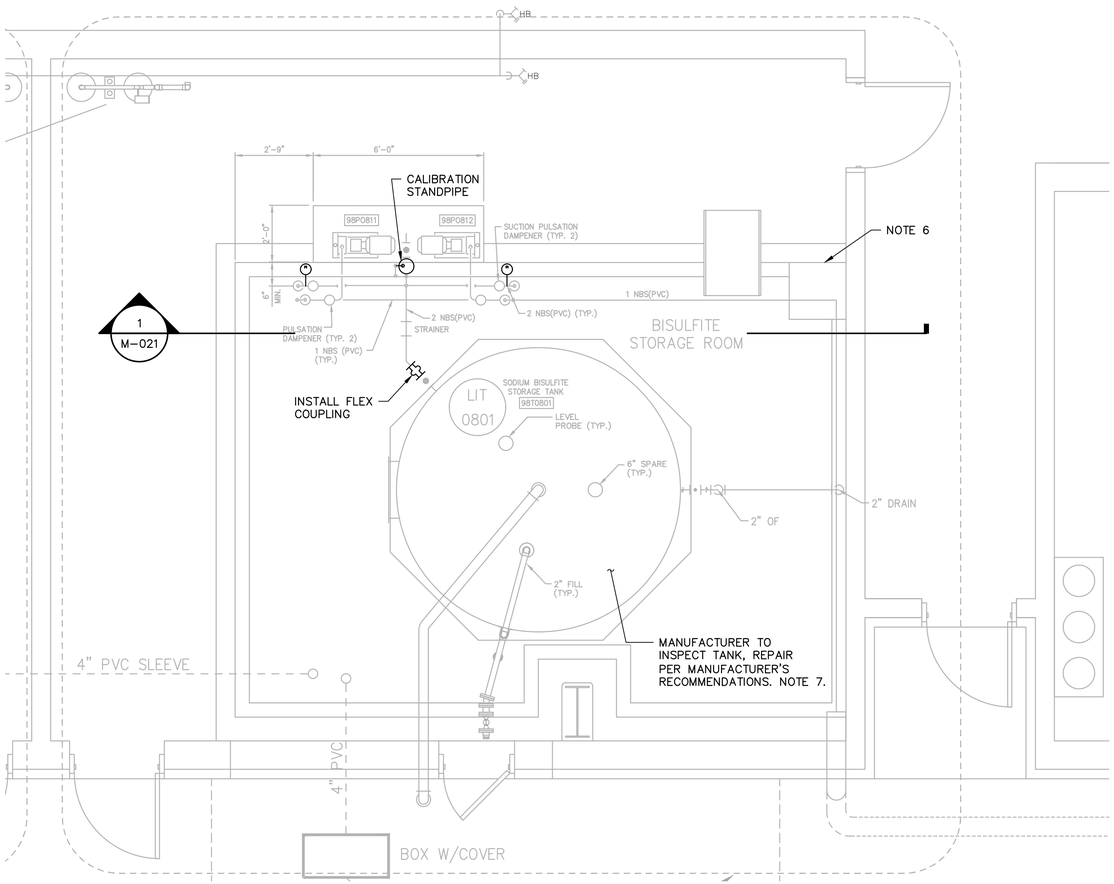
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M-020

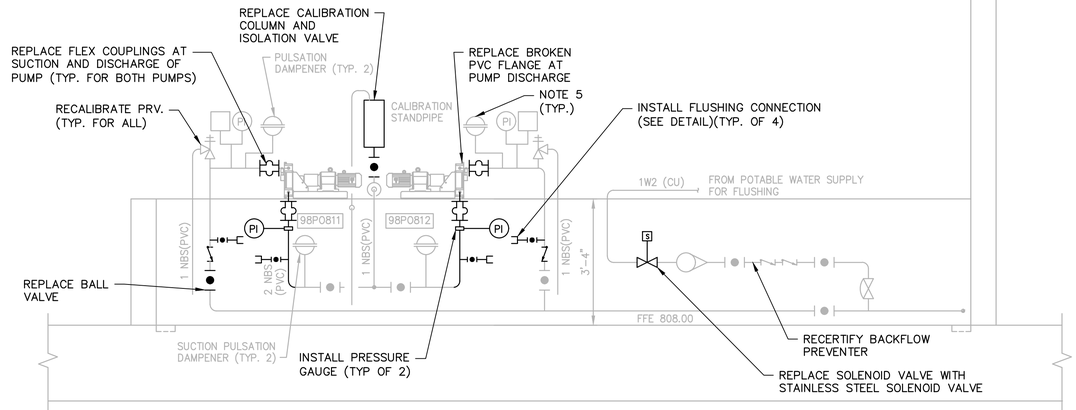
SHEET 45 OF 150

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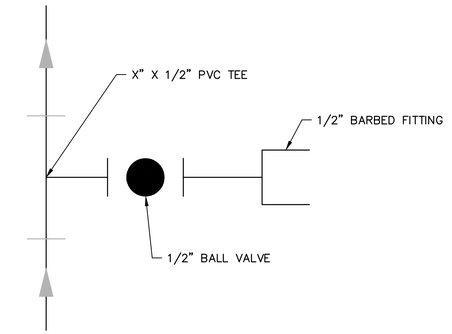
PLAN VIEW

SCALE: 3/8" = 1'



1 SECTION

M-021 SCALE: N.T.S.



FLUSHING CONNECTION DETAIL

NOTES:

1. LOCATION OF PIPING AND VALVES ARE APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD PRIOR TO CONSTRUCTION.
2. REPLACE ALL METALLIC, NON-SS PIPE SUPPORTS/STRAPS WITH TYPE 316 SS MATERIALS.
3. REPLACE ALL CORRODED HARDWARE WITH TYPE 316 STAINLESS STEEL.
4. INSPECT ALL VALVES, EQUIPMENT, AND PIPING. REPLACE ALL BROKEN OR CRACKED COMPONENTS.
5. REPLACE PRESSURE GAUGE AND SCHRADER FITTINGS. INSPECT DIAPHRAGMS AND REPLACE IF DAMAGED OR DETERIORATED. TYPICAL FOR ALL PULSATION DAMPENERS AND ACCUMULATORS.
6. INSTALL STEM EXTENSIONS ON CONTAINMENT SUMP VALVE ACTUATOR TO POSITION ACTUATOR HANDLE ABOVE CONTAINMENT WALL.
7. CHEMICAL TANK INSPECTION AND REPAIR SHALL BE PAID FROM ALLOWANCE 3.6.
8. INSPECTION AND REPAIR OF EQUIPMENT OTHER THAN CHEMICAL TANKS AND PUMPS WHICH ARE NOT SPECIFICALLY CALLED OUT OR SHOWN AS BEING REPLACED SHALL BE PAID OUT OF ALLOWANCE 3.3. EXAMPLE IS REPLACEMENT OR CORRODED STEEL PARTS OR PIPE SUPPORTS OR INSPECTION AND REPAIR/REPLACEMENT OF DAMAGED OR BROKEN COMPONENTS. CONTRACTOR TO INSPECT AND PROVIDE COST ESTIMATE AND REPORT DESCRIBING NEEDED REPAIRS FOR REVIEW BY CITY.
9. CITY SHALL BE RESPONSIBLE FOR REMOVAL OF BULK CHEMICAL FROM STORAGE TANKS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF RESIDUAL CHEMICAL AND PREPARATION OF TANKS FOR INSPECTION.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EAWQCF – SODIUM BISULFITE ROOM

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	H. GIACOMIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

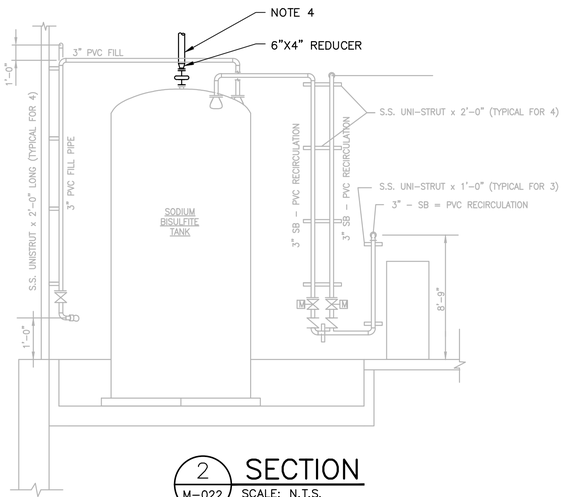
M-021

SHEET 46 OF 150

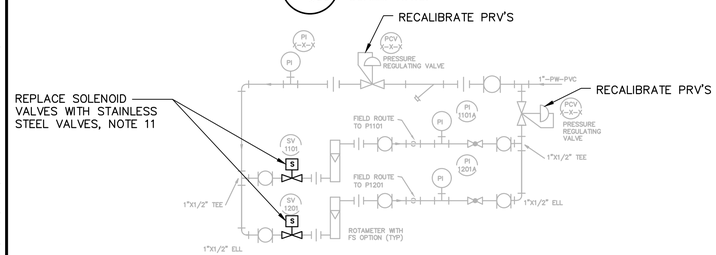
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NOTES:

1. LOCATION OF PIPING AND VALVES ARE APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD PRIOR TO CONSTRUCTION.
2. REPLACE ALL CORRODED HARDWARE WITH TYPE 316 STAINLESS STEEL.
3. INSPECT ALL VALVES, PIPING, AND EQUIPMENT, AND REPLACE ALL BROKEN OR CRACKED COMPONENTS.
4. REPLACE COMMON 4–INCH VENT LINE WITH INDIVIDUAL 6–INCH VENT LINES FOR EACH TANK. ADD OR ENLARGE ROOF OPENINGS AS NECESSARY. ADD VENT STACK ACCORDING TO DETAIL. CONTRACTOR AND PERSONNEL ARE NOT PERMITTED TO STAND OR SIT ON TOP OF TANKS DURING VENT INSTALLATION.
5. REPLACE PRESSURE CONTROL VALVE AND UNION AT INLET AND DISCHARGE.
6. REPLACE NIPPLE BETWEEN BALL VALVE AND DIAPHRAGM SEAL WITH STAINLESS STEEL.
7. REPAIR LEAKING BONNET.
8. INSPECTION AND REPAIR OF EQUIPMENT OTHER THAN CHEMICAL TANKS SHALL BE PAID OUT OF ALLOWANCE 3.3. CONTRACTOR TO INSPECT AND PROVIDE COST ESTIMATE AND REPORT DESCRIBING NEEDED REPAIRS FOR REVIEW BY CITY.
9. CLEAN AND REMOVE CHEMICAL RESIDUE FROM CONTAINMENT AREA.
10. MANUFACTURER TO INSPECT TANKS. REPAIR PER MANUFACTURER'S RECOMMENDATIONS. INSPECTION AND REPAIR SHALL BE PAID FROM ALLOWANCE 3.9.
11. DISCONNECT EXISTING WIRING FOR SV1101 AND SV1201. RECONNECT TO NEW SV1101 AND SV1201 USING EXISTING WIRING.
12. INSPECTION AND REPAIR OF EQUIPMENT OTHER THAN CHEMICAL TANKS AND PUMPS WHICH ARE NOT SPECIFICALLY CALLED OUT OR SHOWN AS BEING REPLACED SHALL BE PAID OUT OF ALLOWANCE 3.3. EXAMPLE IS REPLACEMENT OR CORRODED STEEL PARTS OR PIPE SUPPORTS OR INSPECTION AND REPAIR/REPLACEMENT OF DAMAGED OR BROKEN COMPONENTS. CONTRACTOR TO INSPECT AND PROVIDE COST ESTIMATE AND REPORT DESCRIBING NEEDED REPAIRS FOR REVIEW BY CITY.

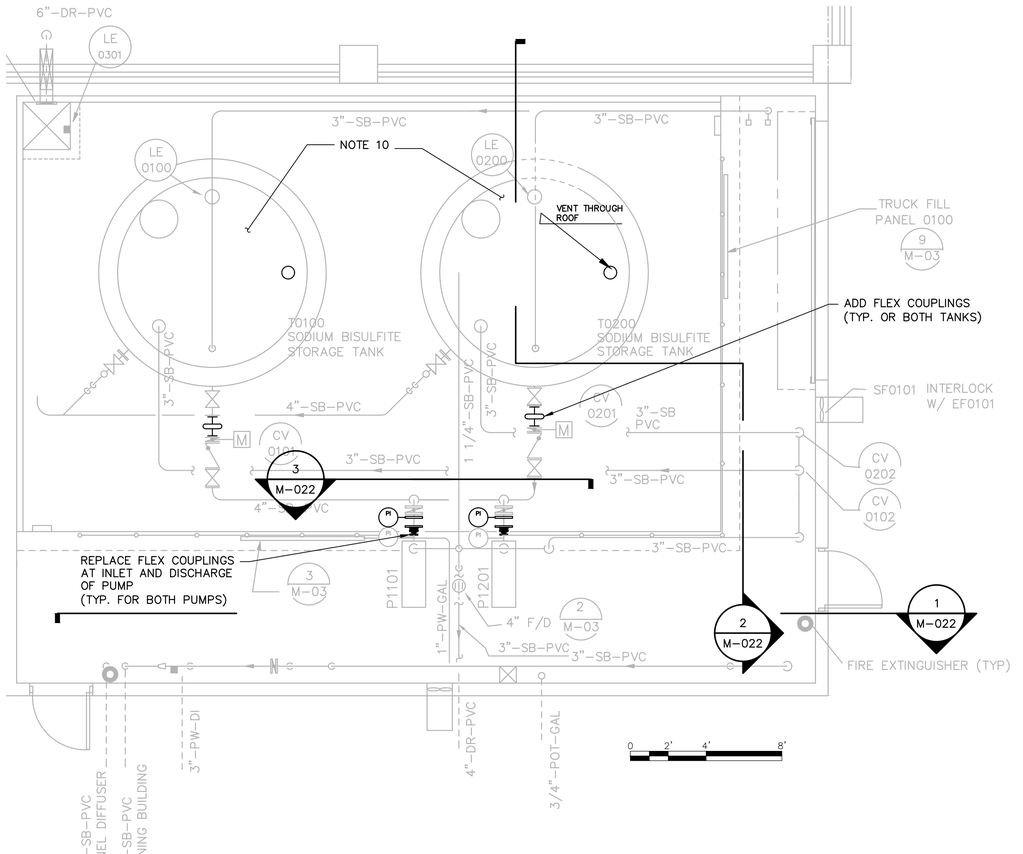


2 M–022 SECTION
SCALE: N.T.S.



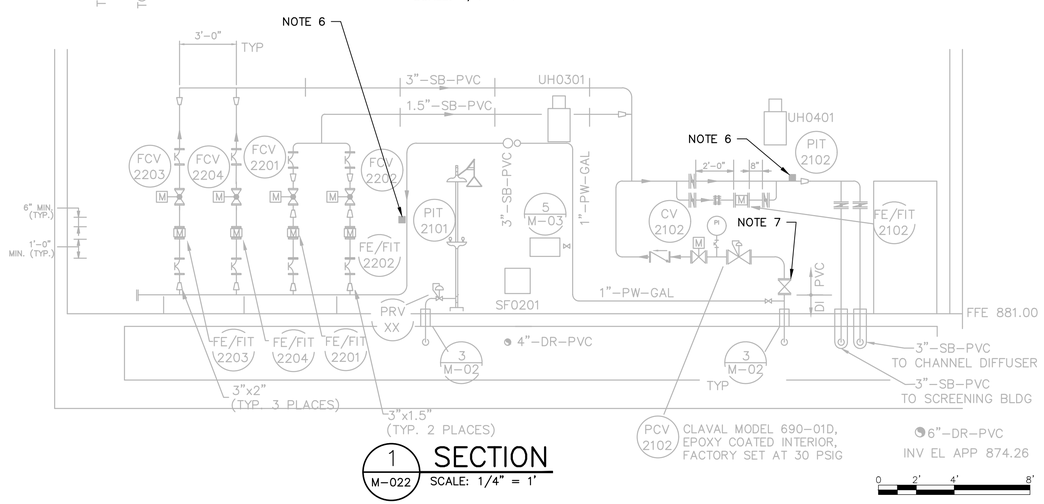
DETAIL – SEAL WATER

SCALE: N.T.S.

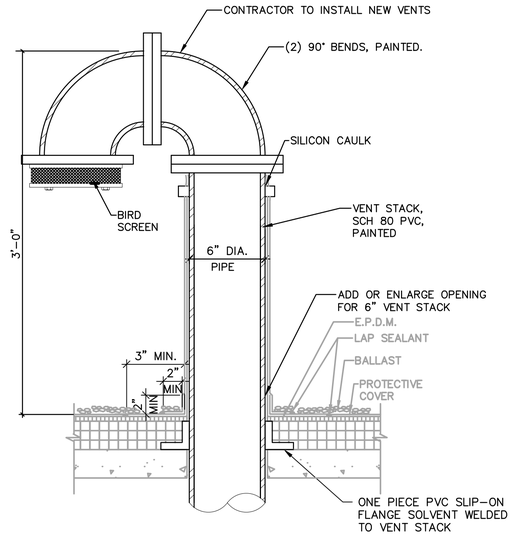


DECHLORINATION ROOM – PLAN

SCALE: 1/4" = 1'

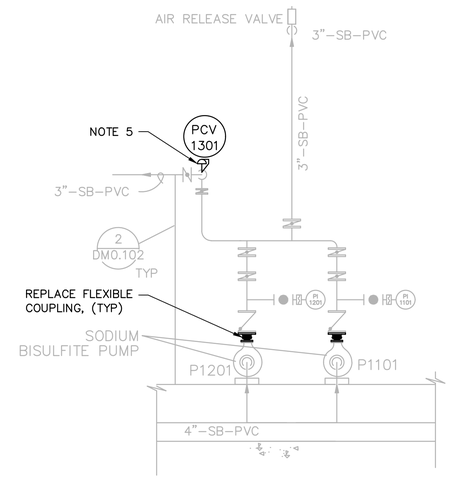


1 M–022 SECTION
SCALE: 1/4" = 1'



DETAIL – VENT STACK

SCALE: N.T.S.



3 M–022 SECTION
SCALE: 1/4" = 1'

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SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CUSTER AVENUE – SODIUM BISULFITE SYSTEM PLAN AND SECTIONS

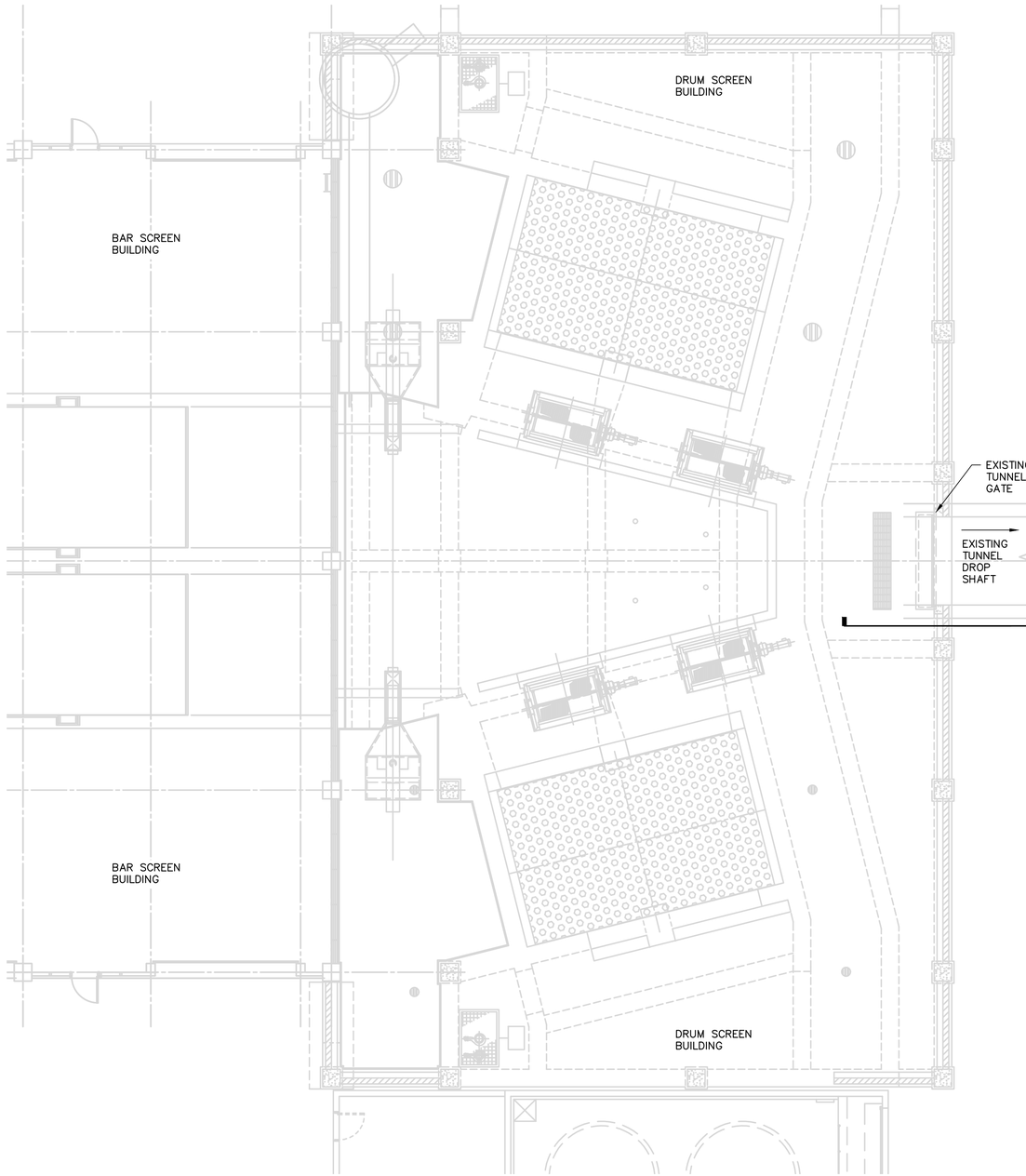
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	H. GIACOMIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M–022

SHEET 47 OF 150

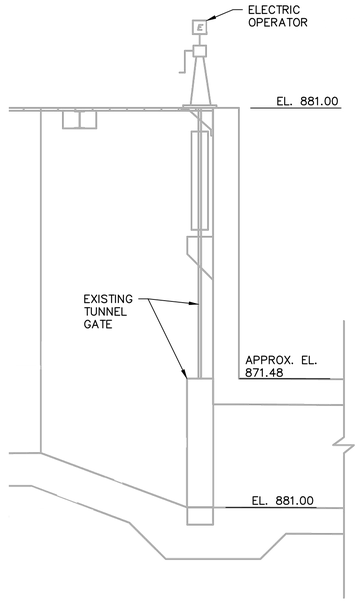
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PLAN VIEW

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

0 4' 8' 16'



1 M-023 SECTION

SCALE: N.T.S.

EXISTING TUNNEL GATE REPAIR:

1. CONTRACTOR SHALL ARRANGE FOR A SITE VISIT BY THE TUNNEL GATE MANUFACTURER (RODNEY-HUNT) TO INSPECT THE EXISTING TUNNEL INLET GATE AT CUSTER AVENUE CSCF, TO ASSESS THE CONDITIONS AND STRUCTURAL INTEGRITY OF THE EXISTING GATE INSTALLATION, INCLUDING BUT NOT LIMITED TO:
   - ALL WALL MOUNTING(S) AND OTHER GATE ANCHORAGE APPURTENANCES.
   - GATE SEATS
   - GATE OPERATOR
   - GATE OPERATOR SUPPORT
   - GATE CONTROL SYSTEM
   - LIMIT SWITCH SETTINGS
2. THE GATE MANUFACTURER SHALL PREPARE A WRITTEN REPORT ADDRESSING:
   - THE CONDITION OF THE GATE AND OPERATOR
   - ANY RECOMMENDED GATE/OPERATOR REPAIRS
   - ANY RECOMMENDED CONCRETE REPAIRS
   - NEW LIMIT SWITCH SETTINGS TO PREVENT OVER-STRESSING THE GATE ASSEMBLY
   - ANY RECOMMENDED ELECTRICAL/CONTROL REPAIRS
   - FINAL COATING/PAINTING REPAIRS
3. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND CITY A PROPOSAL TO PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM ANY RECOMMENDED GATE REPAIRS, CONCRETE REPAIRS, OPERATOR REPAIRS AND ADJUSTMENT OF LIMIT SWITCH SETTINGS. THE PROPOSAL SHALL INCLUDE THE COST OF THE SITE VISIT AND GATE ASSESSMENT REPORT, RECOMMENDATIONS AND PRICE DEVELOPMENT BY THE GATE MANUFACTURER AND THE CONTRACTOR'S OVERHEAD AND PROFIT.
4. UPON APPROVAL FROM THE CITY, CONTRACTOR SHALL PROCEED WITH THE TUNNEL GATE REPAIRS.
5. NO REPAIR WORK SHALL BEGIN WITHOUT WRITTEN DIRECTION FROM THE CITY TO DO SO.

REFERENCE DRAWINGS: 008-M-01 (2009, CUSTER AVENUE CSO STORAGE AND DECHLORINATION FACILITY), 4-M-3 (2001, EAST AREA CSO IMPROVEMENTS)













EXISTING TUNNEL GATE PHOTOS

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

ARCADIS A Joint Venture
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Atlanta, GA 30339
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RESURGENS 1870 ATLANTA, GA. 1901

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CUSTER AVENUE TUNNEL GATE REPAIR

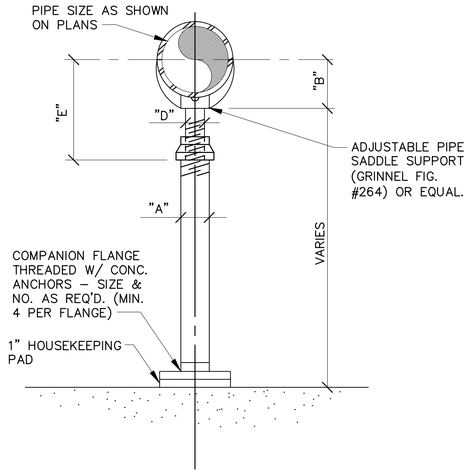
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: AS SHOWN

M-023

SHEET 48 OF 150

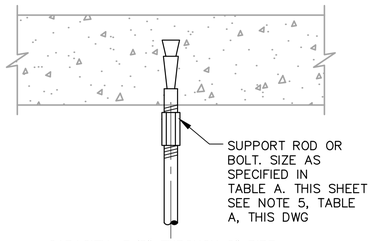
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SCHEDULE OF DIMENSIONS					
PIPE SIZE	A	B	D	E	
				MIN.	MAX.
2 1/2	2 1/2	3 /12	1 1/2	8	13
3	2 1/2	3 3/4	1 1/2	8 1/4	13 1/4
3 1/2	2 1/2	4	1 1/2	8 1/2	13 1/2
4	3	4 1/4	2 1/2	9 1/4	14
5	3	4 7/8	2 1/2	10	14 3/4
6	3	5 1/2	2 1/2	10 1/2	15 1/4
8	3	6 3/8	2 1/2	11 3/4	16 1/2
10	3	8 1/2	2 1/2	13 1/2	18 1/4
12	3	9 15/16	2 1/2	15	19 3/4
14	4	10 15/16	3	16 1/4	20 3/4
16	4	12 3/8	3	17 3/4	22 1/4
18	6	13 7/8	3 1/2	19 1/2	24

ADJUSTABLE SADDLE PIPE SUPPORT DETAIL

SCALE: N.T.S.



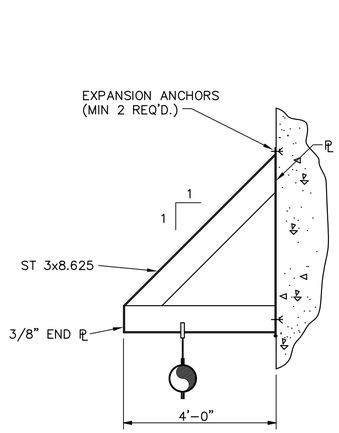
CAPACITY: 3/8" THROUGH 6" PIPE
MAXIMUM ALLOWABLE LOAD:

ROD SIZE	LOAD
3/8"	610 lbs.
1/2"	1130 lbs.
5/8"–7/8"	1140 lbs.

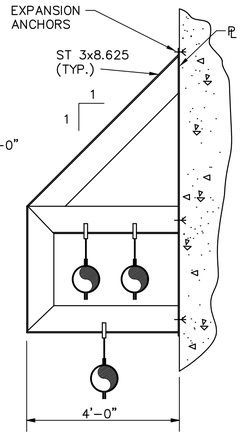
SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN TABLE A THIS SHEET.

DETAIL – ANCHOR

SCALE: N.T.S.



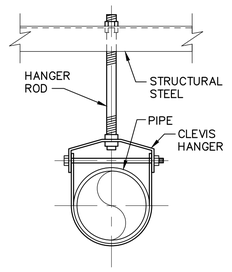
TYPE "A" HANGER BRACKET



TYPE "B" HANGER BRACKET

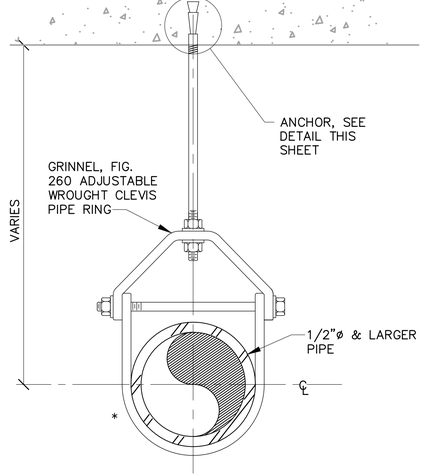
DETAIL – PIPE HANGER

SCALE: N.T.S.



STEEL MOUNTED CLEVIS HANGER PIPE SUPPORT DETAIL

SCALE: N.T.S.



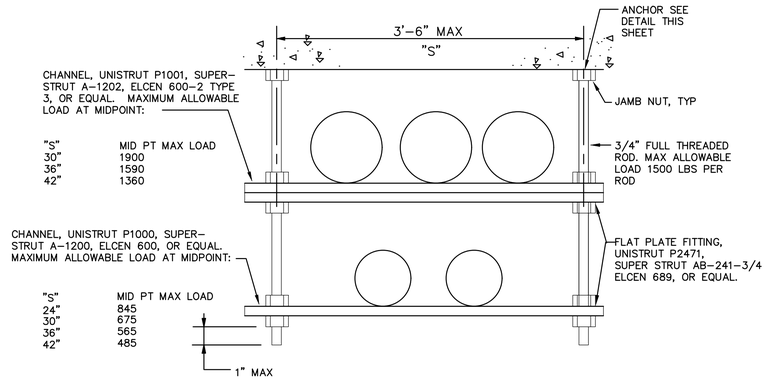
ADJUSTABLE CLEVIS PIPE SUPPORT DETAIL

SCALE: N.T.S.

TABLE A								
NOMINAL PIPE SIZE (INCHES)	SUPPORT ROD SIZE AND MAX. LOAD PER ROD SEE NOTE 2 AND 3				MAXIMUM PIPE SPAN (FEET)			
	SINGLE ROD SUPPORT SYSTEM		TWO ROD SUPPORT SYSTEM		STEEL SEE NOTE 3	FIBERGLASS	PVC SEE NOTE 4	DUCTILE IRON SEE NOTE 6
	ROD SIZE (INCHES)	MAX. LOAD (POUNDS)	ROD SIZE (INCHES)	MAX. LOAD (POUNDS)				
3/8–3/4	3/8	610	3/8	610	5	---	CONTINUOUS	---
1	3/8	610	3/8	610	7	---	3.8	---
1 1/4	3/8	610	3/8	610	7	---	4	---
1 1/2	3/8	610	3/8	610	9	3.75	4	---
2	3/8	610	3/8	610	10	4.75	4.33	12 FEET FOR PRESSURE PIPE 10 FEET FOR SOIL PIPE
2 1/2	3/8	610	3/8	610	11	5.75	4.75	
3	3/8	610	3/8	610	12	7	5	
4	1/2	1130	3/8	610	14	9	5.25	
6	5/8	1810	1/2	1130	17	12	6	
8	3/4	2710	1/2(5/8)	1130(1810)	19	11	12	
10	3/4(1)	2710(4960)	5/8(3/4)	1810(2710)	22	12	12	
12	7/8 (1 1/4)	3770(8000)	3/4(7/8)	2710(3770)	23	---	---	

NOTES:

1. DESIGN WEIGHT SHALL BE TWICE THE WEIGHT OF THE PIPE FULL OF WATER. HANGER SYSTEMS SHALL BE DESIGNED USING THIS DESIGN SHEET, SPECIFICATIONS OR MANUFACTURERS STANDARDS WHICHEVER ARE THE MOST STRINGENT.
2. ROD SIZES SHOWN ARE FOR THE SUPPORT OF A SINGLE PIPE. WHEN SUPPORTING MORE THAN ONE PIPE, ROD SHALL BE SIZED USING THE DESIGN WEIGHTS (SEE NOTE 1) TO DETERMINE THE TOTAL DESIGN LOAD. THE TOTAL DESIGN LOAD SHALL NOT EXCEED THE MAXIMUM LOADS SHOWN IN THE TABLE ABOVE.
3. ROD SIZES AND MAXIMUM LOADS IN PARENTHESIS ARE FOR 8", 10", OR 12" STEEL PIPE ONLY, AT SPANS SHOWN
4. SPAN SHOWN IS FOR SCHEDULE 80 PVC PIPE AT 100℉. SPANS FOR OTHER PLASTICS, OTHER PVC PIPE SCHEDULES AND PIPES AT HIGHER TEMPERATURES SHALL BE SHORTENED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. "CONTINUOUS" MEANS PIPE SHALL BE IN UNISTRUT OR SIMILAR CHANNEL.
5. FOR PIPES SUBJECT TO LONGITUDINAL MOVEMENT, OR HAVING SERVICE TEMPERATURES IN RANGES OF 33℉ TO 59℉ OR 120℉ TO 450℉.
6. PROVIDE A MINIMUM OF ONE PIPE HANGER PER PIPE LENGTH, WITHIN 4–INCHES OF THE BELL OR FLANGE OF THE PIPE.



TRAPEZE NOTES:

1. SPACING SHALL BE AS SPECIFIED IN TABLE A. SEE NOTE 2.
2. MAXIMUM DESIGN WEIGHTS SHALL BE AS FOLLOWS:
   3/8" TO 1 1/4" PIPE – 100% OF DESIGN WEIGHT. TABLE A.
   1 1/2" TO 12" PIPE – 50% OF DESIGN WEIGHT. TABLE A.
3. TOTAL LOADS ON END CONNECTIONS SHALL NOT EXCEED 1/2 THE MAXIMUM ALLOWABLE LOAD AT MID–POINT.
4. VERTICAL SPACING SHALL BE AS REQUIRED.

TRAPEZE SUPPORT DETAIL

SCALE: N.T.S.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

STANDARD MECHANICAL DETAILS 1

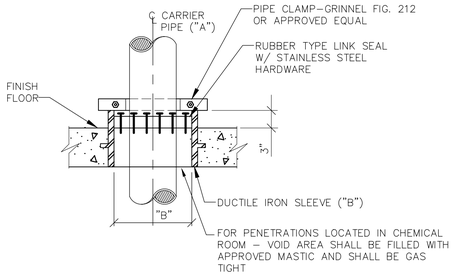
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	R. KUNZ
CHECKED BY:	W. GRUBBS

SCALE: NONE

M–024

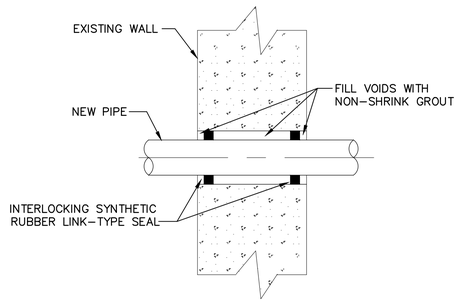
SHEET 49 OF 150

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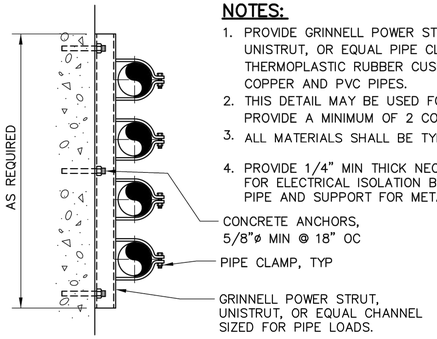
DETAIL – FLOOR PENETRATION

SCALE: N.T.S.



TYPICAL WALL PENETRATION DETAIL (EXISTING WALL)

SCALE: N.T.S.

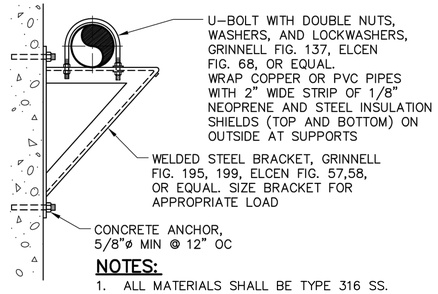


NOTES:

1. PROVIDE GRINNELL POWER STRUT PS 1400, UNISTRUT, OR EQUAL PIPE CLAMP WITH THERMOPLASTIC RUBBER CUSHION ON COPPER AND PVC PIPES.
2. THIS DETAIL MAY BE USED FOR SINGLE PIPES. PROVIDE A MINIMUM OF 2 CONCRETE ANCHORS.
3. ALL MATERIALS SHALL BE TYPE 316 SS.
4. PROVIDE 1/4" MIN THICK NEOPRENE RING FOR ELECTRICAL ISOLATION BETWEEN PIPE AND SUPPORT FOR METALLIC PIPE.

WALL TYPE PIPE SUPPORT

SCALE: N.T.S.

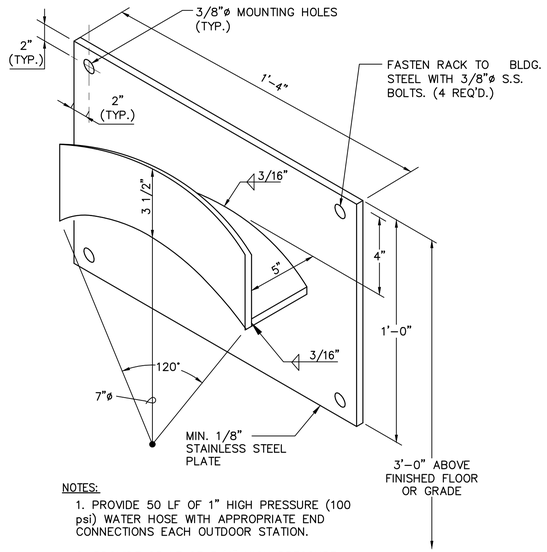


NOTES:

1. ALL MATERIALS SHALL BE TYPE 316 SS.
2. PROVIDE 1/4" MIN THICK NEOPRENE RING FOR ELECTRICAL ISOLATION BETWEEN PIPE AND SUPPORT FOR METALLIC PIPE.

PIPE BRACKET

SCALE: N.T.S.



NOTES:

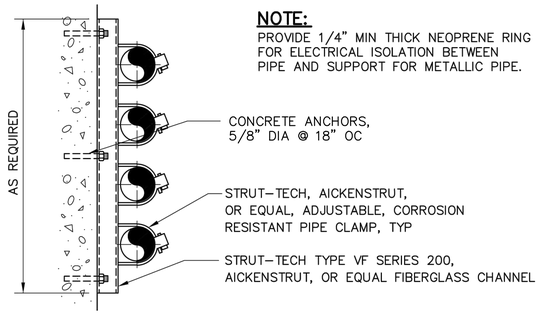
1. PROVIDE 50 LF OF 1" HIGH PRESSURE (100 psi) WATER HOSE WITH APPROPRIATE END CONNECTIONS EACH OUTDOOR STATION.
2. PROVIDE 25 LF OF 3/4" HIGH PRESSURE (100 psi) WATER HOSE WITH APPROPRIATE END CONNECTIONS FOR STATION INSIDE BLDG.

DETAIL – WATER HOSE RACK

SCALE: N.T.S.

NOTES:

1. TYPICAL FOR PIPES 3" AND LARGER THROUGH EXISTING CONCRETE WALLS
2. HARDWARE SHALL BE TYEP 316 SS

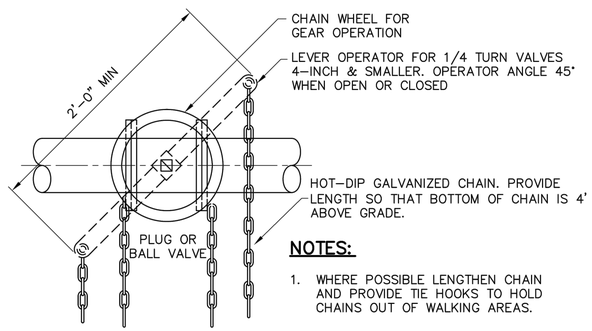


NOTE:

PROVIDE 1/4" MIN THICK NEOPRENE RING FOR ELECTRICAL ISOLATION BETWEEN PIPE AND SUPPORT FOR METALLIC PIPE.

CORROSION RESISTANT WALL TYPE PIPE SUPPORT FOR USE IN CHEMICAL AREAS

SCALE: N.T.S.

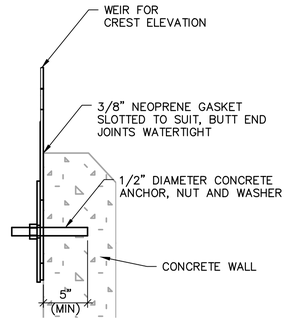


NOTES:

1. WHERE POSSIBLE LENGTHEN CHAIN AND PROVIDE TIE HOOKS TO HOLD CHAINS OUT OF WALKING AREAS.

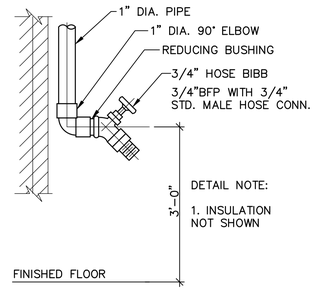
CHAIN ACTUATED VALVE OPERATOR

SCALE: N.T.S.



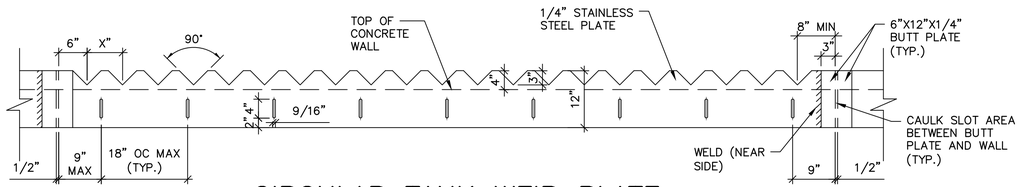
CIRCULAR TANK WEIR PLATE SECTION

SCALE: N.T.S.



HOSE BIBB DETAIL

SCALE: N.T.S.



CIRCULAR TANK WEIR PLATE

SCALE: N.T.S.

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL 7-8-22 ENGINEER HAMILTON DAY GILES

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www.arcadis–us.com

RESURGENS BUILT ATLANTA, GA. 1901

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

SHEET TITLE
STANDARD MECHANICAL DETAILS 2

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	M. BRONSTEIN
DRAWN BY:	R. KUNZ
CHECKED BY:	W. GRUBBS

SCALE: NONE

M–025

SHEET 50 OF 150

User:HDGILES Spec:AUS–NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–025.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:39 Plot Date: Giles, Hamilton; 7/8/2022; 11:01 ; Layout:50

September 25, 2023

Project: Custer Ave CSO Storage and Chlorination Facility, Atlanta, GA. – Sluice Gate Inspection
Purchase Order No.: Lakeshore Engineering – Brandon Dow
Location: Custer Ave – Diversion Structure Tunnel Gate
Contact: Brandon Dow
Lakeshore Engineering
1259 Ellsworth Drive
Atlanta, GA 30318
Cell: 404-456-2054
Email: bdow@lakeshoreengineering.com
Gate No.: SG1302
Gate Size: 108" x 72" (width x height)
Gate Type: CI Sluice Gate – Series HY-Q 140
Number of Gates: 1

This work was completed under PCO-19

Re: Evaluation of 108" x 72" sluice gate

The following inspection report is submitted on a 108" x 72" sluice gate located at Custer Avenue CSO Storage and Chlorination Facility. The gate is arranged on the inside wall of the outlet tunnel with seating head and the upstream surfaces facing the inside of the facility. Because of this orientation, inspection was able to be performed on the upstream surfaces of the disc and frame, inside surface of the wall thimble, frame's bronze seat facing, invert seal and retainer, four left- and right-hand side wedges, six top wedges, stem, stem guide, thrust nut and electric operator. The downstream side of the disc was not accessible so the disc's bronze seat facing was not inspected, however no broken (hanging) seat facing was noted.

The lifting mechanism for the gate has a 3.50"-2 TPI – Left Hand – Single Lead ACME threaded stem and a Limitorque MX85 actuator with a B320 gearbox mounted on a fabricated stainless-steel pedestal connected to a steel yoke.






Water was flowing into the facility from the upstream side of the gate at approximately 30 to 50 gallons per minute, which kept 18" to 24" of water at the invert, so the invert of the gate couldn't be visually inspected, however, the invert felt smooth, and no obvious damage was noted.

The gate was cycled a number of times during the inspection and during the process to reset the limit switches. While cycling the gate no loud banging, high-pitched squeals, chatter, or rhythmic banging were observed. (Any of these would have indicated a disc, stem or stem guide misalignment issue or excessive corrosion between the disc's tongue and the frame's groove.) The gate moved smoothly and quietly. Visual checks were also conducted to determine whether the stem turned during operation, the disc traveled smoothly, if the stem bowed during cycling and/or if wedges were all set properly; all appeared to work as designed.

The coating on the gate's disc, frame, guides, guide extensions, floor-mounted stem guides and yoke has failed, however the equipment appears to be in good shape with no visible structural issues and minimal material loss. Slight surface rust was visible with only a fine scale of corrosion and some shallow pitting. A maximum of 1/16" material loss was noted, which is less than would be expected for gates of this age. Recommend blasting and painting the gates and associated equipment with a high solids epoxy.

WALL THIMBLE

The wall thimble was embedded in concrete and only the inside surface was accessible for inspection. The wall thimble was in good condition with minimal corrosion and little to no pitting was noted (less than 1/16" deep) which is less than would be expected for a gate of this age. The concrete around the wall thimble shows no signs of cracking, spalling or broken pieces. The wall thimble mounting hardware appears to be in good condition with only minor corrosion.

GATE FRAME

Most of the gate frame could be seen from the upstream side of the gate. What was visible appeared to be in good shape with no structural issues and minimal material loss. Little-to-no pitting was noted (less than 1/16" deep) and hardly any debris, much less than would be expected for a gate of this age. Thus, the amount of deterioration is not a structural concern. The frame's cast-on top wedge seats appeared to be firmly attached and in good condition, the mounting hardware was in good condition and appeared properly torqued.

GATE FRAME SEAT FACING

The frame's seat facing, on the right side of the gate, is cracked in half vertically along most of the gate's height. At a minimum, the loose piece of seat facing should be removed before it breaks free and damages the disc's seat facing. The cut ends should be lapped/sanded smooth so that they do not catch on the disc's seat facing while the gate is cycled. (See the sketch below showing the removed frame's seat facing.) If the gate is not removed for replacement or refurbishment, a field weld repair (shielded metal arc welding using aluminum-bronze electrodes, ECuAL-A2 or equal) of the seat facing is

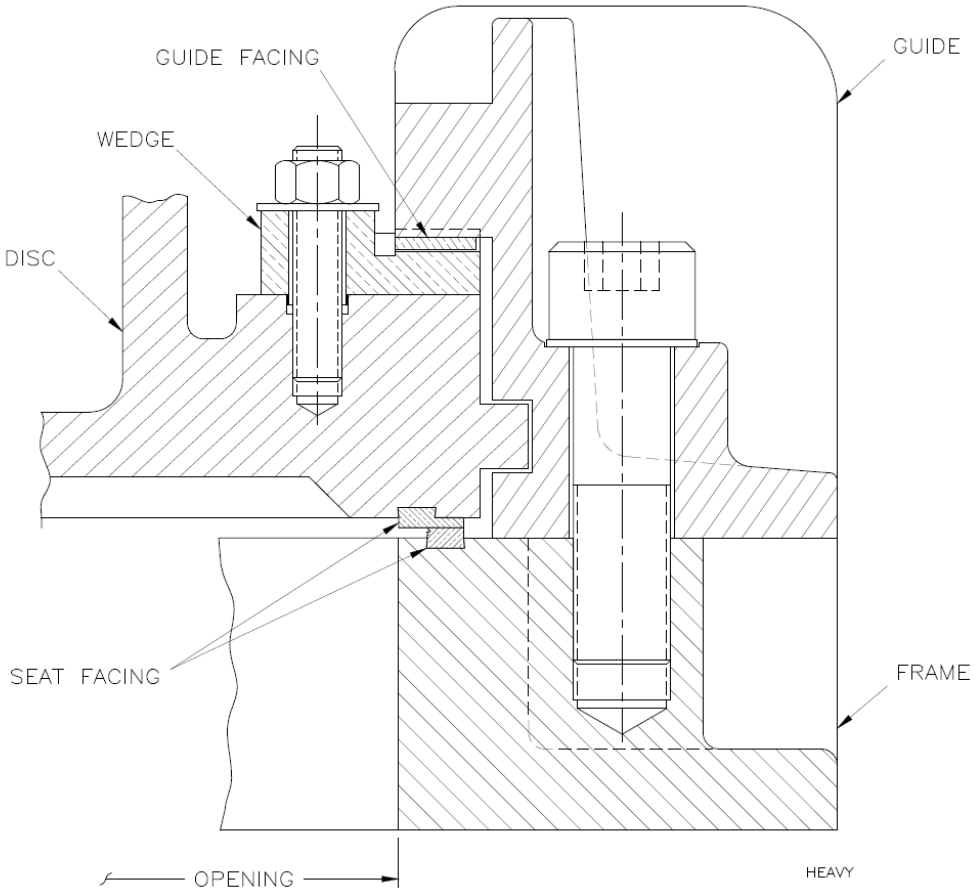
This work was completed under PCO-19

recommended to reduce the gate's leakage rate and, more importantly, reduce the likelihood of additional damage to the frame's or disc's seat facing if the remaining seat facing breaks loose from the frame. Any weld overlay needs to be lapped/sanded to the same height as the existing seat facing. Any weld material left projecting above the current seat facing could cause damage to the disc's seat facing. A smooth flat surface is required.









This work was completed under PCO-19

Note: field repairing the frame's seat facing will not reduce the leakage rate to the AWWA standard of 0.1 GPM per foot of sealing perimeter, but it will most likely reduce it below its current value. Sluice gates of this size have a maximum allowable seating leakage of 3.0 GPM (108" x 72" Sluice Gate). To achieve the 0.1 GPM leakage rate, the seat facings on the disc and frame need to be machined flat so that the maximum clearance between the seating surfaces, with the disc in the closed position, shall be 0.004" and the surface finish needs to be 63 micro-inch or better. The flatness and finish are not possible when repairing in the field. But, if the 0.1 GPM is not required because the flow through the gate empties into the river, field weld repair may be a suitable fix.

The gate was closed as part of the inspection process, and it was observed that the water level upstream of the gate was only able to get halfway up the disc with approximately 30 to 50 GPM entering the facility. Thus, the gate is leaking at over 30 to 50 GPM and most likely closer to 100 GPM.

Also, at the top center of the frame a piece of facing almost 1" wide is missing. It appears that at some point a piece of metal (maybe a small piece of threaded rod) became stuck/wedged between the downstream side of the disc and the frame and caused some damage to the frame and seat facing. The seat facing appears to be adhered to the frame and is not working itself loose. Recommend a field weld repair (shielded metal arc welding using Aluminum-Bronze electrodes, ECuAL-A2 or equal) of the seat facing not only to reduce the gate's leakage rate but, more importantly, so that additional damage to the frame's or disc's seat facing doesn't occur if the seat facing works itself free.

The frame's seat facing also has a few smaller wear marks, gouges and minor scoring on the bronze surface, which are considered acceptable for a gate of this age.

Recommend inspecting the downstream side of the disc to determine if any of the disc's seat facing has been damaged. (Need to look between the downstream side of the disc and the concrete wall while the gate is in the open position.)







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GATE FRAME HARDWARE

The visible gate frame's hardware appeared to be in good condition with minimal corrosion and pitting.

GATE GUIDES AND GUIDE EXTENSIONS

While cycling the gate, the gate guides' and guide extensions' grooves were visible and appeared to be in good condition with minimal corrosion, pitting and metal loss and the disc's tongues moved smoothly in the grooves; no issues were noted. Cycling the gates twice a year or every quarter will reduce the rust buildup in the guide's grooves, allowing the gate's disc to move freely.

The guides, guide extensions and guide hardware appeared to be in good condition with no structural issues and minimal corrosion, pitting and material loss. Thus, the amount of deterioration is not a structural concern.







The guide's cast-on side wedge pads appeared to be firmly attached and in good condition with little corrosion and pitting. The wedges' mounting and adjusting hardware was in good condition and appeared properly torqued.

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GATE DISC (SLIDE)

The gate discs appeared to be in good condition with no visible structural issues and minimal material loss. The gate had a thin (less than 1/16”) corrosion layer on its surface but was free of pitting. Thus, the amount of deterioration is not a structural concern.



The disc’s cast-on side wedge pads and top wedge pads appeared to be firmly attached and in good condition with little corrosion and pitting. The wedges’ mounting and adjusting hardware was in good condition and appeared properly torqued.





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GATE DISC TONGUE

The gate's disc tongue is enclosed in the guide's groove so was not visible for inspection, but when the gate was cycled the disc moved smoothly without noise, indicating that the tongues are in good condition.

DISC SEAT FACING

The disc's seat facing could not be observed because the distance between the back of the disc and the concrete wall was too small to allow access. Because the gate moved smoothly and quietly during cycling, the disc's seat face most likely has not broken away from the disc and is not binding with the frame's seat facing. However, part of the disc's seat facing could be missing or damaged.

GATE INVERT

The gate invert was submerged under 18" to 24" of water so it was not possible to visually inspect the invert. However, the invert felt smooth and appeared to seal against the gate's invert rubber seal.



GATE INVERT RUBBER SEAL

The gate's invert rubber seal appeared to be in good shape with only a few areas that were abbraded/gouged. Because the majority of the gate's leakage is a result of the damage to the frame's seat facing, it is not recommended to replace the invert rubber seal until the leakage from the seat facing can be reduced.





GATE INVERT RETAINER PLATE

The gate's invert retainer plate is bent in a number of places but it has not broken and is holding the invert rubber seal in place. Because the majority of the gate's leakage is a result of the damage to the frame's seat facing, it is not recommended that the invert rubber seal be replaced until the leakage from the seat facing can be reduced.





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GATE INVERT RETAINER PLATE HARDWARE

The invert retainer plate hardware appeared to be in good condition with minimal corrosion and pitting.

THRUST NUT POCKET

The thrust nut pocket also appeared to be in good condition with minimal corrosion and pitting.

THRUST NUT

The thrust nut sits in a square pocket of the disc, preventing the thrust nut from turning and providing a connecting point between the stem and disc. No rotation of the thrust nut was noted during the cycling of the gate, therefore it appeared to sit properly and be tightly held in the nut pocket. The thrust nut appeared to be in good condition.



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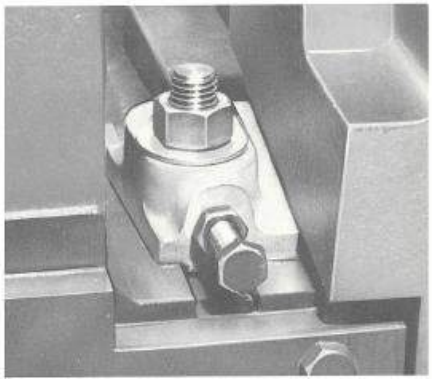
WEDGING DEVICES

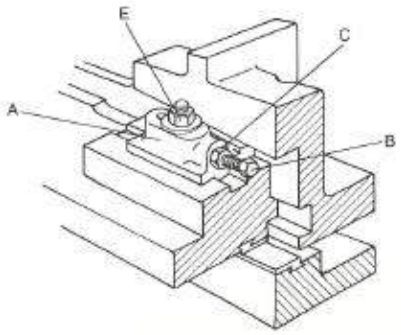
All sluice gates are equipped with adjustable wedging devices to provide tight contact between the disc and frame seat facings when the gate is in the closed position. The number of wedges and their location depends on the gate's size, head, orientation, and OEM design. As the gate moves, the top and side wedges push the disc's and frame's seat facings together.

GATE SIDE WEDGES

This gate has four right and four left side wedges, which are keyed directly to the sluice gate disc to prevent rotation. Because the wedges and their contact surfaces are machined to match the exact angle of the bronze wedge seat, misalignment of the wedge is not possible, even in the case of faulty field adjustment. The side wedges incorporate an adjusting bolt, lock nut and hold down stud as a double-lock feature to ensure the wedge will not move once it has been properly adjusted.







GATE SIDE WEDGE HARDWARE

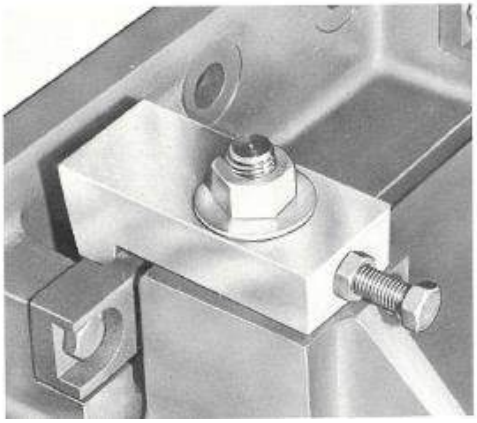
The studs, bolts and nuts used to mount the side wedges, and the wedges themselves, appeared to be in good shape. Because the wedges appeared to be correctly adjusted, and often the hardware will break or strip in the process of being removed or adjusted, no attempt was made to change their position.

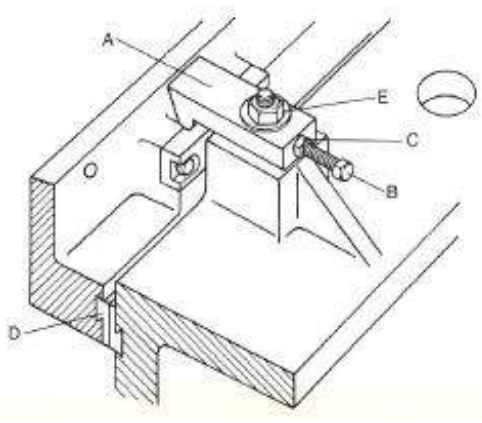
GATE TOP WEDGES

The gate has six top wedge assemblies, each made up of a bronze wedge hook and wedge seat, all of which appeared engaged and properly adjusted. Top wedge seats are bolted directly to the cast iron frame and keyed to not move under force. The wedge hooks are provided with an adjustable bolt and lock nut, along with a hold-down bolt to maintain the proper setting. The six top wedges were inspected and appeared to be sound, with minimal pitting, and properly adjusted.

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GATE TOP WEDGE HARDWARE

The studs, bolts and nuts used to mount the top wedges, and the wedges themselves, appeared to be in good shape. Because the wedges appeared to be correctly adjusted, and often the hardware will break or strip in the process of being removed or adjusted, no attempt was made to change their position.

OPERATOR STEM

The threading on the operator stem appeared to be in good shape: well-greased, approximately a 60 finish, smooth without burrs and no damage noted. The operating stem is made from a solid round bar of stainless steel. The operator stem is threaded on its upper portion to engage the hoist lift/operator nut and the bottom portion is threaded and keyed to attach the thrust nut. The connection is secured by a key and a set screw.

Stem threads are machine cut, 29-degree, full ACME. The gate stem has a 3.50”-2 TPI ACME Left Hand Single Lead Method M thread. It is critical that operating stems be cleaned and greased at least once every six months, even if a stem cover is present, and more often if the grease becomes dirty with grit and debris. If stems are exposed to harsh environmental conditions, more frequent cleaning and greasing is necessary.

The stem appeared to be straight and plumb. No issues were noted while cycling the gate.

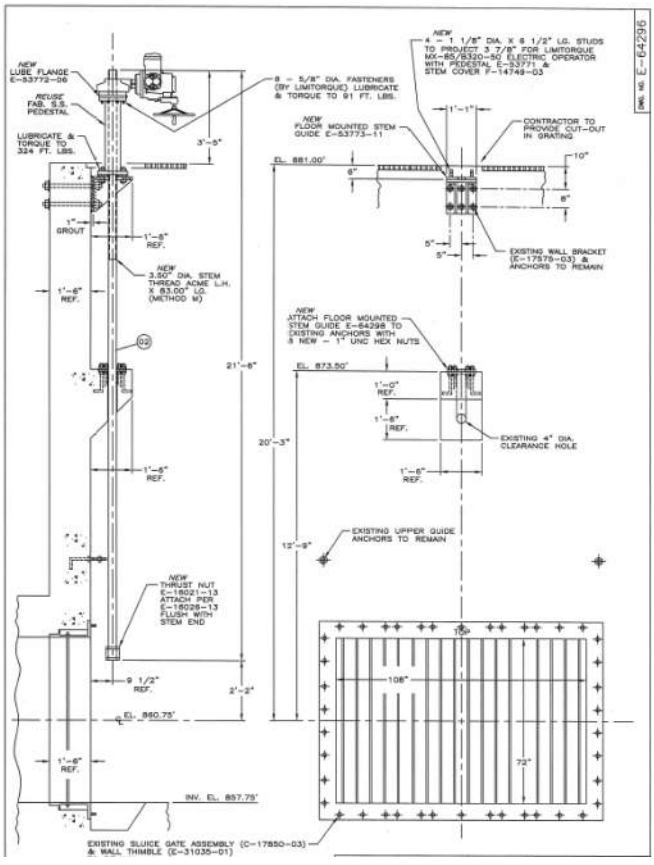
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The maximum unsupported stem length for a 3.50”- 2 TPI ACME thread, based on L/r = 200 (Euler’s formula not investigated), is 148” for the threaded section and 175” for the plain stem section.

The threaded part of the stem has a distance of 84.00” between the two floor mounted stem guides and the plain stem has a maximum distance of 121.25” between the floor mounted stem guide and the top of the thrust nut. The gate’s stem guide locations are well within the maximum range based on L/r = 200, so buckling isn’t a concern.



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When the unsupported stem length/radius of gyration of the stem is greater than 200, an operating stem requires intermediate support by means of an adjustable bronze stem guide assembly. The maximum allowable compressive load on the stem is calculated using Euler's long column formula when the L/r ratio is between 100 and 200. Under compression, stems are designed to withstand 1.375 times the stall torque of the electric motor operator. This force may be several times greater than the normal force required to operate the gate.

If there were a concern or a damaged stem, these forces could be investigated further to determine the maximum unsupported length.

FLOOR MOUNTED STEM GUIDES

The lifting device for the gate incorporates two properly-spaced, floor-mounted stem guides to hold the stem in alignment and still allow enough play to permit operation per AWWA C560. The top bronze-bushed floor-mounted stem guide sits on a cast iron wall bracket anchored to the concrete wall. The lower floor-mounted stem guide is mounted on a concrete shelf. The wall brackets and floor-mounted stem guides are secured to the wall or concrete pad by anchor bolts of sufficient strength and arrangement, thus preventing unacceptable stem guide deflection due to either axial or radial stem loading caused by gate operation forces during manual operation, or motor-operator locked rotor stall conditions.



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The floor-mounted stem guides appeared to be in good shape, however could not be closely observed to determine if the two guides were structurally sound and aligned properly with the stem or if the hardware and anchors were torqued properly. Any loosening of the stem guide would result in the stem being unsupported, which could cause the stem to be damaged when the gate is operated. While cycling the gate, the stem moved smoothly through the stem guides without chatter or noise. It appears that the floor-mounted stem guides are aligned properly.

WALL BRACKETS

The wall bracket is missing the outmost slot on the left side and the concrete that the wall bracket is anchored to is broken and missing pieces. The wall bracket needs to be removed and the gate loads supported by a new yoke.





PEDESTALS

The pedestal was mounted on a broken wall bracket that was anchored to cracked concrete with missing pieces. The wall bracket and pedestal were supported by a fabricated steel yoke that was beginning to fail. Recommend replacing the wall bracket, pedestal, and yoke with a new yoke. When reinstalling the new yoke ensure the operator is centered on the stem, the yoke is positioned so that the stem is plumb and the yoke is firmly anchored.

YOKE

The current yoke was made with top and bottom plates suspended between two 8” x 8” (48 Lbs/Ft) WF I-Beams. The plates enclose the pedestal pipe and are welded together with a small fillet weld. The plates are not welded to the pedestal. The gate load is transferred to the yoke by four threaded rods that are attached to the wall bracket below. The plates are starting to bend and the weld holding the two plates together has cracked. Recommend replacing the wall bracket, pedestal and yoke with a new yoke.





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The new yoke should be designed such that the I-beams or channels spanning the 2-foot-wide gap in the floor are closer together, therefore transferring the gate load to the structural members and not to the mounting plate. Because the electrical connection is slightly off the centerline of the stem, the new yoke might need to be rotated a few degrees out of square so that the electrical connection is in between the two structural members. New anchors will need to be designed and installed.

HOIST

The Sluice Gate is operated by a Limitorque MX85 electric actuator coupled to a B320 gearbox with a manual handwheel mounted on a fabricated pedestal / yoke. The electric motor operators appeared to be in good condition and operated smoothly and without issue during gate cycling and setting of the limit switches.

The gate limit switches were set to open the gate halfway (the top of the disc even with the top of the guide extensions). During the inspection process the upper limit switch was adjusted so the gate could be moved to its fully open position to inspect the damaged frame's seat facing. After the inspection was completed the limit switch was reset to its original position. The gate was then cycled open-close-open to ensure the gate stopped at the correct positions.



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HOIST HANDWHEEL

With the operator in manual mode the handwheel was able to move the gate up and down without issue.

HOIST MOUNTING HARDWARE

Hoist mounting hardware appeared to be in good condition with minimal corrosion and pitting.

STEM COVER

All hoists for rising stems should have a stem cover that protects the stem's lubricant from sand, dust and dirt and allows observation of the gate's open or closed position. Stem indication can be provided by a clear Mylar tape indicating "open" or "closed". The stem cover should be of sufficient diameter and length to permit full travel of the threaded stem without obstruction. The top of the stem cover should be closed. A plastic adaptor is used to mount the cover to the hoist or electric motor operator.

The stem cover on the gate was made of clear plastic and was easily removed for inspection, but the inside surface was covered with grease and dirt, making it difficult to read the stem position. The stem cover's top lid was missing and the NPT adapter on the bottom was not adhered to the plastic tube. Recommend replacing the stem cover.

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STOP COLLAR

No stop collar was noted on the gate's stem. When a gate is in the fully closed position, a stop collar should be threaded onto the stem and set to approximately 1/16" of clearance between the bottom of the stop collar and the top of the operator stand nut, then the two set screws should be tightened to hold the stop collar in place. Adding stop collars to all gate assemblies is recommended to prevent overtravel of the gate and to prevent the operator's stall torque from bending the operator stem and damaging the gate.

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Conclusions regarding the gates and guides:

1. Except for the leakage issue caused by the broken frame's seat facing, gate is in good condition with no other structural issues discovered during the inspection.

2. The damaged frame's seat facing, on the right side of the gate, is the primary issue. There are several repair options depending on leakage requirements, lead time and cost:
    A. If gate leakage needs to meet AWWA leakage rate of 0.1 GPM per foot of sealing perimeter (3 GPM total leakage), a new gate would be required. The new gate should be ordered with the same bolt pattern as the wall thimble. When the new gate arrives on site the old gate can be unbolted from the wall thimble and a new gate installed. Recommend replacing all of the wall thimble hardware with 316 S/S studs and bronze nuts and washers. The stem, stem guides, thrust nut, yoke and operator can be reused on the new gate. (Be sure to check the nut pocket size on the new gate). Down time would range from as little as a few weeks to a month.

    B. If gate leakage between 0.1 GPM and 0.5 GPM per foot of sealing perimeter (3 GPM to 15 GPM total leakage) is allowable, the gate can be removed and sent to a repair facility to have the frame's seat facing repaired and re-machined. Most likely the gate repair would meet the 0.1 GPM AWWA requirement but realistically there are many factors outside the repair facilities' control that could make it difficult or expensive to achieve. Down time would range from 2 months to 6 months depending on coordination with the repair facility.

    C. If a gate leakage rate of 60 to 100 GPM is allowable (similar to what the gate is leaking now), the gate can be field repaired.

        i. The loose piece of seat facing should be removed, the cut ends lapped/sanded so they are below height of the original seat facing, the surface of the cast iron prepped for welding, and the missing seat facing filed welded (shielded metal arc welding using Aluminum-Bronze electrodes, ECuAL-A2 or equal).
        ii. If the goal is only to anchor the existing broken seat facing to the frame to prevent further damage to the seat facing, only apply enough weld to tack the seat to the cast iron.
        iii. If the goal is to reduce the leakage rate to somewhat better than what currently exists, more weld overlay can be added to make the seat facing as wide as it was originally (approximately 1.25" wide). After welding, the seat facing needs to be sanded, then lapped to a flat surface at the same height as the existing seat facing. The flatter the surface, the better the seal. Any weld overlay material projecting above the current seat facing

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could cause damage to the disc's seat facing; a smooth flat surface is required. Down time would range from as little as a few weeks to a month.

3. If the field weld repair option is chosen, the damage to the frame's seat facing at the top center of the frame might be a good location for the welding contractor to practice on before attempting to repair the frame's seat facing on the right-hand side of the frame. Recommend a field weld repair (shielded metal arc welding using Aluminum-Bronze electrodes, ECuAL-A2 or equal) of the seat facing not only to reduce the gate's leakage rate but, more importantly, so that additional damage to the frame's or disc's seat facing doesn't occur if the seat facing works itself free. The seat facing appears to be adhered to the frame and not working itself loose, so if the gate is going to be replaced or refurbished at an offsite repair facility this damage can be left as is for now.

   The smaller wear marks, gouges and minor scoring on the frame's seat facing can be left as is or field repaired if desired.

4. Recommend inspecting the downstream sides of the gate's disc to ensure that only the frame's seat facing is damaged. This could be accomplished by opening the gate to its fully open position, slipping a borescope camera between the concrete wall and the back of the gate disc and recording any seat facing damage.

5. Recommend inspecting the gate's invert with no water entering the facility. Visual inspection of the invert can help locate small issues that contribute to the gate's leakage rate.

6. If the offsite gate refurbishment option is chosen, recommend replacing the invert seal and the invert seal retainer plates. Ideally the current two retainer plates will be replaced by one wider plate. Recommend replacing the invert retainer plate hardware with 316 S/S HHCS with Nyloc inserts or apply Blue Loctite 242 on the threads at assembly.

7. If the offsite gate refurbishment option is chosen, also recommend replacing all of the side and top wedges' hardware with 316 S/S studs and HHCS, and bronze nuts and washers. In order to refurbish the gate, the wedges will need to be removed; often the hardware will break or strip in the process of being removed or when reinstalling and adjusting the wedges.

8. Recommend blasting and painting the gates prior to recommissioning.
   A. High-pressure powerwash the disc, frame, guides, guide extensions and yoke to remove all loose rust, dirt, debris, moisture, grease or other contaminants from surface.

   B. The invert seal and seat facings should be masked with three layers of duct tape to prevent damage during sand blasting. Rubber O-ring cord can be inserted on top of the seat facing prior to applying the duct tape. Handheld shields can also be used; however, care must be

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taken not to get blasting media between the seat facings, where it will score when the gate is opened, and to not damage the invert seal.

C. Coating performance is, in general, proportional to the degree of surface preparation. Abrasive blasting is the most effective and economical method. When this is impossible or impractical, Amerlock 400 can be applied over mechanically cleaned surfaces. However, it is recommended to get as good of a surface prep as possible. For immersion service, the best results are obtained with a dry abrasive blast SSPC-SP10.

D. Surfaces should be cleaned by commercial sandblasting to base metal, dried (as much as possible) and made free of grease before painting.
   i. Pre-blast disc, frame, and other equipment to remove heavy corrosion, blast to an SP-10 finish and then re-inspect. The casting should appear sound with no major issues noted, such as cracks or missing pieces.
   ii. Typically, castings in this condition will start to show surface rust within 4 hours. Quabbin's procedure is to blast all the castings to SP-10 and then give the castings a light re-blast just prior to painting. This allows application of the coating to all the castings during the same time period.
   iii. After blasting, the amount of pitting visible on the surface of the casting may increase. This should not be of concern, as long as the casting still appears to be sound and in good shape with minimal metal loss. Deep pits and voids are only cosmetic, causing premature rust to show on the surface where the paint doesn't completely fill the void/pit. Additional coats of paint in these areas will help coat the voids.

E. After blasting, remove all loose rust, dirt, debris, blast media or other contaminants from the surface.

F. All cast iron parts of the sluice gate and associated equipment to be painted per the following:
   i. One coat of Amerlock Sealer – Clear – 2 mils thickness
   ii. One coat of Amerlock 400 – Beige – 3 to 5 mils thickness
   iii. One coat of Amerlock 400 – Gray - 3 to 5 mils thickness
   iv. One coat of Amerlock 450H – Black – 3 to 5 mils thickness
   v. The pitting on the castings is not a structural concern, however the coated surface will not appear as smooth as a new casting and the deeper voids/pits are more susceptible to premature rusting. In the heavily pitted areas, application of additional coats will help coat the voids, but some surface rusting will be unavoidable.

9. Recommend removing the grease on the gate stem, cleaning the stem of any grit and debris, visually inspecting threads (should be smooth without burrs or other damage), sanding/filing any damaged threads to a smooth finish, and regreasing prior to operating the gate. The finish on the threaded portion of the stem should have no with visible chatter, gouges, burrs or a sharp tooth

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profile. The stem threads should be smooth to the touch. It is critical that operating stems be cleaned and greased at least once every six months, and more often if the grease becomes dirty from grit and debris.

10. Recommend removing the wall bracket, pedestal and old yoke and replacing them with a new yoke that can support the gate loads. Recommend replacing the hoist mounting hardware and yoke anchors and hardware with 316 S/S threaded anchors, HHCS, hex nuts and flat washers.

11. Recommend replacing the current stem cover with a UV-stabilized butyrate stem cover. Butyrate's UV stabilization is much better than acrylic, PVC or Lexan and can last over a decade in outside environments. While acrylic stem covers can yellow, develop stress cracks and fail within a few years of being installed, butyrate tube will remain structurally sound for years, even if long-term stress cracking occurs.

12. Recommend keeping the stem cover clean. When the inside surface of the clear plastic stem cover gets covered with grease and dirt it becomes difficult to see the stem position.

13. Recommend adding a stop collar to the gate stem.

14. Once the gate is recommissioned, recommend cycling the gate to the fully open and fully closed positions, checking for misalignment or problems in operation. The handwheel should turn easily without excessive force. The following checks and observations should be made during the operational test:
    A. Check yoke, operator, floor-mounted stem guides, stem nuts and associated hardware for proper tightness.

    B. Check that threaded portions of the operator stem and operator nut are clean of all rust, dirt, grit, and other foreign matter. Ensure that the operator stem and operator nut are properly lubricated.

    C. Check that the operator stem does not deflect during seating of the gate or rub on the floor-mounted stem guides during cycling operations, as this would cause the metal to chip; the chips can adhere to the oily surface of the stem and become imbedded in the threads, leading to binding during gate operation.

    D. Check the floor-mounted stem guides for proper alignment. Ensure that there is uniform clearance around the circumference of the operator stem and the bronze bushing of the

floor-mounted stem guides. Accurately align the stem so there is no binding, rubbing or excessive pressure or wear in any moving part and no distortion of any member.

E. Ensure that the operator stem is plumb and does not rub on the floor-mounted stem guides.

F. With the gate fully closed, ensure wedges are adjusted, and attaching studs and lock nuts are properly tightened.

15. Recommend cleaning, lubricating and cycling the gate quarterly.

Sincerely,



Mark F. LeBoeuf
Chief Engineer
(978) 257-1865
mark@quabbininc.com

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PROJECT:	East Area WQCF Improvements	Lakeshore Engineering	
PROPOSAL ITEM:	Custer Tunnel Gate Repair - Allowance 1060 (WA-19)	Prepared by: Brandon Dow Date: 10-13-23 PWCD: 19 Rev:0	

			Labor				material		equipment		subs		total	Remarks
description	quantity	unit	mh/unit	MH's	rate	total	u price	total	u price	total	u price	total		
Full inspection and report of sluice gate by Quabbin	1	ea	20	20	0	0		0	1200	1,200	5000	5000	$6,200.00	
				0	0	0		0		0		0	$0.00	
Field weld sluice gate frame and seat with Aluminum-Bronze electrodes per Quabbin specifications.	1	ea	8	8	150	0		0	600	600	1200	1200	$1,800.00	
				0	0	0		0		0		0	$0.00	
Remove and dispose damaged wall bracket.	1	ea	1	1	49	49		0		0		0	$49.00	
				0	0	0		0		0		0	$0.00	
Remove and dispose cracked pedestal and yoke.	1	ea	2	2	49	98		0		0		0	$98.00	
				0	0	0		0		0		0	$0.00	
Install new custom fabricated pedestal and yoke with 316 SS hardware and structural anchoring epoxy..	1	ea	3	3	49	147	210	210	5362	5,362		0	$5,719.00	
				0	0	0		0		0		0	$0.00	
Service gate stem by removing the grease, cleaning any grit and debris, visually inspecting threads, sanding/filing any damaged threads to a smooth finish, and regreasing the stem.	1	ea	3	3	49	147	60	60		0		0	$207.00	
				0	0	0		0		0		0	$0.00	
Replace actuator stem cover and lid	1	ea	2	2	49	98	549.52	550		0		0	$647.52	
				0	0	0		0		0		0	$0.00	
Remove Screen	1	ea	4	4	49	196		0	300	300		0	$496.00	
				0	0	0		0		0		0	$0.00	
Install Screen	1	ea	4	4	49	196		0	300	300		0	$496.00	
				0	0	0		0		0		0	$0.00	
Install 316 SS Stop Collar	1	ea	2	2	49	98	765	765		0		0	$863.00	Released for fabrication
				0	0	0		0		0		0	$0.00	
Add two coats of epoxy-based paint to pedestal and yoke.	1	ea	12	2	49	98	550	550		0		0	$648.00	
				0	0	0		0		0		0	$0.00	
Quabbin field services.	1	ea		0	0	0		0		0	8200	8200	$8,200.00	
				0	0	0		0		0		0	$0.00	
Upgrade to a Catalyst Ethernet switch	1	ea		0	0	0	4319	4,319		0		0	$4,319.00	
Upgrade to Schweitzer relays	1	ea		0	0	0	15565	15,565		0		0	$15,565.00	
				0	0	0		0		0		0	$0.00	
Additional Superintendent Time To Coordinate	56	hr	1	56	79	4,424							$4,424.00	
Additional Project Manager Time (price change order, plan the work)	28	hr	1	28	94	2,633		0		0		0	$2,633.40	
				135	**764**	**8,184**		**22,019**		**7,762**		**14,400**	**$52,364.92**	

NOTES:

Safety & Small Tools(5% of labor)	**$409.22**
Taxes(8.9% of Matl, Eqpt & Tools)	**$2,686.89**
Mark-up on Subcontractors (5%)	**$720.00**
Subtotal	**$56,181.03**
Bonds & Insurance (2%)	**$1,123.62**
Markup on Labor, Material, Equipment, small tools, Tax (10%)	**$4,106.10**
Total Cost (WA-19)	**$61,411**

$65,000 allowance total - $3589 go to hydro demo overrun

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EXHIBIT 2-A

WORK AUTHORIZATION FORM

CONTRACTOR: Lakeshore Engineering, LLC

WORK AUTHORIZATION NO. 6

WORK AUTHORIZATION DATE 11/4/2022

PROJECT NAME: East Area Water Quality Control Facility Improvements

RFI REFERENCE NO. 18

PROJECT NO. 17111741.03

Under our AGREEMENT Dated 11/4/2022

SERVICES UNDER WORK AUTHORIZATION NO. 6:

Contractor shall perform the Services for the purpose of Work Authorization for - WA-006 - Addition of Chopper Blades to Sludge Pumps - Lakeshore Engineering, LLC, as more particularly described in the scope of work attached and incorporated herein as **Exhibit A** to this Work Authorization No. **6**, including the attached schedule of unit prices for performing the required Services.

WORK AUTHORIZATION ESTIMATED PAYMENT AMOUNT: $ $56,721.00*

[Insert total amount of payment for this Work Authorization based on unit prices listed in the Agreement or included in a Change Order]

PAY ITEM USED TO PAY FOR WORK:		001
Initial Allowance/Contingency Amount:		N/A
Amounts Allocated in previous Work Authorizations:	– (	N/A)
Contingency/Allowance Allocated in this Work Authorizations:	– (	56,721.00)
Remaining Contingency/Allowance Amount Available:		511,164

This work was completed under PCO-14

(Quantity reconciliation on the following page)

LAKESHORE ENGINEERING

October 12, 2022

This work was completed under PCO-14

Steve Scarlett
City of Atlanta CMG
2528 Chattahoochee Circle
Atlanta, GA 30318

RE: East Area Water Quality Control Facility Improvements
PWCD-14 Rev.1 Recessed Impeller Submersible Pump Modifications

Dear Mr. Scarlett:

The cost to upgrade nine Recessed Impeller Submersible Pumps to chopper pumps without a strainer is Fifty six thousand seven hundred twenty one dollars $56,721.00. See the details on the cost on the cost breakdown sheet.

At this time, we don't anticipate needing a time extension but do reserve our rights to request one if the work impacts the project schedule.

Sincerely,

Brandon Dow
Senior Project Manager

1259 Ellsworth Drive Atlanta, GA 30318 p: 404.355.3976 f: 404.355.2429

The evolution of TOYO N.A.

HEVVY PUMPS

TOYO PUMPS

Toyo Pumps North America Corp.
1550 Brigantine Drive
Coquitlam, BC
Canada V3K 7C1
Tel. 604 298-1213
Fax. 604 298-7773

Quote No. **2209RR02A1**
Date: **September 22, 2022**
Quote Valid Until: **October 22, 2022**
OP#

Industry
Municipal

CUSTOMER INFORMATION		END USER	
Customer:	**Lakeshore Engineering**	Company	**City of Atlanta - RM Clayton**
Attention:	**Brandon Dow**	Address:	**2440 Bolton Rd. NW**
Office			
Mobile	**404-456-2054**	City / State:	**Atlanta, GA**
Email	bdow@lakeshoreengineering.com	Postal Code:	**30318**

Submitted on behalf of your sales representative, **Rusty Reeves** phone: **(601) 497-1404** email: **rreeves@hevvypumps.com**

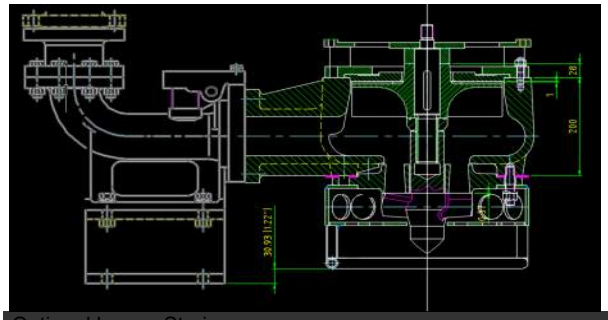
SUBJECT / REQUEST FOR QUOTATION: **RFQ - Chopper Conversion Kit - DEME-71-80-6C10X-HC-460V#**
APPLICATION: **East Area WQCF**
FLUID DESCRIPTION: **Sewerage / Grit**
TAG No.

PRODUCT DESCRIPTION:	Qty	Unit Price ($US)	Extended Price
Chopper Conversion Kit - DEME-71-80-6C10X-HC-460V# **Item# 37110** **DN15707**	1	$ 5,850.00 ea.	$ 5,850.00

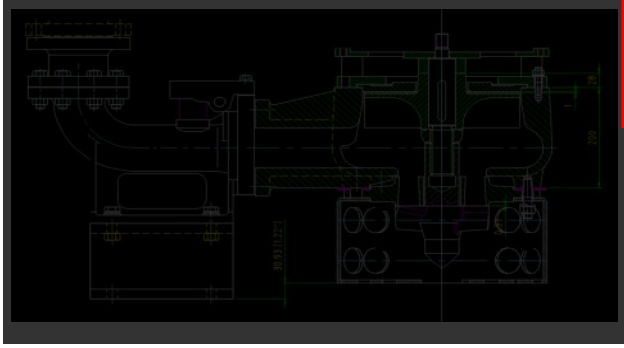
item	description
01863	Stud
03583	Stud
02041	WASHER, LOCK
01798	Nut, Hexagon
02420	O-Ring, Viton
02428	O-Ring, Viton
23578	Kit, Shim, SS
37108	Casing, Pump, Chopper 71-80, HCr
14734	Nut, Impeller, DEC, Stl
09847	Cutter, Rotating, DEC, HCr
14626	Cutter, Stationary, DEC, HCr
37107	Shaft, Stub, DEM, 17-4PH
14631	Stand, Pump, DEC-71-80/C

This work was completed under PCO-14

Optional Strainer .....ADD $780 each
Utilizing existing strainer as designed for the agitator pumps currently in production



Optional Larger Strainer .....
Larger strainer will have more holes / surface area.



Although the chopper modification will be an improvement in debris handling compared to the original agitator version, it may not chop all the various types of debris coming to the pump. In addition, it is still possible for the strainer to plug depending on the size and type of debris. You should consider a more effective prescreening step in your process.

Approximate shipping dimensions (inches) 8 L X 8 W X 8 H and weight = 1250 lbs ea.
Delivery is approximately 16-18 weeks A.R.O., subject to confirmation at time of order.

Total Price: $ 5,850.00

Prices are EXW (Ex-Works) Factory, Coquitlam, BC, Canada. Applicable taxes extra. This quotation is valid for 30 days.
Payment terms are subject to item 4 in the attached Toyo general terms and conditions. Suitability of materials of construction is the responsibility of the buyer. By accepting Toyo Pumps North America's quotation of prices for equipment and issuing a purchase order, the Buyer agrees to accept Toyo Pumps North America's terms and conditions, attached, as exclusively governing the contract between the parties regardless of any statements to the contrary or terms or conditions provided by the Buyer. The Buyer further represents and warrants that the Buyer has read and understood Toyo Pumps North America's terms and conditions.

Thank you for your interest in Toyo Pumps.

User:DOTAROLA Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURALS-001.DWG Scale:1:1 SavedDate:5/31/2019 Time:17:21 Plot Date: Otarola, Daphne; 6/30/2022; 11:10 ; Layout:51

GENERAL

1. THE SYMBOLS, ABBREVIATIONS, AND LAP SPLICE AND EMBEDMENT TABLE ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
2. QUALITY OF CONSTRUCTION REQUIRED, PERFORMANCE LEVELS OF WORKMANSHIP, MANUFACTURING AND INDUSTRY STANDARDS, STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS, GUARANTEES AND OTHER PROJECT REQUIREMENTS ARE SPECIFIED IN THE PROJECT MANUAL.
3. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED, OR NOTED SHALL BE PROVIDED.
4. PERFORM ALL WORK IN COORDINATION WITH ALL DRAWINGS AND INFORMATION RELATED TO STRUCTURAL WORK. ANY CHANGES TO THE EQUIPMENT REQUIRING CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE REDESIGNED BY A PROFESSIONAL ENGINEER AT NO COST TO THE OWNER AND SUBMITTED TO THE ENGINEER. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING CONSTRUCTION.
5. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
6. FACILITIES HAVE BEEN DESIGNED FOR DESIGN LOADS SHOWN OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FACILITIES SUBJECT TO CONSTRUCTION LOADS EXCEEDING THE DESIGN LOADS AND SHALL NOTIFY THE ENGINEER OF ANY SUCH ADDITIONAL LOADS.
7. DURING CONSTRUCTION, STRUCTURE MAY BE BUOYANT WHEN EMPTY. IN THE EVENT THAT THE EXCAVATION BECOMES FLOODED OR THE SURROUNDING GROUND BECOMES SATURATED ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT FLOATATION OF THE STRUCTURE.
8. ALL DIMENSIONS AND ELEVATIONS NOTED THUS (*) ON STRUCTURES SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD OR WITH THE EQUIPMENT MANUFACTURER AND SHALL CONFORM TO THOSE SHOWN ON OTHER DRAWINGS.
9. DESIGN LOADS: BASED ON THE INTERNATIONAL BUILDING CODE, 2012 EDITION WITH 2014,2015,2017 & 2018 GEORGIA STATE AMENDMENTS.

FLOOR LIVE LOADS:	SEE PLANS
ROOF LIVE LOAD:	
– DESIGN LIVE LOAD	30 PSF
– COLLATERAL (MISC., HVAC, ELEC.)	10 PSF
ROOF SNOW LOAD:	
– GROUND SNOW LOAD	5 PSF
WIND LOAD:	
– ULTIMATE WIND SPEED	120 MPH
– SERVICE WIND SPEED	90 MPH
– RISK CATEGORY	III
– WIND EXPOSURE	C
– INTERNAL PRESSURE COEFFICIENT: – ALL BUILDINGS	±0.55
– COMPONENTS AND CLADDING (SEE SPECIFICATIONS)	
EARTHQUAKE DESIGN DATA:	
– SEISMIC RISK CATEGORY	III
– SEISMIC IMPORTANCE FACTOR: – RISK CATEGORY III STRUCTURE	1.25
– SPECTRAL RESPONSE ACCELERATIONS, S_s	0.184
– SPECTRAL RESPONSE ACCELERATIONS, S_1	0.090
– SITE CLASS	D
– SPECTRAL RESPONSE COEFFICIENT, S_{DS}	0.197
– SPECTRAL RESPONSE COEFFICIENT, S_{D1}	0.143
– SEISMIC DESIGN CATEGORY	C
– DESIGN BASE SHEAR:	0.091
– ANALYSIS PROCEDURE – FOR BUILDINGS	ASCE 7–10
GROUNDWATER DESIGN DATA:	
– GROUNDWATER	NA
– DESIGN PERCHED GROUNDWATER	AT GRADE
– 100 YEAR FLOOD ELEVATION	EL. 802
LATERAL EARTH PRESSURE DESIGN DATA: (BASED ON COMPACTED SELECT BACKFILL)	
– AT–REST COEFFICIENT (Ko)	0.53
– SURCHARGE	300 PSF

FOUNDATIONS

1. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SURVEY AND THE SUBSURFACE INVESTIGATION REPORT BEFORE BEGINNING CONSTRUCTION. REFER TO REPORT OF SUBSURFACE EXPLORATION, DATED OCTOBER 27, 2015 BY WILLMER ENGINEERING INC.
2. NOTIFY THE ENGINEER AS SOON AS POSSIBLE OF ANY UNUSUAL SOIL CONDITIONS OR SOIL CONDITIONS IN VARIANCE WITH TEST BORINGS, SUCH AS UNEXPECTED SPRING OR SEEPAGE WATER, MATERIAL DIFFERING FROM TEST BORINGS, OR SOIL OF QUESTIONABLE BEARING CAPACITY.
3. SET FOUNDATIONS AT ELEVATIONS SHOWN. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT EACH FOOTING PLACED IS BEARING ON DESIGN MATERIAL.
4. ALLOWABLE SOIL BEARING PRESSURE: REFER TO STRUCTURAL PLANS.
5. FOOTINGS SHALL REST ON WEATHERED ROCK OR COMPACTED SELECT OR CONCRETE FILL.
6. LEVELS OF BACKFILL AGAINST CONCRETE WALLS SHALL NOT DIFFER BY MORE THAN 2'–0" ON EITHER SIDE OF WALLS UNLESS ADEQUATELY BRACED OR ALL FLOOR FRAMING IS IN PLACE UP TO AND INCLUDING GRADE LEVEL SLABS.
7. PROTECT EXCAVATION FROM FLOODING UNTIL ALL WALLS AND FLOOR FRAMING UP TO AND INCLUDING GRADE LEVEL FLOORS ARE IN PLACE AND BACKFILLING HAS BEGUN. WATER LEVEL SHALL BE MAINTAINED BELOW EXCAVATION AT ALL TIMES.

CAST–IN–PLACE CONCRETE

1. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
   A. 4,500 POUNDS PER SQUARE INCH (PSI) WITH ENTRAINED AIR FOR ALL CONCRETE UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL CONCRETE WORK NOT COVERED UNDER ACI 350 SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318. TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 347, SECTION 3.3.1, TOLERANCES FOR REINFORCED CONCRETE BUILDINGS.
3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A–615 GRADE 60.
4. ALL REINFORCING DETAILS SHALL CONFORM TO "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", ACI 315, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
5. CONTRACTOR SHALL REVIEW ALL DRAWINGS FOR SIZE AND LOCATION OF EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, REQUIRED. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
6. ALL BEAMS, SPANDRELS AND SLABS SHALL BE CAST MONOLITHICALLY, EXCEPT FOR REQUIRED CONSTRUCTION JOINTS. CONTRACTOR SHALL SUBMIT ANY AND ALL ALTERNATE AND ADDITIONAL CONSTRUCTION JOINT LOCATIONS AND DETAILS.
7. CONSTRUCTION JOINTS REQUIRED BY THE ENGINEER ARE SHOWN ON THE DRAWINGS. ADDITIONAL CONSTRUCTION JOINTS SHALL BE PROVIDED AS OUTLINED IN SPECIFICATIONS. REINFORCEMENT SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS. SUBMIT ALL CONSTRUCTION JOINT LOCATIONS WITH REINFORCING STEEL SHOP DRAWINGS.
8. CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER USING WOOD CHAMFER STRIPS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS, OR AS REQUIRED TO MATCH EXISTING.
9. CLEARANCES FOR REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:

TYPICAL REINFORCING BAR CLEARANCE TABLE

CONCRETE CAST AGAINST EARTH	3"
REINFORCING TO CLEAR WATERSTOP	3"
SURFACES EXPOSED TO LIQUIDS, EARTH OR WEATHER	2"
BEAM STIRRUPS AND COLUMN TIES	2"
ALL OTHER SURFACES	2"

10. PROVIDE WATERSTOPS IN ALL FOUNDATIONS, TANKS AND OTHER SUBSTRUCTURES UP TO AN ELEVATION AT LEAST 12 INCHES ABOVE GRADE OR TO AN ELEVATION AT LEAST 12 INCHES ABOVE LIQUID LEVEL IN TANKS, WHICHEVER IS HIGHER, WHETHER SHOWN OR NOT.
11. ALL EXPANSION JOINTS SHALL HAVE WATERSTOPS, UNLESS NOTED OTHERWISE.
12. WELDING OF REINFORCING STEEL IS NOT PERMITTED.
13. CALCIUM CHLORIDE SHALL NOT BE PERMITTED NOR SHALL ANY ADMIXTURE CONTAINING CALCIUM CHLORIDE BE PERMITTED THAT RESULTS IN A TOTAL CONCRETE MIX IN WHICH THE PRESENCE OF CHLORIDE IONS EXCEED 0.15 PERCENT BY WEIGHT OF CEMENT.
14. ALUMINUM PIPE SHALL NOT BE USED WITH CONCRETE PUMPS.
15. AS A MINIMUM, PROVIDE 6 X 6 – W2.9 X W2.9 WELDED WIRE FABRIC IN ALL SLABS ON GRADE, UNLESS OTHERWISE NOTED.

ALUMINUM

1. ALL ALUMINUM SHALL BE NEW AND CONFORM TO THE APPLICABLE ASTM SPECIFICATIONS AS REGISTERED WITH "THE ALUMINUM ASSOCIATION". FOR THE ALLOYS LIST BELOW:
   A. STRUCTURAL SHAPES AND PLATES ALLOY 6061–T6.
   B. WELDING FILLER ALLOY 5356.
   C. BOLTS – STAINLESS STEEL TYPE AISI TYPE 304 OR 316.
   D. ANCHOR BOLTS – STAINLESS STEEL AISI TYPE 304 OR 316.
   E. EXPANSION BOLTS – STAINLESS STEEL AISI TYPE 304 OR 316.
2. SHOP CONNECTIONS SHALL BE BOLTED OR WELDED.
3. FIELD CONNECTIONS SHALL BE BOLTED: FIELD WELDING SHALL NOT BE PERMITTED UNLESS SO NOTED ON THE CONTRACT DRAWINGS.
4. BRACING SHALL HAVE A MINIMUM OF TWO BOLTS PER CONNECTION UNLESS NOTED.
5. ALL BOLTS SHALL BE 3/4" DIA. MIN. UNLESS OTHERWISE NOTED ON CONTRACT DRAWINGS.
6. BEAM CONNECTION SHALL BE PROVIDED TO SUPPORT THE TOTAL ALLOWABLE UNIFORM LOAD CAPACITY OF THE BEAM FOR THE SPAN AND ALLOY INDICATED.
7. WHERE ALUMINUM COMES IN CONTACT WITH CONCRETE OR OTHER DISSIMILAR MATERIALS, BACK PAINT ALUMINUM AS PER PAINT SPECIFICATIONS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION.
2. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE THE AMERICAN WELDING SOCIETY, AWS D1.
3. BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS" AS APPROVED BY THE COUNCIL ON RIVETED AND BOLTED JOINTS.
4. STRUCTURAL STEEL:
   W–SHAPES AND WT–SHAPES . . . . . .ASTM A992
   CHANNELS . . . . . ASTM A572 GRADE 50
   TUBE SECTIONS . . . . . ASTM A500 GRADE B
   ANGLES, PLATES AND BARS . . . . . ASTM A36
5. WELDING ELECTRODES SHALL BE E–70XX. FOR WELDING SYMBOLS WITH NO LENGTH DIMENSION GIVEN, THE WELDING SHALL BE CONTINUOUS BETWEEN ABRUPT CHANGES IN DIRECTION. NO INTERMITTENT WELDS SHALL BE PERMITTED, UNLESS OTHERWISE NOTED.

MASONRY

1. COMBINED COMPRESSIVE STRENGTH OF THE MASONRY PRISM SHALL BE 1500 PSI AT 28 DAYS AFTER GROUTING. ALL MASONRY SHALL BE INSPECTED DURING CONSTRUCTION.
2. GROUT ALL REINFORCED CELLS OF CONCRETE BLOCK MASONRY.
3. MORTAR SHALL BE TYPE M PER ASTM C270. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 2500 PSI.
4. PROVIDE MINIMUM #4 BARS AT 48" VERTICAL REINFORCEMENT WITH MATCHING DOWELS AT ALL MASONRY WALLS, UNLESS OTHER REINFORCING IS SHOWN OR SPECIFIED.

REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS IN MASONRY

BAR SIZE	EMBEDMENT LENGTH	MIN LAP LENGTHS 8" AND 12" CMU SINGLY REINF	MIN LAP LENGTHS 12" CMU DOUBLY REINF
#3	14	19	19
#4	18	25	28
#5	23	31	44
#6	27	53	87

LAP SPLICE AND EMBEDMENT LENGTHS ARE BASED ON A MINIMUM MASONRY COMPRESSIVE STRENGTH OF 1500 PSI AND 60000 PSI FOR REINFORCEMENT (WITH NO EPOXY COATING).

SPECIAL INSPECTION NOTES

1. REFER TO SPECIAL INSPECTION SPECIFICATION FOR CODE REQUIRED SPECIAL INSPECTIONS.
2. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENTS, AND INCIDENTALS AS REQUIRED TO COOPERATE WITH THE INDIVIDUAL SPECIAL INSPECTORS AND TESTING AGENCIES EMPLOYED BY THE OWNER TO FACILITATE SPECIAL INSPECTIONS.
3. OWNER DESIGNATED AGENCIES FOR SPECIAL INSPECTION SHALL PERFORM ON SITE INSPECTION IN ACCORDANCE WITH LOCAL BUILDING CODE REGULATION UNDER THE SUPERVISION OF A QUALIFIED SPECIAL INSPECTOR LICENSED IN THE STATE OF GEORGIA.
4. DESIGNATED SPECIAL INSPECTION AGENCY IS RESPONSIBLE FOR ALL REQUIRED TESTING, INSPECTION, AND INSPECTION REPORTS. INSPECTOR IS RESPONSIBLE FOR COMPLETING AND PROVIDING TO THE BUILDING OFFICIAL, OWNER, AND ENGINEER A FINAL REPORT OF SPECIAL INSPECTIONS AND CORRECTION OF DISCREPANCIES NOTED IN THE SPECIAL INSPECTION.
5. CONTRACTOR SHALL NOTIFY SPECIAL INSPECTION AGENCY/LABORATORY AT LEAST 48 HOURS PRIOR TO START OF WORK.
6. INSPECTION AND TESTS REQUIRED IN CHAPTER 17 DO NOT SUPERCEDE ANY OTHER INSPECTIONS AND TESTS REQUIRED BY ANY LAW OR REGULATIONS.

ABBREVIATIONS

AB	– ANCHOR BOLT	EW	– EACH WAY	NTS	– NOT TO SCALE
ADD'L.	– ADDITIONAL	EQ.	– EQUAL	OC	– ON CENTER
ADH.	– ADHESIVE	EXIST.	– EXISTING	OD	– OUTSIDE DIAMETER
ADJ.	– ADJUSTABLE	EXP.	– EXPANSION	OH.	– OVERHEAD
ALT.	– ALTERNATE	EXT.	– EXTERIOR	OPNG.	– OPENING
ALUM.	– ALUMINUM	FDN.	– FOUNDATION	OPP.	– OPPOSITE
ANCH.	– ANCHOR	FE	– FIRE EXTINGUISHER	?	– PLATE
&	– AND	FIN.	– FINISH	PC	– PRECAST
ARCH.	– ARCHITECT OR ARCHITECTURAL	FL	– FINISH LINE	PSF	– POUNDS PER SQUARE FOOT
ASTM	– AMERICAN SOCIETY FOR TESTING MATERIALS	FLR.	– FLOOR	RAD.	– RADIUS
		FRP	– FIBERGLASS REINFORCED PLASTIC	R.	– RISER
@	– AT	FF	– FAR FACE	REINF.	– REINFORCING
BSMT.	– BASEMENT	FTG.	– FOOTING	REQ'D.	– REQUIRED
BITUM.	– BITUMINOUS	FT.	– FOOT	REQ'MTS.	– REQUIREMENTS
B/	– BOTTOM OF	GA.	– GAGE	RM.	– ROOM
BOT.	– BOTTOM	GALV.	– GALVANIZED	RO	– ROUGH OPENING
℄	– BUILDING LINE	GR.	– GRADE	S.	– SOUTH
BLDG.	– BUILDING	GRD.	– GROUND	SCHED.	– SCHEDULE
BLK.	– BLOCK	GYP BD	– GYPSUM BOARD	SECT.	– SECTION
BM.	– BEAM	HORIZ.	– HORIZONTAL	SF	– SQUARE FEET
B PL	– BASE PLATE	HP	– HIGH POINT	SHT.	– SHEET
BRG.	– BEARING	HHP	– HIGH HIGH POINT	SIM.	– SIMILAR
BRP	– BUILDING REFERENCE POINT	HR.	– HANDRAIL	SJ	– STEEL JOIST
BT PL.	– BENT PLATE	HT.	– HEIGHT	SLBB	– SHORT LEG BACK–TO–BACK
C/C	– CENTER TO CENTER	HS	– HIGH STRENGTH	SLV	– SHORT LEG VERTICAL
CJ	– CONSTRUCTION JOINT	ID	– INSIDE DIAMETER	SPA.	– SPACES OR SPACING
?	– CENTERLINE	IF	– INSIDE FACE	SPRD.	– SPREAD
CL.	– CLEAR	INT.	– INTERIOR	SS	– STAINLESS STEEL
CMU	– CONCRETE MASONRY UNIT	INV.	– INVERT	STA.	– STATION
COL.	– COLUMN	INSUL.	– INSULATION	STD.	– STANDARD
CTR.	– CENTER	JT.	– JOINT	STL.	– STEEL
CONC.	– CONCRETE	K.	– KIP (1000 POUNDS)	STR.	– STRUCTURAL
CONST.	– CONSTRUCTION	KB	– KNEE BRACE	SUP.	– SUPPORT
CONT.	– CONTINUOUS	LB.	– POUNDS	SYM.	– SYMMETRICAL
CONTL.	– CONTROL	LL	– LIVE LOAD	T.	– TREAD
DEPR.	– DEPRESSION	LLBB	– LONG LEG BACK–TO–BACK	T/	– TOP OF
DET.	– DETAIL	LG.	– LONG	T&B	– TOP AND BOTTOM
DI	– DUCTILE IRON	LLH	– LONG LEG HORIZONTAL	TEMP.	– TEMPORARY
DIA.	– DIAMETER	LLV	– LONG LEG VERTICAL	THK.	– THICK
DIM.	– DIMENSION	LONG.	– LONGITUDINAL	TOM	– TOP OF MASONRY
DL	– DEAD LOAD	LP	– LOW POINT	TOS	– TOP OF STEEL
DIST.	– DISTANCE	LW	– LIGHT WEIGHT	TYP.	– TYPICAL
DWG.	– DRAWING	MFG.	– MANUFACTURER	UON	– UNLESS OTHERWISE NOTED
DWL.	– DOWEL	MAS.	– MASONRY	VERT.	– VERTICAL
EA.	– EACH	MAX.	– MAXIMUM	W/	– WITH
EE	– EACH END	MID.	– MIDDLE	W.	– WEST
EF	– EACH FACE	MIN.	– MINIMUM	W/O	– WITHOUT
EJ	– EXPANSION JOINT	MK.	– MARK	WP	– WORK POINT
EL.	– ELEVATION	MO	– MASONRY OPENING	WS	– WATER STOP
ELEC.	– ELECTRICAL	NA	– NOT APPLICABLE	WT	– WEIGHT
E.	– EAST	N.	– NORTH	WWF	– WELDED WIRE FABRIC
EMBD.	– EMBEDDED	NF	– NEAR FACE		

SYMBOLS

UNDISTURBED SOIL
ROCK
SUBBASE
MUDMAT
SELECT BACKFILL
GENERAL FILL
GRATING
STEEL
CHECKERED PLATE
BRICK
CMU
CONCRETE
GROUT

LAP SPLICE AND EMBEDMENT LENGTH TABLE

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS

BAR SIZE	MIN LAP LENGTHS FOR BEAMS AND COLUMNS* CLASS B TOP***	MIN LAP LENGTHS FOR BEAMS AND COLUMNS* CLASS B OTHERS	MIN LAP LENGTHS FOR SLABS AND WALLS ** CLASS B TOP***	MIN LAP LENGTHS FOR SLABS AND WALLS ** CLASS B OTHERS	MIN EMBEDMENT LENGTHS FOR BEAMS AND COLUMNS* TOP***	MIN EMBEDMENT LENGTHS FOR BEAMS AND COLUMNS* OTHERS	MIN EMBEDMENT LENGTHS FOR SLABS AND WALLS ** TOP***	MIN EMBEDMENT LENGTHS FOR SLABS AND WALLS ** OTHERS	WITH STD HOOKS	MIN STD. HOOKS 90° A OR G	MIN STD. HOOKS 135° A OR G	MIN STD. HOOKS 135° H
#3	25	19	16	16	19	15	12	12	5	6	4	2.5
#4	33	25	20	16	25	19	15	12	7	8	4.5	3
#5	41	31	25	19	31	24	19	15	9	10	5.5	3.75
#6	49	37	29	23	37	29	23	18	10	12	8	4.5
#7	71	54	43	33	54	42	33	25	12	14	9	5.25
#8	81	62	49	37	62	48	37	29	14	16	10.5	6
#9	91	70	60	46	70	54	46	36	15	19	–	–
#10	102	79	74	57	79	61	57	44	17	22	–	–
#11	114	87	89	69	87	67	68	53	19	24	–	–

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS TABLE IS BASED ON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI AND 60000 PSI REINFORCEMENT (WITH NO EPOXY COATING).

ALL LAPS SPLICES SHALL BE CLASS B SPLICES.

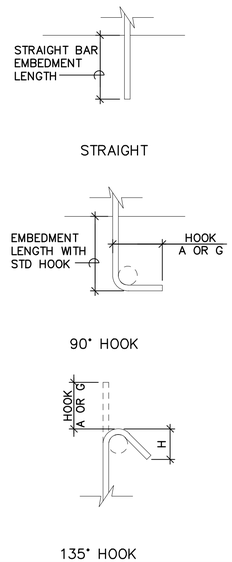
* THE MINIMUM LAP LENGTH FOR BEAMS, COLUMNS, AND STRAIGHT EMBEDMENTS ARE BASED ON A 3 BAR DIAMETER MINIMUM CENTER TO CENTER BAR SPACING AND A 2 INCH BAR COVER. IF THE SPLICE AND/OR EMBEDMENT DOES NOT CONFORM TO THESE REQUIREMENTS, THEN CONTRACTOR SHALL APPLY APPROPRIATE FACTORS IN COMPLIANCE WITH ACI 318 WITH APPROVAL BY ENGINEER.

** THE MINIMUM LAP LENGTH FOR SLABS, WALLS, AND STRAIGHT EMBEDMENTS ARE BASED ON A 6 INCH BAR SPACING AND A 2 INCH BAR COVER. IF THE LAP CONDITION DOES NOTE CONFORM TO THESE REQUIREMENTS, THEN USE BEAM LAP LENGTHS; OR COMPLY WITH LAP REQUIREMENTS OF ACI 318 WITH APPROVAL BY ENGINEER.

*** TOP BARS ARE DEFINED AS ALL HORIZONTAL BARS WITH 12" OR MORE FRESH CONCRETE BENEATH.

WHERE SPLICES ARE REQUIRED BETWEEN BARS OF DIFFERENT SIZES, THE LAP LENGTH SHALL BE NO LESS THAN THE EMBEDMENT LENGTH OF THE LARGER BAR OR THE LAP LENGTH OF THE SMALLER BAR, WHICHEVER IS GREATER.

IN CIRCULAR TANKS DESIGNED FOR RING TENSION, THE LOCATION OF SPLICES SHOULD BE STAGGERED. ADJACENT HOOP REINFORCING SPLICES SHOULD BE STAGGERED HORIZONTALLY (CENTER OF LAP TO CENTER OF LAP) BY NOT LESS THAN ONE LAP LENGTH NOR 3 FEET AND SHOULD NOT COINCIDE IN VERTICAL ARRAYS MORE FREQUENTLY THAN EVERY THIRD BAR.



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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
GENERAL STRUCTURAL NOTES

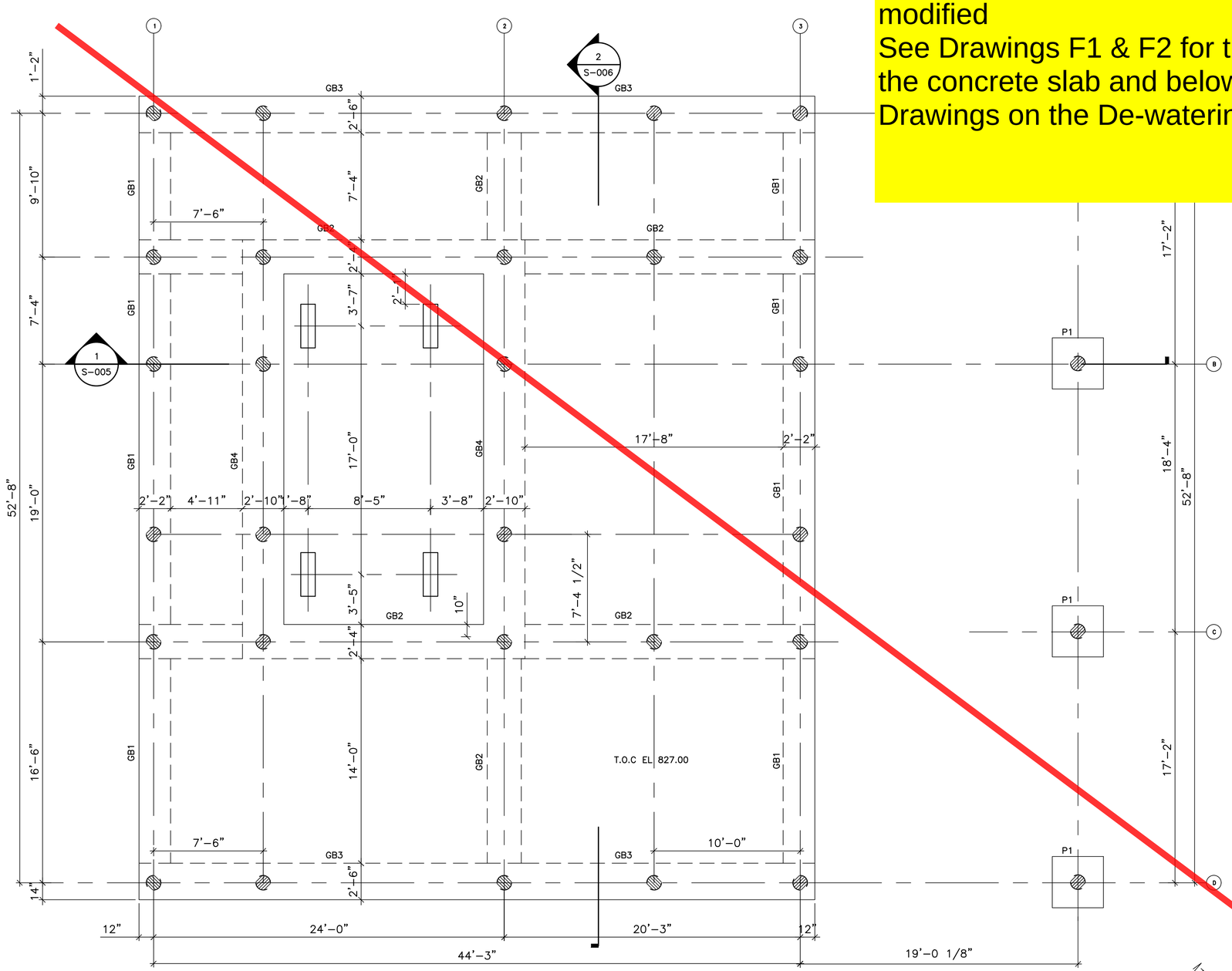
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: J. STEWART
DRAWN BY: V. VIEIRA
CHECKED BY: J. STEWART

SCALE: NONE

S–001

SHEET 51 OF 150

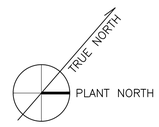
modified
See Drawings F1 & F2 for the work installed from the concrete slab and below for the Structural Drawings on the De-watering Building



SLUDGE DEWATERING BUILDING FOUNDATION PLAN

SCALE: 1/4" = 1'

DESIGN CRITERIA:
1. BUILDING FOUNDATION SHOWN IS PRELIMINARY SIZED FOR LOADS AND BEARING PRESSURES PER 2012 INTERNATIONAL BUILDING CODE. ONCE BUILDING MANUFACTURER IS SELECTED, CONTRACTOR SHALL SUBMIT BUILDING MANUFACTURER'S SHOW DRAWING AS REQUIRED PER SPECIFICATION TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF BUILDING AND FOUNDATION CONSTRUCTION.



BASE SLAB PER THE RECOMMENDATIONS OF THE PROJECT

ORMATION ONLY. REFERENCE CIVIL,MECHANICAL &
REGARDING PIPING & MISCELLANEOUS EQUIPMENT EITHER

SERVED BY THE GEOTECHNICAL ENGINEER TO BE HIRED BY

F ONE COMPRESSION LOAD TEST, IN ACCORDANCE WITH
ION PILE BY THE CONTRACTOR, AT A LOCATION DETERMINED
ERFORMED UNDER THE DIRECT SUPERVISION OF THE
BE TWICE THE PILE DESIGN CAPACITY. IF INSTALLATION
NT FROM THOSE OBSERVED DURING TEST PILE
L BE INSTALLED AT A LOCATION DETERMINED BY THE
PILES ARE REQUIRED.

5. AUGER CAST PILE GROUT – MIX DESIGN : THE GROUT SHALL CONSIST OF A MIXTURE OF THE FOLLOWING:

   A. TYPE II PORTLANT CEMENT.
   B. WATER
   C. FINE AGGREGATE, ASTM C33 NATURAL SILICA SAND.
   D. FLUIDIFIER, COMPLY WITH ASTM C937.
   E. ADMIXTURES.

   GROUT SHALL BE PROPORTIONED AND MIXED SO THAT IT WILL EXHIBIT THE FOLLOWING PROPERTIES:

   A. ALL SOLIDS SHALL REMAIN IN SUSPENSION IN THE GROUT WITHOUT EXCESSIVE BLEED–WATER.
   B. THE GROUT SHALL BE TESTER FOR FLUID CONSISTENCY (USING A FLOW CONE) IN ACCORDANCE WITH ASTM C939.
   C. THE GROUT SHALL NOT EXHIBIT SHRINKAGE IN EXCESS OF 0.15% IN THE VERTICAL DIRECTION. AS TESTED IN ACCORDANCE WITH ASTM C 1090. GROUT SAMPLES SHALL BE HOUSED IN 100% HUMIDITY ROOM AT THE TEMPERATURE OF 68°F TO 74°F.
   D. GROUT SAMPLES RECOVERED FOR STRENGTH TESTING, SHALL EXHIBIT A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI 28 DAYS AFTER CASTING.
   E. THE SUBMITTED MIX DESIGN SHALL INCLUDE CURVES OF VISCOSITY LOSS VERSUS TIME. IN ADDITION, GROUT SHALL BE DESIGNED SO AS TO MAINTAIN THE RANGE OF ACCEPTABLE FLUID CONSISTENCY FOR A PERIOD OF AT LEAST 2 HOURS OR LONGER REQUIRED BY THE PROJECT–SPECIFIC PILE INSTALLATION PLAN.
   F. STRENGTH DEVELOPMENT VERSUS TIME CURVE/DATA SHALL BE PROVIDED, WITH DATA FOR TIMES BEYOND 28 DAYS AS REQUIRED FOR MIXES THAT INCLUDE FLY ASH.
   G. FOR VOLUME ESTIMATE, GROUT VOLUME MAYBE 1.5 TIMES OR GREATER THAN THE THEORETICAL PILE VOLUME.
   H. GROUT FACTOR IS THE RATIO OF THE PUMPED GROUT VOLUME TO THE THEORETICAL VOLUME OF THE DRILLED HOLE. GROUT FACTOR SHALL BE EQUAL TO OR GREATER THAN 1.2.
   I. A MINIMUM OF ONE SET OF SIX 4"X 8" GROUT CYLINDER SHALL BE MADE FOR EACH DAY OF PILE INSTALLATION.

6. PILES WITHIN 6' OF EACH OTHER SHALL NOT BE INSTALLED ON THE SAME DAY.

7. IF SUBSIDENCE OF FRESH GROUT OCCURS WITHIN TWO HOURS FOLLOWING GROUTING OPERATION, THE PILE SHOULD BE TOPPED WITH FRESH GROUT TO THE CORRECT CUT OFF ELEVATION.

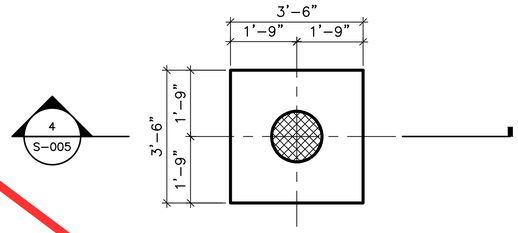
8. REFUSAL CRITERIA IS ONE MINUTE DURATION REQUIRED FOR 12" OR LESS OF PENETRATION, AUGER CAST PILES SHALL BE DRILLED TO REFUSAL AFTER THE DESIGN TIP ELEVATION IS REACHED.

9. CONTRACTOR SHALL SUBMIT AUGER CAST PILE INSTALLATION PLAN. FOR REVIEW BY ENGINEER.

NOTES:
1. BUILDING PERIMETER CONCRETE WALL NOT SHOWN FOR CLARITY.

GRADE BEAM SCHEDULE

MARK	SIZE (WxD)	REINFORCING		REMARKS
		CONT. BARS	STIRRUPS	
GB1	26" x 28"	(7) #8 T&B	#4 @ 10" O.C.	ADD #5@12" EF
GB2	28" x 36"	(7) #8 T&B	#4 @ 10" O.C.	ADD #5@12" EF
GB3	30" x 30"	(8) #8 T&B	#4 @ 10" O.C.	ADD #5@12" EF
GB4	34" x 32"	(9) #9 T&B	#4 @ 10" O.C.	ADD #5@12" EF



PILE CAP – P1

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

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE006371 STRUCTURAL ENGINEER 12/1/2022 HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING FOUNDATION PLAN

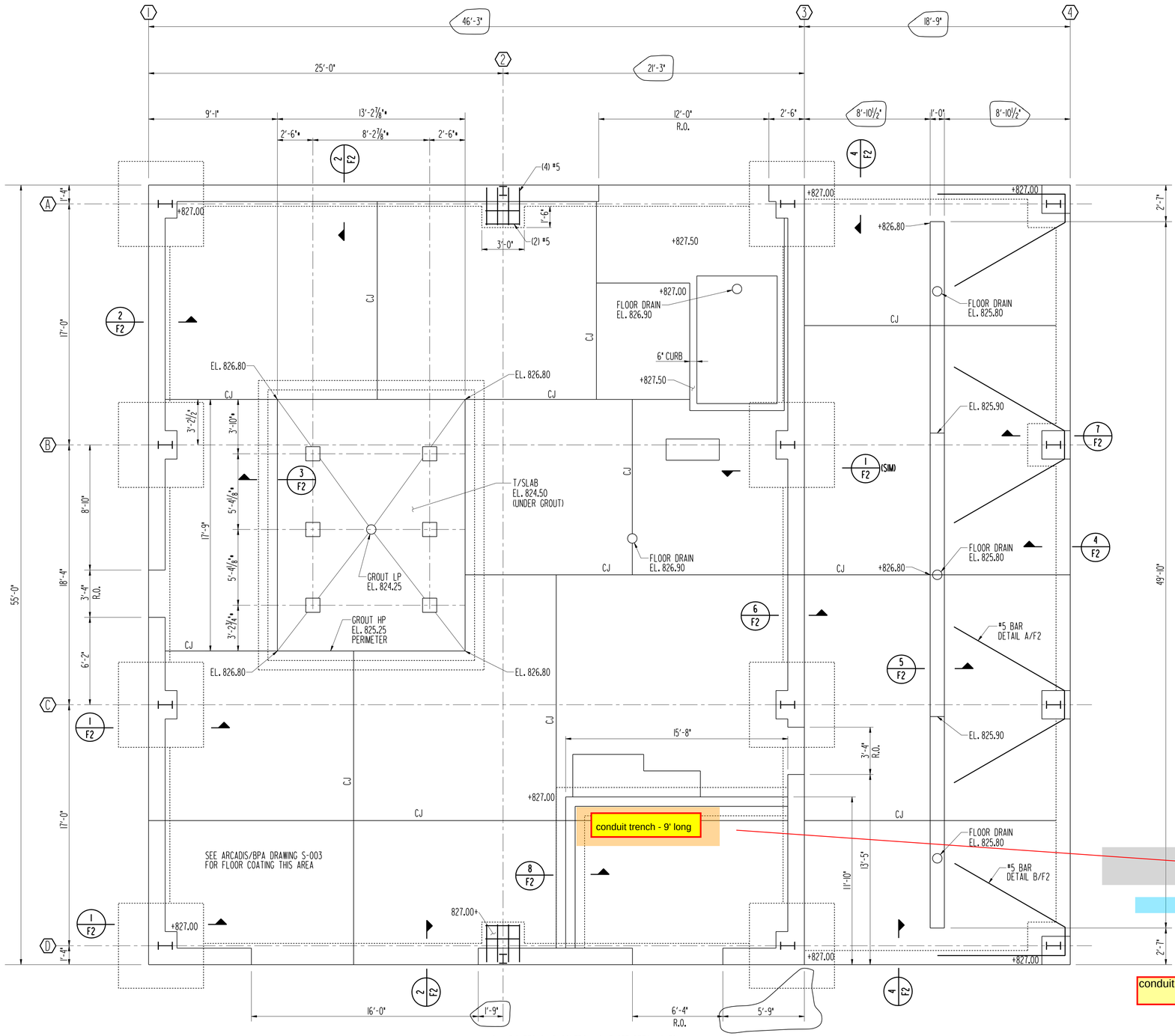
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	V. VIEIRA
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 1/4" = 1'

S–002

SHEET 52 OF 150

User:DOTAROLA Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-002.DWG Scale:1:1 SavedDate:7/30/2019 Time:15:06 Plot Date: Otarola, Daphne, 6/30/2022, 11:14 ; Layout:S2



CJ INDICATES SLAB CONTROL JOINT. SEE DETAIL C/F2

* VERIFY DIMENSIONS WITH EQUIPMENT MANUFACTURER

FOUNDATION PLAN

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

GENERAL NOTES:

1. ALL DESIGN, DETAILING, FABRICATION AND CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:
   A. THE INTERNATIONAL BUILDING CODE (2018 EDITION).
   B. AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) SPECIFICATIONS.
   C. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14).
2. SPECIFIC NOTES ON ANY PLAN OR DETAIL WHEN IN CONFLICT WITH THE NOTES, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE BEING CONSTRUCTED.
3. WHERE A DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR LIKE OR SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY MARKED ON THE DRAWINGS, UNLESS OTHERWISE NOTED.
4. DESIGN CRITERIA
   FLOOR LIVE LOAD
   BUILDING = 300 PSF
   LOAD OUT AREA = HS-20
   ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
   BUILDING COLUMN FOOTINGS DESIGNED FOR LOADS PROVIDED BY NUCOR BUILDINGS GROUP, JOB No. A21L1357A, DATED 11/10/2021.

STRUCTURAL CONCRETE GENERAL NOTES:

1. ALL CONCRETE IN FOOTINGS AND SLABS SHALL BEAR ON FIRM SOIL HAVING A MINIMUM BEARING CAPACITY OF 2000 PSF.
2. REFER TO RECOMMENDATIONS IN THE REPORT OF GEOTECHNICAL EXPLORATION BY UNITED CONSULTING, JUNE 21, 2022, FOR RECOMMENDATIONS TO REMEDIATE THE SUBSURFACE.
3. PRIOR TO POURING CONCRETE, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS MUST BE CHECKED TO VERIFY THAT PIPES, SLEEVES, CONDUITS, INSERTS AND ANY ITEM THAT SHOULD BE FORMED OR EMBEDDED ARE PROPERLY LOCATED AND SECURED IN PLACE.
4. REFER TO ALL EQUIPMENT VENDOR DRAWINGS WHEN THE EQUIPMENT IS DIRECTLY ATTACHED TO CONCRETE.
5. MATERIALS
   A. CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS.
   B. REINFORCING STEEL IN CONCRETE SHALL BE ASTM-A615, GRADE 60.
      1. ALL REINFORCING STEEL SHALL BE FREE FROM MUD, OIL, RUST, OR COATINGS THAT WOULD REDUCE OR DESTROY BOND.
      2. REINFORCING STEEL LAP SPLICES SHALL BE AS SHOWN ON ARCADIS/BPA DRAWING S-001.
      3. MINIMUM CONCRETE COVER ON TIES, STIRRUPS AND MAIN BARS SHALL BE 2" FOR FORMED SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND; 3" FOR UNFORMED SURFACES DEPOSITED AGAINST THE GROUND; EXCEPT AS NOTED.

REVISIONS

1. CITY COMMENTS 8-8-22
2. MISSING INFO. 8-30-22
3. DIMENSION CHANGES. 9-12-22

GEORGIA REGISTERED No. 13495 PROFESSIONAL ENGINEER PATRICK J. CLARK
8/8/22

625 Holcomb Bridge Road
Norcross, Georgia 30071
770-209-0029 Fax: 982-2900
www.unitedconsulting.com

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UNITED CONSULTING

PROJECT DESCRIPTION
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL
SLUDGE DEWATERING BUILDING
LAKESHORE ENGINEERING

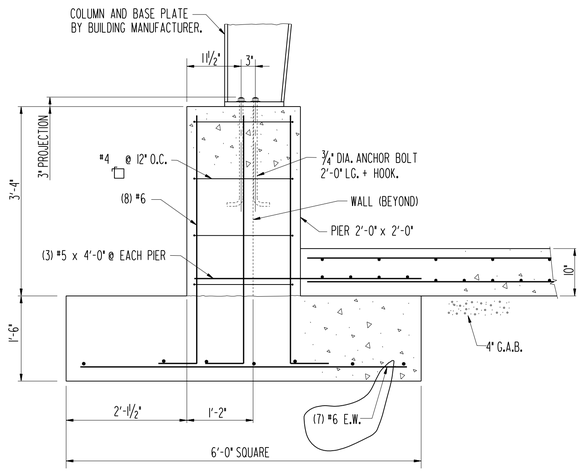
SHEET TITLE
FOUNDATION PLAN

SCALE: 1/4" = 1'-0"
DRAWN BY: PJC
CHECKED BY: NBY
DATE: JULY 14, 2022
JOB NO.: 22-06609-01
DRAWING NUMBER
F1

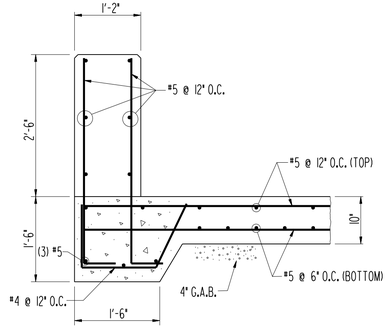
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AS-48 (22 X 34)

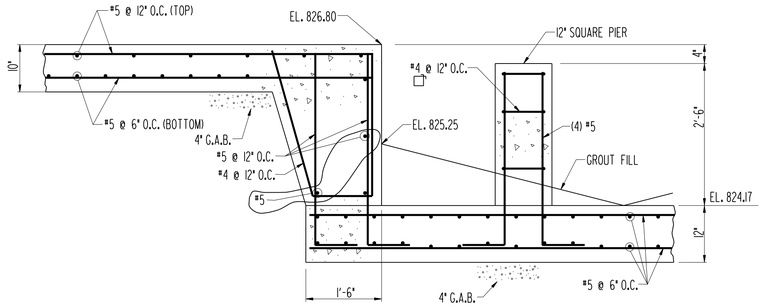
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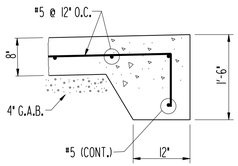
1 / F2 SECTION
SCALE: ¾" = 1'-0"



2 / F2 SECTION
SCALE: ¾" = 1'-0"



3 / F2 SECTION
SCALE: ¾" = 1'-0"

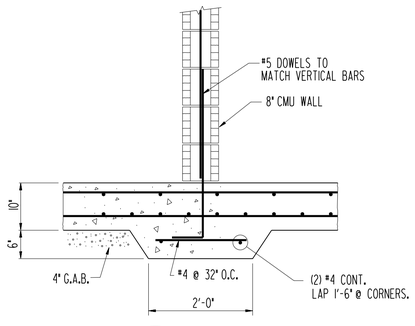


4 / F2 SECTION
SCALE: ¾" = 1'-0"

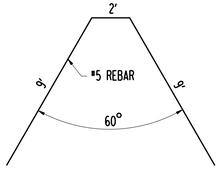
5 / F2 SECTION
SCALE: ¾" = 1'-0"

6 / F2 SECTION
SCALE: ¾" = 1'-0"

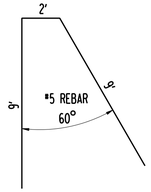
7 / F2 SECTION
SCALE: ¾" = 1'-0"



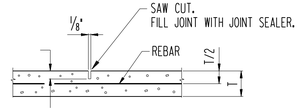
8 / F2 SECTION
SCALE: ¾" = 1'-0"



A / F2 DETAIL
SCALE: ¼" = 1'-0"



B / F2 DETAIL
SCALE: ¼" = 1'-0"



TYPICAL CONTROL JOINT DETAIL

NOTE: START CUTTING AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT DISLODGING OF AGGREGATE. COMPLETE BEFORE SHRINKAGE INDUCES CRACKING.

C / F2 DETAIL
SCALE: NONE

REVISIONS
1. CITY COMMENTS 8-8-22
2. MISSING INFO. 8-30-22

GEORGIA REGISTERED No. 13495 PROFESSIONAL ENGINEER PATRICK J. CAIN
8/8/22

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PROJECT DESCRIPTION
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL
SLUDGE DEWATERING BUILDING
LARSSON ENGINEERING

SHEET TITLE
FOUNDATION SECTIONS AND DETAILS

SCALE: ¾" = 1'-0"
DRAWN BY: PJC
CHECKED BY: NBY
DATE: JULY 14, 2022
JOB NO.: 22-06609-01
DRAWING NUMBER
F2

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AS-16 (22 X 34)

22-06609-01.dgn

REQUEST FOR INFORMATION (RFI)
(Construction)

PROJECT:	East Area Water Quality Control Facility Improvements	**RFI NUMBER:**	**24**
Originated By:	Dow, Brandon	Date Issued:	03/20/2023
Company:	Lakeshore Engineering	Priority:	Low
Phone Number:	(404) 456-2054	Vendor RFI Number:	21

SUBJECT:	RFI-21 Sludge Dewatering floor coating
Drawing Number:	S-03
Specification Number:	N/A

REQUEST / PROBLEM:

see attached.

PROPOSED SOLUTION:

see attached.

RESPONSE / SOLUTION:

Arcadis structural engineers do not recommend altering the contract to remove the requirement for the specified floor coating; however, allowing the requested change is at the owner's discretion.
Per email dated 1/4/2023 from Scott Miller affirming the contractor's statement: "We plan to install a smooth trowel finish on the interior sludge dewatering building slab and a light broom finish on the truck bay slab. As discussed we not install any type of coating system on the slabs.", this RFI is considered closed.

LIST OF ATTACHMENTS:

Response By:	Jacqueline Carranza Name	Construction Manager Title	03/30/2023 Date

Reviewed By	Name	Title	Date
	Name	Title	Date
	Name	Title	Date
	Name	Title	Date

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #21: Sludge dewatering building floor coating

Status	Open		
To	**Scott Miller - CMG-COA**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 7, 2022	**Due Date**	Dec 14, 2022
Location		**Project Stage**	
Cost Impact	TBD	**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	S-003	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

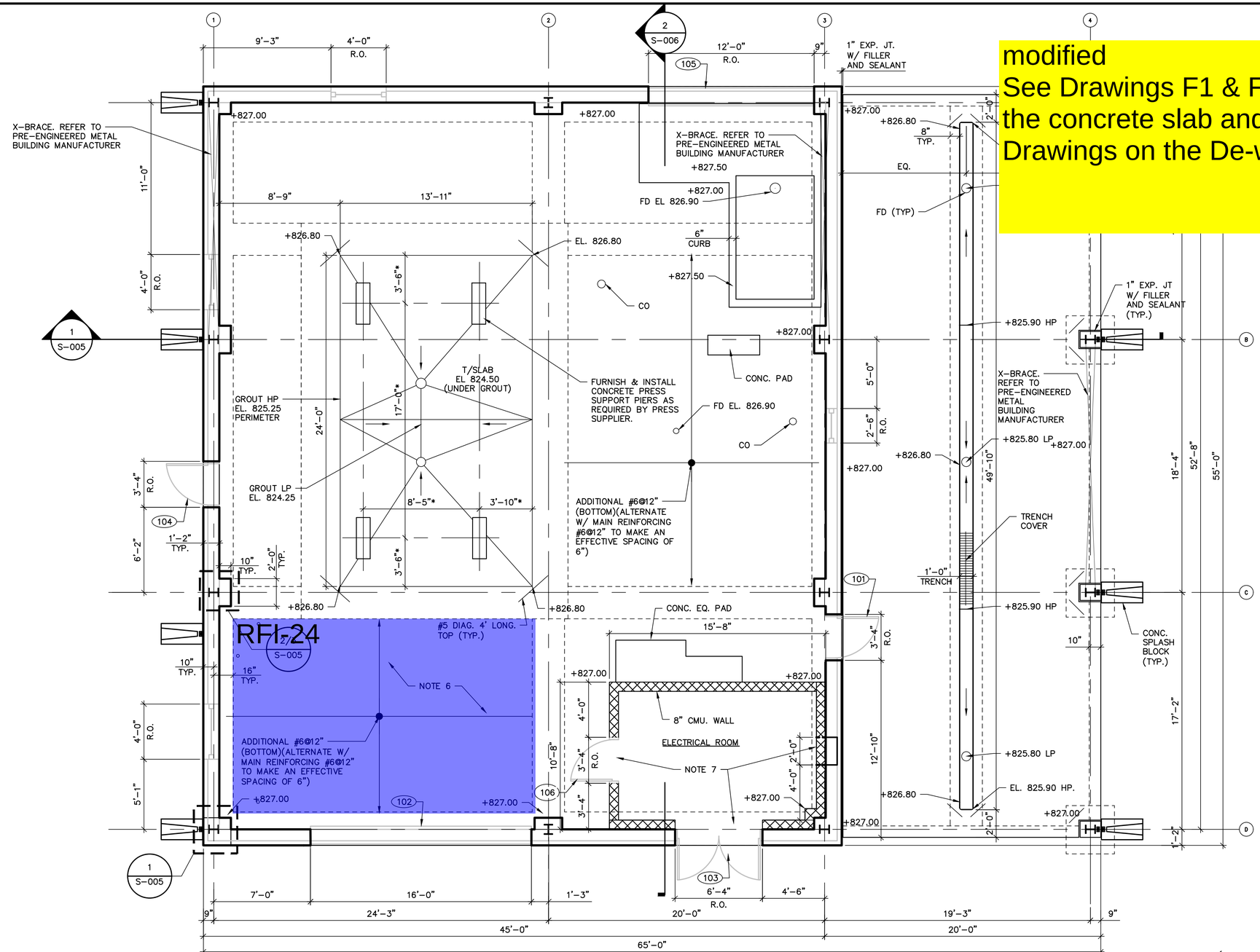
Question

Question from Brandon Dow Lakeshore Engineering *on Wednesday, Dec 7, 2022 at 04:41 PM EST*

note 6 on drawing S-003 describes a floor coating that is typically used in areas that see high amounts of equipment scrapping. We feel the specified 4500 psi concrete will provide a long-lasting surface for the belt press and all other surfaces in this area. Lakeshore has included $25,071.00 in the bid for this work and can offer this amount to delete the product. If it is needed, please clarify where the intended area is. (we've highlighted the area we included). If needed, we could propose a standard spray on hardener as well. Deleting this product will also improve the project schedule. Please advise.

Awaiting an Official Response

modified
See Drawings F1 & F2 for the work installed from the concrete slab and below for the Structural Drawings on the De-watering Building



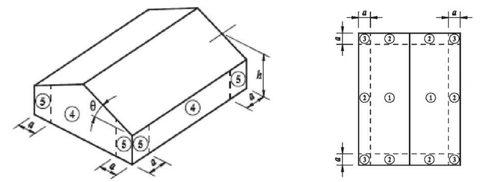
SLUDGE DEWATERING BUILDING FLOOR PLAN

SCALE: 1/4" = 1'

0 2' 4' 8'

DESIGN CRITERIA:

1. DESIGN CRITERIA: DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES
   2015, 2017,
   , 2015).
   015).
   , 2015).
   LEMENTS AND
   WALL ZONE 4: 42
   ROOF ZONE 3: 74
   ROOF ZONE 2: 51
   ROOF ZONE 1: 39
   ROOF OVERHANG ZONE 2: 48
   ROOF OVERHANG ZONE 3: 57
   a=5'–0"
3. SEISMIC LOAD
   A. IMPORTANCE FACTOR = 1.25
   B. SITE CLASS = D
   C. SPECTRAL RESPONSE ACCELERATION COEFFICIENT
      S_s = 18.5%
      S_1 = 9%
   D. SEISMIC DESIGN CATEGORY = C
4. STEEL FRAMING AND WALL PANELS BY METAL BUILDING MANUFACTURER.



WIND ZONE DIAGRAM

CODE ANALYSIS:

SLUDGE DEWATERING BUILDING
USE GROUP – GROUP F1 (FACTORY, MODERATE HAZARD)
CONSTRUCT TYPE (CHAPTER 6) – IIB UNPROTECTED, NON–COMBUSTIBLE

5. OCCUPANCY LOAD:
   A. OCCUPANT LOAD FACTOR (TABLE 1004.1.2) – INDUSTRIAL 100 GROSS
   B. SLUDGE DEWATERING BUILDING – 26.
6. FLOOR AREA (TABLE 503) – ALLOWED 15,500 SQ. FT., ACTUAL = 2,544 SQ. FT.
7. BUILDING HEIGHT (TABLE 503) – ALLOWED = 2 STORIES, ACTUAL = 1 STORY@ ±21 FEET.
8. FIRE–RESISTANCE RATING REQUIREMENTS (TABLE 601) – TYPE IIB CONSTRUCTION – 0 HOURS
9. FIRE–RESISTANCE RATING OF EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602) – THERE ARE NO BUILDINGS WITHIN 30–FEET OF THE SLUDGE DEWATERING BUILDING.
10. MEANS OF EGRESS, MAXIMUM TRAVEL DISTANCE – ALLOWED = 200–FEET, ACTUAL = 43–FEET.
11. ACCESSIBILITY – NOT REQUIRED AS PER SECTION 1103.2.9. COMPONENTS ARE DESIGNED TO BE AS ACCESSIBLE AS IS PRACTICAL.
12. ENERGY EFFICIENCY – CLIMATE ZONE 3:
    A. TABLE C402.1.2:
       1. ROOFS –U–0.035
       2. WALLS – U–0.079
    B. TABLE C402.2
       1. ROOFS –R–19 + R–11 LS
       2. WALLS – R–13 + R6.5ci
       3. SLAB–ON–GRADE FLOORS – NOT REQUIRED
       4. OPAQUE DOORS – SWINGING = U–0.61, ROLL–UP = R–4.75
13. FIRE PROTECTION:
    A. SPRINKLERS – NOT REQUIRED AS PER SECTION 903.2.4
    B. PORTABLE FIRE EXTINGUISHERS PROVIDED AS PER SECTION 906.
       1. PROVIDE ONE DRY CHEMICAL TYPE AT EACH EXIT DOOR.
       2. PROVIDE ONE CARBON DIOXIDE AT THE ELECTRICAL ROOM.

NOTES:

1. ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF
2. FLOOR LIVE LOAD
   –BUILDING = 300 PSF
   –LOAD OUT AREA = HS–20
   –ELEC. ROOM ROOF = 100 PSF
3. BUILDING FOUNDATION SHOWN IS PRELIMINARY SIZED FOR LOADS AND BEARING PRESSURES. ONCE BUILDING MANUFACTURER IS SELECTED, CONTRACTOR SHALL SUBMIT BUILDING MANUFACTURER'S LAYOUT AND BUILDING REACTIONS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF BUILDING AND FOUNDATION.
4. PARTITION WALL STEEL FRAMING AND PANELS BY METAL BUILDING MANUFACTURER.
5. SEE MECHANICAL DRAWINGS FOR DRAINS AND PIPING DETAILS.
6. COAT FLOOR WITH ANVIL–TOP 300 OR APPROVED EQUAL.
7. PROVIDE 8" WIDE x 16" DEEP PRE–CAST LINTEL W/ (1) #5 HORIZONTAL BAR, FILLED SOLID WITH GROUT OVER DOOR OPENING. PROVIDE (1) #5 VERTICAL IN GROUT FILLED CELL AT EACH END OF LINTEL.
8. COORDINATE COLUMN LOCATIONS WITH METAL BUILDING MANUFACTURER

TRUE NORTH
PLANT NORTH

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING FIRST FLOOR PLAN

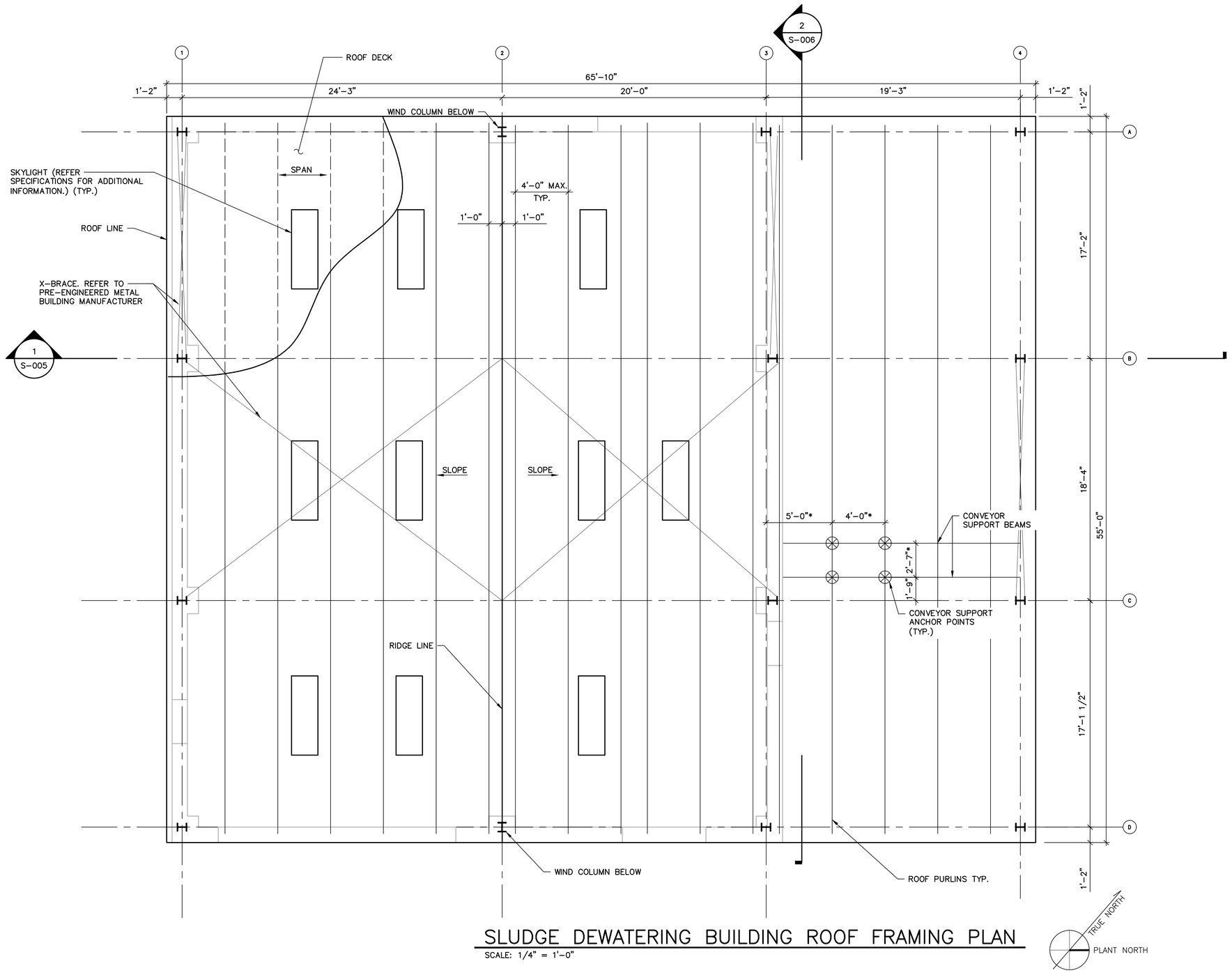
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 1/4" = 1'

S–003

SHEET 53 OF 150

User:DOTAROLA Spec:AUS–NCSM0D File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S–003.DWG Scale:1:1 SavedDate:6/29/2022 Time:15:47 Plot Date: Otarola, Daphne: 6/30/2022; 11:07 ; Layout:S3



SLUDGE DEWATERING BUILDING ROOF FRAMING PLAN

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

BUILDING DESIGN CRITERIA:

1. DESIGN ACCORDANCE WITH 2012 INTERNATIONAL BUILDING CODE WITH 2014, 2015, 2017 & 2018 GEORGIA STATE AMENDMENTS.
2. ROOF LIVE LOAD = 30 PSF
3. WIND LOAD
   - A. ULTIMATE WIND SPEED = 120 MPH
   - B. SERVICE WIND SPEED = 90 MPH
   - C. RISK CATEGORY = CATEGORY III
   - D. EXPOSURE CATEGORY = C
   - E. ENCLOSURE CLASSIFICATION = PARTIALLY ENCLOSED
   - F. INTERNAL PRESSURE COEFFICIENT = +/- 0.55
   - G. COMPONENTS AND CLADDING WIND PRESSURE PER ASCE 7-10
     - ROOF ZONE 3: 74
     - ROOF ZONE 2: 51
     - ROOF ZONE 1: 39
     - ROOF OVERHANG ZONE 2: 48
     - ROOF OVERHANG ZONE 3: 57

5'-0" TYP.

3	2	3
2	1	2
3	RIDGE 2	3
3	2	3
2	1	2
3	2	3

WIND ZONE DIAGRAM

4. SEISMIC LOAD
   - A. IMPORTANCE FACTOR = 1.25
   - B. SITE CLASS = D
   - C. SPECTRAL RESPONSE ACCELERATION COEFFICIENT
     - S_s = 18.5%
     - S_1 = 9%
   - D. SEISMIC DESIGN CATEGORY = C
5. STEEL FRAMING AND WALL PANELS BY METAL BUILDING MANUFACTURER.

NOTES:

1. ⊗ DESIGNATES CONVEYOR SUPPORT LOCATIONS. MAGNITUDE OF THE LOAD = 3,000#
2. ROOF PURLIN SHALL BE DESIGNED FOR CONVEYOR LOAD.
3. CONTRACTOR SHALL COORDINATE WITH THE METAL BUILDING MANUFACTURER TO PROVIDE SUPPORT FOR CONVEYOR SYSTEM SHOWN ON MECHANICAL DRAWINGS.

0 2' 4' 6'

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING ROOF PLAN AND DETAILS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

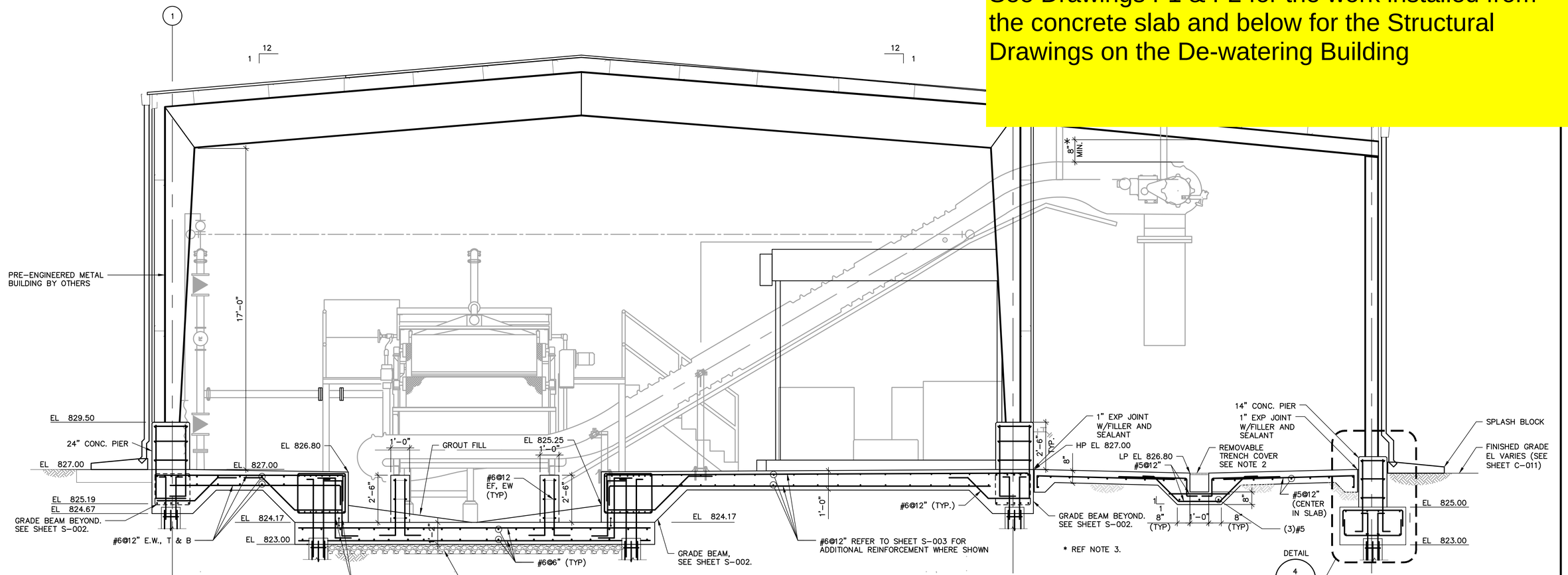
SCALE: 1/4" = 1'-0"

S-004

SHEET 54 OF 150

User:DOTAROLA Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-004.DWG Scale:1:1 SavedDate:6/30/2022 Time:14:29 Plot Date: Otarola, Daphne; 7/8/2022; 15:25 ; Layout:54

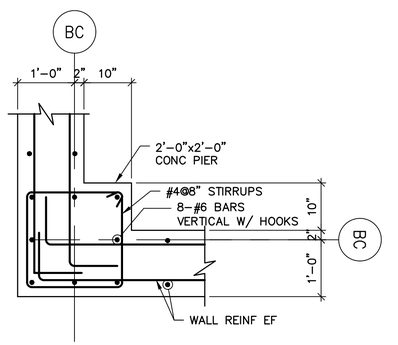
modified
See Drawings F1 & F2 for the work installed from the concrete slab and below for the Structural Drawings on the De-watering Building



1 S-002 SLUDGE DEWATERING BUILDING – SECTION

0 2' 4' 6'

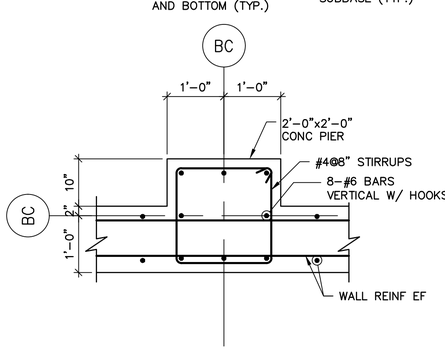
NOTES:
1. FOR MASONRY DETAILS AND REINFORCEMENT, SEE "S-013" SHEETS.
2. HEAVY-DUTY H-20 TRENCH FRAME WITH GRATED COVER:
   MATERIAL: ASTM A48/A48M, CLASS 35 B.
   PRODUCTS AND MANUFACTURERS:
   a. 6953 SERIES, MANUFACTURED BY EAST JORDAN IRON WORKS, INC.
   b. OR EQUAL.
3. METAL BUILDING HEIGHT SHALL BE ADJUSTED AS REQUIRED TO ACCOMMODATE EQUIPMENT HEIGHT.



1 S-005 DETAIL

3/4" = 1'-0"

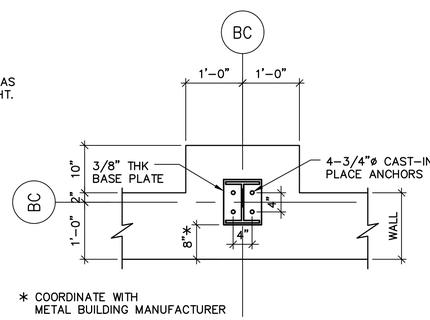
0 1' 2' 3'



2 S-005 DETAIL

3/4" = 1'-0"

0 1' 2' 3'

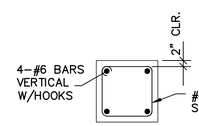


* COORDINATE WITH METAL BUILDING MANUFACTURER

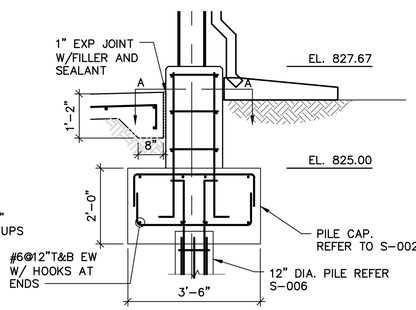
3 S-005 DETAIL

3/4" = 1'-0"

0 1' 2' 3'



SECTION A-A



4 S-005 PIER DETAIL

1/2" = 1'-0"

0 1' 2' 4'

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

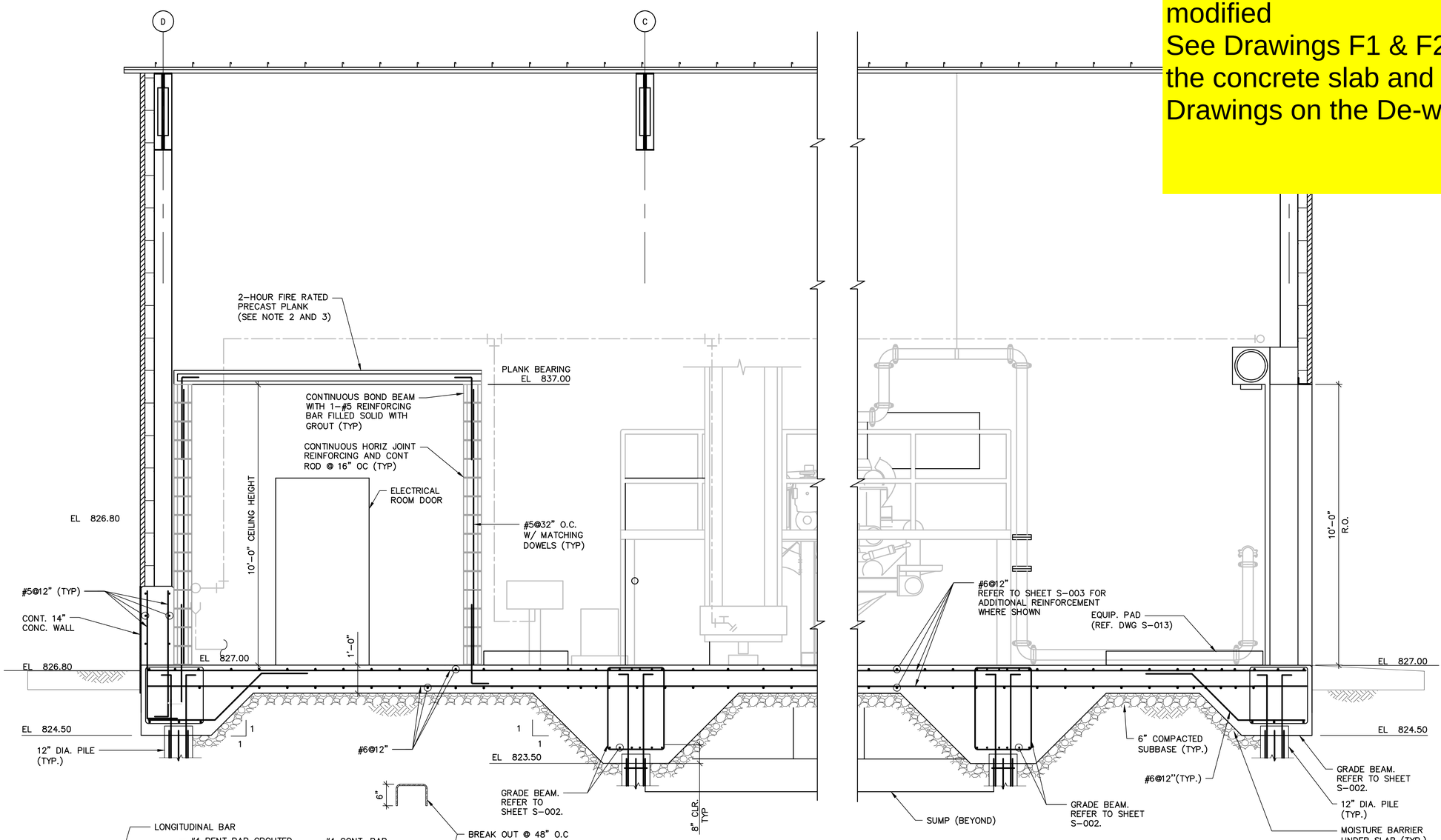
SCALE: AS SHOWN

S-005

SHEET 55 OF 150

User:DOTAROLA Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-005.DWG Scale:1:1 SavedDate:7/30/2019 Time:15:30 Plot Date: Otarola, Daphne: 6/30/2022: 11:21 : Layout:S5

modified
See Drawings F1 & F2 for the work installed from the concrete slab and below for the Structural Drawings on the De-watering Building

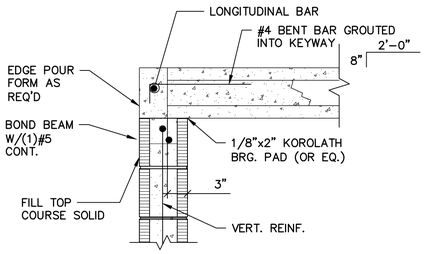


2 / S-002 SLUDGE DEWATERING BUILDING – SECTION

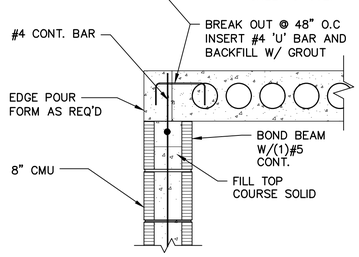
SCALE: 1/2"= 1'-0"

0 1' 2' 4'

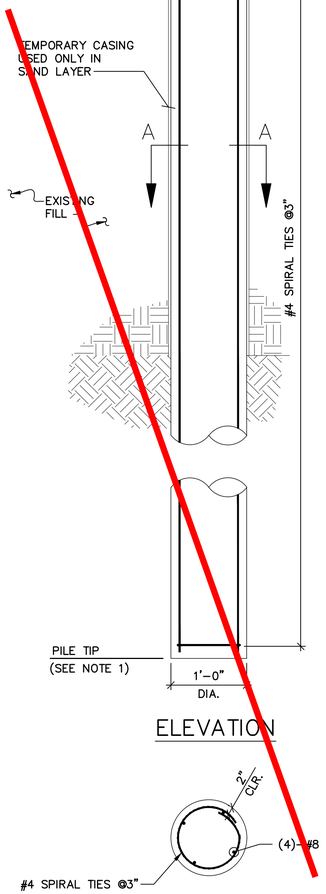
NOTES:
1. FOR MASONRY DETAILS AND REINFORCEMENT, SEE "S-013" SHEETS.
2. ELEC. ROOM ROOF LIVE LOAD = 100 PSF
3. CONTRACTOR SHALL SUBMIT UL TEST DATA WITH SELECTED PLANK MANUFACTURER'S DATA SHOWING 2-HOUR FIRE RATED ASSEMBLY ASSUME 8" HOLLOW-CONCRETE PLANK FOR BIDDING PURPOSES



PRECAST ROOF DETAIL
SCALE: NO SCALE



SINGLE LAP NON-BEARING CONDITION ON CMU
SCALE: NO SCALE



ELEVATION

SECTION A-A

AUGER-CAST PILE DETAIL

NOT TO SCALE

NOTES:
1. AUGER-CAST PILES:
   - DESIGN CAPACITY = 75 TONS (VERTICAL) ,2 TON (LATERAL)
   - TIP EL = REFER TO GEO-TECHNICAL REPORT (MIN 10'-0" EMBEDMENT LENGTH OF PILE REQUIRED)
   - PILE DIAMETER = 12"
2. REFER TO GEO-TECHNICAL REPORT FOR MORE INFORMATION.
3. REFER TO SPEC 02370 FOR MORE INFORMATION.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS AND DETAILS

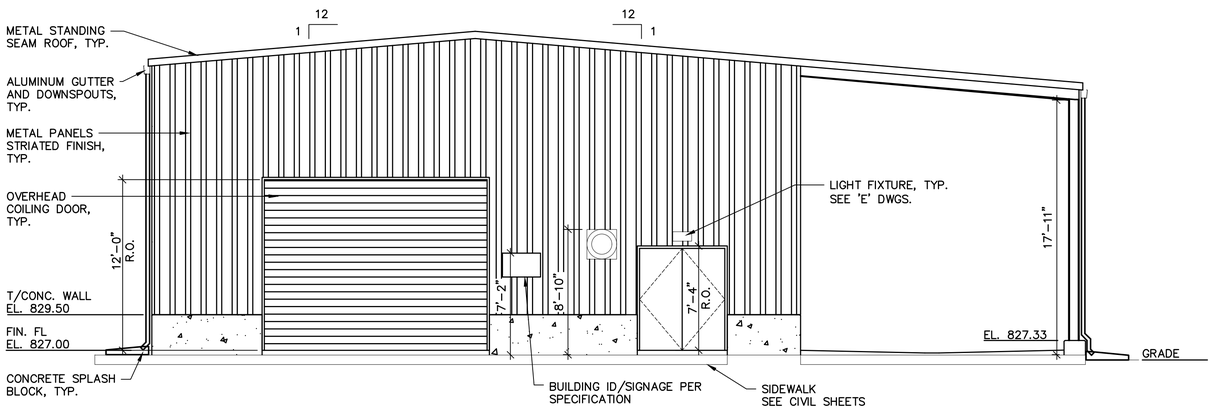
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: SHOWN

S-006

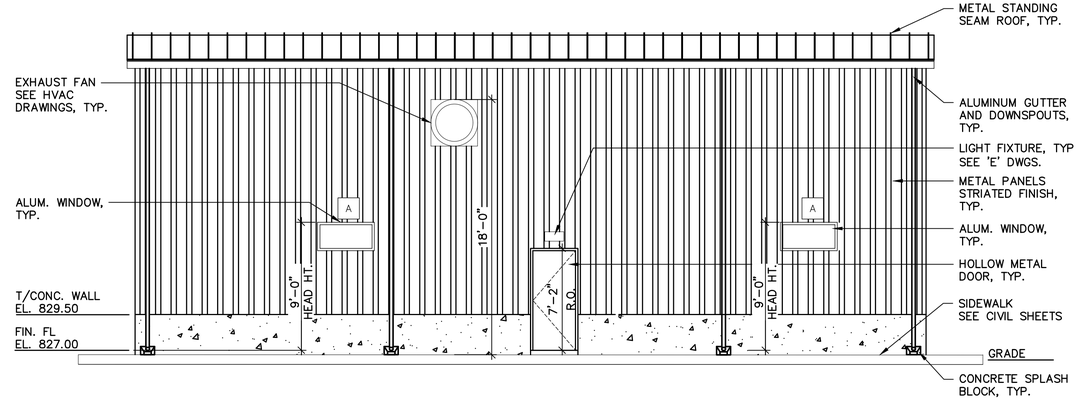
SHEET 56 OF 150

User:DOTAROLA Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-006.DWG Scale:1:1 SavedDate:7/30/2019 Time:10:15 Plot Date: Otarola, Daphne; 6/30/2022, 11:25 : Layout:S6



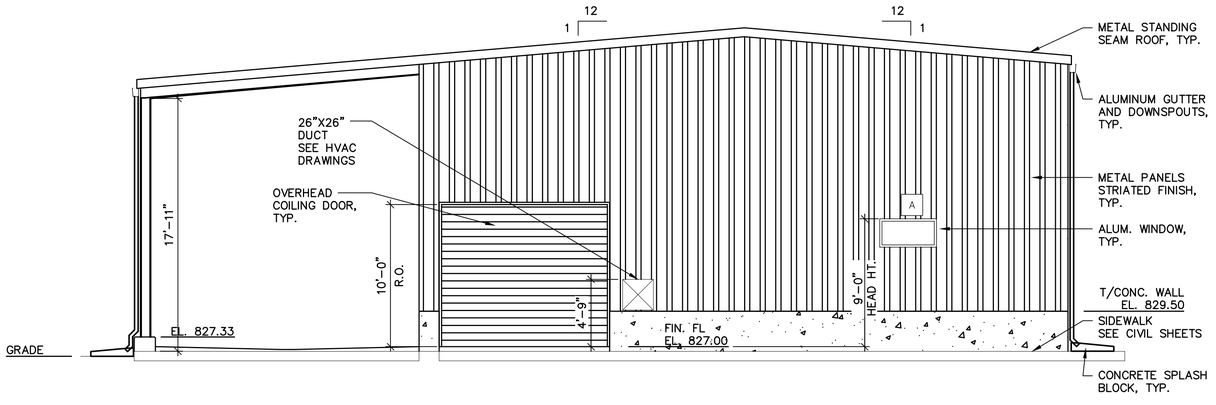
EAST ELEVATION

SCALE: 3/16" = 1'-0"



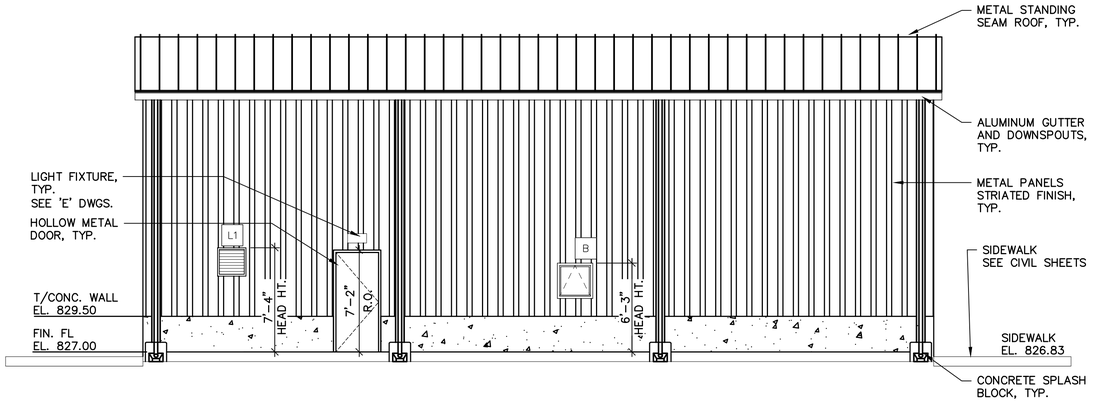
SOUTH ELEVATION

SCALE: 3/16" = 1'-0"



WEST ELEVATION

SCALE: 3/16" = 1'-0"



NORTH ELEVATION

SCALE: 3/16" = 1'-0"

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING ELEVATIONS

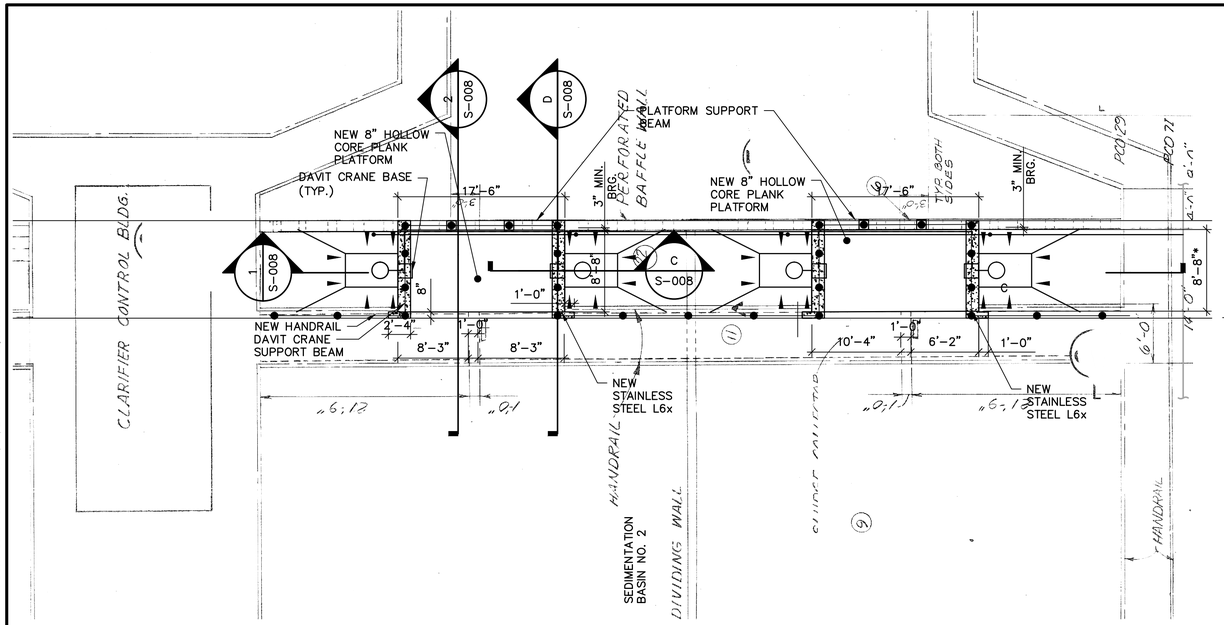
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 3/16" = 1'-0"

S-007

SHEET 57 OF 150

User:DOTAROLA Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-007.DWG Scale:1:1 SavedDate:3/4/2019 Time:11:42 Plot Date: Otarola, Daphne; 6/30/2022; 11:35 ; Layout:S7

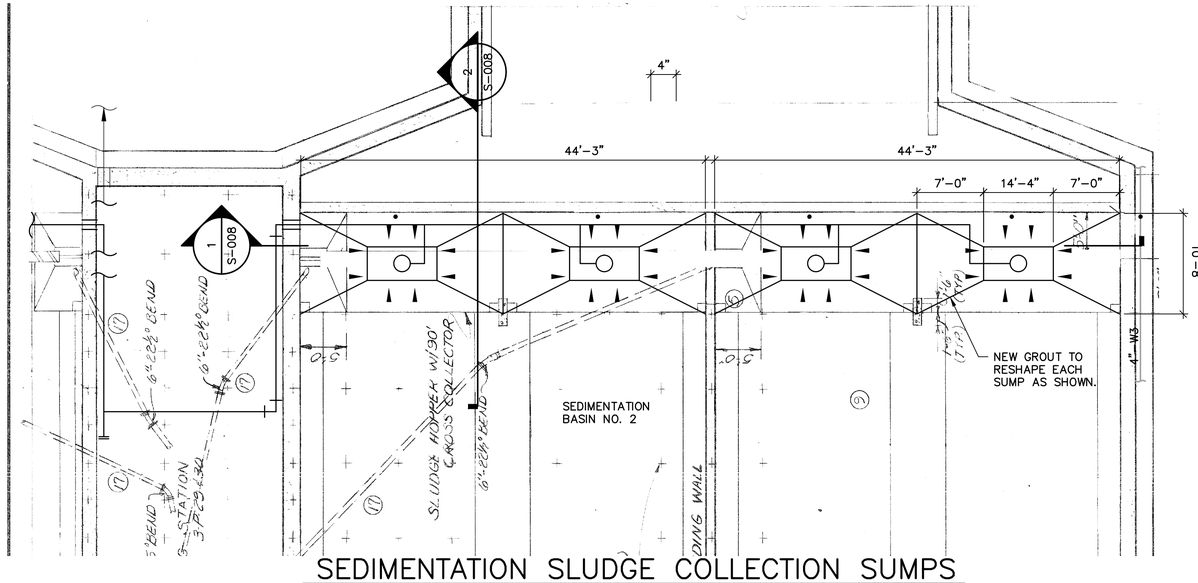


SEDIMENTATION SLUDGE COLLECTION SUMPS TOP PLAN (TYP. FOR 2)

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

NOTES:

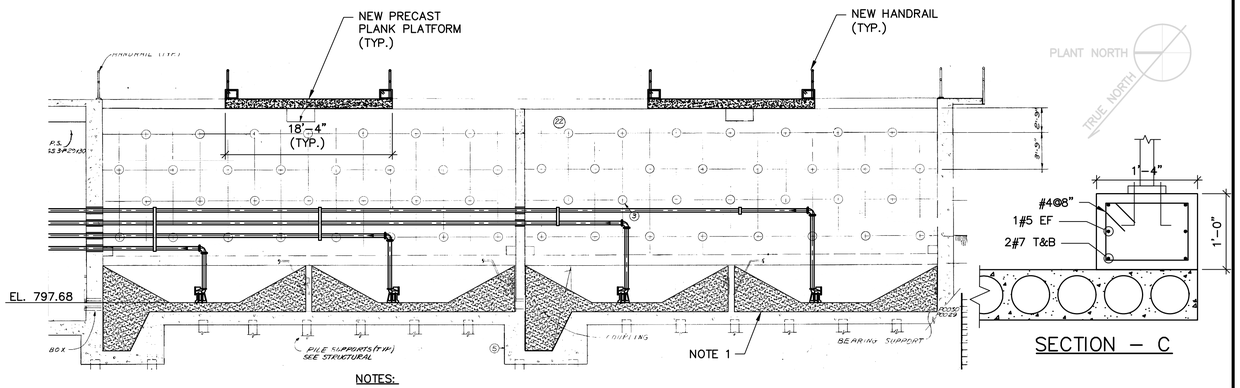
1. PLATFORM DESIGN LIVE LOAD = 300 PSF.
2. CONTRACTOR SHALL MODIFY THE RAILING AS REQUIRED.



SEDIMENTATION SLUDGE COLLECTION SUMPS BOTTOM PLAN

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

REFERENCE DRAWINGS: 3-P-22 AND 3-P-23 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)



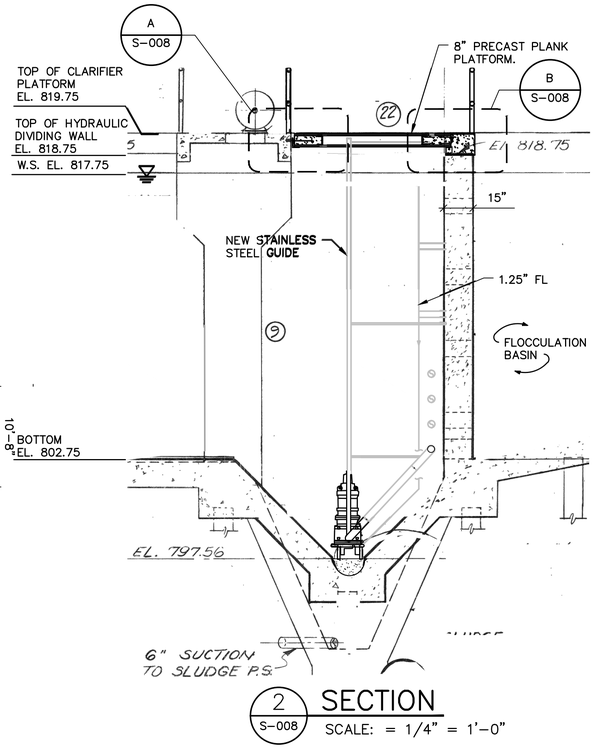
NOTES:

1. REFER TO M-005 FOR PUMP SUMP DIMENSIONS.

SECTION - C

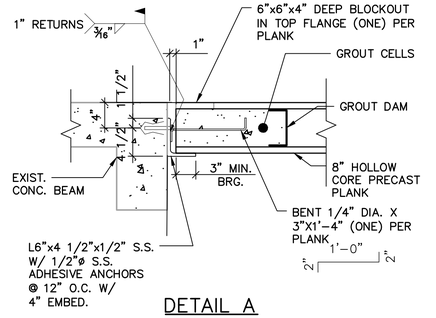
1 / S-008 SECTION (TYP. FOR 2)

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

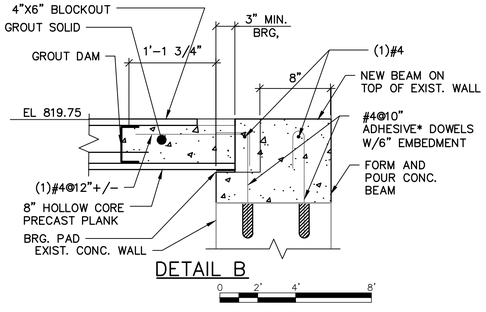


2 / S-008 SECTION

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

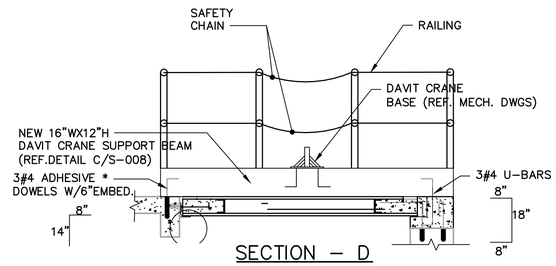


DETAIL A



DETAIL B

REFERENCE DRAWINGS: 3-P-22, 3-P-25, 3-P-26 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)



SECTION - D

* USE HILTI HIT-RE 500 V3 EPOXY ADHESIVE

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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/31/2022 ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SED. BASINS PLAN, SECTIONS AND DETAILS (SUB. SLUDGE PUMP ADD.)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	V. VIEIRA
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 1/8"=1'

S-008

SHEET 58 OF 150

User:JSAIREYANEZ Spec:AUS-NCSM00 File:G:\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-008.DWG Scale:1:1 SavedDate:7/31/2019 Time:10:22 Plot Date: Saire Yanez, Julio: 7/31/2019; 10:23 ; Layout:S8

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
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F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #11: Sed Basin Walkway Precast Surface

Status	Open		
To	***Steve Scarlett - COA/CMG***	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Aug 25, 2022	**Due Date**	Sep 1, 2022
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	S-8	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-11

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Thursday, Aug 25, 2022 at 02:30 PM EDT*

For the two new concrete walkways shown on drawing S-08. They are drawn so that the exposed/walking surface is the top of precast hollow core panels. See the attached pictures of a typical precast panel. They are not finished with the same type of finish as cast in place concrete walkway. We recommend lowering the precast 2" and installing a 2" concrete topping. This will provide a smooth and log lasting surface. The concrete would be an additional cost. Please advise.

Awaiting an Official Response

RESPONSE:

1. AFTER REVIEWING THE HOLLOWCORE ANCHORAGE CONNECTIONS, IT IS RECOMMENDED TO APPLY SEVERAL MILLIMETERS OF A LEVELING COMPOUND TO SMOOTH OUT THE HOLLOWCORE TOP SURFACE IN LIEU OF LOWERING THE PRECAST. FINISH WITH A BROOM TO ROUGHEN THE SURFACE.

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
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Project: 21091 21091-East Area WQCF Improvements
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Atlanta, Georgia 30318
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RFI #46: Sed. Basin Water Line Layout

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 23, 2024	**Due Date**	Dec 30, 2024
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To	Brandon Dow (Lakeshore Engineering)		

RFI-46

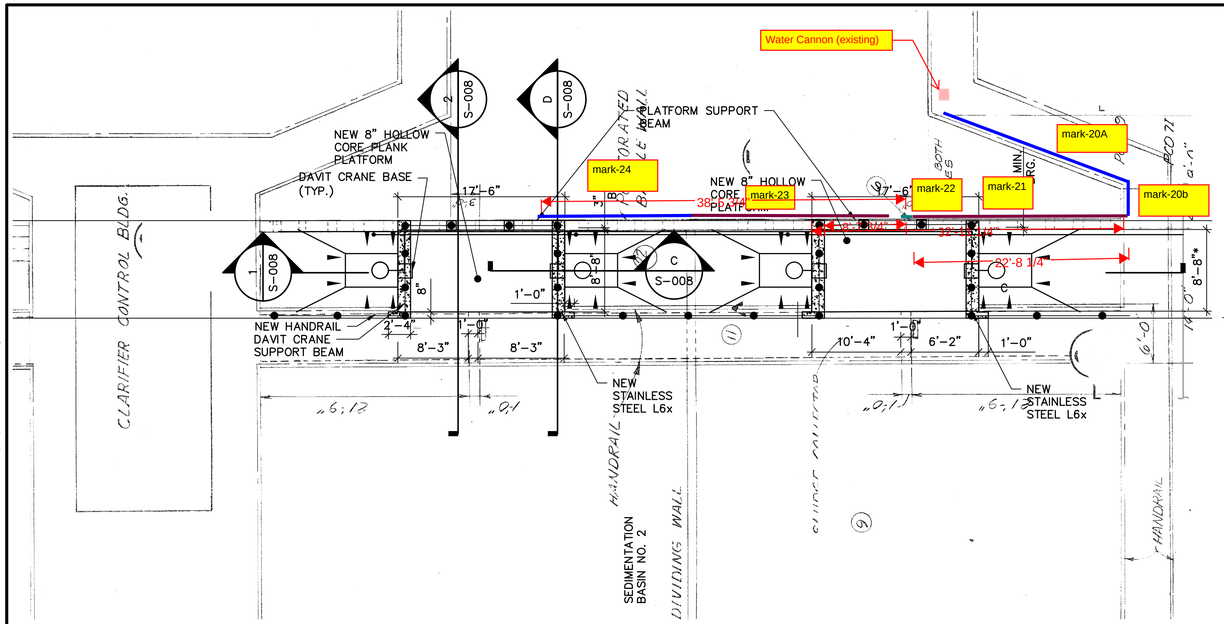
Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Dec 23, 2024 at 03:37 PM EST*

See the attached proposed routing and details on the sed basin water lines. Please clarify where the heat tracing should stop inside the basin.

Awaiting an Official Response

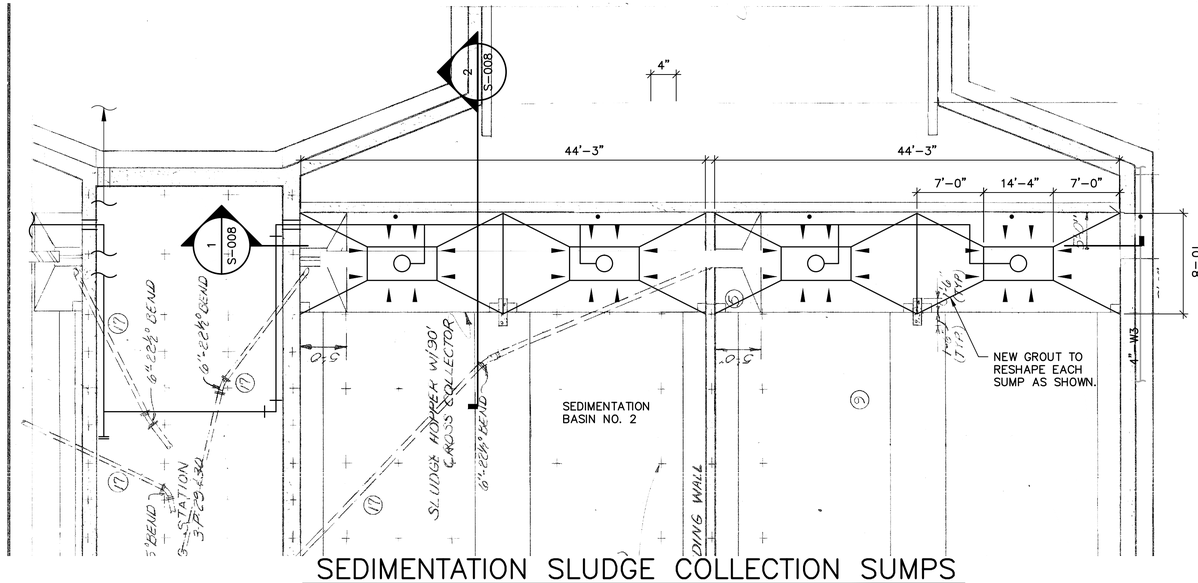


SEDIMENTATION SLUDGE COLLECTION SUMPS
TOP PLAN (TYP. FOR 2)

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

NOTES:

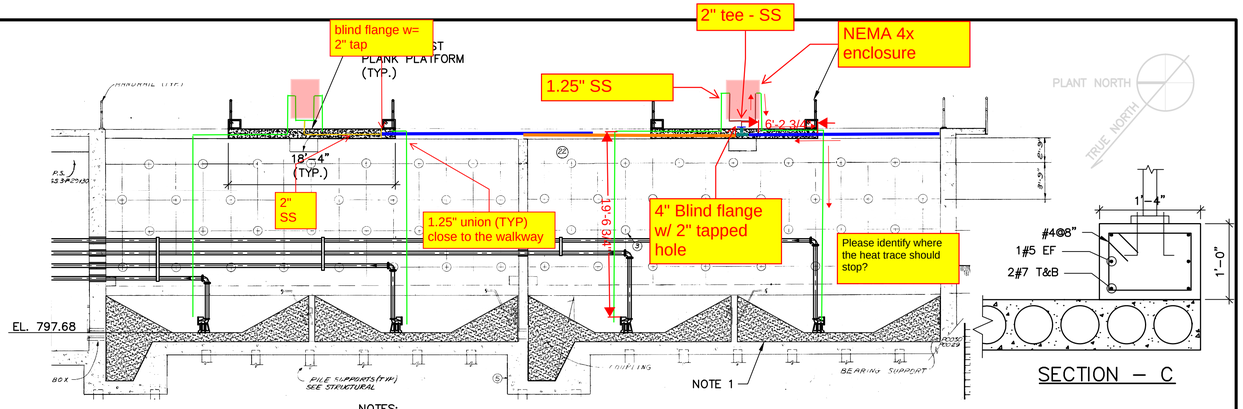
1. PLATFORM DESIGN LIVE LOAD = 300 PSF.
2. CONTRACTOR SHALL MODIFY THE RAILING AS REQUIRED.



SEDIMENTATION SLUDGE COLLECTION SUMPS
BOTTOM PLAN

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

REFERENCE DRAWINGS: 3-P-22 AND 3-P-23 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)



NOTES:

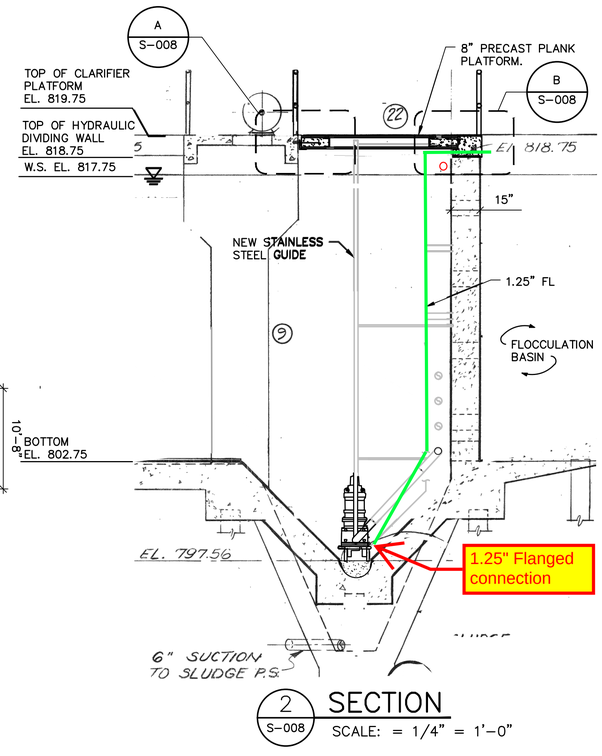
1. REFER TO M-005 FOR PUMP SUMP DIMENSIONS.

SECTION - C

1 S-008 SECTION (TYP. FOR 2)

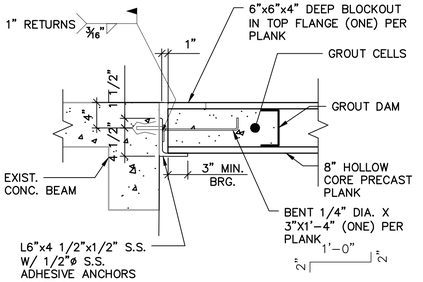
SCALE: = 1/8" = 1'-0"

RFI-46

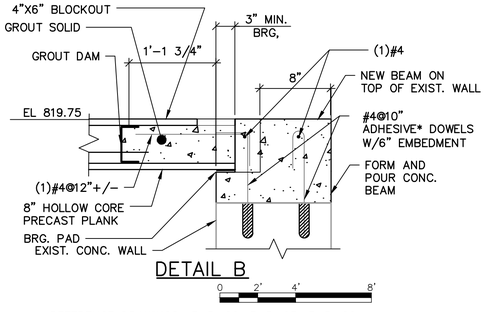


2 S-008 SECTION

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

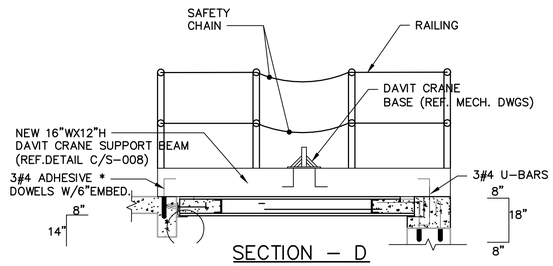


DETAIL A



DETAIL B

REFERENCE DRAWINGS: 3-P-22, 3-P-25, 3-P-26 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)



SECTION - D

* USE HILTI HIT-RE 500 V3 EPOXY ADHESIVE

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

RFI-46

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/31/2022 ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SED. BASINS PLAN, SECTIONS AND DETAILS (SUB. SLUDGE PUMP ADD.)

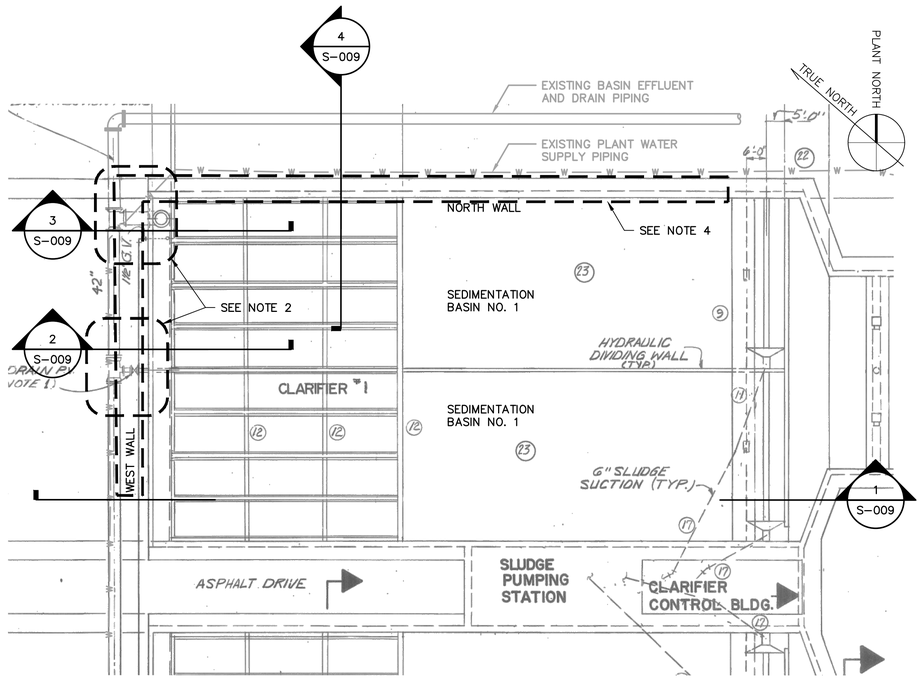
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	V. VIEIRA
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 1/8"=1'

S-008

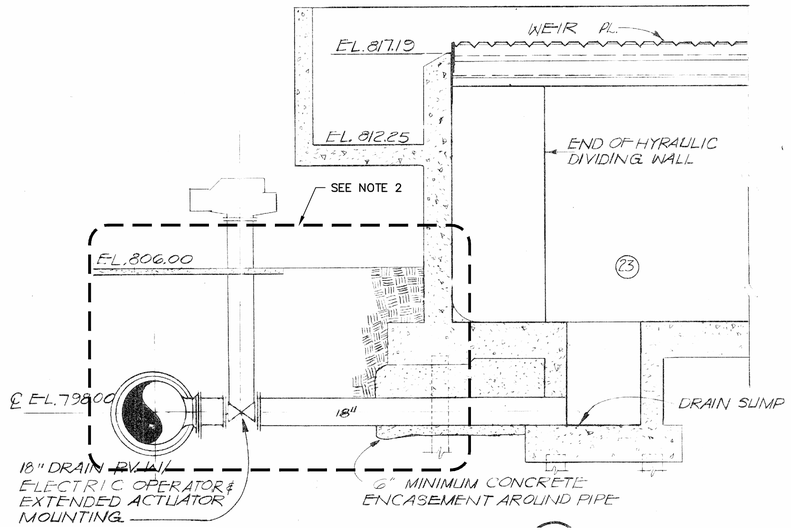
SHEET 58 OF 150

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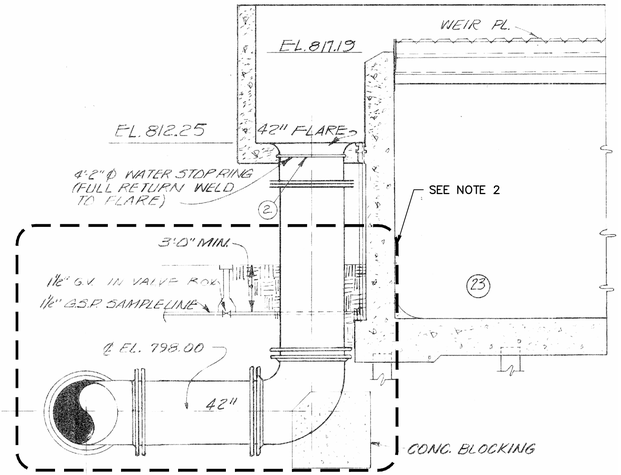
PLAN

SCALE: N.T.S.



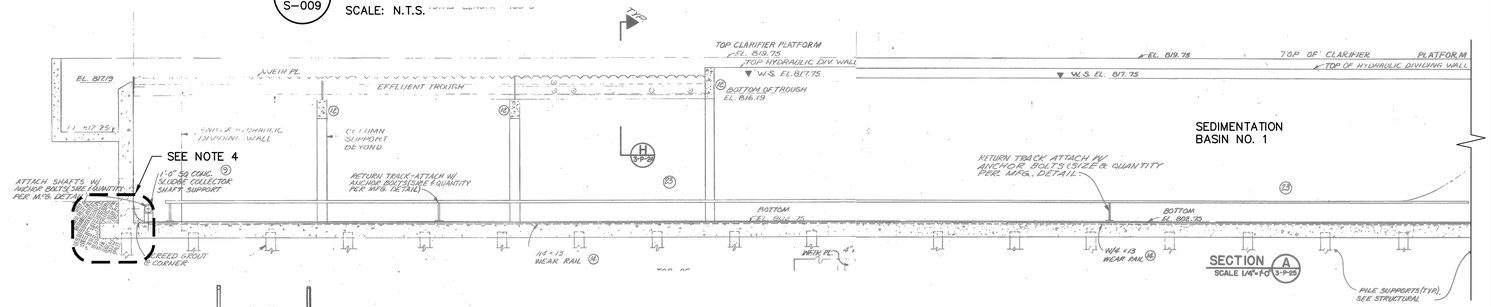
2 S-009 SECTION

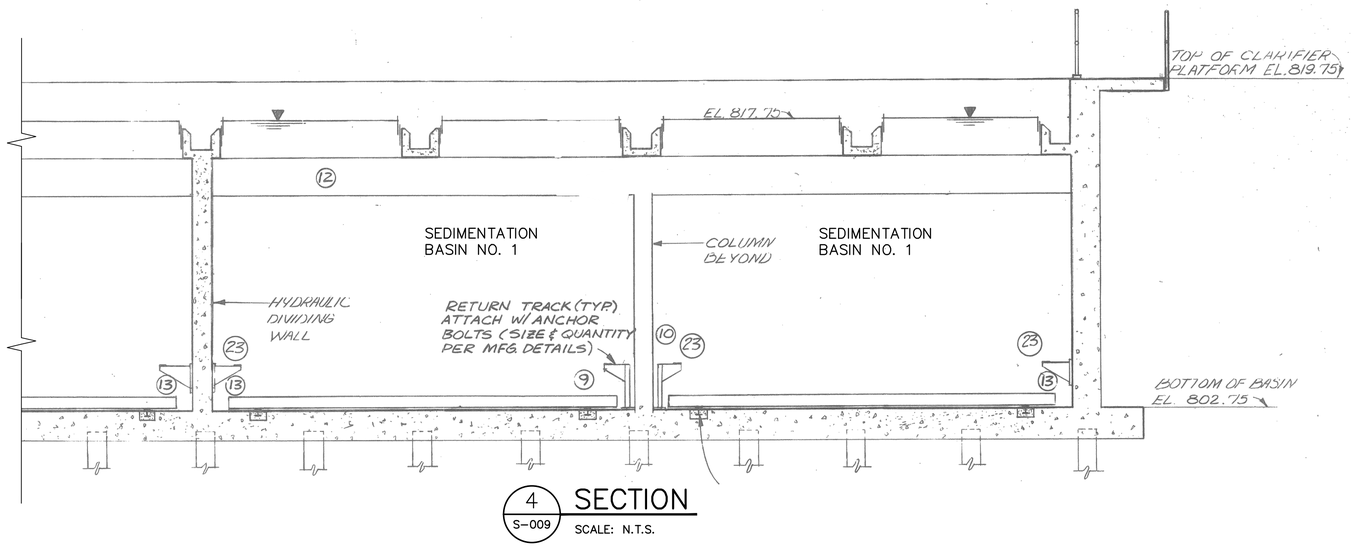
SCALE: N.T.S.



3 S-009 SECTION

SCALE: N.T.S.





4 S-009 SECTION

SCALE: N.T.S.

1 S-009 SECTION

SCALE: N.T.S.

NOTES:

1. THERE IS AN APPARENT WATER LEAK FROM THE EXISTING SETTLING BASIN 1. THE LEAK APPEARS TO BE IN THE VICINITY OF THE AREA TO THE NORTH AND WEST OF THE BASINS. SEE PLAN VIEW ON THIS SHEET.
2. CONTRACTOR SHALL EXCAVATE IN THE AREAS AROUND THE EXISTING BASIN EFFLUENT AND DRAIN PIPING/FITTING/VALVE JOINTS, IN THIS AREA, AND PERFORM PIPING PRESSURE TESTS AND VISUAL INSPECTIONS TO DETERMINE IF THIS PIPE OR VALVES ARE THE SOURCE OF THE APPARENT WATER LEAK.
3. CONTRACTOR SHALL EXCAVATE IN THE AREAS AROUND THE EXISTING PLANT WATER SUPPLY PIPING AND FITTINGS, IN THIS AREA, AND PERFORM PIPING PRESSURE TESTS AND VISUAL INSPECTIONS TO DETERMINE IF THIS PIPE OR VALVES ARE THE SOURCE THE APPARENT WATER LEAK.
4. CONTRACTOR SHALL EXPOSE TO VIEW AND CLEAN AS NECESSARY, BOTH THE INTERIOR AND EXTERIOR FACES OF THE NORTH AND WEST WALLS OF SETTLING BASIN 1, AND PERFORM A VISUAL INSPECTION AND HYDROSTATIC TESTING OF SETTLING BASIN 1, TO DETERMINE THE PRESENCE OF WATER LEAKS.
5. CONTRACTOR TO PERFORM PIPING HYDROSTATIC PRESSURE TESTS AND VISUAL INSPECTIONS OF THE PIPING CONNECTIONS TO THE EXISTING BASIN.
6. FOLLOWING THE IDENTIFICATION OF ALL LEAKS, THE CONTRACTOR SHALL PROPOSE LEAK REPAIR METHODS AND COST, TO THE ENGINEER FOR REVIEW.
7. CONTRACTOR TO REPAIR ANY PIPING OR WALL LEAKS FOUND, UTILIZING METHODS APPROVED BY THE ENGINEER AND THE CITY.
8. PAYMENT FOR EXCAVATION, CLEANING, HYDROSTATIC TESTING, INSPECTION, LEAK SOURCE DETERMINATION, REPAIR PLAN PREPARATION, AND REPAIR OF ALL APPROVED PIPING OR WALL LEAKS, SHALL BE PAID FOR UNDER THE ALLOWANCE ITEM ENTITLED SEDIMENTATION BASIN LEAK IDENTIFICATION AND REPAIR, IN THE BID SCHEDULE.
9. CONTRACTOR TO PERFORM REPAIR WORK ONLY AFTER RECEIVING A WRITTEN APPROVAL BY THE CITY.

REFERENCE DRAWINGS: 3-P-17, 3-P-24, 3-P-25, 3-P-26 (1981 INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY)

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE060371 STRUCTURAL ENGINEER 5/2022 HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASINS PLAN, SECTIONS, AND DETAILS (BASIN LEAK)

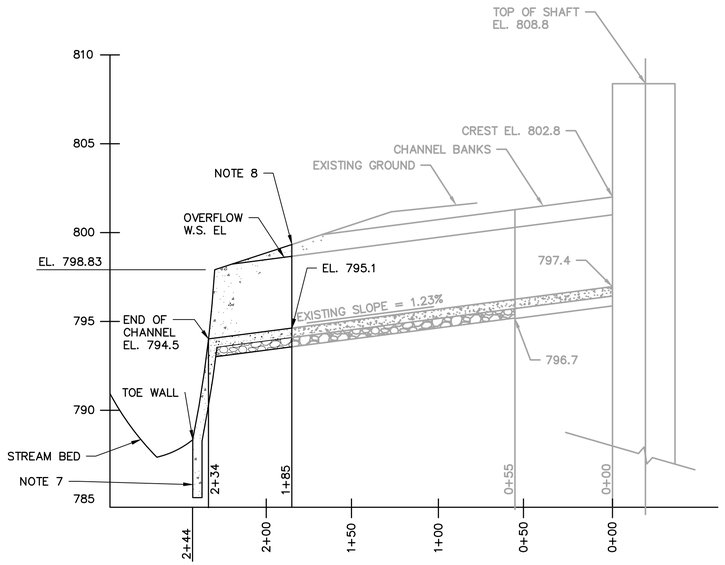
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: NONE

S-009

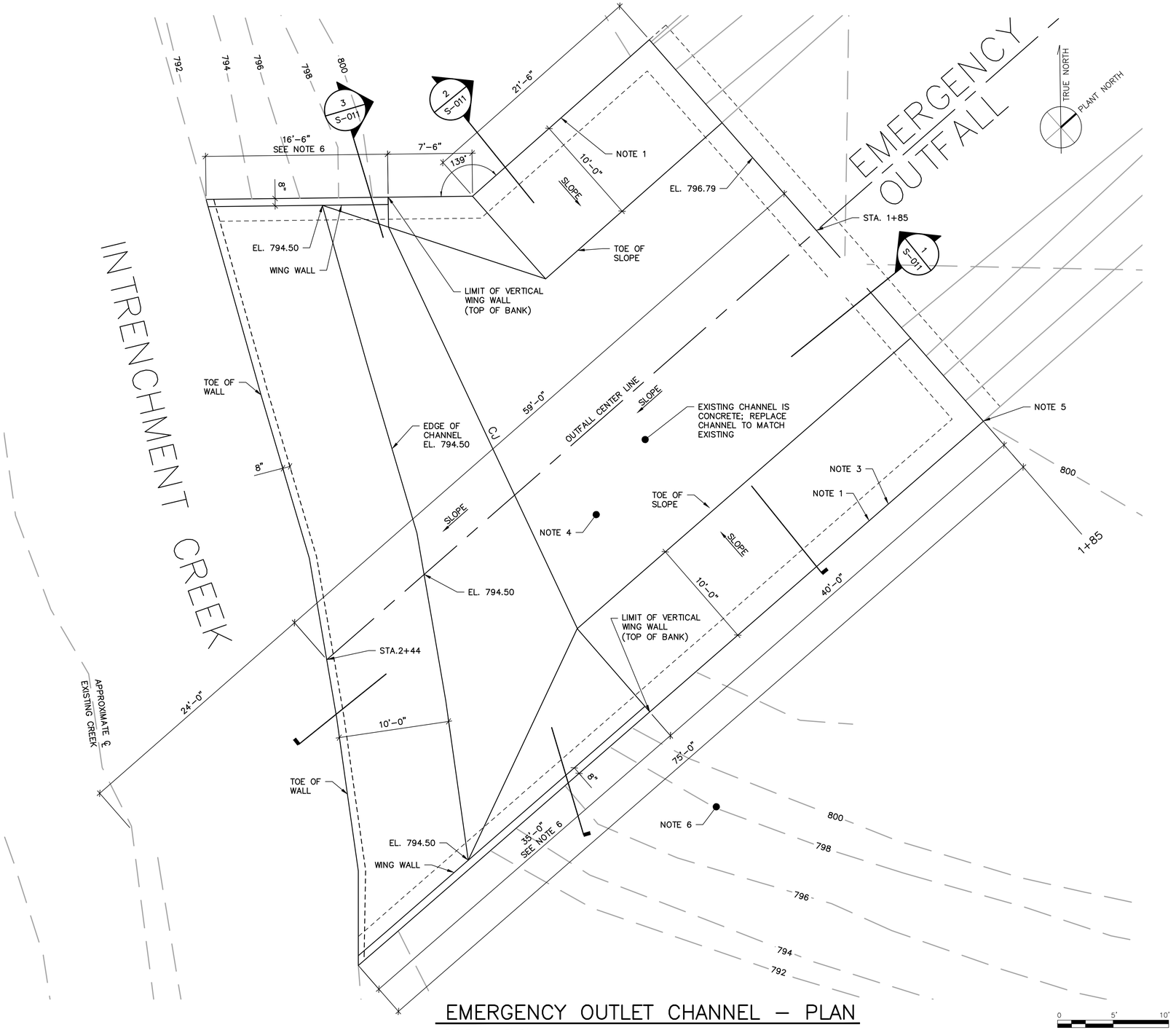
SHEET 59 OF 150

User: TTHOMAS Spec: AUS-NCSM0D File I: \ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-009.DWG Scale:1:1 SavedDate:8/8/2018 Time:13:48 Plot Date: Thomas, Travis; 7/31/2019; 09:52 ; Layout:59



PROFILE OF EMERGENCY OUTLET CHANNEL AT PUMP SHAFT

NOT TO SCALE



EMERGENCY OUTLET CHANNEL – PLAN

SCALE: 1" = 5'-0"

0 5' 10'

NOTES:

1. CLEAR AND GRUB 5' WIDE EXTENT ON EITHER SIDE OF CHANNEL DESIGNATED FOR REPLACEMENT.
2. TOE WALL SHALL EXTEND 3–FEET BELOW CREEK BED.
3. DEMOLISH AND REPLACE EXISTING CHANNEL AT EXISTING SLOPE.
4. REPLACE ALL EXISTING ENERGY DISSIPATERS IN TRAPEZOIDAL CONCRETE CHANNEL EXTENT DESIGNATED FOR REPLACEMENT.
5. EXISTING CHANNEL IS ALL CONCRETE. PROPOSED DEMOLITION AND REPLACEMENT COMMENCES HERE AND CONTINUES TO CONFLUENCE WITH STREAM BED.
6. RESTORE GRADING ADJACENT TO CHANNEL REPLACEMENT TO MATCH EXISTING CONDITIONS.
7. DURING REPLACEMENT OF EXISTING TOE–WALL, INSTALL TOE–WALL EXTENSION 3' BELOW STREAM BED ELEVATION AT EXISTING THICKNESS. COVER AND RESTORE STREAM BED ELEVATION TO EXISTING CONDITIONS FOLLOWING INSTALLATION.
8. DEMOLISH AND REPLACE EXISTING CHANNEL FROM STA. 1+85 TO JOINT NEAREST 2+44.
9. PROVIDE CONSTRUCTION JOINT (CJ) AS SHOWN.

REFERENCE DRAWINGS: 2A–C–1 THROUGH 2A–C3 (1981, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT

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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TUNNEL PUMP STATION OUTFALL REPAIR PLAN AND PROFILE

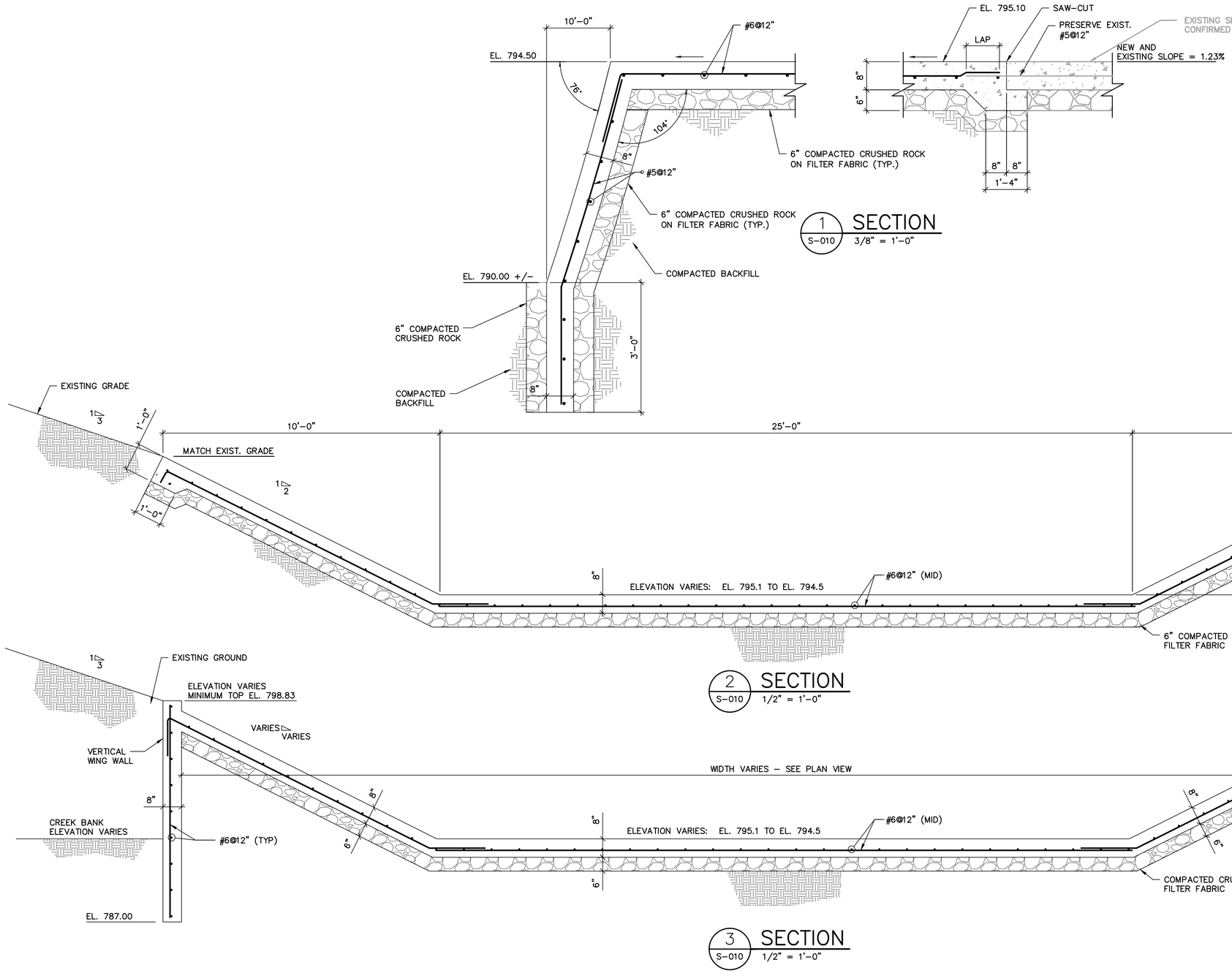
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: AS SHOWN

S–010

SHEET 60 OF 150

User: TTHOMAS Spec: AUS–NCSM0D File: I:\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S–010.DWG Scale:1:1 SavedDate:7/29/2019 Date:7/29/2019 Time:13:35 Plot Date: Thomas, Travis; 7/31/2019; 09:54 ; Layout:60



1 / S-010 SECTION 3/8" = 1'-0"

2 / S-010 SECTION 1/2" = 1'-0"

3 / S-010 SECTION 1/2" = 1'-0"

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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/8/2022 ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TUNNEL PUMP STATION OUTFALL REPAIR SECTION

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: AS SHOWN

S-011

SHEET 61 OF 150

User:SDANDANE Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURALS-011.DWG Scale:1:1 SavedDate:3/8/2019 Time:16:13 Plot Date: Dandane, Shantanu; 4/15/2021; 16:17 ; Layout:61

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Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #16: Tunnel outfall concrete clarifications & work plan

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Sep 1, 2022	**Due Date**	Sep 8, 2022
Location		**Project Stage**	
Cost Impact	TBD	**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	s10 & s11	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-16

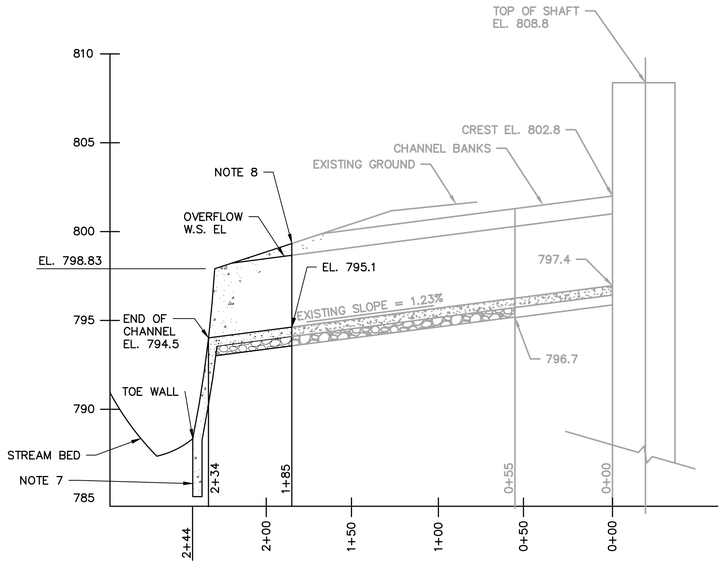
Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Thursday, Sep 1, 2022 at 10:30 AM EDT*

See the attached drawings showing our work plan for construction joints & waterstop. Also see the requests for further information. As discussed the structural team can review the 20' of existing concrete that appears sound and could be left as is.

Awaiting an Official Response



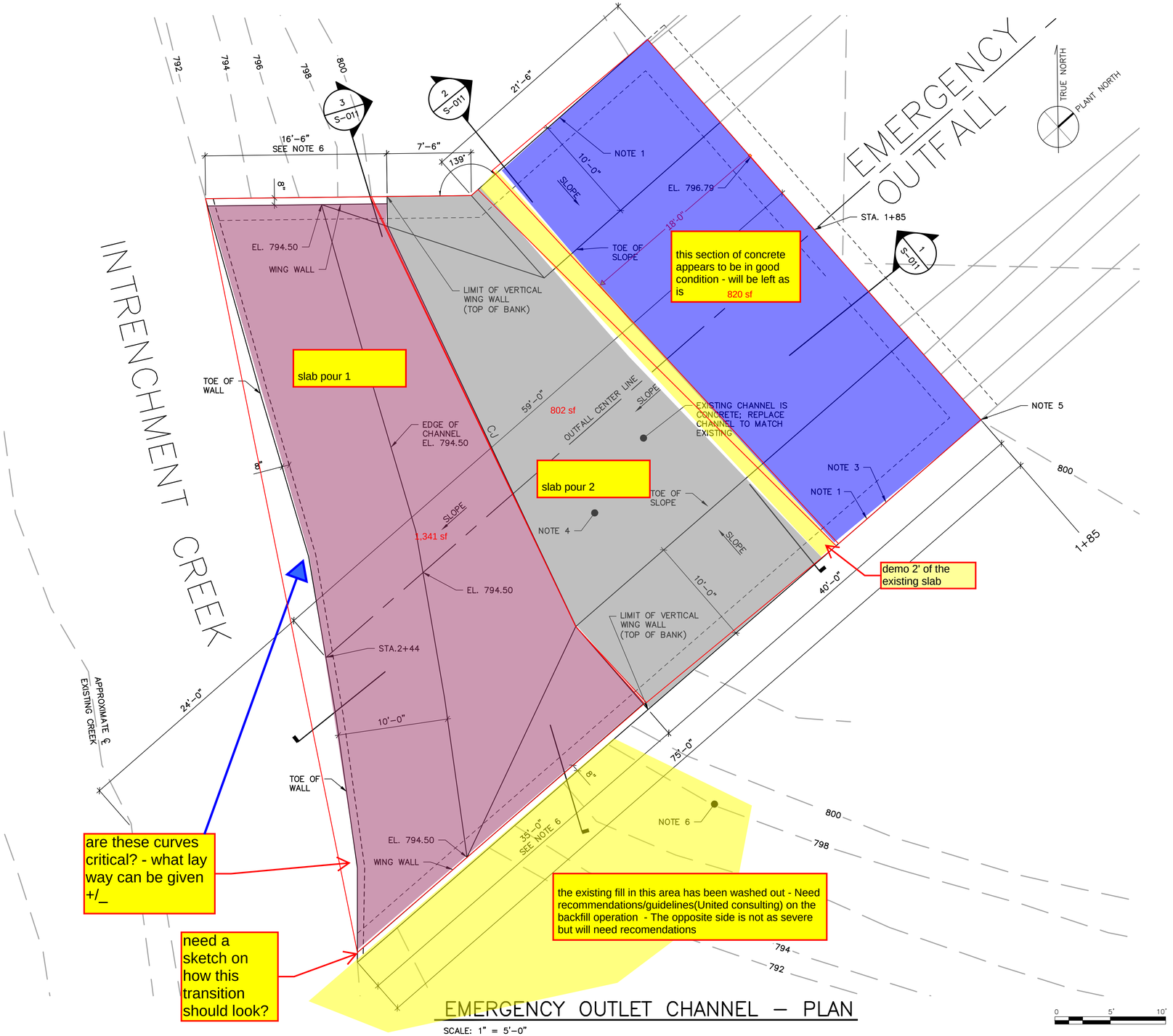
PROFILE OF EMERGENCY OUTLET CHANNEL AT PUMP SHAFT

NOT TO SCALE

NOTES:

1. CLEAR AND GRUB 5' WIDE EXTENT ON EITHER SIDE OF CHANNEL DESIGNATED FOR REPLACEMENT.
2. TOE WALL SHALL EXTEND 3–FEET BELOW CREEK BED.
3. DEMOLISH AND REPLACE EXISTING CHANNEL AT EXISTING SLOPE.
4. REPLACE ALL EXISTING ENERGY DISSIPATERS IN TRAPEZOIDAL CONCRETE CHANNEL EXTENT DESIGNATED FOR REPLACEMENT.
5. EXISTING CHANNEL IS ALL CONCRETE. PROPOSED DEMOLITION AND REPLACEMENT COMMENCES HERE AND CONTINUES TO CONFLUENCE WITH STREAM BED.
6. RESTORE GRADING ADJACENT TO CHANNEL REPLACEMENT TO MATCH EXISTING CONDITIONS.
7. DURING REPLACEMENT OF EXISTING TOE–WALL, INSTALL TOE–WALL EXTENSION 3' BELOW STREAM BED ELEVATION AT EXISTING THICKNESS. COVER AND RESTORE STREAM BED ELEVATION TO EXISTING CONDITIONS FOLLOWING INSTALLATION.
8. DEMOLISH AND REPLACE EXISTING CHANNEL FROM STA. 1+85 TO JOINT NEAREST 2+44.
9. PROVIDE CONSTRUCTION JOINT (CJ) AS SHOWN.

REFERENCE DRAWINGS: 2A–C–1 THROUGH 2A–C3 (1981, CITY OF ATLANTA INTRENCHMENT CREEK CSO TREATMENT PLANT



EMERGENCY OUTLET CHANNEL – PLAN

SCALE: 1" = 5'–0"

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RFI-16

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/6/2022 ENGINEER HOUSAM HOBI

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TUNNEL PUMP STATION OUTFALL REPAIR PLAN AND PROFILE

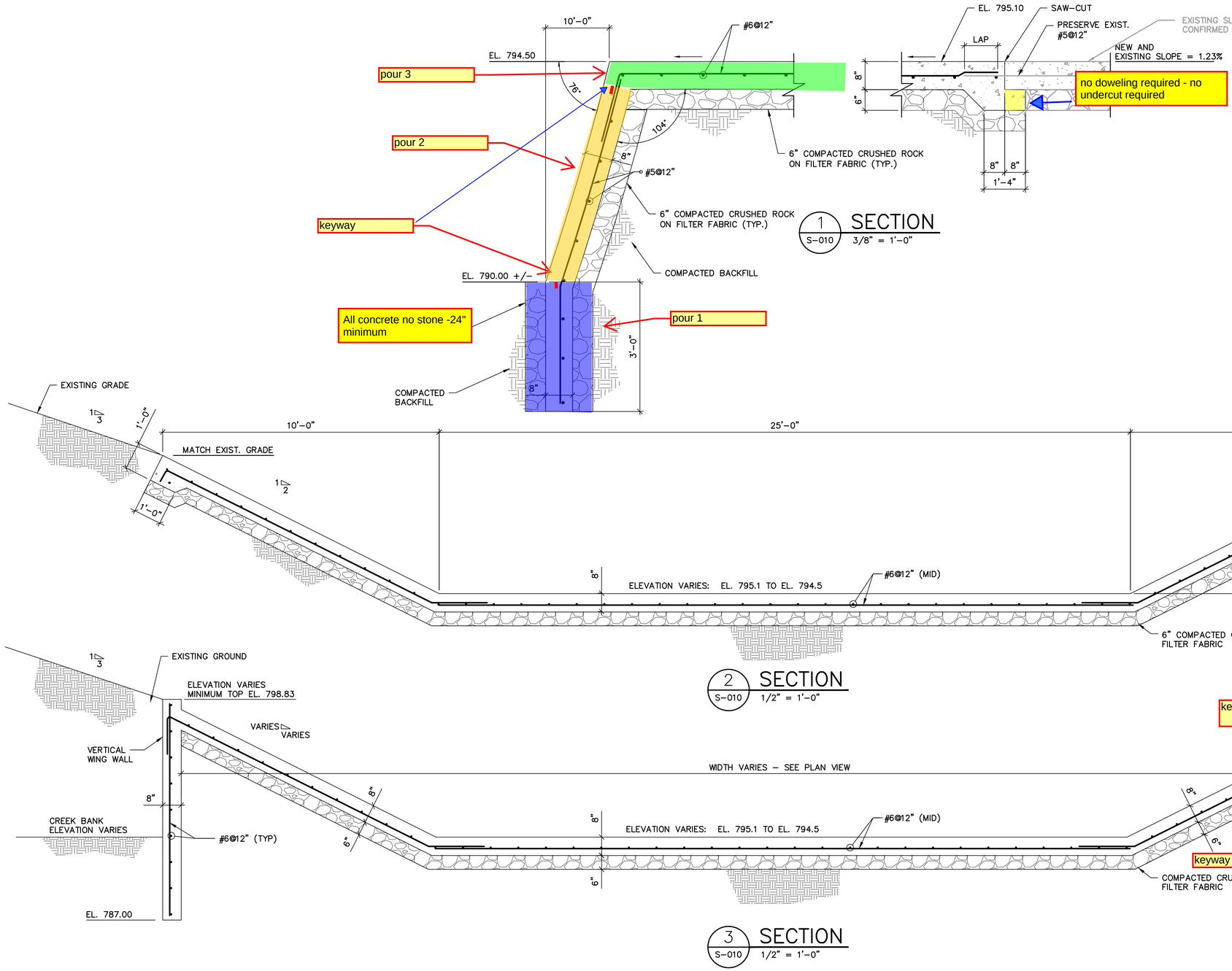
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: AS SHOWN

S–010

SHEET 60 OF 150

User:THOMAS Spec:AUS–NCSMOD File:I:\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S–010.DWG Scale:1:1 SavedDate:7/29/2019 Plot Date: Thomas, Travis; 7/31/2019; 09:54 ; Layout:60



User: SDANDANE Spec: AUS-NCSMOD File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURALS-011.DWG Scale:1:1 SavedDate:3/8/2019 Time:16:13 Plot Date: Dandane, Shantanu; 4/15/2021; 16:17 ; Layout:61

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RFI-16

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/8/2022 ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TUNNEL PUMP STATION OUTFALL REPAIR SECTION

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: AS SHOWN

S–011

SHEET 61 OF 150

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #15: Solids dewatering building underslab pipe encasement

Status	Open		
To	***Steve Scarlett - CMG/COA***	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Aug 30, 2022	**Due Date**	Sep 6, 2022
Location		**Project Stage**	
Cost Impact	TBD	**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	m16,m17, s12	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-15

Activity

Question

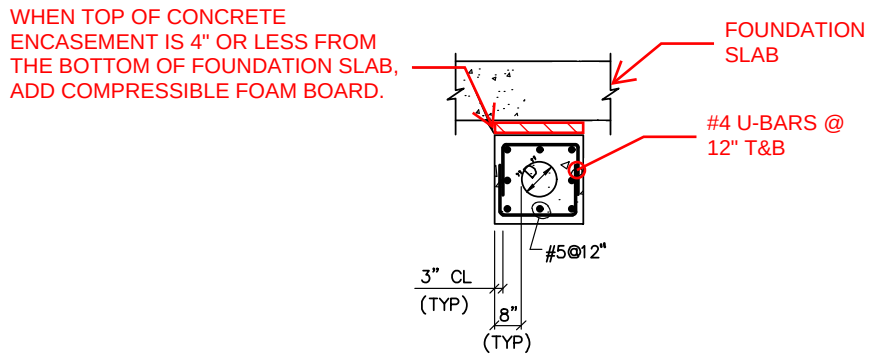
Question from Brandon Dow Lakeshore Engineering *on Tuesday, Aug 30, 2022 at 01:08 PM EDT*

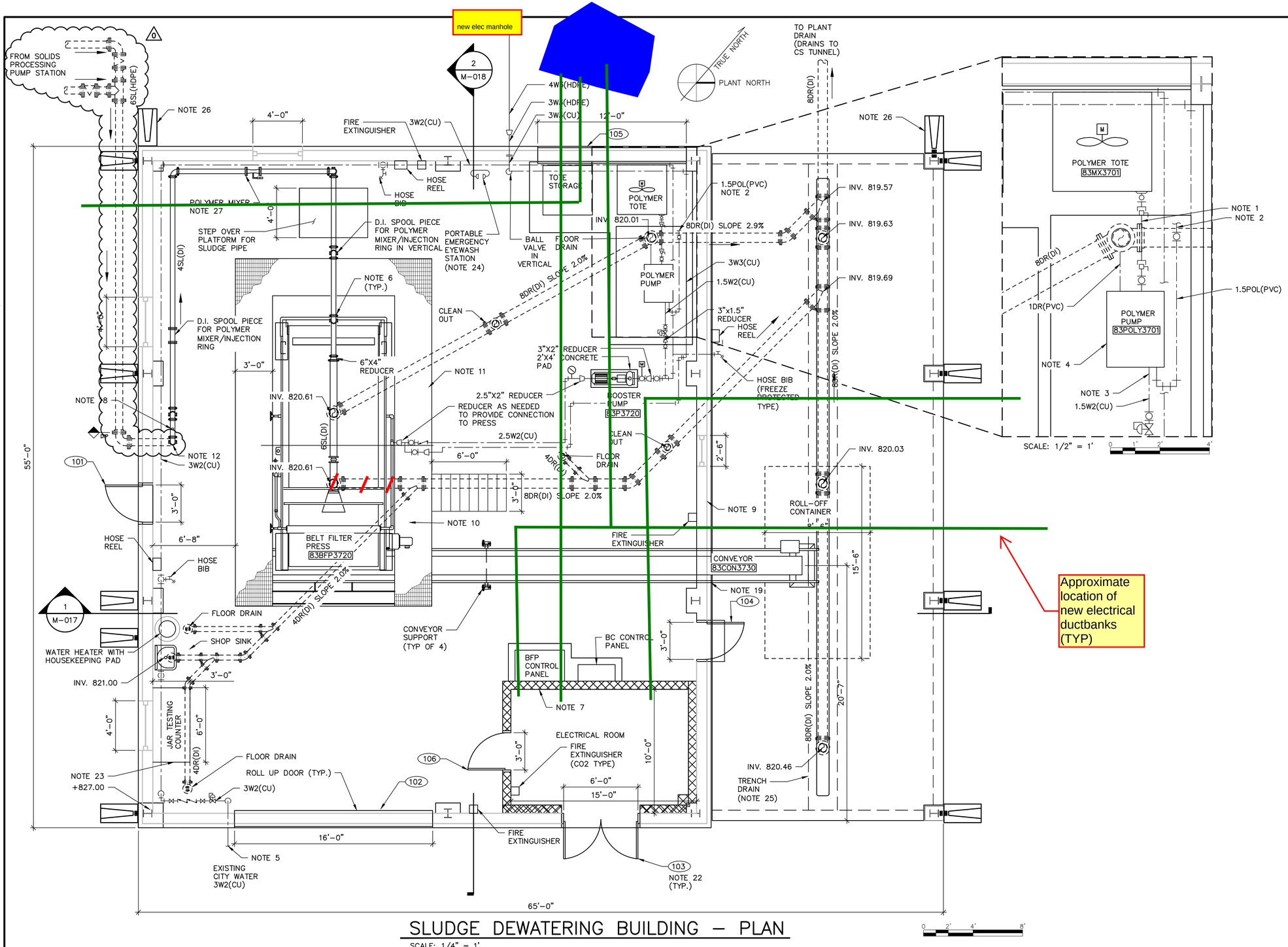
For the pipe encasement under the solids dewatering building we request that the top of the encasement be 8" above the horizontal pipe. This will aid in the installation of the additional electric ductbank. See the sketch for details. Please advise.

Awaiting an Official Response

RESPONSE: Accepted

1. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING PIPE ENCASEMENT DETAIL :





SLUDGE DEWATERING BUILDING – PLAN

SCALE: 1/4" = 1'

NOTES:

1. PROVIDE 1" HOSE (KANAFLEX 110CL OR APPROVED EQUAL) OF SUFFICIENT LENGTH FOR TOTE. COORDINATE LOCATIONS WITH OWNER. PROVIDE CONNECTION TO TOTE VALVE AS REQUIRED BY TOTE MANUFACTURER. INCLUDE ANY PIPE AND FITTINGS NECESSARY TO PROVIDE A QUICK CONNECT END CONNECTION.
2. ROUTE POL–PVC PIPES TO THE LOCATIONS REQUIRED FOR POLYMER MIXER/INJECTION RINGS. THE FINAL LOCATIONS FOR POLYMER INJECTION TO BE DETERMINED DURING START–UP AND TESTING.
3. PROVIDE FITTINGS NECESSARY TO MAKE UP CONNECTIONS TO POLYMER PUMP SYSTEMS.
4. PACKAGED POLYMER SYSTEM (INCLUDING PUMP) TO BE PROVIDED ON SKID BY VENDOR.
5. CONTRACTOR TO CONNECT TO EXISTING CITY WATER SYSTEM. FIELD VERIFY & ADJUST ROUTING AS NEEDED.
6. FOR ALL INTERIOR ABOVE GROUND SL PIPE CONNECTIONS USE GROOVED JOINT COUPLINGS AS INDICATED.
7. CMU WALLS.
8. BELT FILTER PRESS VENDOR TO PACKAGE PRESS, MOTOR, BOOSTER PUMP, PLATFORM, CONTROL PANEL AND POLYMER MIXER.
9. BASE 30" OF PERIMETER WALL IS CONCRETE.
10. PROVIDE 36" CLEARANCE ON WALKWAY AROUND BELT FILTER PRESS.
11. ALUMINUM ACCESS PLATFORM, RAILING, SUPPORTS, HANDRAILS, APPURTENANCES, & STAIRS BY BELT PRESS MFG.
12. MATERIAL TRANSITIONS FROM HDPE BELOW GRADE TO DI ABOVE GRADE/SLAB.
13. PROVIDE A MINIMUM OF 2 INCHES BETWEEN TOP OF LOAD SKIRT AND BELT PRESS DISCHARGE POINT
14. FIELD LOCATE PIPING. COORDINATE LOCATION OF TIE–INS WITH BELT PRESS SUPPLIER. PROVIDE 3 INCH EQUIPMENT PAD FOR THE NEW BOOSTER PUMPS.
15. ALL POLYMER SOLUTION VALVES SHALL BE TRUE UNION PVC BALL VALVES UNLESS NOTED OTHERWISE.
16. ALL PIPING TO BE SUPPORTED PER THE SPECIFICATIONS.
17. ALL CHEMICAL SOLUTION PIPING TO BE SCH. 80 PVC UNLESS NOTED OTHERWISE.
18. PROVIDE 1" 316SS BALL VALVE WITH EXTENSION LEVER. HARD PIPE DISCHARGE WITH PVC SCH 80. TO 3–FT ABOVE FLOOR, AND RUBBER HOSE TO 1–FT ABOVE FLOOR.
19. PROVIDE WALL OPENING AS REQ'D IN WALL TO ALLOW CONVEYOR AND FRAME TO PASS. REINFORCE OPENING AS REQ'D. PROVIDE WEATHER STRIPS, FLEXIBLE CLEAR TYPE AT WALL OPENING TO PREVENT WIND AND RAIN FROM ENTERING BUILDING. OPENING SHALL BE TRIMMED WITH ALUMINUM SLEEVE AND INTERIOR AND EXTERIOR FLASHING.
20. LOCATION OF PIPE AS SHOWN MAY BE SUBJECT TO CHANGE BASED ON BELT PRESS SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PIPING WITH ENGINEER AND SUPPLIER AT NO ADDITIONAL COST TO THE OWNER.
21. COORDINATE EXACT FAN OPENINGS REQ'D WITH FAN SUPPLIER.
22. FOR DOOR SCHEDULES, REFERENCE SHEET S–015.
23. COUNTER TO BE HAMILTON SCIENTIFIC LABORATORY TABLE – MODULAR STEEL OR EQUAL.
24. CONTRACTOR TO PROVIDE PORTABLE EYEWASH STATION AND ASSOCIATED MOUNTING. EYEWASH STATION SHALL BE A PORTASTREAM II EYEWASH STATION OR APPROVED EQUAL.
25. REMOVABLE GRATING TO BE INSTALLED OVER TRENCH DRAIN.
26. ROUTE ROOF DRAINS AT THESE LOCATIONS TO DISCHARGE TO THE PLANT WEST SIDE OF THE SLUDGE DEWATERING BUILDING.
27. PROVIDE FLANGE JOINTS FOR POLYMER MIXER UNITS.
28. INSULATE EXPOSED SL, W2, AND W3 LINES WITHIN BUILDING.

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RFI-15

NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER HAMILTON DAY GILES 7-8-22

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	C. MARTINI
CHECKED BY:	W. GRUBBS

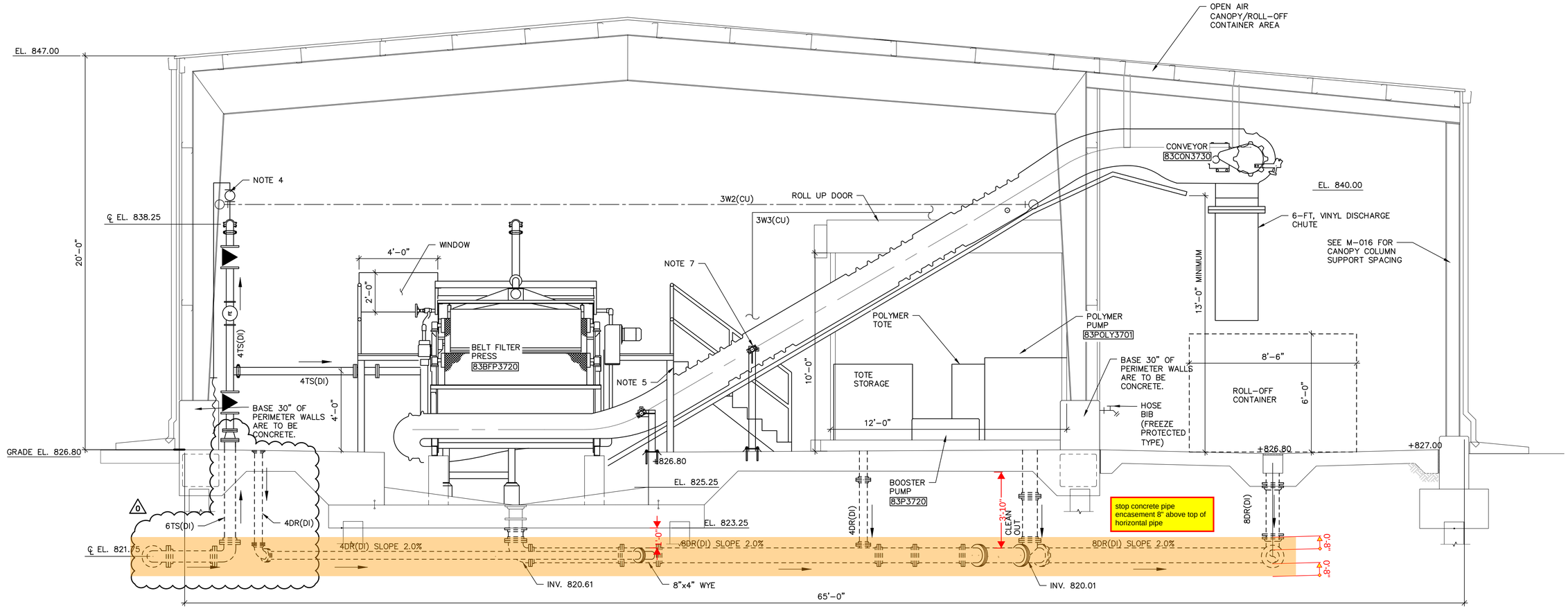
SCALE: AS SHOWN

M–016

SHEET 41 OF 150

User:HGILES Spec:AUS–NCSM0D File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M–016.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:40 Plot Date: Giles, Hamilton; 7/8/2022; 10:46 ; Layout:41

User:HDGILES Spec:AUS-NCSM0D File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-017.DWG Scale:1:1 SavedDate:7/7/2022 Time:16:04 Plot Date: Giles, Hamilton; 7/8/2022; 10:48 ; Layout:42



1 / M-016 SLUDGE DEWATERING BUILDING – SECTION

NOTES:

1. CONTRACTOR SHALL COORDINATE LOCATION OF BELT CONVEYOR & BELT PRESS.
2. PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN TOP OF LOAD SKIRT & BELT PRESS DISCHARGE POINT.
3. ALL POLYMER SOLUTION PIPING SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE.
4. 1" TYPE 316SS BALL VALVE.
5. CONTRACTOR TO PROVIDE MINIMUM CLEARANCE BETWEEN CONVEYOR AND PLATFORM RECOMMENDED BY MANUFACTURER.
6. PIPES LOCATED BENEATH SLAB SHALL BE ENCASED IN CONCRETE. SEE SHEET S-012 FOR DETAIL.
7. CONVEYOR SUPPORTS SHALL BE INCLUDED IN MANUFACTURER'S SCOPE OF SUPPLY AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.

0 2' 4' 6'

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RFI-15

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SEALS

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

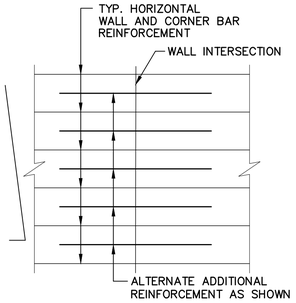
SHEET TITLE

SLUDGE DEWATERING BUILDING SECTIONS

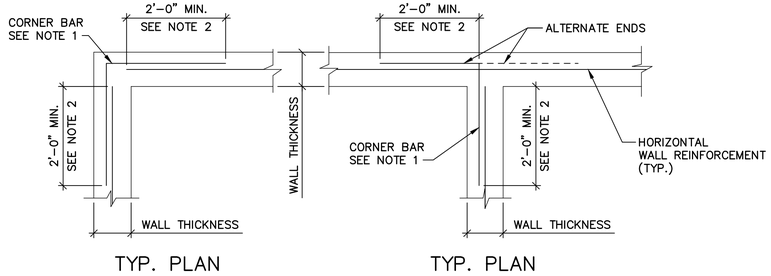
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	J. BROWN
CHECKED BY:	W. GRUBBS

SCALE: 3/8"=1'

M-017



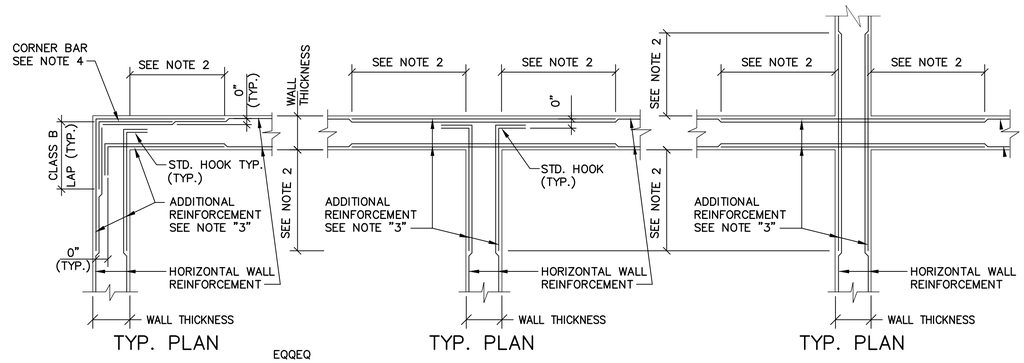
TYP. DEVELOPED ELEVATION
AT WALL INTERSECTION



TYP. PLAN TYP. PLAN

TYPICAL REINFORCEMENT DETAIL
AT SINGLY REINFORCED WALL INTERSECTIONS

NOTES:
1. CORNER BARS TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT (U.O.N.).
2. DIMENSION TO BE 0.25 TIMES THE CLEAR SPAN DISTANCE BETWEEN WALL INTERSECTIONS MEASURED HORIZONTALLY, BUT NO LESS THAN 2'-0" NOR GREATER THAN 6'-0".

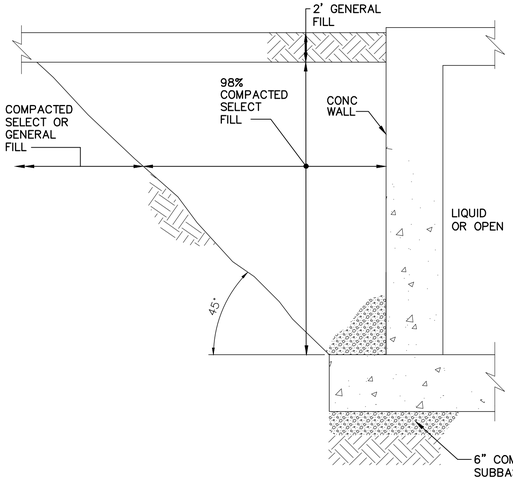


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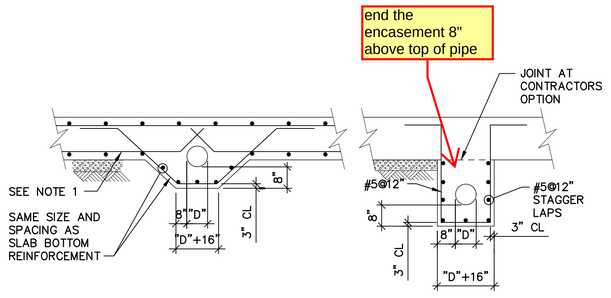
TYPICAL REINFORCEMENT DETAIL
AT WALL INTERSECTIONS

NOTES:
1. PROVIDE ADDITIONAL REINFORCING AT ALL WALL INTERSECTIONS AS SHOWN ABOVE U.O.N. ON DWGS.
2. DIMENSION TO BE 0.25 TIMES THE CLEAR SPAN DISTANCE BETWEEN WALL INTERSECTIONS MEASURED HORIZONTALLY, BUT NOT LESS THAN 2'-0", NOR GREATER THAN 6'-0".
3. ADDITIONAL REINFORCEMENT TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT (U.O.N.). ALTERNATE ADDITIONAL REINFORCEMENT WITH HORIZONTAL WALL REINFORCEMENT.
4. PROVIDE CORNER BAR REINFORCING AT ALL WALL CORNERS AS SHOWN. CORNER BAR REINFORCEMENT TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT.
5. WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT WALL INTERSECTION OCCURS, REINFORCEMENT SHALL BE COMBINED.
6. TYPICAL WALL INTERSECTION DETAILS ARE SHOWN AT 90 DEGREES, BUT ARE APPLICABLE FROM 60 TO 120 DEGREES.



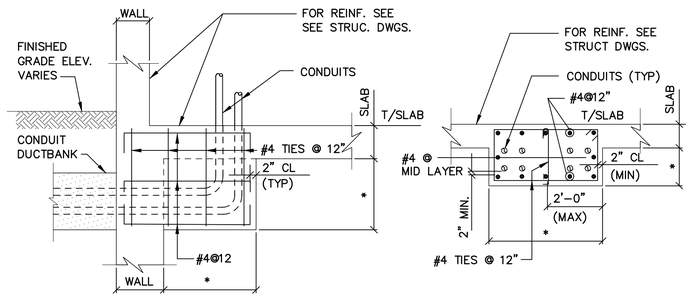
TYPICAL CONCRETE WALL
BACKFILL DETAIL

NOTES:
1. REFER TO SPECIFICATIONS FOR EXCAVATION REQUIREMENTS.
2. TYPICAL BACKFILL REQUIREMENTS FOR ALL BELOW GRADE STRUCTURES. STRUCTURES.



PIPE ENCASEMENT DETAIL

NOTES:
1. BOTTOM REINFORCEMENT TO BE CONTINUOUS WHERE POSSIBLE.
2. FOR PIPE SIZE "D" AND ELEVATION, SEE MECHANICAL OR PLUMBING DRAWINGS.
3. ALL PIPES LOCATED BENEATH BASE SLABS SHALL BE ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.
4. THIS DETAIL SHALL ONLY BE USED FOR PIPES THAT CONTAIN HORIZONTAL RUNS THAT ARE PARTIALLY INSTALLED WITHIN THE CONCRETE FLOOR SLAB. FOR ALL OTHER PIPES BENEATH CONCRETE FLOOR SLABS.



AT WALL BELOW ELEVATED SLAB

TYPICAL CONDUIT ENCASEMENT DETAIL

NOTES:
1. REFER TO SPECIFICATION SECTION 03300 FOR COORDINATION OF CONCRETE WITH OTHER CONTRACTORS.
2. (*) INDICATES DIMENSION TO BE DETERMINED BASED ON FIELD CONDITIONS.

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RFI-15

NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER HOUSAM HOBI

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL
FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

STRUCTURAL TYPICAL
DETAILS 1

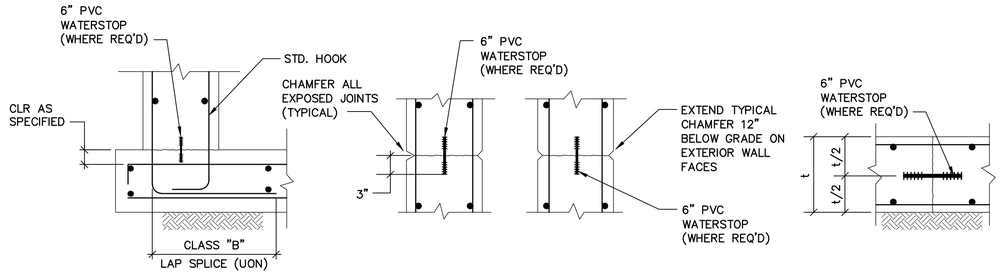
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: AS NOTED

S-012

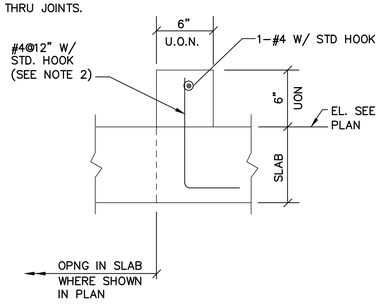
SHEET 62 OF 150

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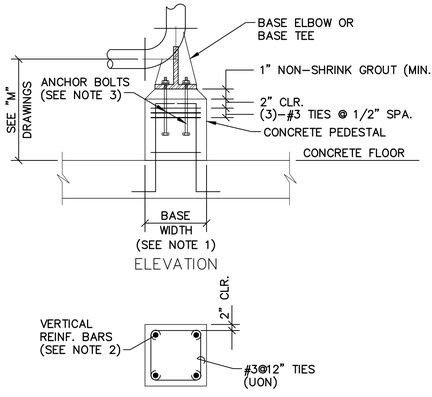
TYPICAL CONSTRUCTION JOINT DETAILS

NOTES:
1. CONTINUE ALL REINFORCEMENT BARS THRU JOINTS.
2. ROUGHEN CJ AS SPECIFED



TYPICAL CONCRETE CURB DETAIL

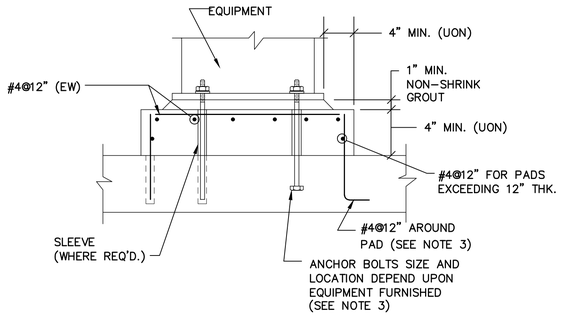
NOTES:
1. PROVIDE MIN REINFORCING AS SHOWN ABOVE IN ALL CURBS (UON).
2. FOR EXISTING SLABS, DRILL HOLE DIAMETER AND DEPTH ON EXISTING SLAB PER MANUFACTURER'S REQUIREMENTS FOR ADHESIVE ANCHORAGE SYSTEM USED.



TYPICAL CONCRETE PEDESTAL PIPE SUPPORT DETAIL

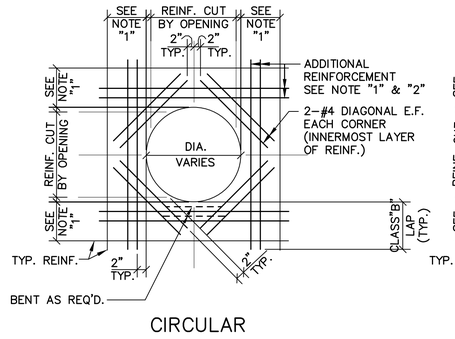
SCALE: NO SCALE

NOTES:
1. BASE WIDTH SHALL BE A MINIMUM OF BASE ELBOW OR BASE TEE WIDTH PLUS 2 INCHES ON ALL SIDES OR A WIDTH TO PROVIDE A MINIMUM EDGE DISTANCE OF 5 INCHES ON ALL ANCHOR BOLTS.
2. PROVIDE VERTICAL REINFORCING BARS EQUALLY DISTRIBUTED ON ALL FACES OF SUPPORT PEDESTAL. PROVIDE (SEE NOTE 4):
   8-#5 BARS FOR A BASE WIDTH LESS THAN 16 INCHES.
   8-#6 BARS FOR A BASE WIDTH OF 16 INCHES BUT NOT LESS THAN 20 INCHES.
   8-#7 BARS FOR A BASE WIDTH OF 20 INCHES OR GREATER.
3. ANCHOR BOLT SIZE PER PIPE SUPPORT REQUIREMENT.
4. FOR EXISTING SLABS, DRILL HOLE DIAMETER AND DEPTH IN EXISTING SLAB PER MANUFACTURER'S REQUIREMENTS FOR ADHESIVE ANCHORAGE SYSTEM USED.



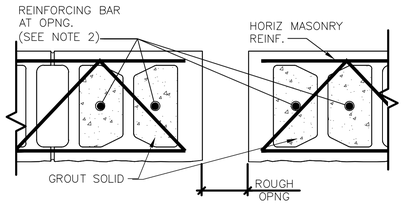
TYPICAL EQUIPMENT SUPPORT PAD DETAIL

NOTES:
1. PROVIDE TYP. 4" MINIMUM CONCRETE SUPPORT PAD FOR ALL EQUIPMENT UNLESS OTHERWISE NOTED.
2. COORDINATE LOCATION AND SIZE OF PADS WITH OTHER DRAWINGS AND MANUFACTURER'S CERTIFIED DRAWINGS.
3. FOR EXISTING SLABS, DRILL HOLE DIAMETER AND DEPTH IN EXISTING SLAB PER MANUFACTURER'S REQUIREMENTS FOR ADHESIVE ANCHORAGE SYSTEM USED.
4. SEE ELECTRICAL SHEETS FOR OTHER SPECIFIC ELECTRICAL EQUIPMENT PAD REQUIREMENTS AND EMBEDDED ITEMS.



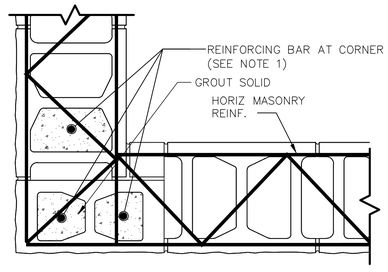
TYPICAL REINFORCING AROUND OPENING IN WALL AND SLAB

NOTES:
1. PROVIDE ADDITIONAL REINFORCEMENT AT ALL OPNGS, ACCESS HATCHES, PIPE PENETRATIONS, ETC. EQUAL IN AREA TO TYPICAL REINFORCEMENT CUT BY OPENING IN EACH DIRECTION. ADDITIONAL REINFORCEMENT TO MATCH SIZE OF TYPICAL REINFORCEMENT (MIN. 2 BARS E.F.) AND PLACED BETWEEN TYPICAL REINFORCEMENT ON EACH SIDE OF OPENING
2. PROVIDE MATCHING DWLS. WHERE REQ'D. TO PROVIDE CLASS "B" LAP WITH ADDITIONAL. REINF.



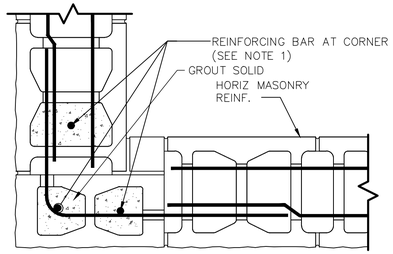
TYPICAL MASONRY OPENING DETAIL

(SINGLE WYTHE)



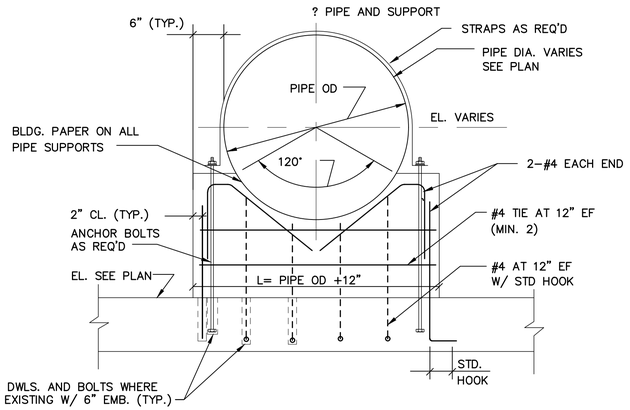
MASONRY CORNER DETAIL

(SINGLE WYTHE)



MASONRY CORNER DETAIL AT BOND BEAM

(SINGLE WYTHE)



TYPICAL SINGLE PIPE CONCRETE SUPPORT DETAIL

NOTES:
1. SUPPORT TO BE 12" THICK (UON).
2. COORDINATE LOCATION OF PIPE SUPPORTS WITH OTHER SHEETS AND SPECIFICATIONS.
3. PROVIDE STRAP OF THE SAME FERROUS MATERIAL AS THE PIPE.

NOTES:
1. MINIMUM 3-FULL HEIGHT CONTINUOUS VERTICAL BAR WITH MATCHING DOWEL TO MATCH SIZE OF TYPICAL WALL REINFORCING.
2. MINIMUM 2-FULL HEIGHT CONTINUOUS VERTICAL BAR WITH MATCHING DOWEL TO MATCH SIZE OF TYPICAL WALL REINFORCING (UON). PROVIDE 1" DIAMETER HOLE IN LINTELS TO FACILITATE CONTINUOUS VERTICAL REINFORCEMENT.
3. FIRST LAYER AND ADDITIONAL LAYER OF HORIZONTAL TRUSS-TYPE REINFORCEMENT ABOVE AND BELOW ALL OPENINGS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. ALL OTHER LAYERS OF HORIZONTAL TRUSS-TYPE REINFORCEMENT SHALL NOT BE CONTINUOUS AT THE CONTROL JOINTS.
4. DETAIL SHALL APPLY TO ALL OPENINGS GREATER THAN 12" AND ALL DOOR OPENINGS.

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 7/5/2022 ENGINEERS HOUSAM HOBI

ARCADIS BPA
A Joint Venture
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

STRUCTURAL TYPICAL DETAILS 2

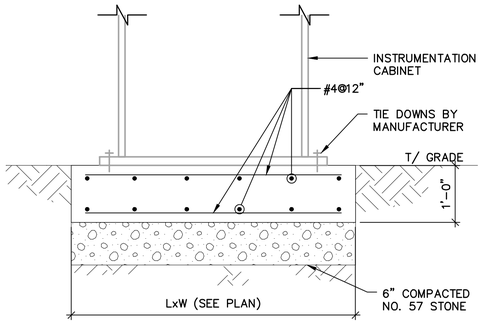
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: NONE

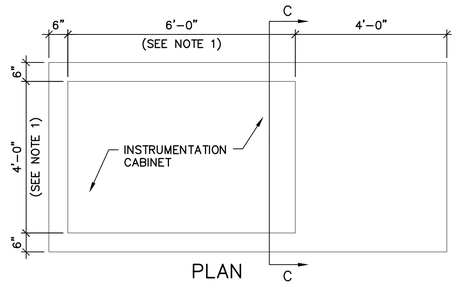
S-013

SHEET 63 OF 150

User:DOTAROLA Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-013.DWG Scale:1:1 SavedDate:7/29/2019 Time:13:45 Plot Date: Otarola, Daphne; 6/30/2022; 12:00 ; Layout:63



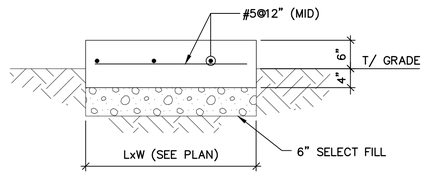
SECTION C–C



INSTRUMENT CABINET DETAIL

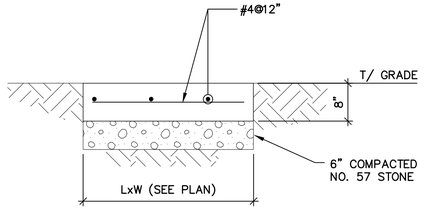
SCALE: NO SCALE

NOTES:
1. DIMENSIONS SHALL BE CONFIRMED WITH EQUIPMENT FURNISHED.
2. ALLOWABLE BEARING PRESSURE = 1,500 PSF



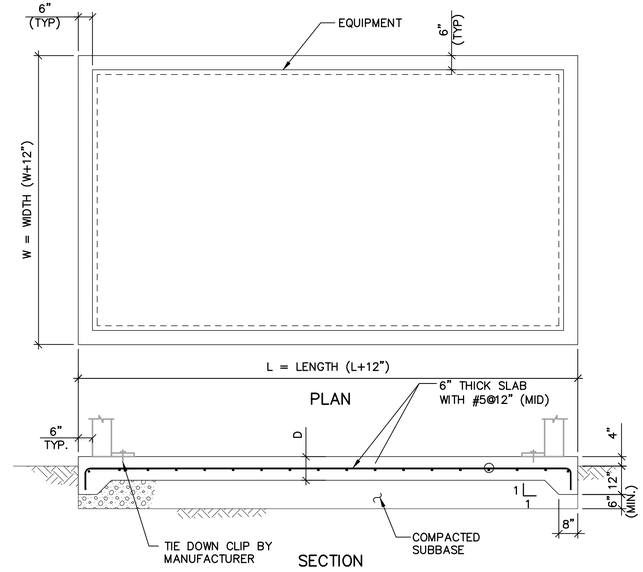
EXTERIOR DOOR LANDING DETAIL

SCALE: NO SCALE



EXTERIOR STAIR/DOOR LANDING DETAIL

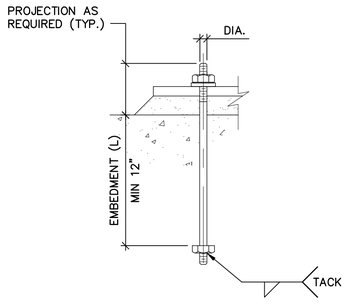
SCALE: NO SCALE



EQUIPMENT SUPPORT PAD DETAIL

SCALE: NOT TO SCALE

NOTES:
1. DIMENSIONS SHALL BE CONFIRMED WITH EQUIPMENT FURNISHED.
2. ALLOWABLE BEARING PRESSURE = 1,500 PSF



TYPICAL ANCHOR BOLT DETAIL

NOTE:
1. REFER TO SPECIFICATIONS FOR ANCHOR BOLT MATERIAL REQUIREMENTS.
2. REFER TO SPECIFICATIONS OR CONTRACT DRAWING DETAILS FOR ANCHOR BOLTS EMBEDMENT DEPTH REQUIREMENTS. ANCHOR BOLT DIAMETERS SHALL BE AS SHOWN OR AS REQUIRED BY EQUIPMENT MANUFACTURER.

User:DOTAROLA Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-014.DWG Scale:1:1 SavedDate:8/8/2018 Time:14:49 Plot Date: Otarola, Daphne; 6/30/2022; 12:02 ; Layout:64

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000971 STRUCTURAL ENGINEER 7/8/2022 HOUSAM HOBI

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

STRUCTURAL TYPICAL DETAILS 3

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: J. STEWART
DRAWN BY: V. VIEIRA
CHECKED BY: J. STEWART

SCALE: AS NOTED

S-014

SHEET 64 OF 150

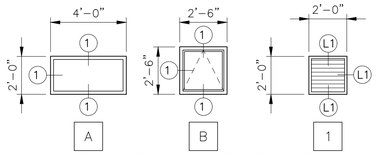
DOOR SCHEDULE

BUILDING NAME (PREFIX)	DOOR NUMBER	DOOR WIDTH	DOOR HEIGHT	ROUGH OPENING / FRAME SIZE WIDTH	ROUGH OPENING / FRAME SIZE HEIGHT	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	DOOR MATERIAL	DOOR ELEV	UL RATED	HARDWARE SET	ACCESS AND CONTROL	REMARKS
SLUDGE DEWATERING (SD) BUILDING	101	3'–0"	7'–0"	3'–4"	7'–2"	A	A	A	1	A	–	1	–	
	102	16'–0"	12'–0"	16'–0"	12'–0"	B	B	B	2	C	–	–	–	
	103	2@3'–0"	7'–2"	6'–4"	7'–4"	D	D	D	1	B	–	2	–	
	104	3'–0"	7'–0"	3'–4"	7'–2"	A	A	A	1	A	–	1	–	
	105	12'–0"	10'–0"	12'–0"	10'–0"	B	B	B	2	C	–	–	–	
	106	3'–0"	7'–2"	3'–4"	7'–4"	C	C	C	1	A	B	4	–	

BUILDING CODE ANALYSIS:

SLUDGE DEWATERING BUILDING:

1. BUILDING OCCUPANCY: F1 (ELECTRICAL ROOM: F2)
   CONSTRUCTION TYPE: IIB
   FIRE RATING: 0 HRS
2. FIRE RATING AT ELECTRICAL ROOM: 2 HRS. ELECTRICAL ROOM DOORS SHALL BE RATED FOR A 2–HOUR ASSEMBLY. ANY DUCT PENETRATIONS WILL NEED A FIRE DAMPER. ALL OTHER PENETRATIONS SHALL BE FIRE RATED FOR 2 HOURS.

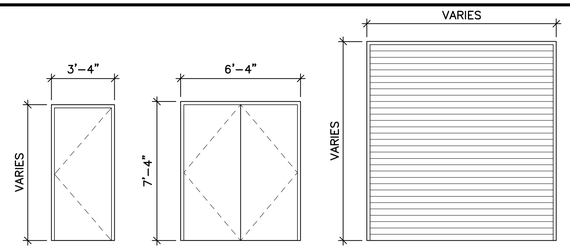


WINDOW TYPE ELEVATIONS

SCALE: 1/4" = 1'–0"

WINDOW NOTES:

1. REFER TO DRAWING ON THIS SHEET FOR WINDOW AND LOUVER DETAILS.
2. ALL GLAZING SHALL BE 1" INSULATED LOW–E GLASS.



DOOR TYPE ELEVATIONS

SCALE: 1/4" = 1'–0"

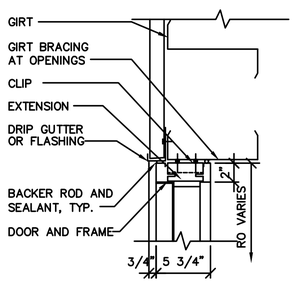
DOOR NOTES:

1. FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS.
2. FOR DOOR HARDWARE TYPES SEE SPECIFICATIONS.
3. FOR DOOR HAND, REFERENCE STRUCTURAL AND MECHANICAL PLAN DRAWINGS.
4. OVERHEAD COILING DOOR IS ELECTRICALLY OPERATED FROM INTERIOR ONLY.
6. DOORS ARE DOUBLE EGRESS AS SHOWN ON PLANS.
7. UNDERCUT DOOR BY 1" OR AS REQUIRED BY HVAC.

DOOR MATERIALS:

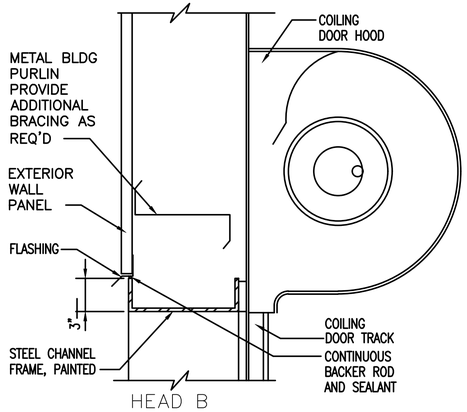
1 – HOLLOW METAL DOOR AND FRAME

2 – ALUMINUM OVERHEAD COILING DOOR



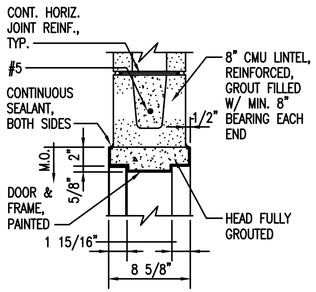
HEAD A

SCALE: 1 1/2"=1'–0"



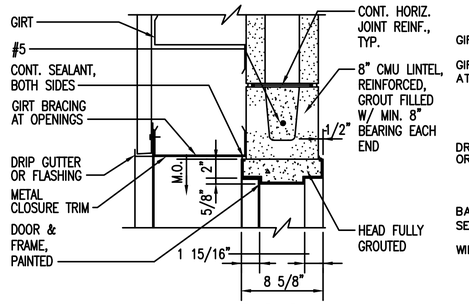
HEAD B

SCALE: 1 1/2"=1'–0"



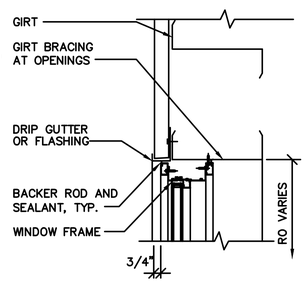
HEAD C

SCALE: 1 1/2"=1'–0"



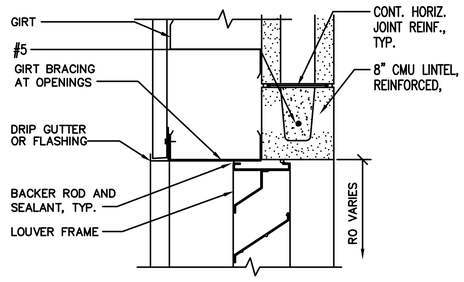
HEAD D

SCALE: 1 1/2"=1'–0"



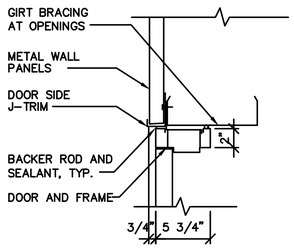
WINDOW HEAD 1

SCALE: 1 1/2"=1'–0"



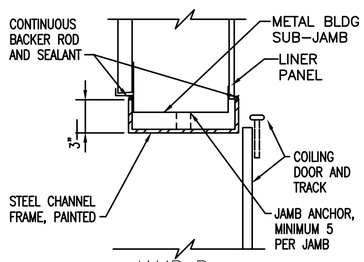
LOUVER HEAD L1

SCALE: 1 1/2"=1'–0"



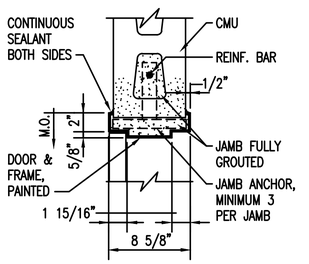
JAMB A

SCALE: 1 1/2"=1'–0"



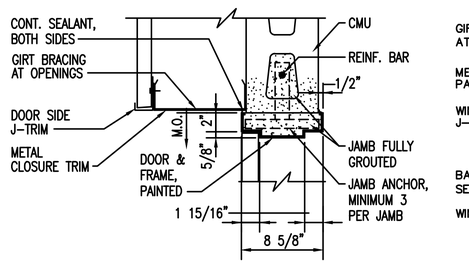
JAMB B

SCALE: 1 1/2"=1'–0"



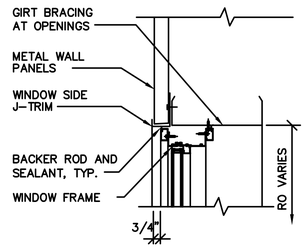
JAMB C

SCALE: 1 1/2"=1'–0"



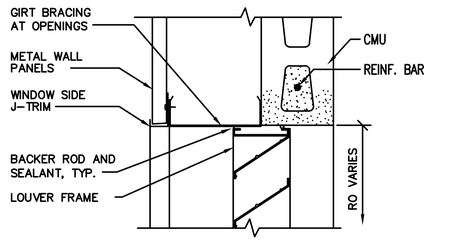
JAMB D

SCALE: 1 1/2"=1'–0"



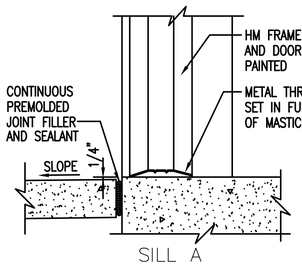
WINDOW JAMB 1

SCALE: 1 1/2"=1'–0"



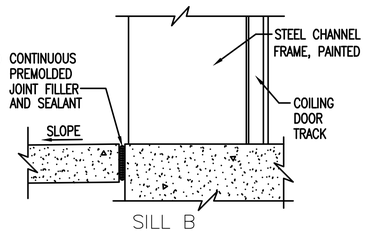
LOUVER JAMB L1

SCALE: 1 1/2"=1'–0"



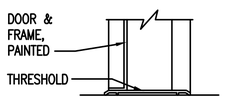
SILL A

SCALE: 1 1/2"=1'–0"



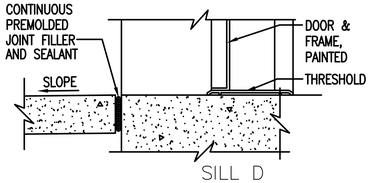
SILL B

SCALE: 1 1/2"=1'–0"



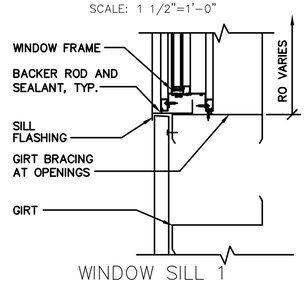
SILL C

SCALE: 1 1/2"=1'–0"



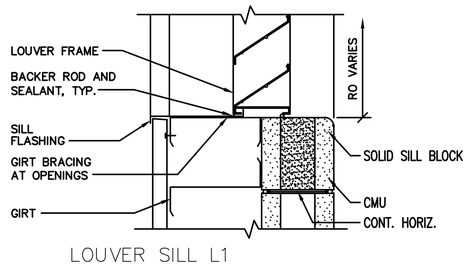
SILL D

SCALE: 1 1/2"=1'–0"



WINDOW SILL 1

SCALE: 1 1/2"=1'–0"



LOUVER SILL L1

SCALE: 1 1/2"=1'–0"

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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER HOUSAM HOBI 7/8/2022

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

DOOR AND WINDOW SCHEDULES AND DETAILS

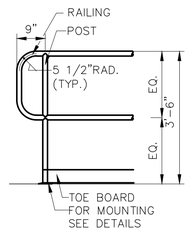
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	R. BELLO
CHECKED BY:	J. STEWART

SCALE: AS NOTED

S–015

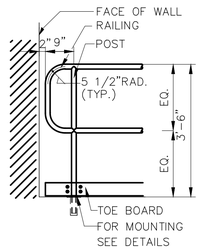
SHEET 65 OF 150

User:DOTAROLA Spec:AIS–NCSMOD File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S–015.DWG Scale:1:1 SavedDate:6/29/2022 Time:16:02 Plot Date: Otarola, Daphne; 6/30/2022; 15:02 ; Layout:65



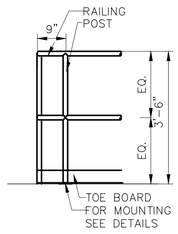
TYPICAL RAILING END

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



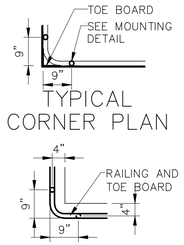
TYPICAL RAILING END

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



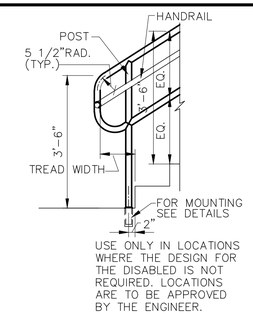
TYPICAL RAILING CORNER

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



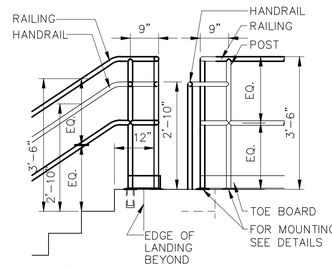
TYPICAL CORNER PLAN

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



RAILING TYPE 1 STAIR END DETAIL

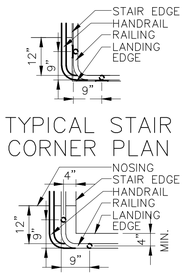
SCALE: 1/2" = 1'-0"



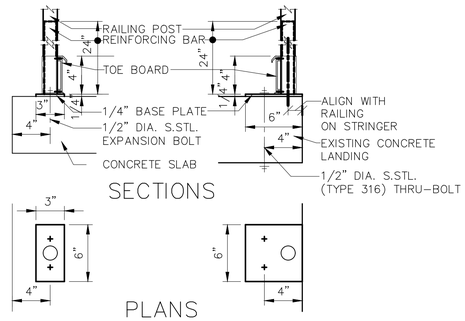
TYPICAL RAILING TO RAILING STAIR CORNER

(RAILING CONTINUOUS AROUND CORNER)
(LANDING EDGE AND NOSING EDGE DO NOT ALIGN)

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

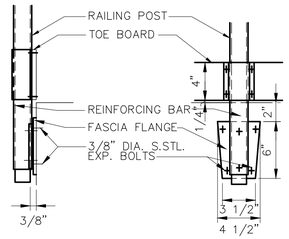


TYPICAL STAIR CORNER PLAN



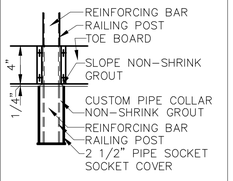
SURFACE (TOP) MOUNT DETAILS

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



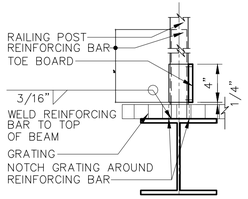
SIDE MOUNT DETAIL

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



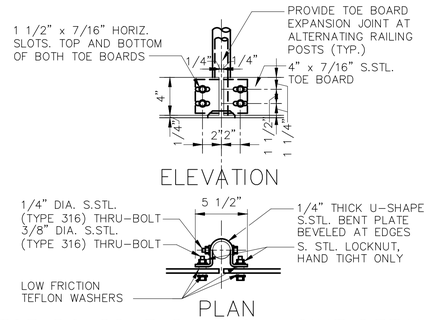
FIXED RAIL DETAIL

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

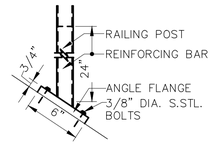


SECTION GRATING AND BEAM MOUNT DETAIL

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

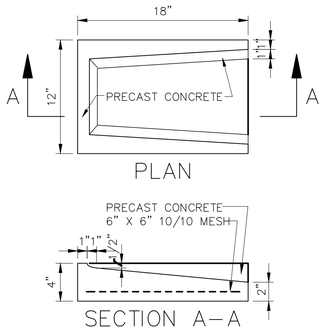


SCALE: 1 1/2" = 1'-0"



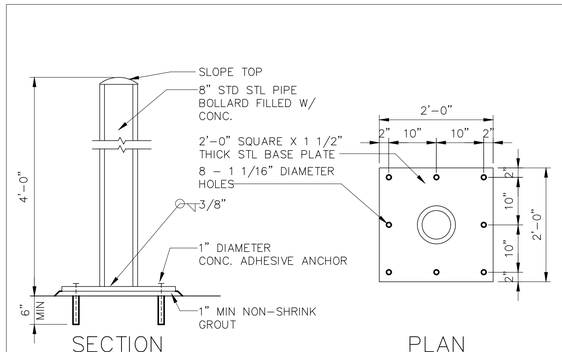
STRINGER MOUNT DETAIL

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

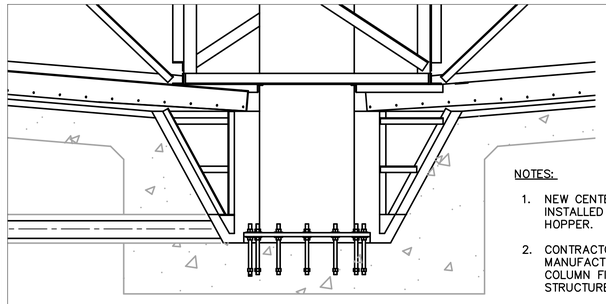


PROVIDE ONE AT EACH ROOF DRAIN LEADER OUTLET

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



SCALE: 3/4"=1'-0"



ANCHORING OF THICKENING MECHANISM

NOTES:

1. NEW CENTER COLUMN TO BE INSTALLED IN THE EXISTING SLUDGE HOPPER.
2. CONTRACTOR TO COORDINATE WITH MANUFACTURER THAT THE NEW COLUMN FITS IN THE EXISTING STRUCTURE.
3. CONTRACTOR TO SUBMIT ADHESIVE ANCHOR LAYOUT AND CALCULATIONS FOR ENGINEER'S AND CITY'S APPROVAL PRIOR TO FABRICATION.

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

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2022

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MISCELLANEOUS TYPICAL DETAILS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	R. BELLO
CHECKED BY:	J. STEWART

SCALE: AS NOTED

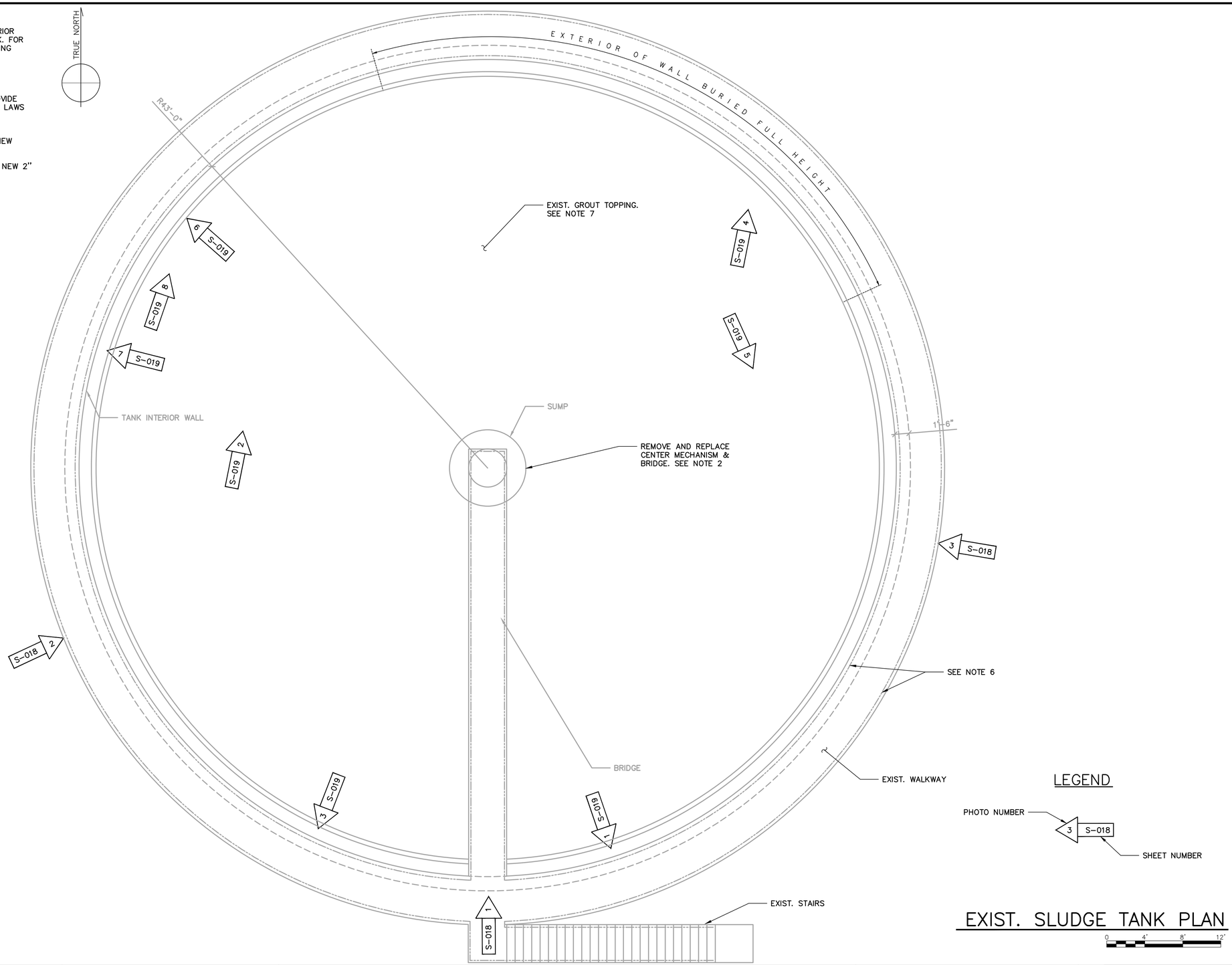
S-016

SHEET 66 OF 150

User:DOTAROLA Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-016.DWG Scale:1:1 SavedDate:8/8/2018 Time:17:31 Plot Date: DTarola, Daphne; 6/30/2022; 12:06 ; Layout:66

GENERAL NOTES:

1. CONTRACTOR TO PRESSURE WASH AND CLEAN ALL EXTERIOR & INTERIOR SURFACES, INCLUDING STAIRS, PRIOR TO PROCEEDING WITH THE WORK. FOR INTERIOR SURFACES CONTRACTOR SHALL REMOVE ALL EXISTING COATING PRIOR TO PERFORMING REPAIR/COATING WORK.
2. REFER TO "M" SHEETS FOR CENTER MECHANISM AND ASSOCIATED APPURTENANCES REPLACEMENT.
3. REFER TO SHEET S-020 FOR REPAIR DETAILS AND QUANTITIES.
4. ENTRANCE INTO TANK IS CONSIDERED A CONFINED SPACE ENTRY (NON-PERMIT). CONTRACTOR SHALL ADMINISTER, MONITOR, AND PROVIDE ALL NECESSARY REQUIREMENTS FOR ENTRANCE INTO THE TANK PER LAWS AND REGULATIONS.
5. ALL PHOTO IDENTIFICATION SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY.
6. EXISTING ALUMINUM RAILING TO BE REMOVED AND REPLACED WITH NEW ALUMINUM RAILING. SEE SHEET S-016 FOR DETAIL.
7. CONTRACTOR TO REMOVE EXISTING GROUT TOPPING AT BASE SLAB. ROUGHEN CONCRETE FOUNDATION FOR ¼" AMPLITUDE AND PROVIDE NEW 2" GROUT TOPPING (SLOPE TO MATCH EXISTING SLOPE AND THICKENER MECHANISM REQUIREMENTS).



EXIST. SLUDGE TANK PLAN

0 4' 8' 12'

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

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RESURGENS 1871 ATLANTA, GA. 2000

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK PLAN AND NOTES

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: 3/16" = 1'-0"

S-017

SHEET 67 OF 150

User:DOTAROLA Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-017.DWG Scale:1:1 SavedDate:5/10/2019 Time:15:38 Plot Date: Otarola, Daphne; 6/30/2022; 12:11 ; Layout:67



PHOTO 1:
EXTERIOR ELEVATION

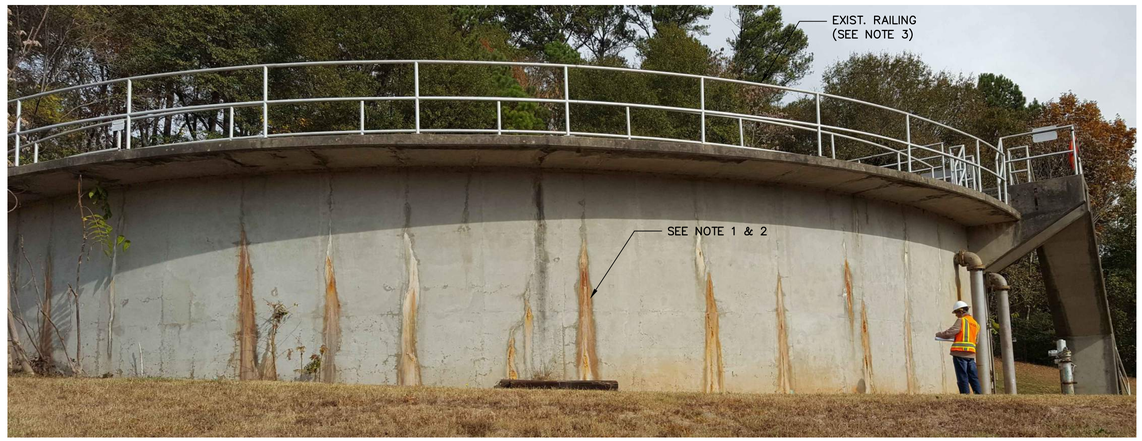


PHOTO 2:
EXTERIOR ELEVATION



PHOTO 3:
EXTERIOR ELEVATION

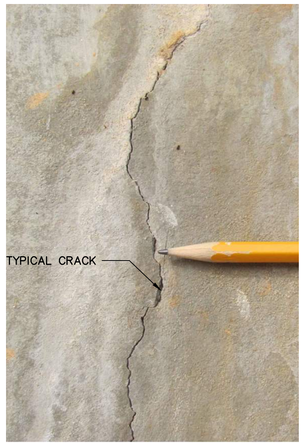


PHOTO 4:
TYPICAL CRACK PHOTO

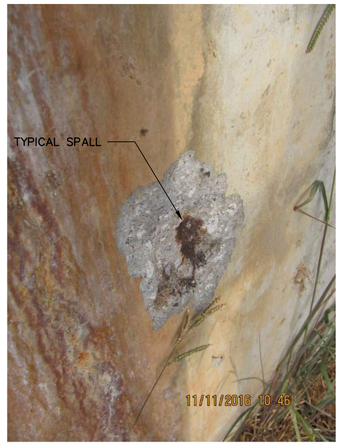


PHOTO 5: TYPICAL
SPALL WITH CORROSION



PHOTO 6:
TYPICAL SPALL PHOTO

GENERAL NOTES:
1. PROVIDE HIGH PRESSURE WASH TO EXTERIOR WALL SURFACE TO REMOVE AND FREE THE SURFACE OF ALL VISIBLE RUST, MILL SCALE, AND FOREIGN MATTER.
2. CONTRACTOR SHALL PROVIDE MEASURES TO MANAGE AND CONTAIN ALL WATER FROM HIGH PRESSURE WASH.
3. EXISTING ALUMINUM RAILING TO BE REMOVED AND REPLACED WITH NEW ALUMINUM RAILING. SEE SHEET S-016 FOR DETAIL.

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SEALS

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL
FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK
EXTERIOR CONDITION PHOTOS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: NONE

S-018

SHEET 68 OF 150

User:DOTAROLA Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-018.DWG Scale:1:1 SavedDate:8/8/2018 Time:15:04 Plot Date: Otarola, Daphne; 6/30/2022; 12:33 - Layout:68

User:DOTAROLA Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S-019.DWG Scale:1:1 SavedDate:8/8/2018 Time:15:10 Plot Date: Otarola, Daphne: 6/30/2022; 12:38 ; Layout:69



PHOTO 1: TYPICAL INTERIOR WALL CRACK



PHOTO 2: TYPICAL CRACK AT JOINTS

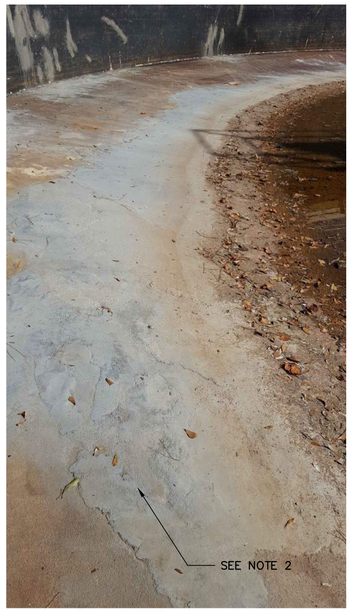


PHOTO 3: TYPICAL FLOOR SLAB

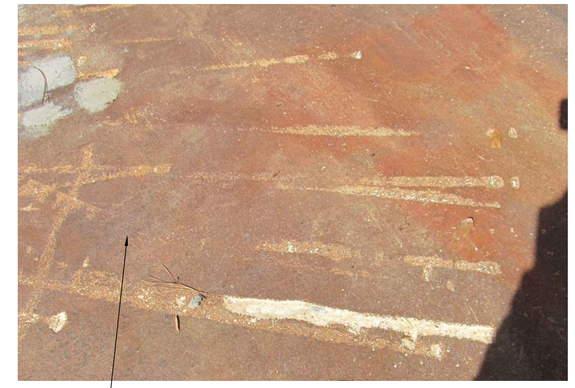


PHOTO 4: TYPICAL FLOOR SLAB



PHOTO 5: TYPICAL COATING FAILURE

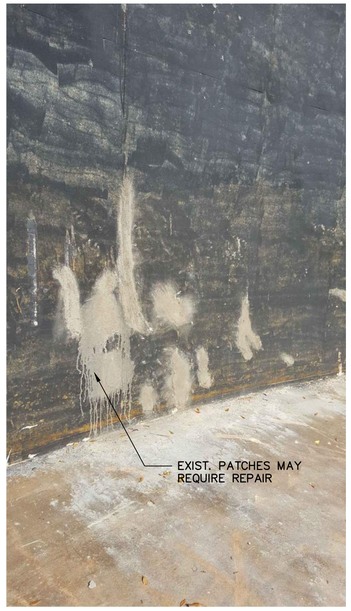


PHOTO 6: TYPICAL WALL ELEVATION

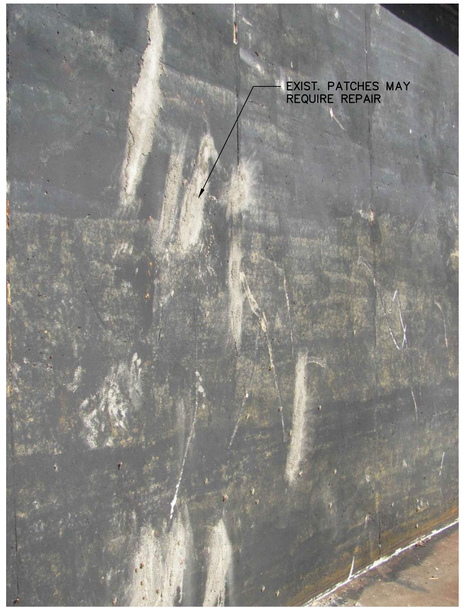


PHOTO 7: TYPICAL WALL ELEVATION

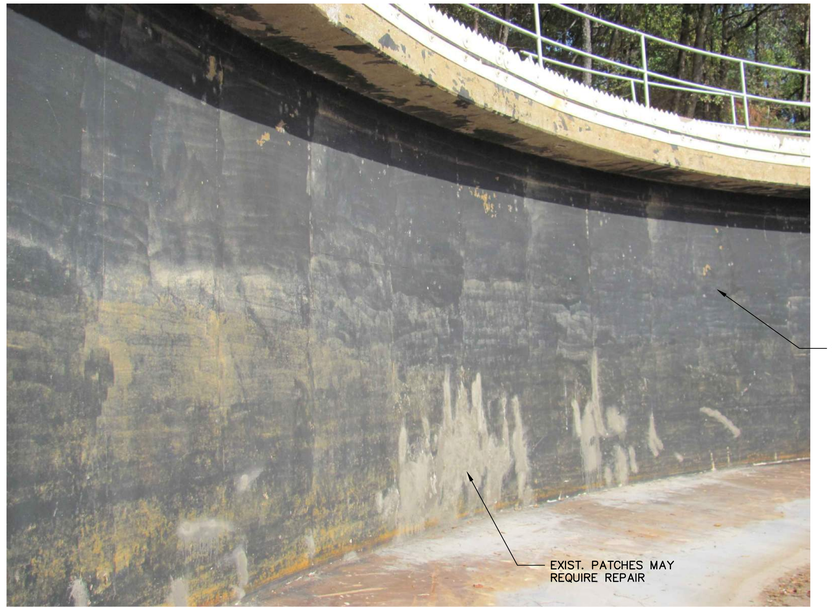


PHOTO 8: TYPICAL WALL ELEVATION

NOTES:
1. REMOVE EXISTING COATING IN ITS ENTIRETY AND PREPARE SURFACE AS SPECIFIED AND AS RECOMMENDED BY THE COATING MANUFACTURER.
2. CONTRACTOR TO REMOVE EXISTING GROUT TOPPING AT BASE SLAB. ROUGHEN CONCRETE FOUNDATION FOR ¼" AMPLITUDE AND PROVIDE NEW 2" GROUT TOPPING (SLOPE TO MATCH EXISTING SLOPE AND THICKENER MECHANISM REQUIREMENTS).

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL 8/2/2022 ENGINEER HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK INTERIOR CONDITION PHOTOS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	J. STEWART
DRAWN BY:	V. VIEIRA
CHECKED BY:	J. STEWART

SCALE: NONE

S-019

SHEET 69 OF 150

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #17: Sludge holding tank existing grout floor

Status	Open		
To	**Steve Scarlett - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Sep 21, 2022	**Due Date**	Sep 28, 2022
Location		**Project Stage**	Course of Construction
Cost Impact	Yes (Unknown)	**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	S-19	**Reference**	RFI-17
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Wednesday, Sep 21, 2022 at 11:39 AM EDT*

Drawing S-19 note 2 calls for the demo of the existing grout floor and for installation of a new grout topping. After investigating the existing floor and discussing it with the thickener equipment vendor we both agree that I leaving the existing floor as is will provide the best value to the plant. If left in place we can offer a credit for this deleted work. Please advise

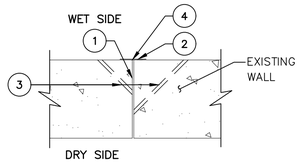
Attachments
envirodyne email.pdf

Awaiting an Official Response

Response:

Response by Hamilton Giles *on Monday September 26, 2022*

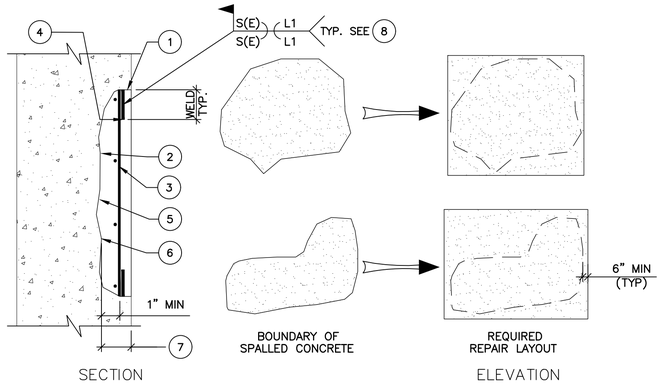
Repair and replace any grout that is crumbling or damaged. The remainder of existing intact grout can be reused per manufacturer direction.



TYPICAL CRACK REPAIR DETAIL

1/– SCALE: NO SCALE

1. LEAKING CRACK
2. APPLY GEL EPOXY SEALER PRIOR TO INJECTING CRACK INJECTION MATERIAL, REMOVE GEL EPOXY SEALER AFTER SEALING WORK IS COMPLETE
3. INJECTION PORTS FOR HYDROPHILIC CRACK INJECTION MATERIAL.
4. INJECTION PORT FOR EPOXY CRACK INJECTION MATERIAL SHALL BE DIRECTLY INTO CRACK.



TYPICAL CONCRETE SURFACE SPALL REPAIR DETAIL

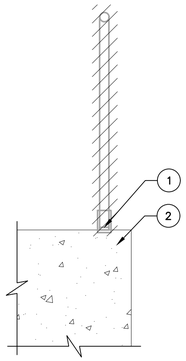
2/– SCALE: NO SCALE

1. DO NOT CUT REINFORCING UNLESS NECESSARY TO REMOVE ALL DETERIORATED CONCRETE.
2. REMOVE ALL DETERIORATED CONCRETE TO SOUND CONCRETE. CHIP CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8–INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.
3. WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, ENGINEER WILL REVIEW CONDITION OF CORRODED REBARS PRIOR TO REPAIR. REPLACEMENT IS REQUIRED WHERE LOSS ON REBAR CROSS SECTION IS OVER 25%. AFTER REPAIR WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST. REMOVE CONCRETE TO A DEPTH OF 1–INCH MINIMUM BEHIND REINFORCING BAR AS SHOWN.
4. IF REINFORCING REPLACEMENT IS REQUIRED, CUT EXISTING CORRODED REINFORCING BAR AS REQUIRED AND WELD NEW REBAR OF SAME SIZE, AS SHOWN.
5. SURFACE PREPARATION SHALL COMPLY WITH REPAIR MORTAR MANUFACTURER'S INSTRUCTIONS.
6. INSTALL REPAIR MORTAR PER THE MANUFACTURER'S REQUIREMENTS.
7. FOR BID PURPOSES, ASSUME TOTAL DEPTH OF REPAIR IS 6 INCHES.
8. S, (E), AND L1 DEFINITIONS CORRESPOND TO ANSI/AWS D1.4. MINIMUM L1 FOR BIDDING PURPOSES IS 3 INCHES (MECHANICAL COUPLER AS AN ALTERNATE TO WELD).

REPAIR AND COATING SCHEDULE

	REPAIR TYPE	DETAIL REFERENCE NUMBER	BID QUANTITY		NOTES
SLUDGE HOLDING TANK	CRACK REPAIR (INTERIOR & EXTERIOR)	DETAIL 1	1200	LF	SEE NOTE 4
	SURFACE SPALL	DETAIL 2	150	SF	SEE NOTE 3
	INTERIOR COATING		11000	SF	REFER TO SPEC 09900 FOR COATING

REPAIR SCHEDULE NOTES:
1. PAYMENT OF CONCRETE REPAIR AND REHABILITATION WORK SHALL BE BASED ON ACTUAL MEASURED REPAIR QUANTITIES MULTIPLIED BY THE ASSOCIATED UNIT PRICES INCLUDED ON THE PROPOSAL BID FORM.
2. ENGINEER MAY DIRECT CONTRACTOR TO PERFORM REPAIR WORK THAT IS GREATER THAN OR LESS THAN THE ESTIMATED QUANTITIES STATED ON THE PROPOSAL BID FORM. CONTRACTOR WILL BE COMPENSATED AT THE UNIT PRICES ON THE PROPOSAL BID FORM FOR THE ACTUAL QUANTITY OF CONCRETE REPAIR WORK AS SHOWN, SPECIFIED OR ORDERED.
3. CONTRACTOR SHALL EXAMINE ALL EXTERIOR ABOVE GRADE AND INTERIOR SURFACES OF THE SLUDGE HOLDING TANK AND STAIRS AND IDENTIFY AREAS OF REPAIR. ONCE IDENTIFIED, ENGINEER WILL REVIEW WITH CONTRACTOR TO CONFIRM REPAIR, REPAIR LIMITS, AND REPAIR METHOD.
4. CONTRACTOR SHALL EXAMINE ALL INTERIOR WALLS OF THE TANK AND IDENTIFY CRACKS GREATER THAN 0.010–INCH WIDE. ONCE IDENTIFIED, ENGINEER WILL REVIEW AND VERIFY CRACKS TO BE INJECTED.



TYPICAL EXISTING RAILING POST REMOVAL DETAIL

3/– SCALE: NO SCALE

1. REMOVE ALL RAILING, INCLUDING 2 1/2" DIA. PIPE SLEEVE AND PORTION OF POST EMBEDDED IN EXISTING SLAB.
2. FILL VOID AREA WITH NON–SHRINK GROUT.
3. INSTALL NEW ALUMINUM RAILING. REFER TO TYPICAL RAILING DETAILS ON SHEET S–016.

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SEALS

GEORGIA REGISTERED No. SE000371 STRUCTURAL ENGINEER 8/12/22 HOUSAM HOBI

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE HOLDING TANK REPAIR DETAILS AND QUANTITIES

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: V. VIEIRA
DRAWN BY: V. VIEIRA
CHECKED BY: A. SHAH

SCALE: NONE

S–020

SHEET 70 OF 150

User:DOTAROLA Spec:AUS–NCSM0D File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\STRUCTURAL\S–020.DWG Scale:1:1 SavedDate:4/15/2021 Time:16:23 Plot Date: Otarola, Daphne; 7/8/2022; 15:37 ; Layout:70

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Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #54: Sodium Hypochlorite Concrete Status

Revision	0	**Status**	Open
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jan 26, 2026	**Due Date**	Feb 2, 2026
Location		**Project Stage**	
Cost Impact	Yes (Unknown)	**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-54

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Jan 26, 2026 at 04:43 PM EST*

We have removed the old coating from the sodium hypochlorite containment area walls and slab. With the coating removed we now see that walls and slabs have serious structural issues that need to be reviewed by the design team and plant staff. We've had TNEMEC onsite and they have advised us that the concrete is not in a state that they can approve / warranty installation of a new coating system. Please advise how we need to proceed.

Awaiting an Official Response

RFI-54

RFI 54 RESPONSE:

Arcadis structural team visited the site and reviewed the condition after the contractor removed the existing coating in the chemical tank containment area. Based on our visual assessment and a review of the available record drawings, the original slab and containment wall appear to be of appropriate design for their intended use. We do, however, note localized concrete distress in the containment walls, foundation slab, and tank housekeeping pad indicating signs of spalling, crack, and rust staining.

It should be noted that, based on our review of Contractor's Schedule of Values (SOV) document, the scope of work identified under "Chemical Building & Sodium Hypochlorite & Sample Point – 1 (CHB)" includes an item for installation of floor coating. However, the SOV does not appear to include any line item for concrete repair work within the chemical containment area. As such, concrete repair activities in this area do not appear to be included within the current contract scope by Contractor.

Observations

- Record drawings indicate an appropriate foundation slab and containment walls sizes; no design deficiencies were apparent from the documents reviewed.
- Visual assessment and hammer-sounding of concrete found spalling, surface deterioration, and evidence of moisture and corrosion at localized areas.
- From our assessment described above, we cannot determine whether deterioration is limited to the surface or extend deeper into the structural concrete. To understand the extent of more accurate damage, it would require removal of unsound material in distressed areas.

Recommended action:

1. Contractor shall remove all loose and unsound concrete at distressed locations until sound concrete is exposed. Removal should be limited to the minimum necessary to evaluate condition and perform repairs.
2. Perform chipping/jackhammering at distressed locations to establish whether deterioration is local (patchy) or widespread. Refer to Page 3 to 5 for suggested areas that can be safely exposed and repaired to understand the extent of damage in the chemical containment area.
3. If chipping reveals only shallow, surface-level damage, proceed with concrete repair and application of coating work as per Note 4 on Drawing M-19. Refer to

RFI-54

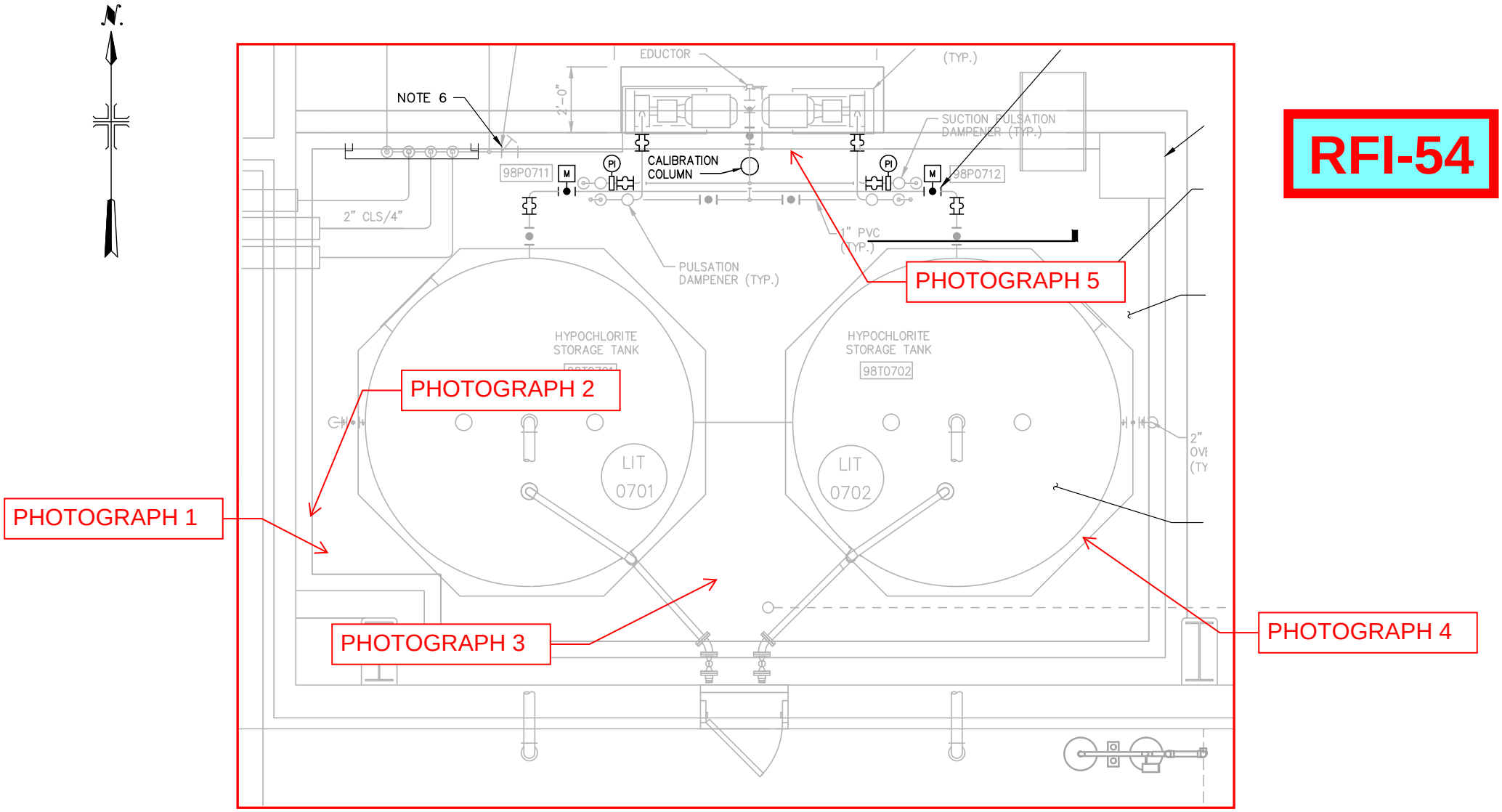
Specification Section 03930, Section 09900, Submittal 09900-97.0, and RFI 47 response for concrete repair and coating application information.

4. If chipping reveals deeper or widespread deterioration, stop work in the distressed area(s) and notify the Engineer and Owner to review exposed conditions. Contractor shall submit photographs of significantly damaged areas to Engineer and Owner.

Notes on sequencing and safety

- All work must follow safe work procedures and environmental controls for containment areas. Contractor to contain and dispose of debris and waste in accordance with site procedures and Contract Documents.

RFI-54



HYPOCHLORITE STORAGE TANK PLAN VIEW

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #48: Chemical Building Leak

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Mar 20, 2025	**Due Date**	Mar 27, 2025
Location		**Project Stage**	Course of Construction
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-48

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Thursday, Mar 20, 2025 at 03:51 PM EDT*

Water has been leaking back into the chemical building from the Sed Basin troughs onto the existing and new electrical equipment. During the review of the leak issue many structural issues were found with the chemical building. Please advise if Lakeshore needs to take any action on the issues.

Attachments
2.jpg, 3.jpg, 6.jpg, 5.jpg, 1.jpg, 4.jpg

Awaiting an Official Response

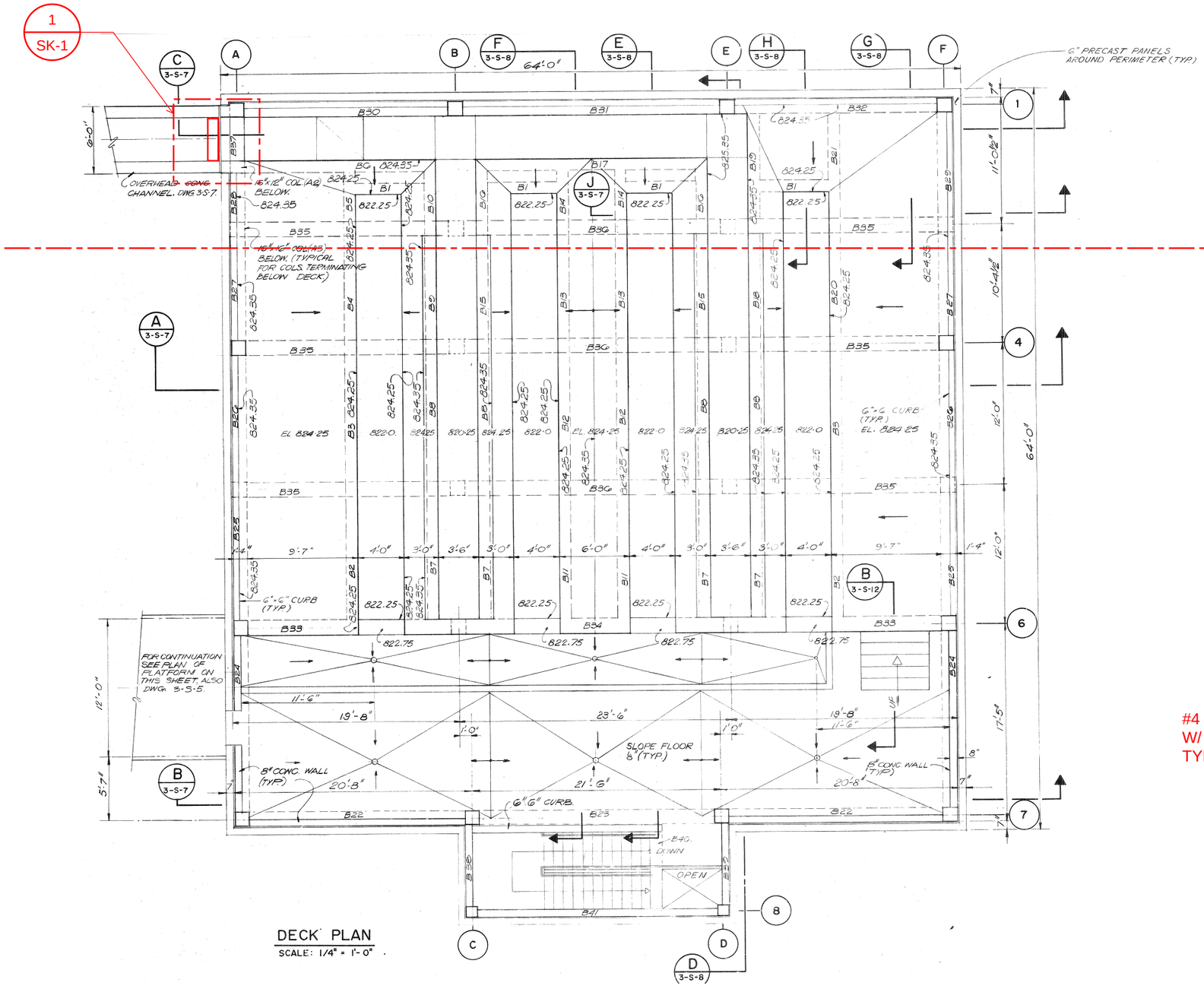
ARCADIS RESPONSE: Following the site visit by Arcadis' structural engineers last week, it was confirmed that the water entering into the chemical building is due to a pipe break in the sedimentation basin troughs outside of the building, leaking water into the elevated trough that connects to the chemical building. The water was entering the abandoned building causing a flood. In addition, the building floor drains appeared to be clogged, thus not helping with water drainage. No structural issues were found in the chemical building that would lead to a water leak. The following repair recommendations are proposed:

1. Repair or replace the broken pipe in the sedimentation basin trough. The process discipline will provide repair details. The pipe may be even be capped since it may not be in service anymore.

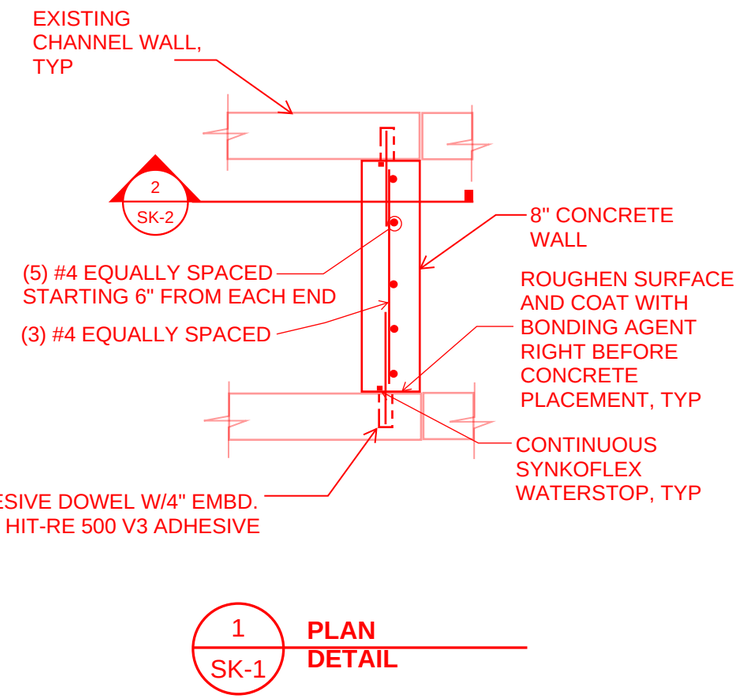
2. Construct an 8" concrete bulkhead wall at the end of the elevated trough where it connects to the chemical building. This will help prevent water from entering the building during potential pipe breaks in the future or due to rainwater. See attached sketches showing details of the 8" concrete bulkhead wall.
3. Any holes/openings found in the base slab of the sedimentation basin trough should be plugged/repaired using Class 1 non-shrink grout.

4. It is recommended to at least provide one 3" drain in the base slab of the elevated trough to drain water during rain or potential future pipe breaks. AMENDED: Add a Schedule 40 PVC downspout to adequately deliver stormwater to the pavement below. See attachment with added.

5. It is recommended to cover/seal the exposed second floor entrance to the building with a door or cover since the plastic hanging strips are broken, move with the wind and does not appear to keep rain water out of the building.



RFI-48



1 / SK-1 **PLAN DETAIL**

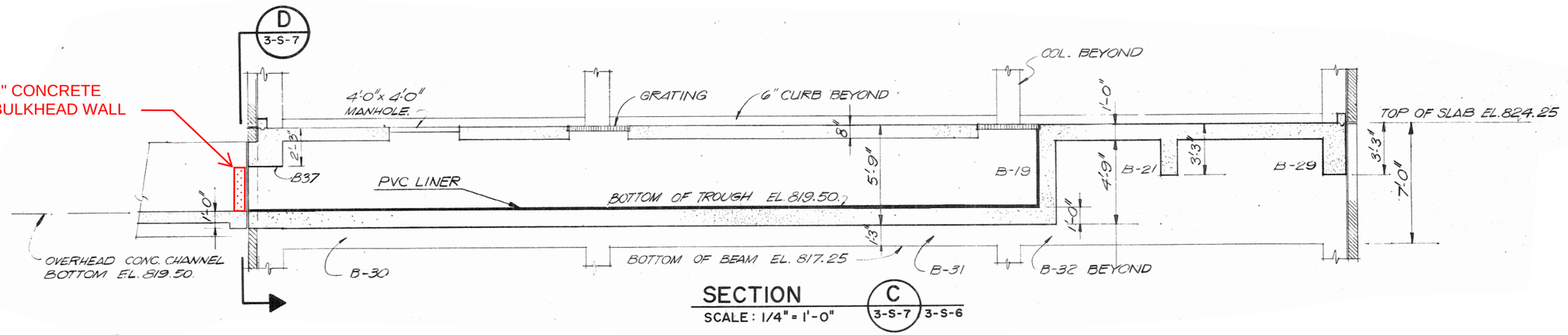
REF:

ARCADIS Design & Consultancy for natural and built assets

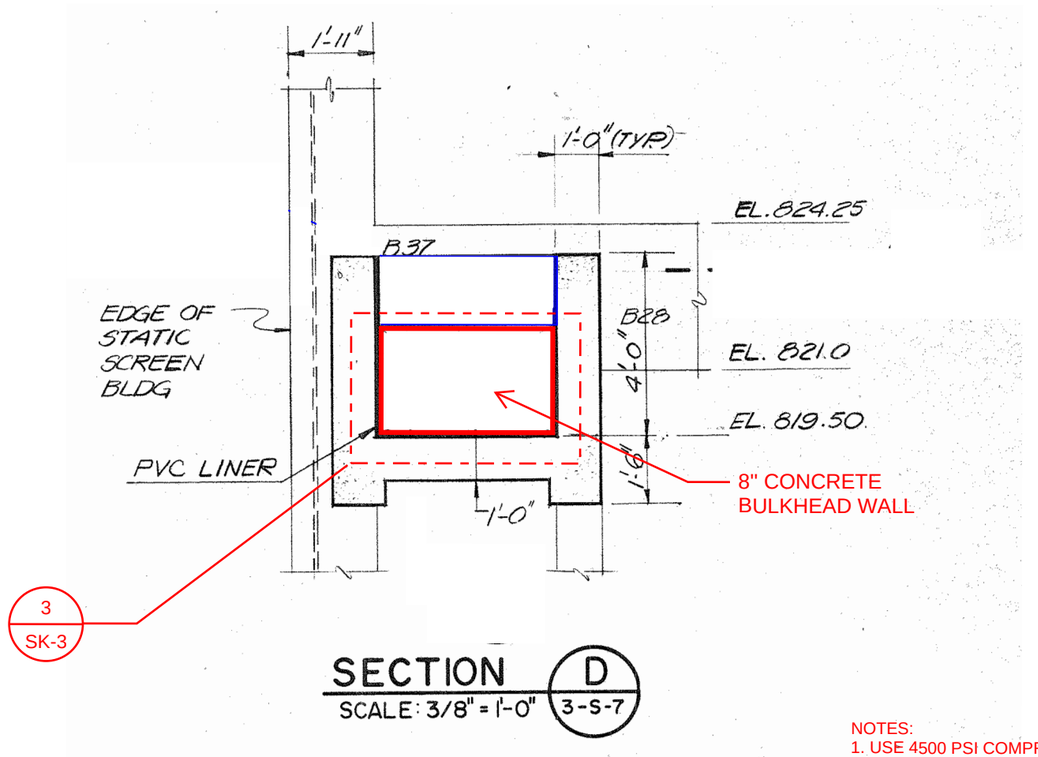
CITY OF ATLANTA - EAST AREA BP2

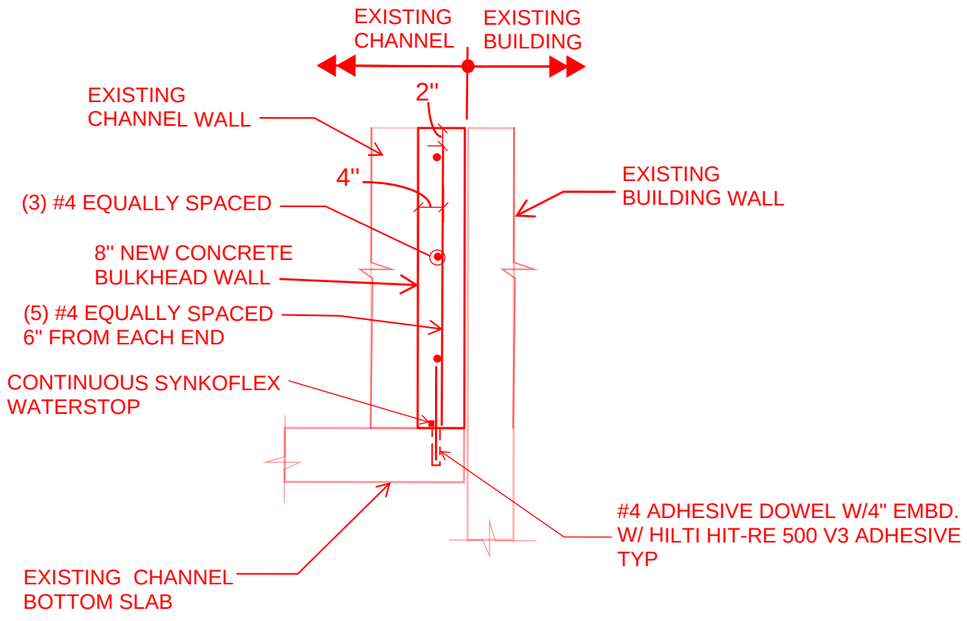
RFI #48

SK – 1



RFI-48

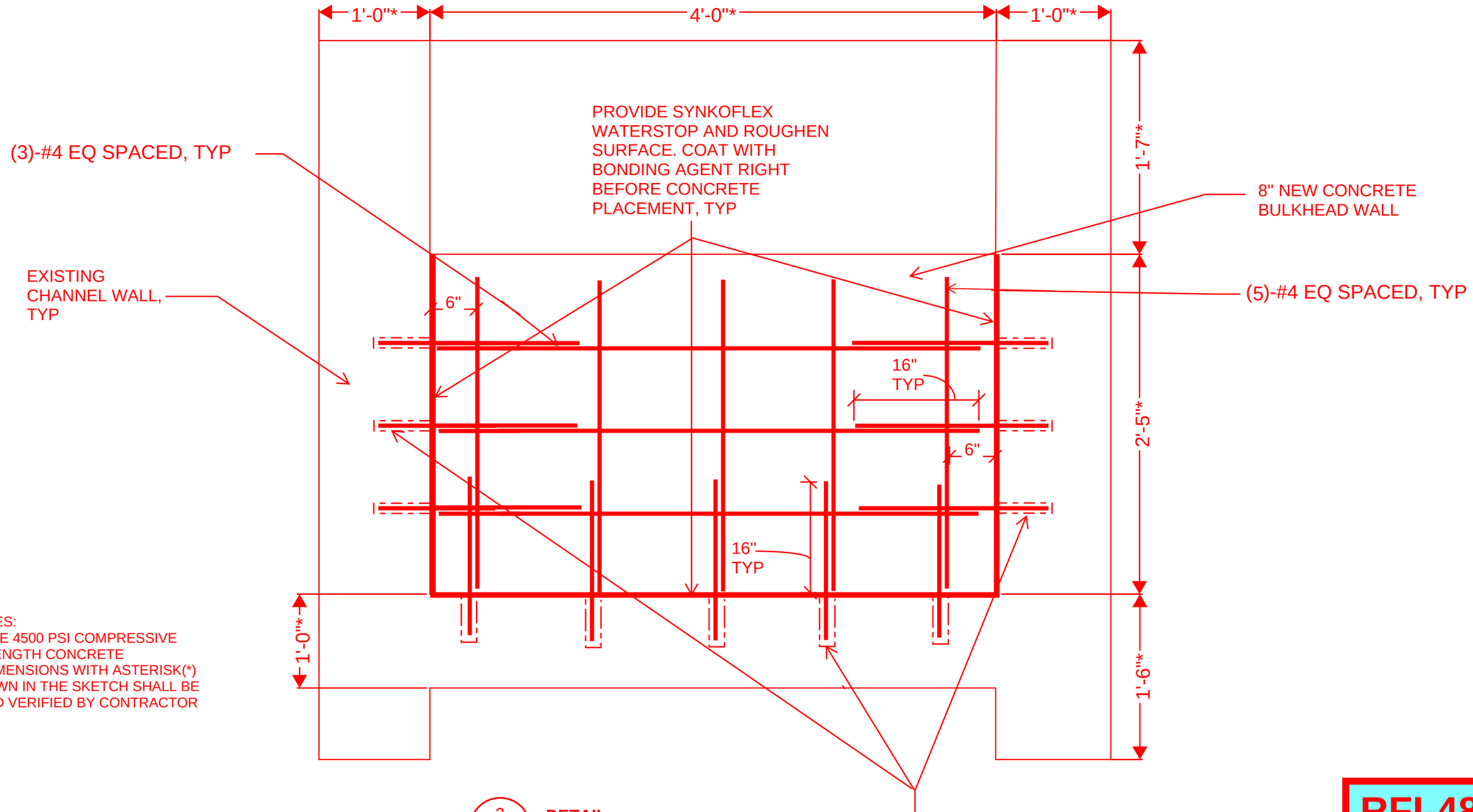




NOTES:
1. USE 4500 PSI COMPRESSIVE STRENGTH CONCRETE
2. DIMENSIONS WITH ASTERISK(*) SHOWN IN THE SKETCH SHALL BE FIELD VERIFIED BY CONTRACTOR

REF:

ARCADIS Design & Consultancy for natural and built assets	CITY OF ATLANTA - EAST AREA BP2	RFI #48	SK – 2



3 / SK-3 **DETAIL**

NOTES:
1. USE 4500 PSI COMPRESSIVE STRENGTH CONCRETE
2. DIMENSIONS WITH ASTERISK(*) SHOWN IN THE SKETCH SHALL BE FIELD VERIFIED BY CONTRACTOR

RFI-48

REF:

ARCADIS Design & Consultancy for natural and built assets

CITY OF ATLANTA - EAST AREA BP2

RFI #48

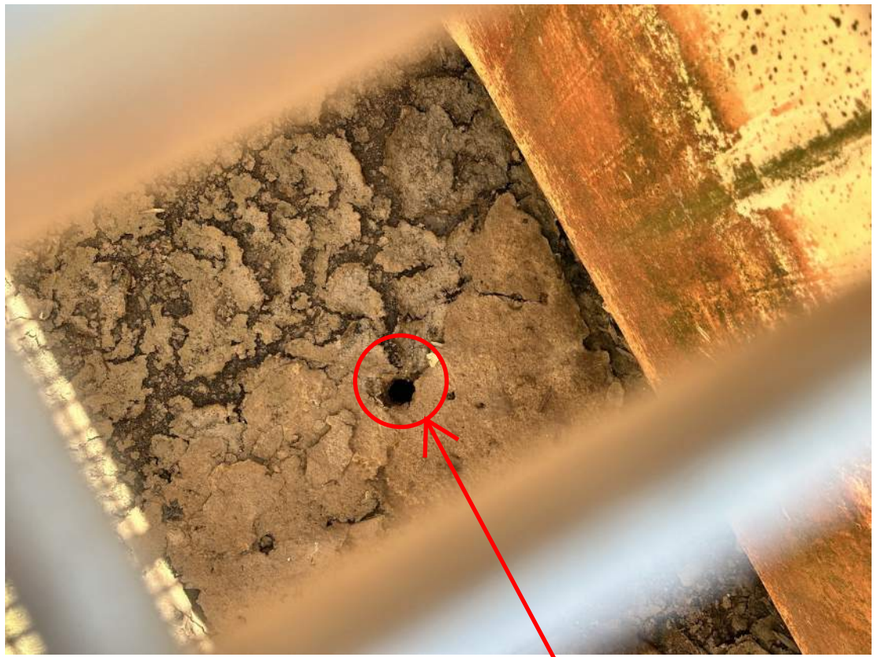
SK – 3

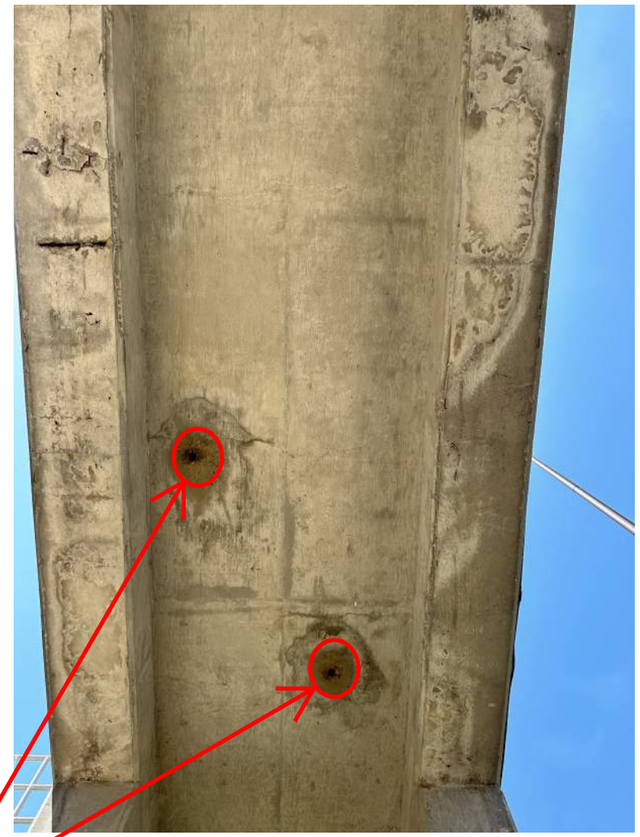
RFI-48



INSTALL JOINT SEALANT - SIKAFLEX 2C SL
FOR JOINT BETWEEN FLOOR SLAB AND
LOUVER AND AT ALL OTHER AREAS WHERE
WATER INTRUSION WAS OBSERVED

REF:





FILL THE HOLE WITH CLASS 1
NON-SHRINK GROUT

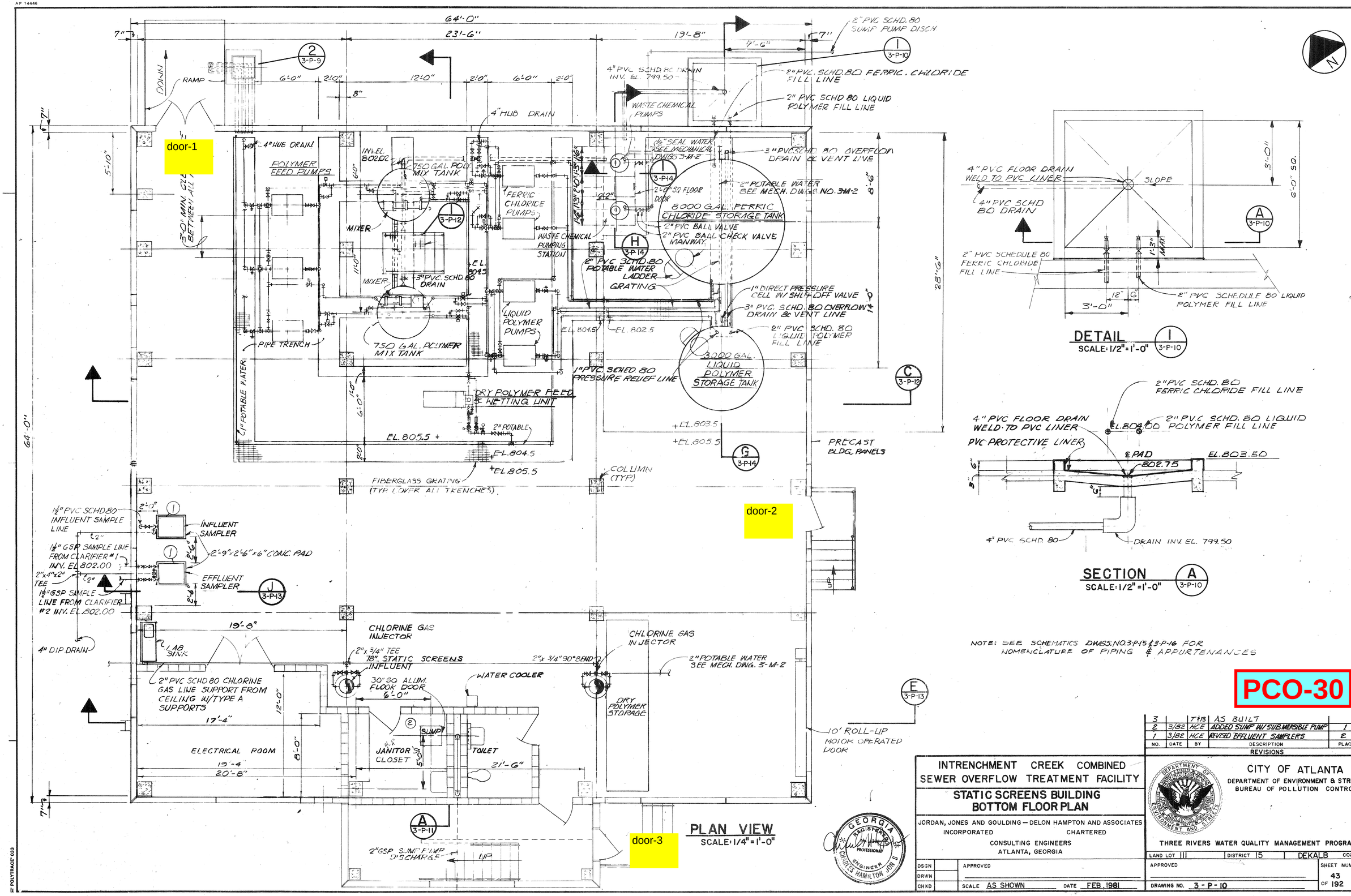
RFI-48

REF:

ARCADIS Design & Consultancy for natural and built assets	CITY OF ATLANTA - EAST AREA BP2	RFI #48	SK – 3

RFI-48

AF 14446



PCO-30

NO.	DATE	BY	DESCRIPTION	PLACES
3		TAB	AS BUILT	
2	3/82	HCE	ADDED SUMP IN/ SUBMERSIBLE PUMP	1
1	3/82	HCE	REVISED EFFLUENT SAMPLERS	2

REVISIONS

INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY

STATIC SCREENS BUILDING BOTTOM FLOOR PLAN

JORDAN, JONES AND GOULDING — DELON HAMPTON AND ASSOCIATES
INCORPORATED CHARTERED
CONSULTING ENGINEERS
ATLANTA, GEORGIA

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES HAMILTON JONES

CITY OF ATLANTA
DEPARTMENT OF ENVIRONMENT & STREETS
BUREAU OF POLLUTION CONTROL

THREE RIVERS WATER QUALITY MANAGEMENT PROGRAMS

DSGN		APPROVED	
DRWN			
CHKD		SCALE AS SHOWN	DATE FEB. 1981

LAND LOT 111 | DISTRICT 15 | DEKALB COUNTY

APPROVED

DRAWING NO. 3 - P - 10

SHEET NUMBER 43 OF 192

© POLYTRACE 033

AF 14446

door-4

64'-0"

7" 19'-8" 23'-6" 19'-8" 7"

10'-0"

SEE DWG. NO.3-P-18 FOR CONTINUATION

HANDRAIL

GRATING

℄ SUSPENDED SOLIDS PROBE

DISCHARGE CHANNEL

4'SQ. OPENING

STEAM LINE TO FESTOON SYSTEM

I 3-P-12

ACCESS PLATFORM TYP.

B 3-P-11

6'-3" 6'-3" 5'-6" 5'-6" 6'-3" 6'-3"

℄ CONVEYOR

EL. 822.25 EL. 822.25 EL. 822.25

GRATING

3/4"

STATIC SCREENS BANK #2

STATIC SCREENS BANK #1

SLOPE

SLOPE

STEAM CLEANER

℄ COLUMN

36'-4"

F.D. TYP.

EL. 822.00 R.C.O.

12" PRIMARY CONVEYOR (TYP. (4) PLACES)

4'-0" x 37'-0" CONVEYOR TROUGH

G 3-P-14

EL. 824.75

6" CURB

EL. 824.25

PRECAST CONCRETE BUILDING PANELS

EL. 824.25

HANDRAIL

℄ COLUMN

10"

EL. 822.25

CONVEYOR DRIVE UNIT

F.D. F.D. F.D.

6" CURB

18" 90° BEND

18" COLLECTOR CONVEYOR

EL. 820.75

30"x18" ECCENTRIC REDUCER

18" INFLUENT

STAIRWAY

℄ STATIC SCREENS & STEAM LINE FESTOON SYSTEM

D 3-P-12

℄ STATIC SCREENS & STEAM LINE FESTOON SYSTEM

EL. 820.25

F.D. F.D. F.D.

EL. 820.75

21'-6"

ROOF ACCESS LADDER

DOWN

OPEN

STRUCTURAL BEAM

A 3-P-11

℄ IDLER SHAFT

CONTAINER

6" CURB

EL. 824.75

64'-0"

24'-0"

7"

21'-5"

18'-9"

6'-0"

15'-0" N.T.S.

12'-0" 39'-6"

DRIVE UNIT

F 3-P-13

SHIP'S LADDER SEE DETAIL DWG. NO. 3-P-14

17'-5"

PLATFORM

HANDRAIL

6'-3"

20'-9"

7"

CONTAINER CONVEYOR

DRIVE UNIT

℄ DRIVE SHAFT

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

12" DIP DUCT

2'-0"

24" ALUM. FLOOR DOOR

4" FLOOR DRAIN

HINGE

G 3-P-9

DETAIL 2 3-P-9
SCALE: 1/2" = 1'-0"

2'-0"

EL. 805.00

24" ALUM. FLOOR DOOR

12" DIP DUCT

WALL SLEEVE

EL. 802.25

FORM INVERT W/GROUT

FLOOR DRAIN

4" DRAIN

SECTION G 3-P-9
SCALE: 1/2" = 1'-0"

2'-0"

2'-0"

4" FLOOR DRAIN

1½" ℄ 3-WAY PVC BALL VALVE TYP.

HINGE

H 3-P-9

12" DIP DUCT

WALL SLEEVE

C 3-P-12

24" ALUM. FLOOR DOOR

DETAIL 3 3-P-9
SCALE: 1/2" = 1'-0"

2'-0"

POLYMER PIPE VAULT

24" SQ. ALUM. FLOOR DOOR

EL. 806.50

12" DIP DUCT

EL. 804.25

WALL SLEEVE

4" FLOOR DRAIN

4" DRAIN

FORM INVERT W/S & ROUT

SECTION H 3-P-9
SCALE: 1/2" = 1'-0"

1½" PVC SCHD. 80 POLYMER LINES

3-WAY PVC BALL VALVE

4" DRAIN

1½" DRAIN LINE

E 3-P-13

POLYMER DRAIN SCHEMATIC
N.T.S.

PCO-30

NO.	DATE	BY	DESCRIPTION	PLACES
1		T&B	AS BUILT	

REVISIONS

INTRENCHMENT CREEK COMBINED SEWER OVERFLOW TREATMENT FACILITY

STATIC SCREENS BUILDING

TOP FLOOR PLAN & DETAILS

JORDAN, JONES AND GOULDING — DELON HAMPTON AND ASSOCIATES
INCORPORATED · CHARTERED
CONSULTING ENGINEERS
ATLANTA, GEORGIA

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES HAMILTON JONES

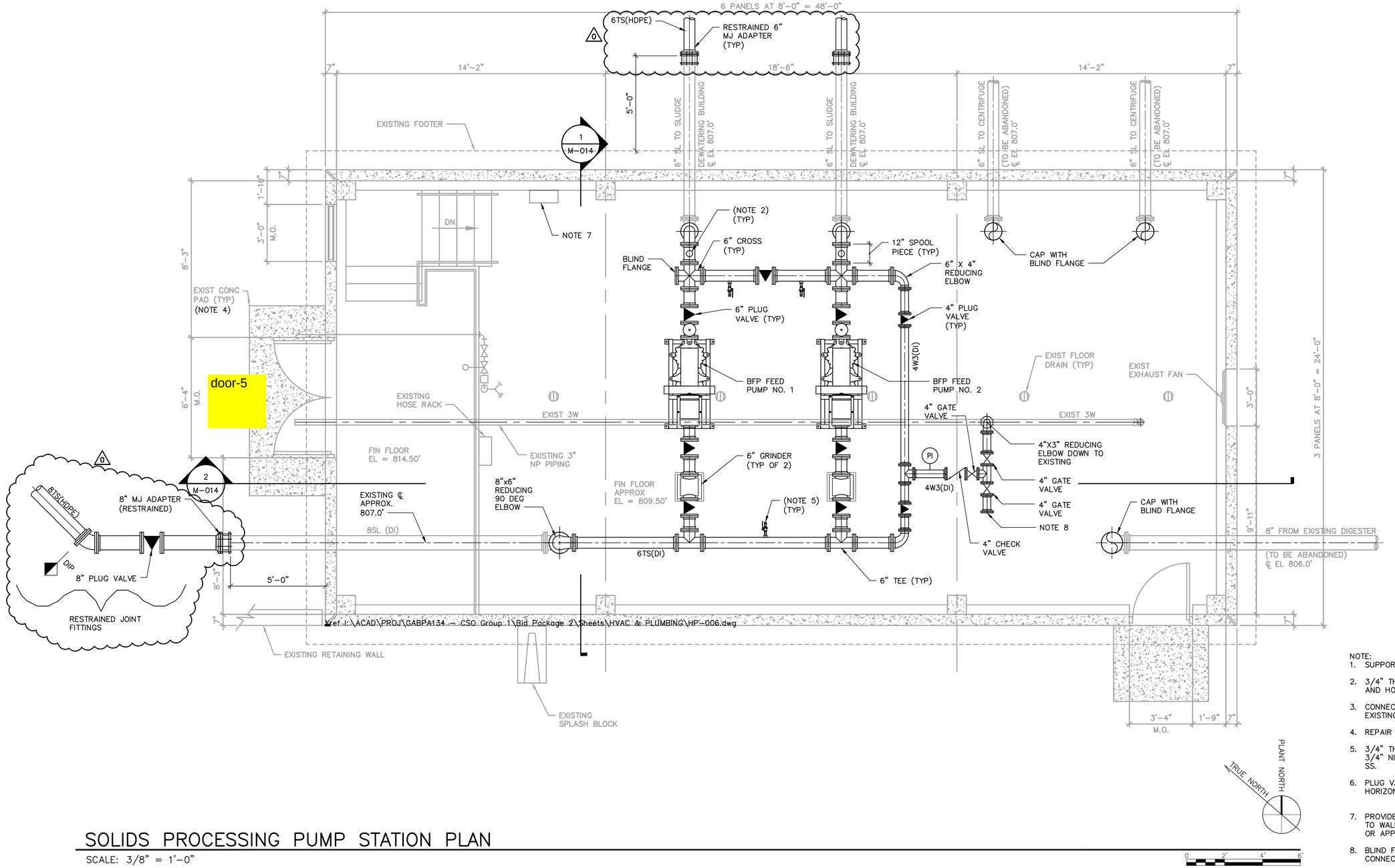
CITY OF ATLANTA
DEPARTMENT OF ENVIRONMENT & STREETS
BUREAU OF POLLUTION CONTROL

THREE RIVERS WATER QUALITY MANAGEMENT PROGRAMS

DSGN		APPROVED		LAND LOT 111	DISTRICT 15	DEKALB COUNTY
DRWN				APPROVED		SHEET NUMBER 42 OF 192
CHKD		SCALE AS SHOWN	DATE FEB 1981	DRAWING NO. 3-P-9		

E POLYTRACE 033

User:HDGILES Spec:AUS-NCSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\MECHANICAL\M-013.DWG Scale:1:1 SavedDate:7/8/2022 Time:11:47 Plot Date: Giles, Hamilton; 7/8/2022; 11:49 ; Layout:38



SOLIDS PROCESSING PUMP STATION PLAN

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

NOTE:
1. SUPPORT ALL PIPING AS REQUIRED.
2. 3/4" THREADED NIPPLE WITH 316 SS BALL VALVE AND HOSE.
3. CONNECT NEW 3" FLUSHING WATER PIPE TO EXISTING FLANGED 3" PIPE ABOVE SLAB.
4. REPAIR EXISTING SLAB AND ASSOCIATED GRADING.
5. 3/4" THREADED CONNECTION, 3/4" BALL VALVE, 3/4" NIPPLE AND 3/4" QUICK COUPLING IN 316 SS.
6. PLUG VALVE STEMS TO BE MOUNTED HORIZONTALLY.
7. PROVIDE PORTABLE EYEWASH STATION MOUNTED TO WALL. STATION SHALL BE PORTA STREAM II OR APPROVED EQUAL.
8. BLIND FLANGE FOR FUTURE PLANT WATER CONNECTION.

COPYRIGHT:
ARCADIS U.S., INC.
2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

PCO-30

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 041536 PROFESSIONAL ENGINEER 7-8-22 HAMILTON DAY GILES

ARCADIS
BPA
A Joint Venture
2839 Paces Ferry Road
Suite 900
Atlanta, GA 30339
Tel: 770-431-8666
Fax: 770-435-2666
www.arcadis-us.com

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT
DRAWN BY:	A. SUMNER
CHECKED BY:	A. SHARP

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

M-013

SHEET 38 OF 150

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #43: Sludge Pump Station Overhead Door

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Aug 13, 2024	**Due Date**	Aug 20, 2024
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-43

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Tuesday, Aug 13, 2024 at 11:19 AM EDT*

MECI (electrical subcontractor) will be installing new gear in the electrical room of the Sludge Pump Station. The gear is being delivered assembled and the existing doors will not be large enough to get that gear into the room. We propose cutting in an overhead door to get the equipment into the pump station. See the attached sketch. Please advise.
Cost for this change will be sent after approval.

Awaiting an Official Response

RFI-43

Add a Steel lintel member

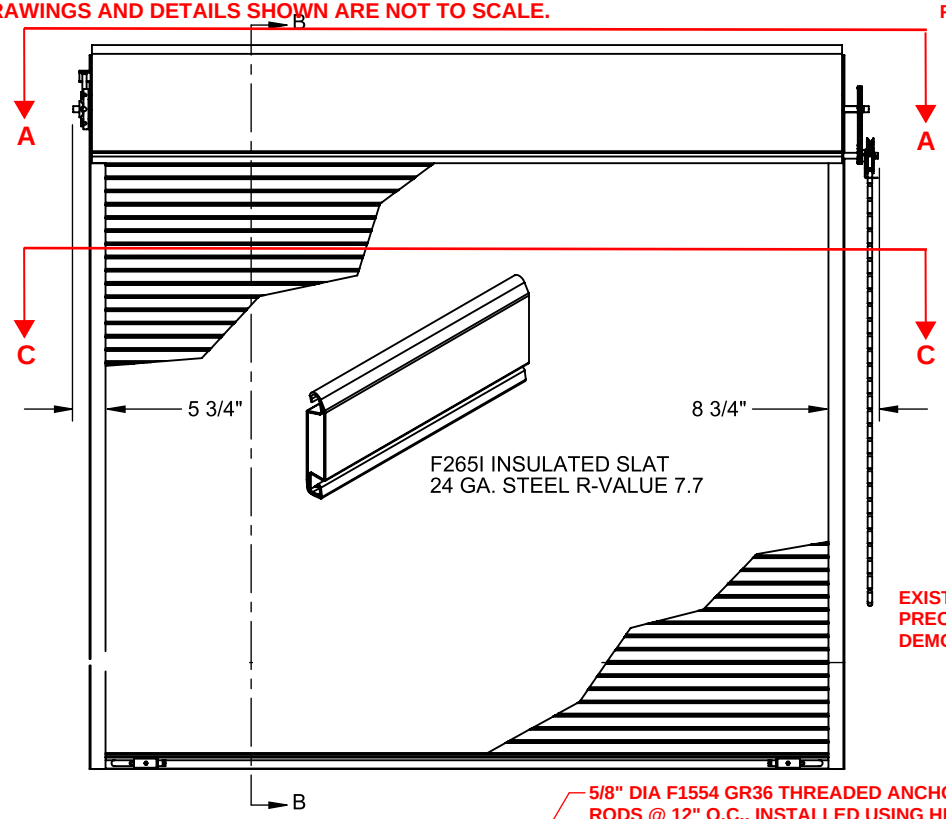
Move this light (UP)

Move this conduit (to the right)

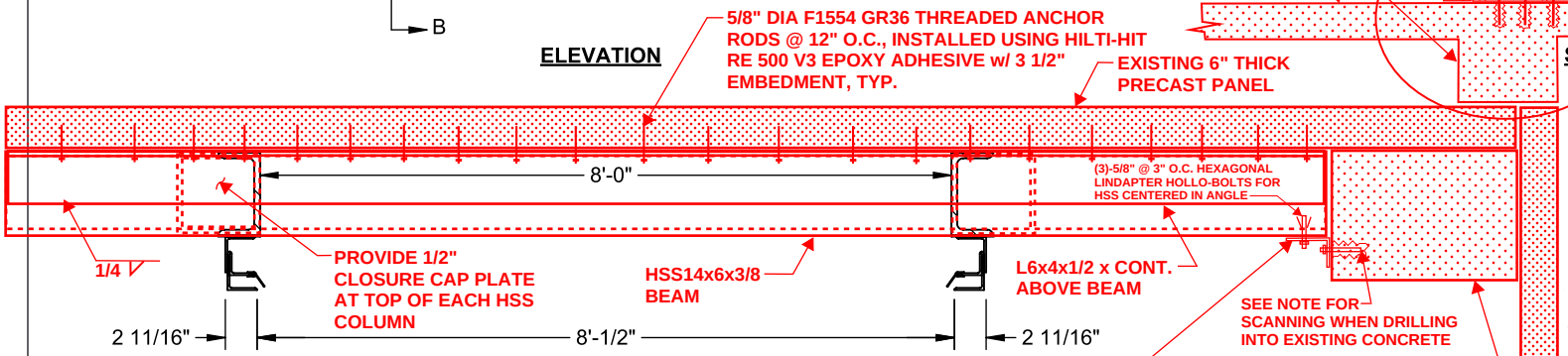
Move the AC, ductwork, and all lines as necessary

demo the precast wall and install a 8 ' wide by 10' tall overhead coiling door (insulated)

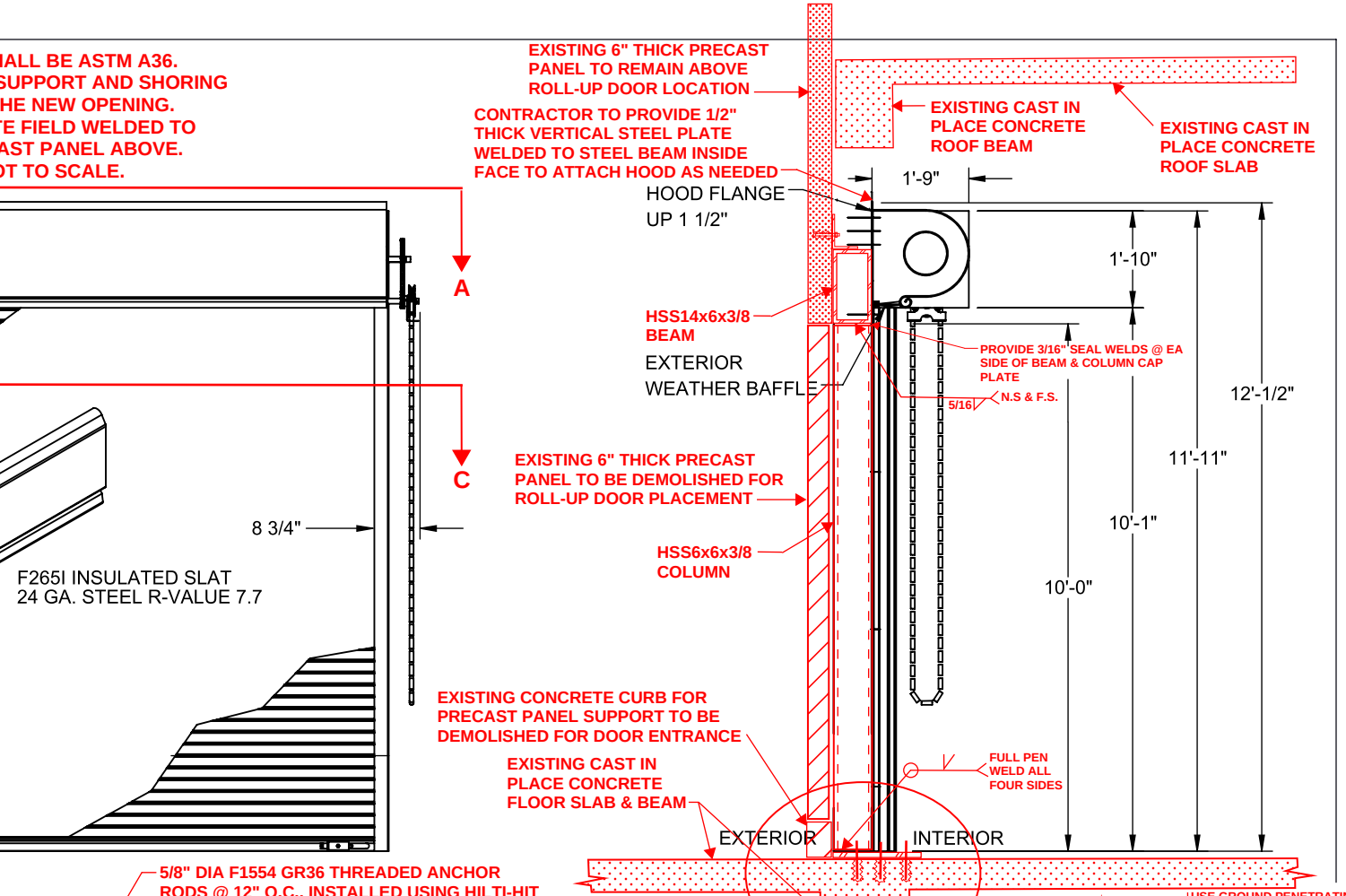
NOTES:
1. ALL HSS MEMBERS SHALL BE A500 GRADE B.
2. ALL STEEL ANGLE MEMBERS AND PLATES SHALL BE ASTM A36.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT AND SHORING FOR THE PRECAST PANEL REMAINING ABOVE THE NEW OPENING.
4. CONTRACTOR TO PROVIDE ADDITIONAL PLATE FIELD WELDED TO BOTTOM OF HSS BEAM TO SUPPORT THE PRECAST PANEL ABOVE.
5. ALL DRAWINGS AND DETAILS SHOWN ARE NOT TO SCALE.



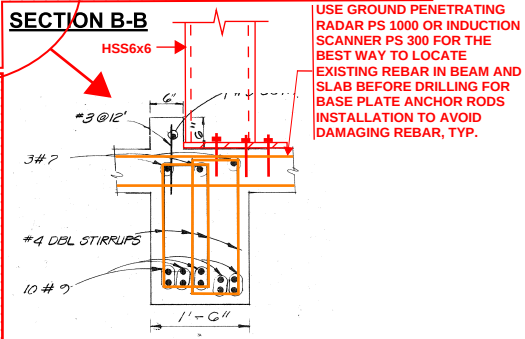
ELEVATION



SECTION A-A



SECTION B-B



ENLARGED EXISTING FLOOR BEAM SECTION

MODEL 625 ROLLING SERVICE DOOR	**DOOR MARK:**	**OPENING WIDTH:** 8'-0"	**OPENING HEIGHT:** 10'-0"	**QUANTITY:** 1
The Genuine. The Original. OVERHEAD DOOR®	**JOB NAME:** Sludge Pump Station	**NOTES:** RFI-43		SHEET 1 OF 2
				DATE: 09/04/2024 07:32 AM EST
	ARCHITECT: Arcadis			**QUOTE/ORDER#:** SQFD016352-1
	CONTRACTOR: Lakeshore Engineering			**LINE #:** 1
	DISTRIBUTOR: Overhead Door Company of Atlanta			

RD_SD_FM_RH_2

PITTMAN WALLER
ROOFING COMPANY, LLC.
since 1926
A ROOFING CORP OF AMERICA COMPANY

Date: August 29, 2025

To: Lakeshore Engineering
1259 Ellsworth Dr. NW
Atlanta, Ga 30318

RE: Intrenchment Creek Water Treatment Plant Roof Assessment

The gravel surface built up roof on this facility is in overall poor condition due to the age of the roof system. The asphalt has become brittle as are the asphalt impregnated felts due to age. The modified bitumen base flashings are in similar condition, and the sheet metal perimeter flashing has significant surface rust. We recommend a roof replacement.

Thank you for the opportunity to be of service to your roofing needs. Please call if you have any questions.

Best Regards,

Randy Casteel
Pittman Waller Roofing Co., LLC

Roof was replaced by LSE under PCO-27

527 Hillcrest Industrial Boulevard
Macon, Georgia 31204
478.743.1336
Pittmanwaller.com

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #36: Switchgear -2 Location

Status	Open		
To	Scott Miller - COA/CMG	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 1, 2023	**Due Date**	Dec 8, 2023
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	e-07	**Reference**	
Linked Drawings			
Received From			
Copies To			

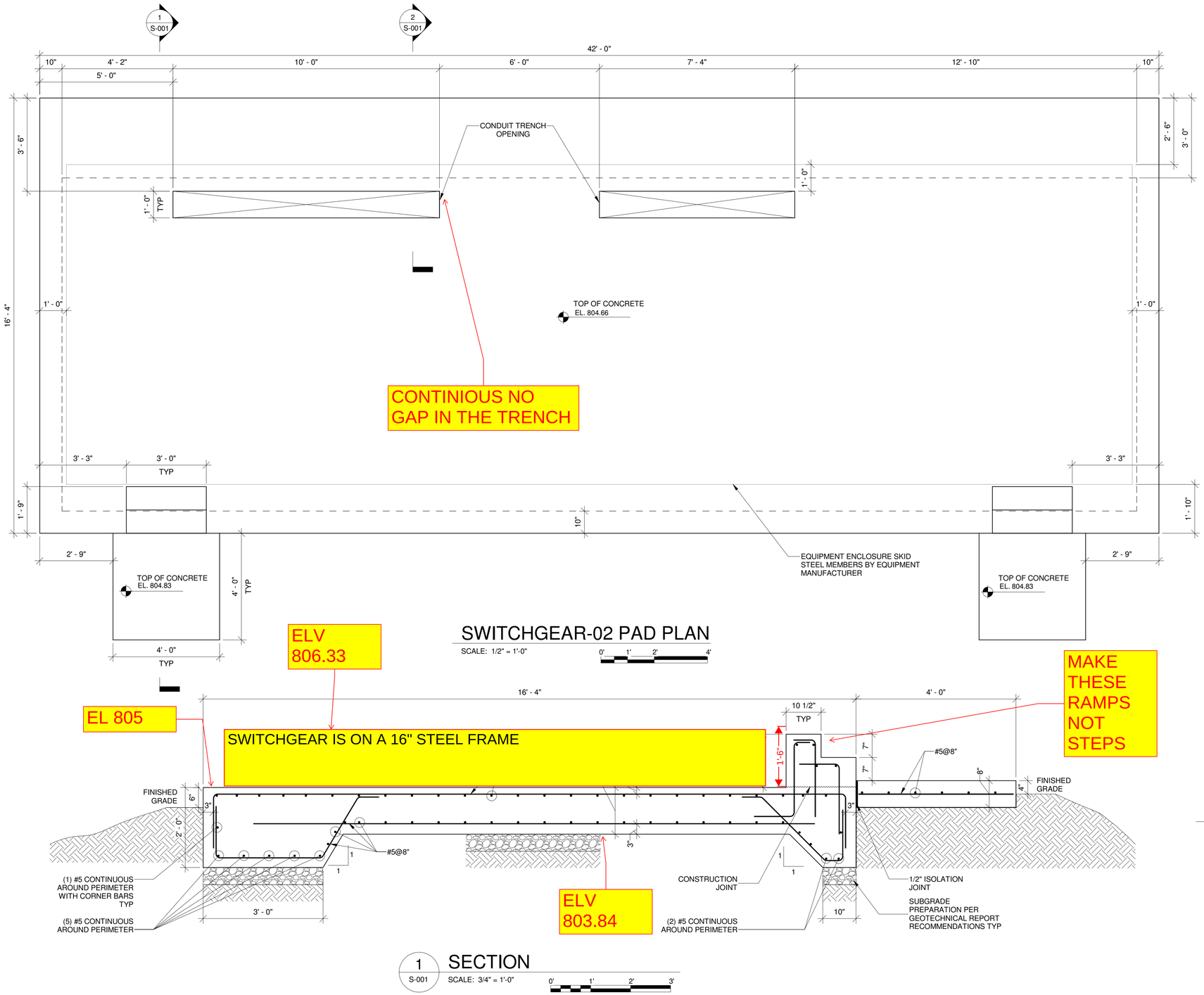
RFI-36

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Friday, Dec 1, 2023 at 05:16 PM EST*
Please provide a final elevation for top of concrete slab for switchgear-2

Awaiting an Official Response



SWITCHGEAR-02 PAD PLAN

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

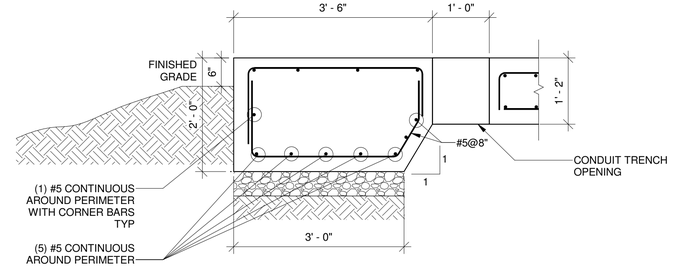
0' 1' 2' 4'

1 SECTION

S-001

SCALE: 3/4" = 1'-0"

0' 1' 2' 3'

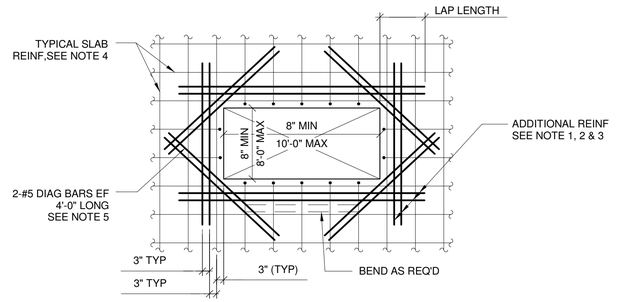


2 SECTION

S-001

SCALE: 3/4" = 1'-0"

0' 1' 2' 3'



RECTANGULAR

NOTES:

1. PROVIDE ADDITIONAL REINFORCEMENT AT EACH SIDE OF ALL OPENINGS, ACCESS HATCHES, PIPE PENETRATIONS, ETC. EQUAL IN AREA TO 1/2 OR MORE OF THE AREA OF REINFORCEMENT CUT BY OPENING IN EACH DIRECTION. ADDITIONAL REINFORCEMENT TO MATCH SIZE OF TYPICAL REINFORCEMENT (MIN. 2 BARS ES AND EF) AND PLACED BETWEEN TYPICAL REINFORCEMENT @3" SPACING ON EACH SIDE OF OPENING. IF A WALL OR BEAM IS ADJACENT TO THE OPENING, THE ADDITIONAL REINFORCEMENT ON THAT SIDE OF THE OPENING CAN BE OMITTED.
2. ANY OPENING 12" OR LESS FROM AN ADJACENT WALL DOES NOT REQUIRE ADDITIONAL REINFORCEMENT AT THAT SIDE OF OPENING.
3. PROVIDE MATCHING DOWELS WHERE REQUIRED TO PROVIDE CLASS "B" LAP WITH ADDITIONAL REINFORCEMENT. (WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT OPENINGS OCCUR, ADDITIONAL REINFORCEMENT SHALL BE COMBINED).
4. PROVIDE STANDARD HOOK AT END OF ALL BARS TERMINATING AT OPENING.
5. DIAGONAL BARS INNERMOST LAYER.

TYPICAL REINFORCING AROUND OPENING IN SLAB

NOT TO SCALE

NOTES:

1. DESIGN FLOOR LIVE LOAD = 150 PSF.
2. ASSUMED SOIL BEARING PRESSURE = 2000 PSF.
3. CONTRACTOR SHALL SUBMIT EQUIPMENT ENCLOSURE ANCHORAGE CALCULATIONS TO RESIST WIND AND SEISMIC LOADS PER APPLICABLE CODES. CALCULATIONS SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
4. CONTRACTOR TO VERIFY SUPPORT DETAILS WITH EQUIPMENT MANUFACTURER PRIOR TO FABRICATION.
5. MANUFACTURER SHALL BE RESPONSIBLE FOR INTERNAL ANCHORAGE OF EQUIPMENT WITH ENCLOSURE.
6. REFER TO EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS PROJECT SPECIFICATIONS FOR CONCRETE REQUIREMENTS.
7. REFER TO EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS PROJECT GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION.
8. CONTRACTOR SHALL COORDINATE CONDUIT OPENING LOCATIONS WITH EQUIPMENT MANUFACTURER BEFORE CONCRETE PLACEMENT.

Autodesk Docs://AUS-30041583-Proposals 2024/S-3D-SG Pad_R24.rvt
5/29/2024 6:24:47 PM

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CONSULTANTS

NO.	DATE	ISSUED FOR	BY
		RFI-36	

SEALS

DATE: MAY 2024
PROJECT NO.: 30105595
FILE NAME:
DESIGNED BY: N. SADASHIVA
DRAWN BY: S R. AVINASH KUMAR
CHECKED BY: C. GALLO

CLIENT

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

ARCADIS PROJ. NO. 30105595

SHEET TITLE

STRUCTURAL

SWITCHGEAR-02 PAD PLAN & SECTIONS

SCALE: As indicated

S-001

SHEET 1 OF 1

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #32: Sed Basin 2 Concrete Beam

Status	Open		
To	**Scott Miller - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jun 12, 2023	**Due Date**	Jun 19, 2023
Location		**Project Stage**	Course of Construction
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	S-004	**Reference**	RFI-32
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Jun 12, 2023 at 04:06 PM EDT*

The hydro demolition on the concrete beam highlighted was not performed to 7'. It is closer to 6'6". As discussed, the fix for this is to Provide (2)-#5 top bars 7'-0" long splice with existing and new #9 bars as shown. Lakeshore can confirm that these bars were added to the beam before placing the concrete

Awaiting an Official Response

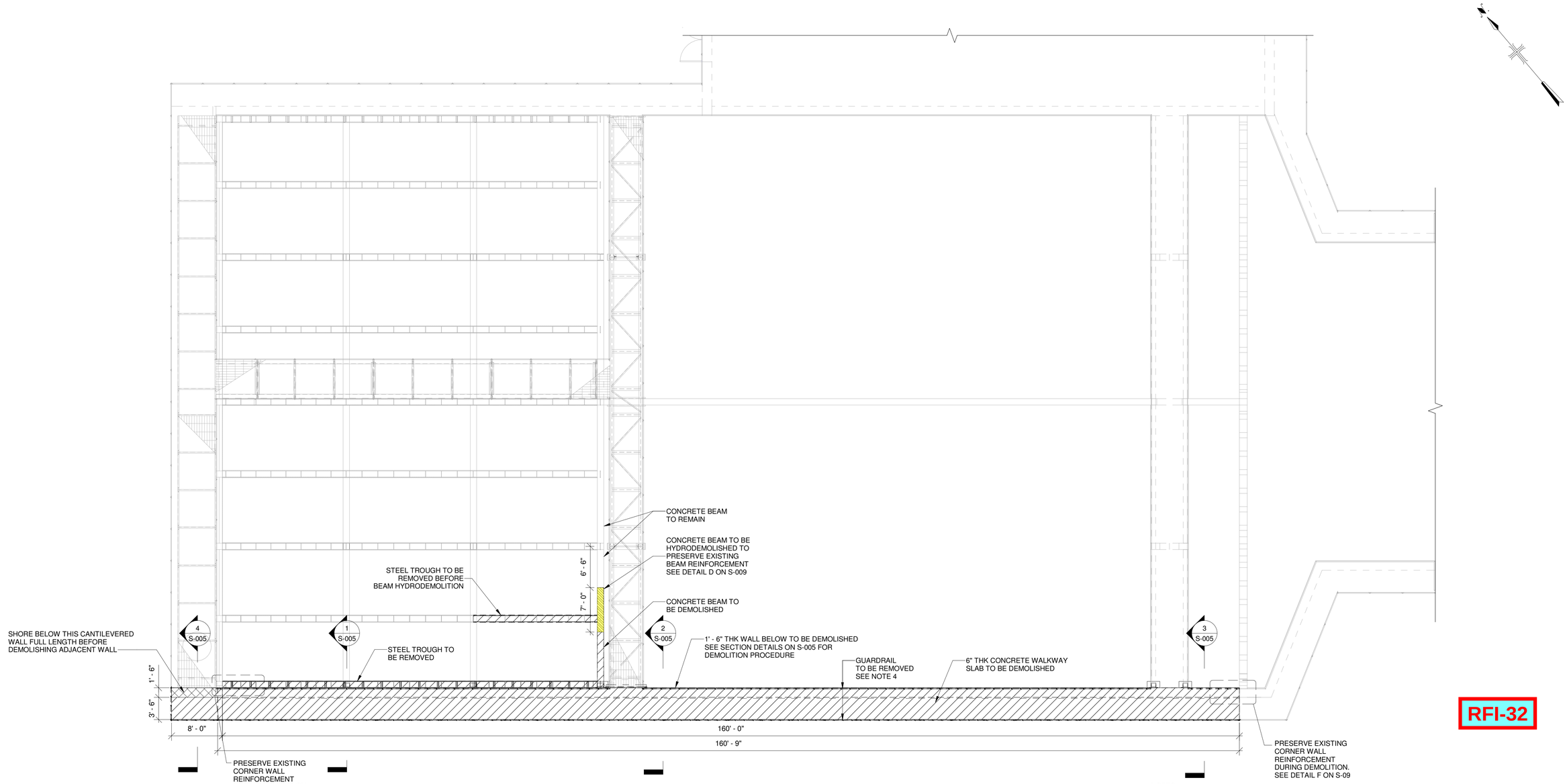
Answer

Answer from Carlos Gallo Arcadis on Wednesday, June 28, 2023 at 8:04 AM EDT

Engineer acknowledges deviation from the designed demolition and finds the corrective procedures included in this RFI acceptable.

RFI-32





RFI-32

SEDIMENTATION BASIN 2 TOP DEMOLITION PLAN

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

0' 4' 8' 16'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. ALL THE EXISTING EQUIPMENT PARTS AND PIECES (BRACKETS, SPROCKETS, SHAFTS, AND MISCELLANEOUS PARTS) WILL HAVE TO BE COMPLETELY REMOVED BEFORE THE WALL DEMOLITION BEGINS.
3. AFTER EQUIPMENT REMOVAL, ALL MEMBER ENDS THAT ARE CONNECTED TO THE WALL INSIDE THE BASIN SHALL BE SUPPORTED WITH A SHORING SYSTEM DESIGNED BY CONTRACTOR BEFORE DEMOLISHING THEIR CONNECTIONS TO THE WALL. THESE MEMBERS INCLUDE THREE CONCRETE BEAMS, AN ALUMINUM CATWALK, AND A CONCRETE SIDEWALK. NO WORK SHALL BE ALLOWED TO BE EXECUTED INSIDE THE BASIN WHILE THE SHORING SYSTEM IS IN PLACE. SHORING SHALL NOT BE REMOVED UNTIL AFTER THE MEMBERS FINAL CONNECTIONS TO THE NEW WALL HAVE BEEN COMPLETED.
4. CONTRACTOR TO VERIFY CONDITION OF EXISTING GUARDRAIL PER OSHA AND IBC STANDARD CODES FOR POTENTIAL REINSTALLATION AFTER THE CONSTRUCTION OF NEW WALL AND WALKWAY SLAB. CONTRACTOR TO SUBMIT A REPORT STATING EXISTING GUARDRAIL COMPLIES WITH OSHA AND IBC CODE REQUIREMENTS AND LOADS.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING AS NEEDED TO ENSURE STABILITY OF EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION.

BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt
10/11/2022 9:05:24 PM

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
3	OCTOBER 2022	100% DESIGN SUBMITTAL	CG
2	SEPTEMBER 2022	95% DESIGN SUBMITTAL	CG
1	JULY 2022	30% DESIGN SUBMITTAL	CG

SEALS

100% SUBMITTAL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL
FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

SEDIMENTATION BASIN 2
TOP DEMOLITION PLAN

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-004

SHEET 5 OF 13

CITY OF ATLANTA

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
SEDIMENTATION BASIN NO. 2 WALL REPAIR

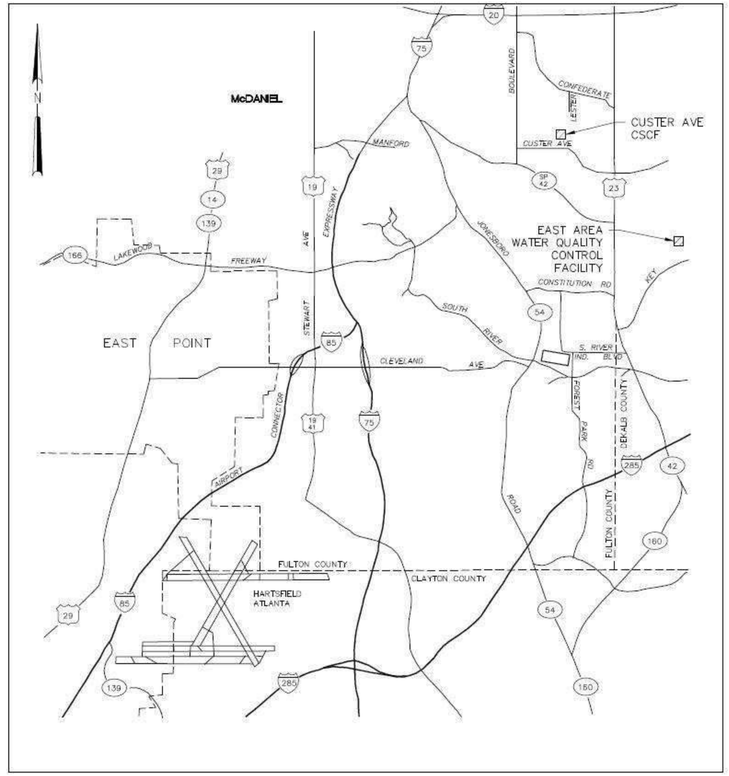
FACILITY	PARCEL ID	DISTRICT	LAND LOT	COUNTY
EAST AREA WATER QUALITY CONTROL FACILITY	15.11101005	15	111	DEKALB

SHEET LIST TABLE

Sheet Number	Sheet Title
GENERAL	
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STRUCTURAL	
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S-002	STRUCTURAL QUALITY ASSURANCE
S-003	SEDIMENTATION BASIN 2 BOTTOM DEMOLITION PLAN
S-004	SEDIMENTATION BASIN 2 TOP DEMOLITION PLAN
S-005	SEDIMENTATION BASIN 2 DEMOLITION SECTIONS
S-006	SEDIMENTATION BASIN 2 BOTTOM PLAN
S-007	SEDIMENTATION BASIN 2 TOP PLAN
S-008	SEDIMENTATION BASIN 2 SECTIONS
S-009	SEDIMENTATION BASIN 2 CONNECTION DETAILS I
S-010	SEDIMENTATION BASIN 2 CONNECTION DETAILS II
S-011	SEDIMENTATION BASIN 2 TYPICAL DETAILS
S-012	SPROCKET SUPPORT AND RAILING DETAILS



OWNER
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
72 MARIETTA STREET, NW
ATLANTA, GEORGIA 30303



LOCATION MAP

ARCADIS BPA
Brindley Pieters & Associates, Inc.
A JOINT VENTURE

PROJECT MANAGER:	BRIAN RUGGS, PE
GEORGIA REGISTRATION NO. :	040202

DESIGN COORDINATOR:	CARLOS GALLO, PE, SE
GEORGIA REGISTRATION NO. :	018726

CITY OF ATLANTA
MAYOR
ANDRE DICKENS

WATERSHED MANAGEMENT
COMMISSIONER
MIKITA BROWNING

CSS MANAGER
LAMONT FERREBEE

811
Know what's below.
Call before you dig.

PROJECT NO.: 30030286

NO.	DATE	ISSUED FOR	BY
1	OCTOBER 2022	100% DESIGN SUBMITTAL	CG

G-001

10/11/2022 9:05:21 PM BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt

GENERAL

G-1 THESE NOTES ARE GENERAL AND SUPPLEMENTAL TO THE SPECIFICATIONS AND APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.

G-2 STANDARD DETAILS SHOWN ON STRUCTURAL TYPICAL DRAWINGS SHALL BE USED, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

G-3 DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2018 INTERNATIONAL BUILDING CODE WITH GEORGIA STATE AMENDMENTS (2020), EXCEPT WHERE OTHER APPLICABLE CODES AND THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.

G-4 SEISMIC DESIGN DATA:
1. RISK CATEGORY: III
2. SEISMIC IMPORTANCE FACTOR, I_e = 1.25
3. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
   A) Ss = 17.8%
   B) S_1 = 8.4%
4. SITE CLASS = D
5. SPECTRAL RESPONSE COEFFICIENTS:
   A) S_{DS} = 19.0%
   B) S_{D1} = 13.4%
6. SEISMIC DESIGN CATEGORY = C

G-5 WIND DESIGN DATA:
1. ULTIMATE DESIGN WIND SPEED: 113 MPH
2. RISK CATEGORY: III
3. WIND EXPOSURE: C

G-6 DRAWING DIMENSIONS ARE TO BE VERIFIED EITHER BY FIELD MEASUREMENTS FOR EXISTING STRUCTURES OR BY SHOP DRAWINGS FOR EQUIPMENT FURNISHED. STRUCTURAL DIMENSIONS NOT SHOWN BUT CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.

G-7 EQUIPMENT ANCHOR BOLT SIZES, TYPES, AND PATTERNS SHALL BE AS REQUIRED BY THE APPROVED EQUIPMENT MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO INSURE ACCURACY OF PLACEMENT.

G-8 STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.

G-9 IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED BY THE ENGINEER.

G-10 STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.

G-11 CONTRACTOR SHALL PROVIDE A 1.5:1 LAYBACK DISTANCE FOR EXCAVATION AT ALL STRUCTURES, EXCEPT WHERE SHEETING IS USED TO FACILITATE EXCAVATION.

G-12 NO BACKFILL SHALL BE PLACED AGAINST ANY WALL UNLESS ALL SUPPORTING ELEMENTS OF THE STRUCTURE HAVE BEEN CONSTRUCTED AND HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH AT 28 DAYS.

G-13 DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.

G-14 CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

G-15 WHERE CONNECTIONS TO OR MODIFICATIONS OF EXISTING STRUCTURES ARE SHOWN, EXISTING FOUNDATIONS, WALLS, COLUMNS, SLABS, BEAMS, FLOORS, DECKS, (CONCRETE, STEEL, TIMBER, ETC.) ARE ASSUMED TO BE IN GOOD CONDITION. THIS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. UNSOUND CONDITIONS SHALL BE REPORTED TO THE ENGINEER. ALL UNSOUND STRUCTURAL ELEMENTS SHALL BE REPAIRED TO SOUND CONDITION AS APPROVED BY THE ENGINEER. EXISTING CONSTRUCTION DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE WORK COMMENCES. VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS SHALL BE REPORTED TO THE ENGINEER.

G-16 ARCADIS IS ONLY RESPONSIBLE FOR THE NEW WALL CONSTRUCTED ABOVE THE FOUNDATION AND INTERIOR HORIZONTAL MEMBER CONNECTIONS INTO THE WALL.

FOUNDATION

F-1 ARCADIS IS NOT RESPONSIBLE FOR STRUCTURAL CONDITION AND CAPACITY OF EXISTING FOUNDATION

CONCRETE

C-1 CONCRETE 28-DAY COMPRESSIVE STRENGTH:
CLASS A - 4500 PSI

C-2 REINFORCEMENT: ASTM A615, GRADE 60.
ASTM A706, GRADE 60

C-3 CONCRETE COVER FOR REINFORCING:
A) SURFACES CAST AGAINST EARTH 3"
B) SURFACE WITH EMBEDDED PVC WATERSTOP 3"
C) ALL OTHER SURFACES 2"

C-4 CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. WHERE NOT SHOWN, CONSTRUCTION JOINTS SHALL BE LOCATED AS REQUIRED BY THE SPECIFICATIONS. CONSTRUCTION JOINT TYPES AND LOCATIONS SHALL BE AS APPROVED BY THE ENGINEER.

C-5 WHERE HORIZONTAL CONSTRUCTION JOINTS, LOCATED ABOVE THE FOUNDATION SLAB, EXTEND BEYOND WHERE NEEDED, TERMINATE AT A VERTICAL CONSTRUCTION JOINT AS APPROVED BY THE ENGINEER.

C-6 PROVIDE PVC WATERSTOPS IN ALL FOUNDATION, SLAB AND WALLS FOR WATER RETAINING STRUCTURES.

C-7 SHOP DRAWINGS FOR EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS SHALL BE PROVIDED PRIOR TO PLACING CONCRETE.

C-8 AT ALL TYPICAL CURBS, EQUIPMENT PADS, AND SUPPORT PIERS, REINFORCING DOWELS SHOWN MAY BE REPLACED WITH MATCHING DOWELS SET IN EPOXY IN DRILLED HOLES AS SPECIFIED. DOWELS LOCATED CLOSER THAN 3 INCHES FROM ANY EDGE OF CONCRETE SHALL NOT BE REPLACED WITH DRILLED DOWELS.

C-9 WHERE DRILLED EPOXY DOWELS ARE PLACED INTO HARDENED CONCRETE, ADJUST THE DOWEL LOCATIONS AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE DOWEL LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER BEFORE PROCEEDING.

C-10 DOWELS, ANCHOR BOLTS, PIPES, AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.

C-11 REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY METAL PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2 INCHES SHALL BE PROVIDED.

C-12 CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER USING WOOD CHAMFER STRIPS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS OR AS REQUIRED TO MATCH EXISTING.

C-13 LAP SPLICES SHALL BE IN ACCORDANCE WITH THE TABLE SHOWN ON THIS SHEET.

C-14 PROVIDE ADDITIONAL REINFORCEMENT AT OPENINGS AND WALL INTERSECTIONS AS SHOWN ON TYPICAL DETAILS.

GENERAL REQUIREMENTS AND SITE WORK:

SW-1 SECTION 02050 DEMOLITION AND SECTION 02060 HYDRODEMOLITION HAVE BEEN ADDED TO THE SPECIFICATION PACKAGE. REFERENCE BID PACKAGE NO. 2 EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS PROJECT FOR OTHER APPLICABLE SPECIFICATIONS FOR DIVISION 1 & 2.

ALUMINUM

1. ALL ALUMINUM SHALL BE NEW AND CONFORM TO THE APPLICABLE ASTM SPECIFICATIONS AS REGISTERED WITH "THE ALUMINUM ASSOCIATION". FOR THE ALLOYS LIST BELOW:
   A. STRUCTURAL SHAPES AND PLATES ALLOY 6061-T6.
   B. WELDING FILLER ALLOY 5356.
   C. BOLTS - STAINLESS STEEL TYPE AISI TYPE 316.
   D. ANCHOR BOLTS - STAINLESS STEEL AISI TYPE 316.
2. SHOP CONNECTIONS SHALL BE BOLTED OR WELDED.
3. FIELD CONNECTIONS SHALL BE BOLTED: FIELD WELDING SHALL NOT BE PERMITTED UNLESS SO NOTED ON THE CONTRACT DRAWINGS.
4. BRACING SHALL HAVE A MINIMUM OF TWO BOLTS PER CONNECTION UNLESS NOTED.
5. ALL BOLTS SHALL BE 5/8" DIA. MIN. UNLESS OTHERWISE NOTED ON CONTRACT DRAWINGS.
6. WHERE ALUMINUM COMES IN CONTACT WITH CONCRETE OR OTHER DISSIMILAR MATERIALS, BACK PAINT ALUMINUM AS INDICATIED IN THE DRAWING

ABBREVIATIONS

EJ	- EXPANSION JOINT
CJ	- CONSTRUCTION JOINT
TYP	- TYPICAL
THK	- THICKNESS
DIA	- DIAMETER
EQ	- EQUAL
CONC	- CONCRETE
STD	- STANDARD
T&B	- TOP AND BOTTOM
EF	- EACH FACE
EA	- EACH
CLR	- CLEAR
HORIZ	- HORIZONTAL
VERT	- VERTICAL
REINF	- REINFORCEMENT
d_b	- DIAMETER OF ANCHOR BAR

SYMBOLS

GRATING

HYDRODEMOLITION

DEMOLITION

LAP SPLICE AND EMBEDMENT LENGTH TABLE

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS (INCHES)

BAR SIZE	MIN LAP LENGTHS FOR				MIN EMBEDMENT LENGTHS					MIN STD. HOOKS		
	BEAMS AND COLUMNS* CLASS B		SLABS AND WALLS ** CLASS B		FOR BEAMS AND COLUMNS *		FOR SLABS AND WALLS **		WITH STANDARD HOOK	90°	135°	
	TOP***	OTHERS	TOP***	OTHERS	TOP***	OTHERS	TOP***	OTHERS		A OR G	A OR G	H
#3	25	19	16	16	19	15	12	12	5	6	4	2.5
#4	33	25	20	16	25	19	15	12	7	8	4.5	3
#5	41	31	25	19	31	24	19	15	9	10	5.5	3.75
#6	49	37	29	23	37	29	23	18	10	12	8	4.5
#7	71	54	43	33	54	42	33	25	12	14	9	5.25
#8	81	62	49	37	62	48	37	29	14	16	10.5	6
#9	91	70	60	46	70	54	46	36	15	19	-	-
#10	102	79	74	57	79	61	57	44	17	22	-	-
#11	114	87	89	69	87	67	68	53	19	24	-	-

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS TABLE IS BASED ON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI AND 60000 PSI REINFORCEMENT (WITH NO EPOXY COATING).

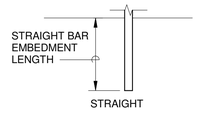
ALL LAPS SPLICES SHALL BE CLASS B SPLICES.

* THE MINIMUM LAP LENGTH FOR BEAMS, COLUMNS AND STRAIGHT EMBEDMENTS ARE BASED ON A 3 BAR DIAMETER MINIMUM CENTER TO CENTER BAR SPACING AND A 2 INCH BAR COVER. IF THE SPLICE AND/OR EMBEDMENT DOES NOT CONFORM TO THESE REQUIREMENTS, THEN CONTRACTOR SHALL APPLY APPROPRIATE FACTORS IN COMPLIANCE WITH ACI 318 WITH APPROVAL BY ENGINEER.

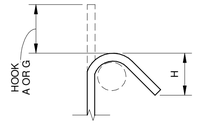
** THE MINIMUM LAP LENGTH FOR SLABS, WALLS AND STRAIGHT EMBEDMENTS ARE BASED ON A 6 INCH BAR SPACING AND A 2 INCH BAR COVER. IF THE LAP CONDITION DOES NOT CONFORM TO THESE REQUIREMENTS, THEN USE BEAM LAP LENGTHS; OR COMPLY WITH LAP REQUIREMENTS OF ACI 318 WITH APPROVAL BY ENGINEER.

*** TOP BARS ARE DEFINED AS ALL HORIZONTAL BARS WITH 12" OR MORE FRESH CONCRETE BENEATH.

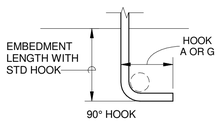
WHERE SPLICES ARE REQUIRED BETWEEN BARS OF DIFFERENT SIZES, THE LAP LENGTH SHALL BE NO LESS THAN THE EMBEDMENT LENGTH OF THE LARGER BAR OR THE LAP LENGTH OF THE SMALLER BAR, WHICHEVER IS GREATER.



STRAIGHT



135° HOOK



90° HOOK

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

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2	SEPTEMBER 2022	95% DESIGN SUBMITTAL	CG
1	JULY 2022	30% DESIGN SUBMITTAL	CG

SEALS

100% SUBMITTAL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL
GENERAL STRUCTURAL NOTES

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: V. SRIPAL
CHECKED BY: H. HOBI

SCALE: NONE

S-001

SHEET 2 OF 13

10/11/2022 9:05:21 PM BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt

STRUCTURAL QUALITY ASSURANCE PLAN

GENERAL:

THIS STRUCTURAL QUALITY ASSURANCE PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE INSPECTOR IN PERFORMING THE TESTING AND INSPECTION OF THE WORK. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF MECHANICAL, ELECTRICAL, CIVIL, OR OTHER BUILDING COMPONENTS.

CONTRACTOR'S RESPONSIBILITIES:
CONTRACTOR SHALL NOTIFY INSPECTION AGENCY/LABORATORY AT LEAST 48 HOURS PRIOR TO START OF WORK AND COOPERATE WITH THE INDIVIDUAL INSPECTORS AND TESTING AGENCIES.

INSPECTOR'S RESPONSIBILITIES:

THE INSPECTOR SHALL BE A LICENSED ENGINEER IN THE STATE OF GEORGIA OR PERFORMING APPROPRIATE DUTIES DIRECTLY UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA AND HAVE A THOROUGH UNDERSTANDING OF THE INSPECTION REQUIREMENTS. THE INSPECTOR SHALL BE AN INDIVIDUAL OR INDIVIDUALS CERTIFIED OR EXPERIENCED TO PERFORM SUCH INSPECTIONS IN A PARTICULAR FIELD.

A WEEKLY REPORT OF INSPECTIONS DOCUMENTING REQUIRED INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED. AT THE COMPLETION OF THE INSPECTIONS, THE LICENSED PROFESSIONAL ENGINEER IN CHARGE OF PERFORMING THE INSPECTION SHALL CERTIFY THE FINAL INSPECTION REPORT AND AFFIX HIS/HER SEAL TO THE INSPECTOR'S FINAL REPORT. PROVIDE THREE (3) COPIES OF THIS REPORT TO THE PROJECT ENGINEER.

CAST-IN-PLACE CONCRETE:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318. SUBMIT THREE COPIES OF THE CONCRETE MIX DESIGNS. INCLUDE THE FOLLOWING:
   - A. TYPE AND QUANTITIES OF MATERIALS
   - B. SLUMP
   - C. AIR CONTENT
   - D. FRESH UNIT WEIGHT
   - E. AGGREGATES SIEVE ANALYSIS
   - F. DESIGN COMPRESSIVE STRENGTH
   - G. LOCATION OF PLACEMENT IN STRUCTURE
   - H. METHOD OF PLACEMENT
   - I. METHOD OF CURING
   - J. SEVEN-DAY AND 28-DAY COMPRESSIVE STRENGTHS
2. SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT MATERIALS MEET THE REQUIREMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.
3. SUBMIT CERTIFICATION THAT THE READY-MIXED CONCRETE PLANT COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL READY MIX CONCRETE ASSOCIATION.

INSPECTOR SHALL PERFORM THE FOLLOWING:

REQUIRED INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	C	P	REFERENCE STANDARD
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	ACI 318 Ch: 20, 25.2, 25.3, 26.6.1-26.6.3
2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 ; b. INSPECT SINGLE PASS FILET WELDS, MAXIMUM 5/16" ; AND A. INSPECT ALL OTHER WELDS.	- X	X X 	 AWS D1.4 ACI 318: 26.6.4
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2
4. INSPECT ANCHORS POST -INSTALLED IN HARDENED CONCRETE MEMBERS. a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS. NOT DEFINED IN 4.a.	X	 X	 ACI 318: 17.8.2.4 ACI 318: 17.8.2
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318 Ch: 19, 26.4.3, 26.4.4
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5
9. INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCE; AND b. GROUTING OF BONDED PRESTRESSING TENDONS.	 X X	 - -	 ACI 318: 26.10 ACI 318: 26.10
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: Ch. 26.9
11. VERIFY IN -SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2 (b)

C = CONTINUOUS P = PERIODIC

ADHESIVE ANCHORS FOR ANCHORAGE INTO CONCRETE:

MANUFACTURERS:

1. HILTI HIT-RE 500 V3 EPOXY ADHESIVE ANCHORS
2. OR AS APPROVED.
   - A. INJECTABLE TWO-COMPONENT ADHESIVE.
   - B. HILTI ANCHOR ROD HAS-R 316 STAINLESS STEEL THREADED ROD COMPLYING WITH ASTM F593 CONDITION CW.
   - C. ADHESIVE ANCHORAGE SYSTEM SHALL BE SEISMIC QUALIFIED WITH CURRENT ICC-ES ESR REPORT (ICC-ES-ESR 3814).
   - D. INSTALLERS TO BE TRAINED BY ANCHOR MANUFACTURER.
   - E. 10% OF ALL ADHESIVE ANCHORS TO BE LOAD TESTED, AS INSTALLED IN FIELD, TO ENSURE ALLOWABLE MANUFACTURER LOADS ARE ACHIEVED.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

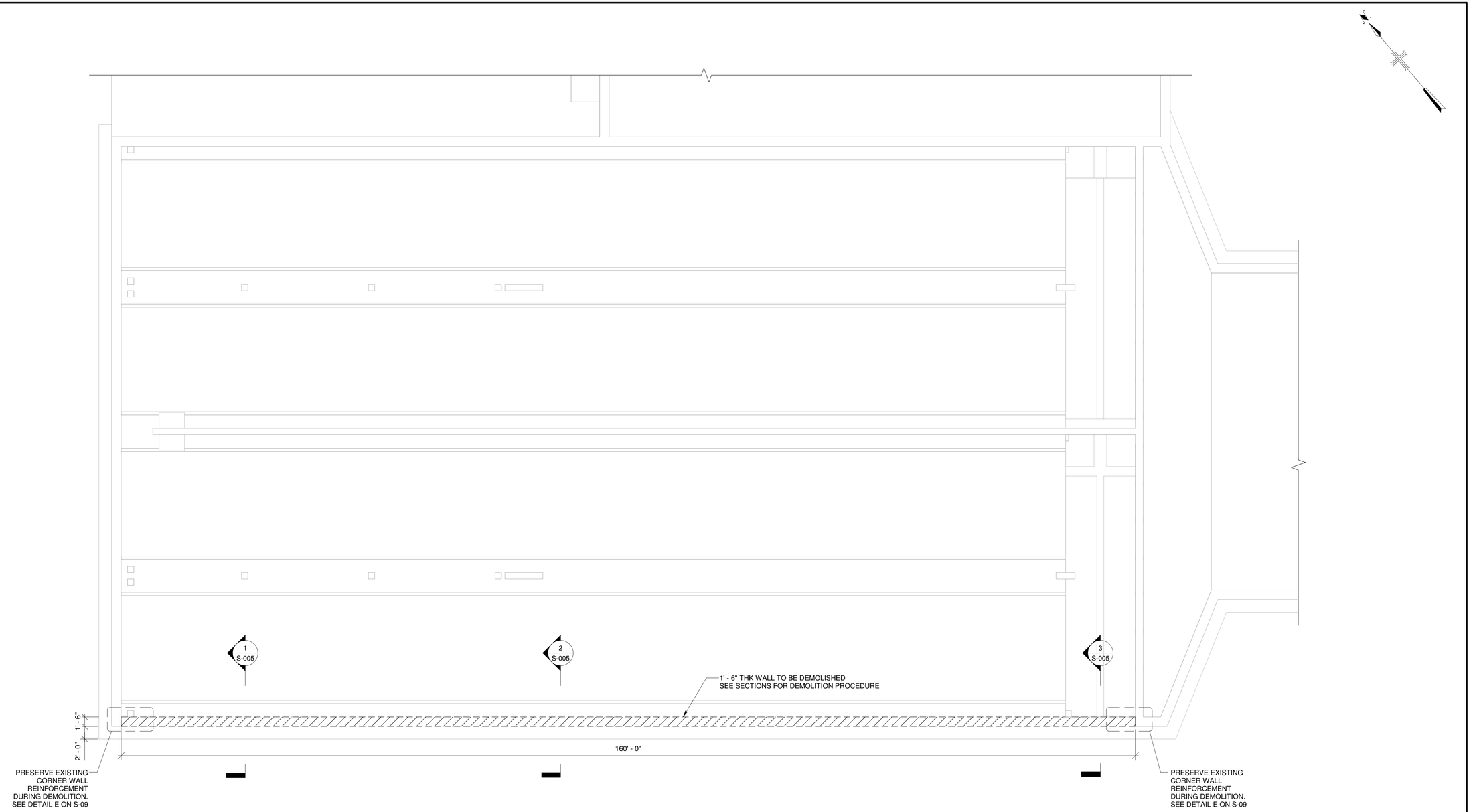
STRUCTURAL QUALITY ASSURANCE

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: V. SRIPAL
CHECKED BY: H. HOBI

SCALE: NONE

S-002

SHEET 3 OF 13



SEDIMENTATION BASIN 2 BOTTOM DEMOLITION PLAN

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

0' 4' 8' 16'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. ALL THE EXISTING EQUIPMENT PARTS AND PIECES (BRACKETS, SPROCKETS, SHAFTS, AND MISCELLANEOUS PARTS) WILL HAVE TO BE COMPLETELY REMOVED BEFORE THE WALL DEMOLITION BEGINS.
3. AFTER EQUIPMENT REMOVAL, ALL MEMBER ENDS THAT ARE CONNECTED TO THE WALL INSIDE THE BASIN SHALL BE SUPPORTED WITH A SHORING SYSTEM DESIGNED BY CONTRACTOR BEFORE DEMOLISHING THEIR CONNECTIONS TO THE WALL. THESE MEMBERS INCLUDE THREE CONCRETE BEAMS, AN ALUMINUM CATWALK, AND A CONCRETE SIDEWALK. NO WORK SHALL BE ALLOWED TO BE EXECUTED INSIDE THE BASIN WHILE THE SHORING SYSTEM IS IN PLACE. SHORING SHALL NOT BE REMOVED UNTIL AFTER THE MEMBERS FINAL CONNECTIONS TO THE NEW WALL HAVE BEEN COMPLETED.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING AS NEEDED TO ENSURE STABILITY OF EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION.

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W.01.02.0085

SHEET TITLE
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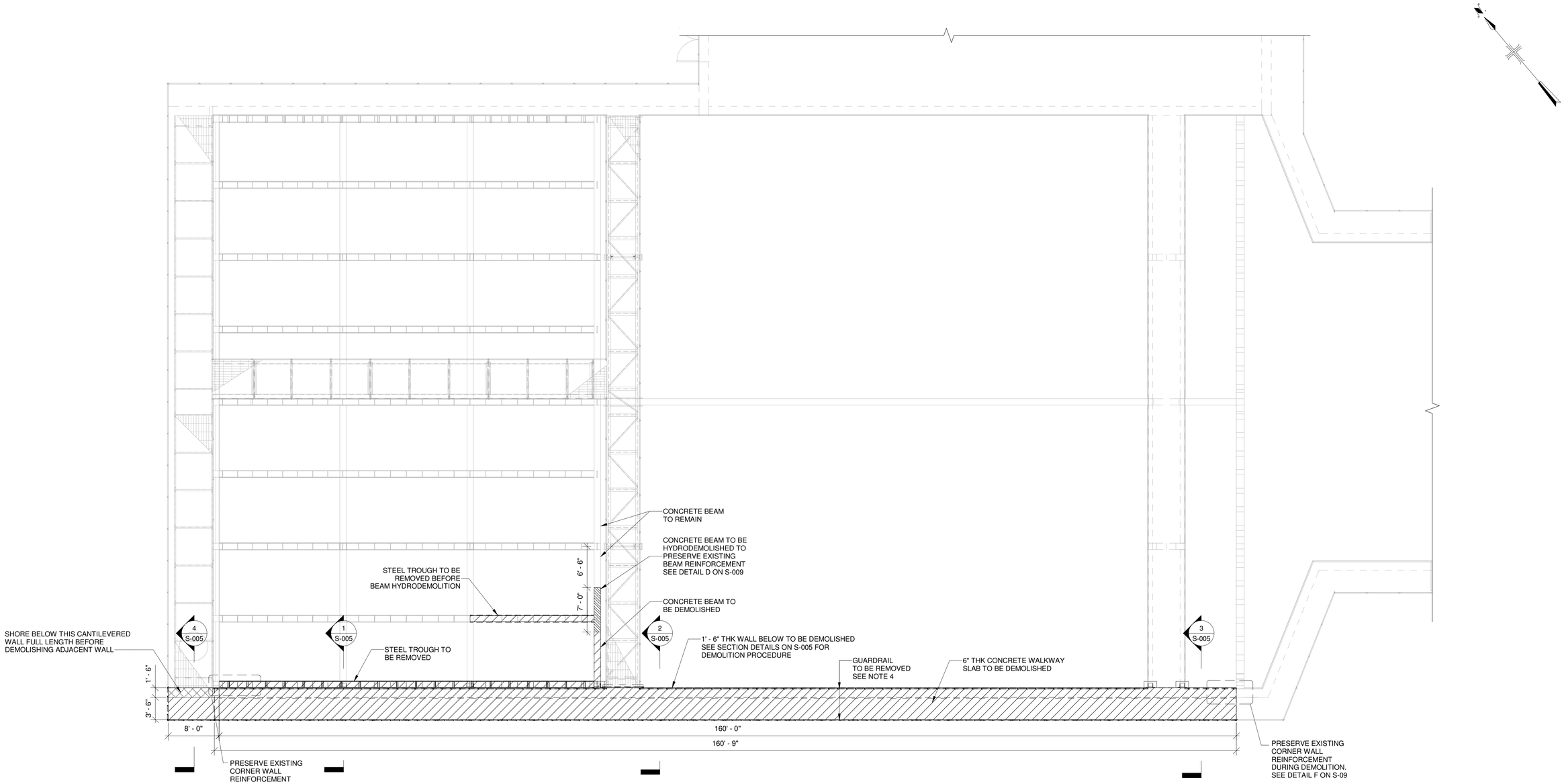
SEDIMENTATION BASIN 2
BOTTOM DEMOLITION PLAN

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-003

SHEET 4 OF 13



SEDIMENTATION BASIN 2 TOP DEMOLITION PLAN

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

0' 4' 8' 16'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. ALL THE EXISTING EQUIPMENT PARTS AND PIECES (BRACKETS, SPROCKETS, SHAFTS, AND MISCELLANEOUS PARTS) WILL HAVE TO BE COMPLETELY REMOVED BEFORE THE WALL DEMOLITION BEGINS.
3. AFTER EQUIPMENT REMOVAL, ALL MEMBER ENDS THAT ARE CONNECTED TO THE WALL INSIDE THE BASIN SHALL BE SUPPORTED WITH A SHORING SYSTEM DESIGNED BY CONTRACTOR BEFORE DEMOLISHING THEIR CONNECTIONS TO THE WALL. THESE MEMBERS INCLUDE THREE CONCRETE BEAMS, AN ALUMINUM CATWALK, AND A CONCRETE SIDEWALK. NO WORK SHALL BE ALLOWED TO BE EXECUTED INSIDE THE BASIN WHILE THE SHORING SYSTEM IS IN PLACE. SHORING SHALL NOT BE REMOVED UNTIL AFTER THE MEMBERS FINAL CONNECTIONS TO THE NEW WALL HAVE BEEN COMPLETED.
4. CONTRACTOR TO VERIFY CONDITION OF EXISTING GUARDRAIL PER OSHA AND IBC STANDARD CODES FOR POTENTIAL REINSTALLATION AFTER THE CONSTRUCTION OF NEW WALL AND WALKWAY SLAB. CONTRACTOR TO SUBMIT A REPORT STATING EXISTING GUARDRAIL COMPLIES WITH OSHA AND IBC CODE REQUIREMENTS AND LOADS.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING AS NEEDED TO ENSURE STABILITY OF EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION.

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL
FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
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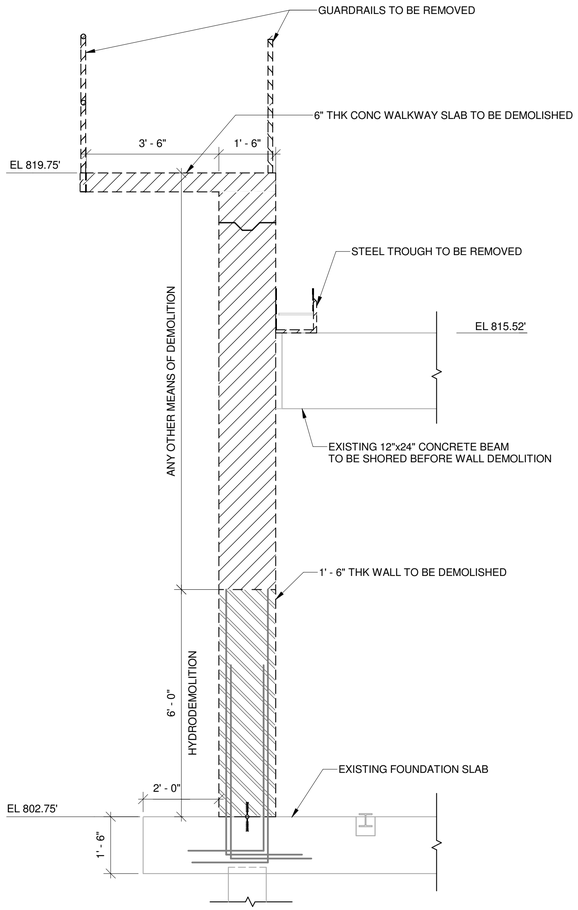
SEDIMENTATION BASIN 2
TOP DEMOLITION PLAN

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

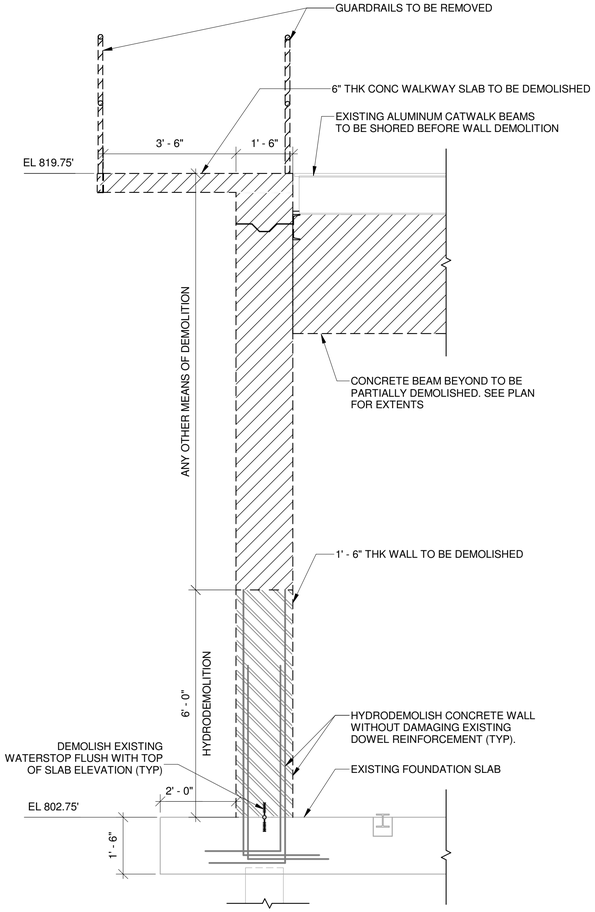
SCALE: AS INDICATED

S-004

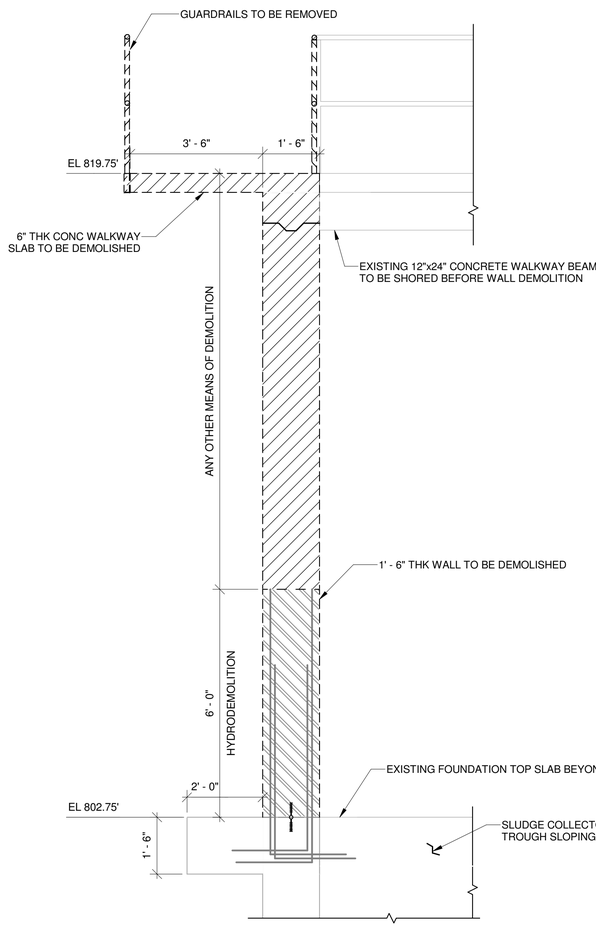
SHEET 5 OF 13



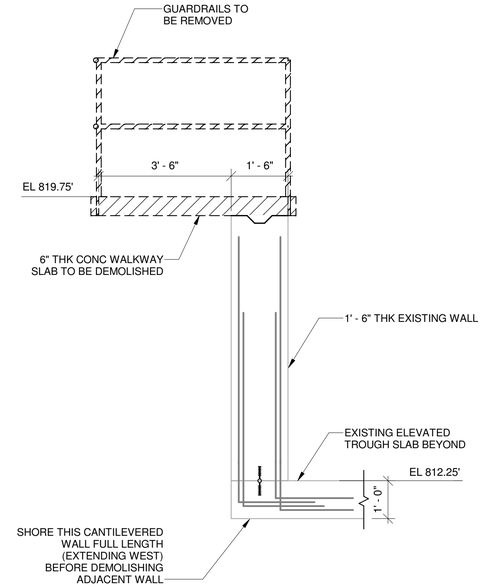
1 S-003 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



2 S-003 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



3 S-003 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



4 S-004 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. ALL THE EXISTING EQUIPMENT PARTS AND PIECES (BRACKETS, SPROCKETS, SHAFTS, AND MISCELLANEOUS PARTS) WILL HAVE TO BE COMPLETELY REMOVED BEFORE THE WALL DEMOLITION BEGINS.
3. AFTER EQUIPMENT REMOVAL, ALL MEMBER ENDS THAT ARE CONNECTED TO THE WALL INSIDE THE BASIN SHALL BE SUPPORTED WITH A SHORING SYSTEM DESIGNED BY CONTRACTOR BEFORE DEMOLISHING THEIR CONNECTIONS TO THE WALL. THESE MEMBERS INCLUDE THREE CONCRETE BEAMS, AN ALUMINUM CATWALK, AND A CONCRETE SIDEWALK. NO WORK SHALL BE ALLOWED TO BE EXECUTED INSIDE THE BASIN WHILE THE SHORING SYSTEM IS IN PLACE. SHORING SHALL NOT BE REMOVED UNTIL AFTER THE MEMBERS FINAL CONNECTIONS TO THE NEW WALL HAVE BEEN COMPLETED.
4. CONTRACTOR TO VERIFY CONDITION OF EXISTING GUARDRAIL PER OSHA AND IBC STANDARD CODES FOR POTENTIAL REINSTALLATION AFTER THE CONSTRUCTION OF NEW WALL AND WALKWAY SLAB. CONTRACTOR TO SUBMIT A REPORT STATING EXISTING GUARDRAIL COMPLIES WITH OSHA AND IBC CODE REQUIREMENTS AND LOADS.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING AS NEEDED TO ENSURE STABILITY OF EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION.
6. CLEAN EXPOSED REINFORCEMENT AFTER HYDRODEMOLITION TO REMOVE ANY CORROSION AND/OR IMPURITIES.

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EAST AREA WATER QUALITY CONTROL
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SHEET TITLE
STRUCTURAL

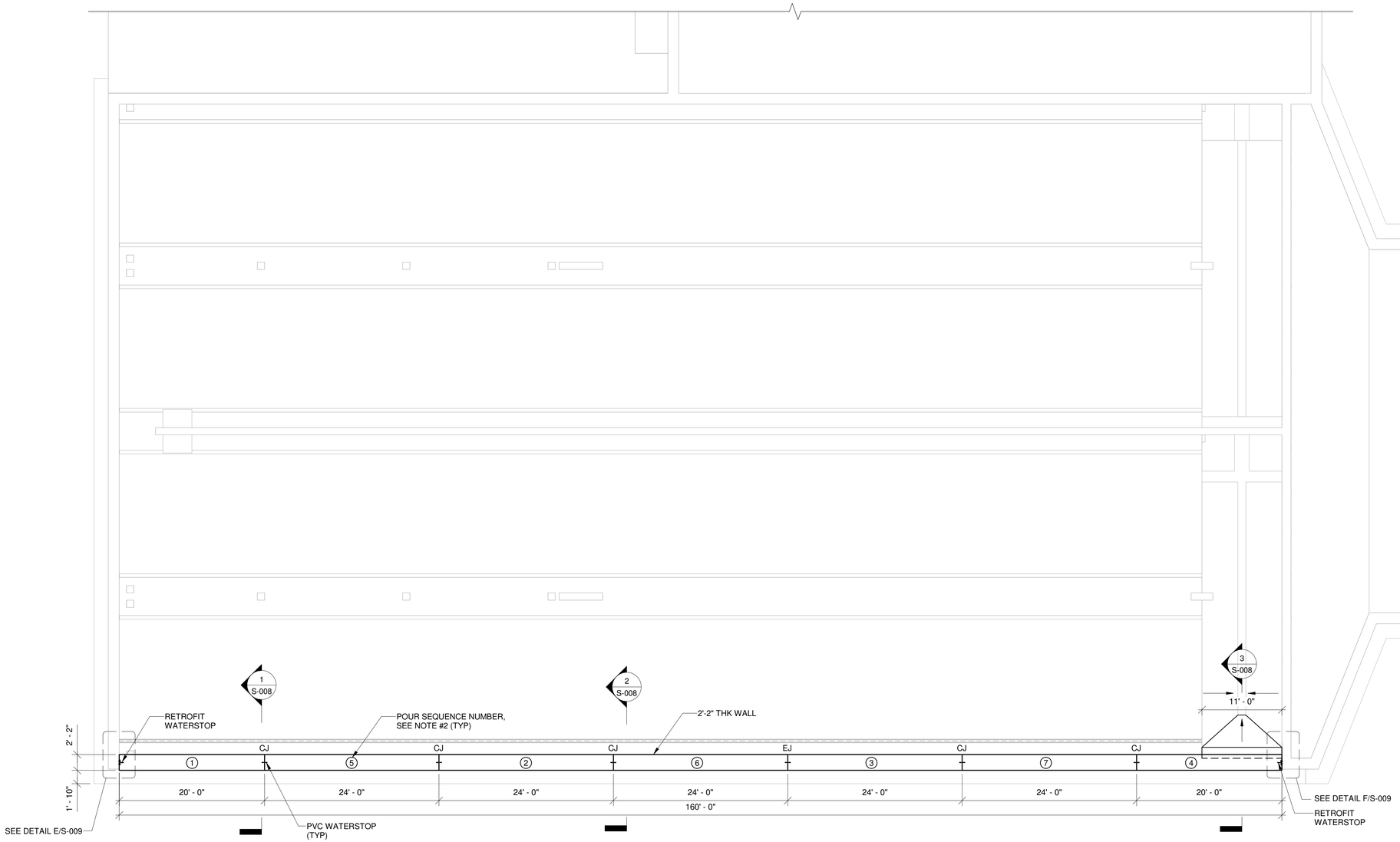
SEDIMENTATION BASIN 2 DEMOLITION SECTIONS

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-005

SHEET 6 OF 13



SEDIMENTATION BASIN 2 BOTTOM PLAN

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

0' 4' 8' 16'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. POUR SEQUENCE : 1,2,3 & 4 TO BE POURED FIRST AND 5,6,& 7 TO BE POURED LATER.

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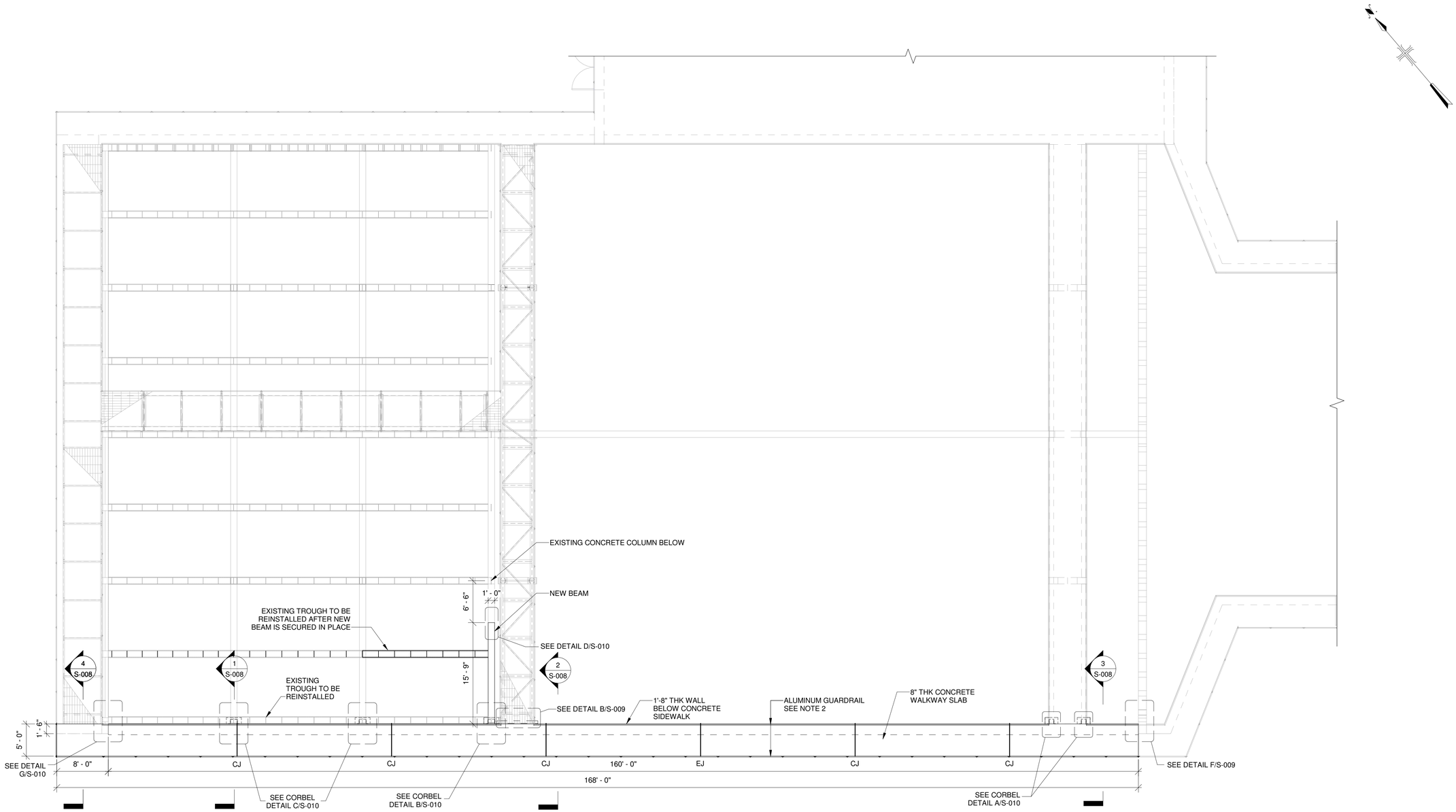
SEDIMENTATION BASIN 2
BOTTOM PLAN

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-006

SHEET 7 OF 13



SEDIMENTATION BASIN 2 TOP PLAN

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

0' 4' 8' 16'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. CONTRACTOR TO VERIFY CONDITION OF EXISTING GUARDRAIL PER OSHA AND IBC STANDARD CODES FOR POTENTIAL REINSTALLATION AFTER THE CONSTRUCTION OF NEW WALL AND WALKWAY SLAB. CONTRACTOR TO SUBMIT A REPORT STATING EXISTING GUARDRAIL COMPLIES WITH OSHA AND IBC CODE REQUIREMENTS AND LOADS.
3. CONSTRUCTION JOINTS AND EXPANSION JOINTS TO MATCH WALL JOINTS LOCATIONS.

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SEDIMENTATION BASIN 2 TOP PLAN

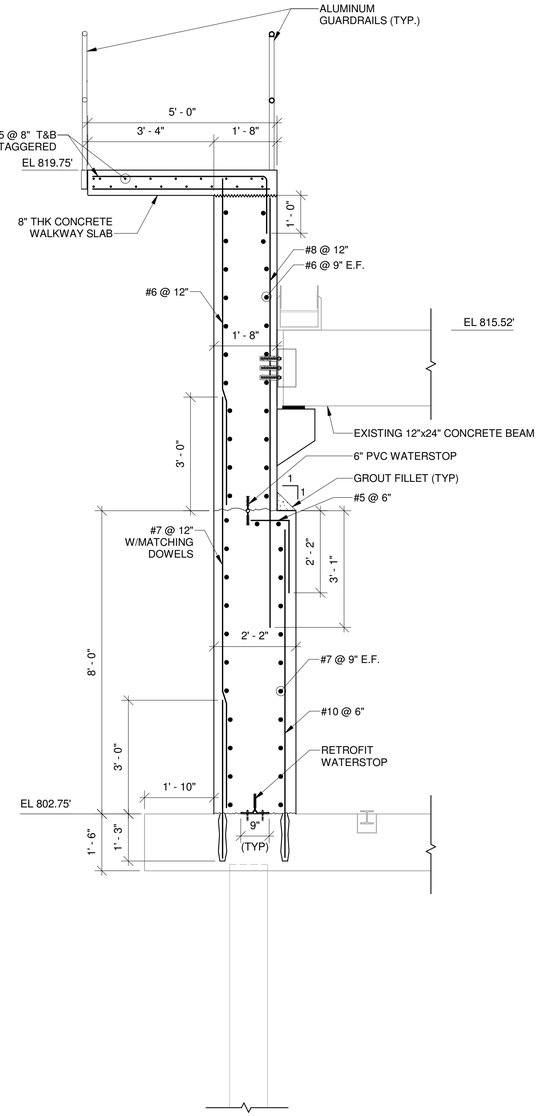
DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-007

SHEET 8 OF 13

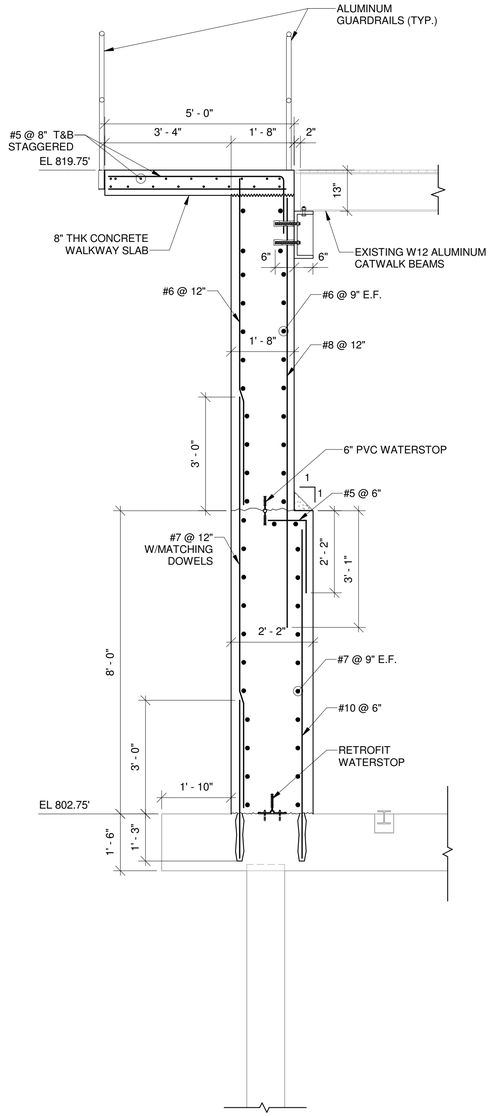
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1 S-006 **SECTION**

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

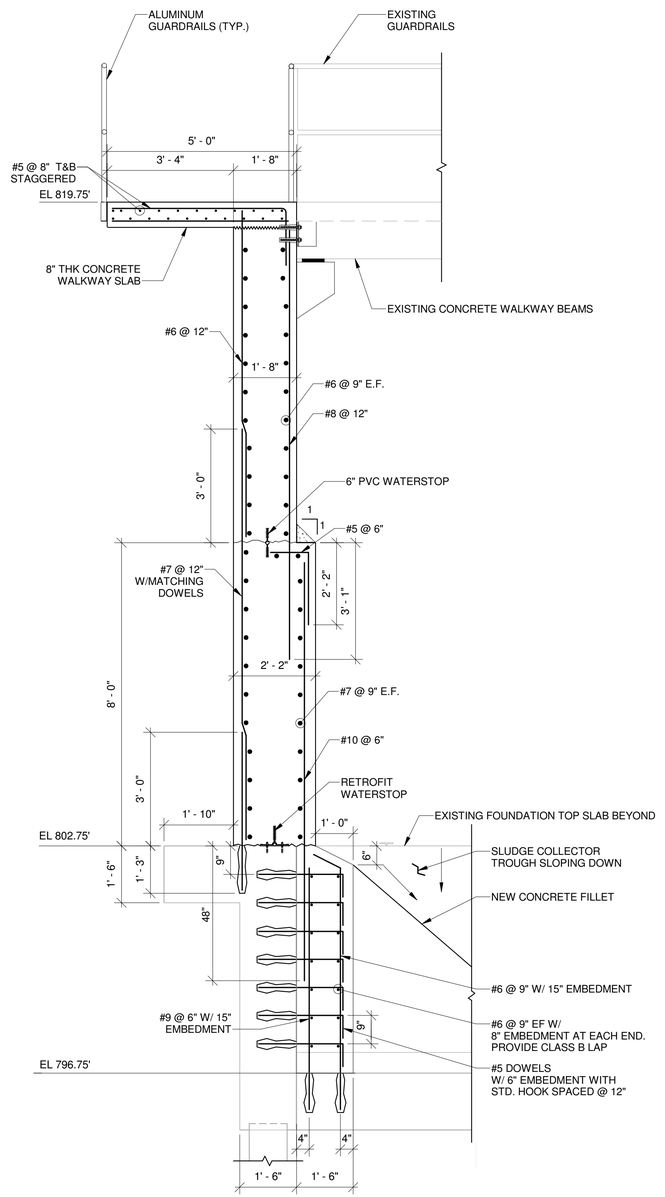
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2 S-006 **SECTION**

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

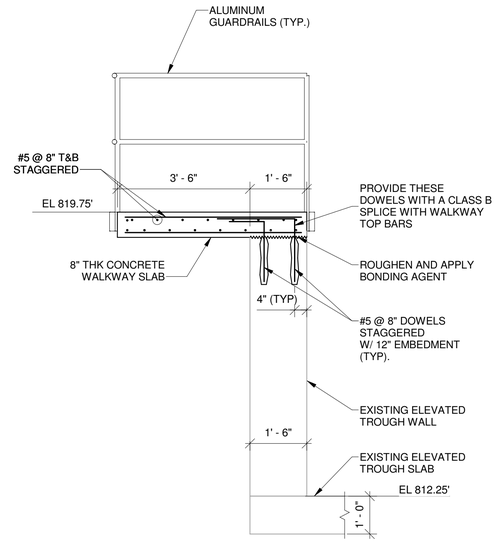
0' 1' 2' 4'



3 S-006 **SECTION**

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

0' 1' 2' 4'



4 S-007 **SECTION**

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

0' 1' 2' 4'

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. EXISTING DOWEL TO BE PRESERVED ARE NOT SHOWN FOR CLARITY.
3. AVOID DRILLING THROUGH EXISTING WALL AND FOUNDATION SLAB REINFORCEMENT. MOVE SLIGHTLY IF NEEDED. RECOMMENDED USE OF GPR TO LOCATE EXISTING REINFORCEMENT.
4. FOLLOW EPOXY ADHESIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

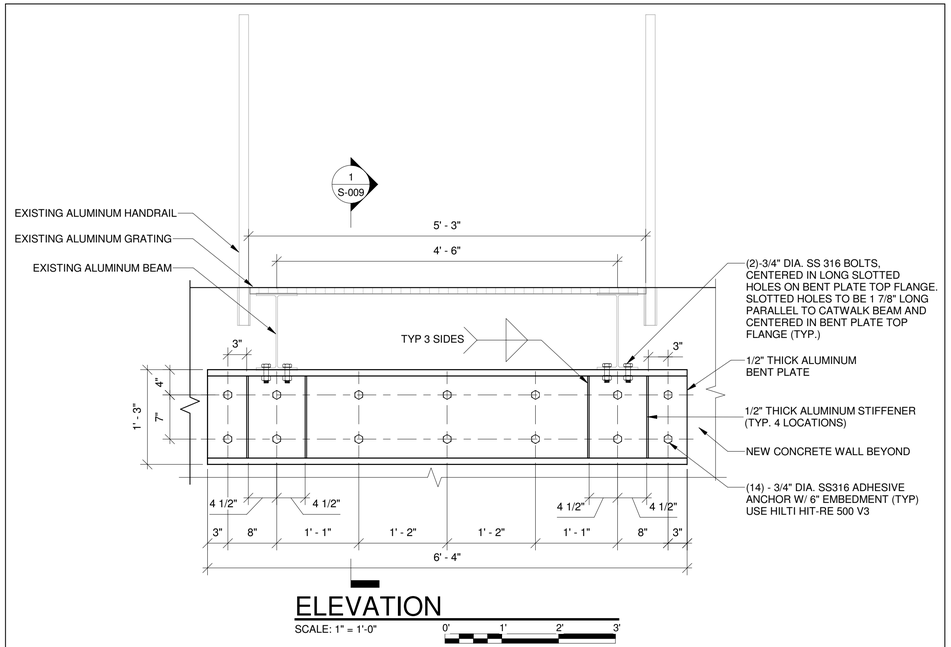
SEDIMENTATION BASIN 2
SECTIONS

DATE:	OCTOBER 2022
PROJECT NO.:	30030286
DESIGNED BY:	C. GALLO/ P. LUNKAD
DRAWN BY:	K. RAGHAVI
CHECKED BY:	H. HOBI

SCALE: AS INDICATED

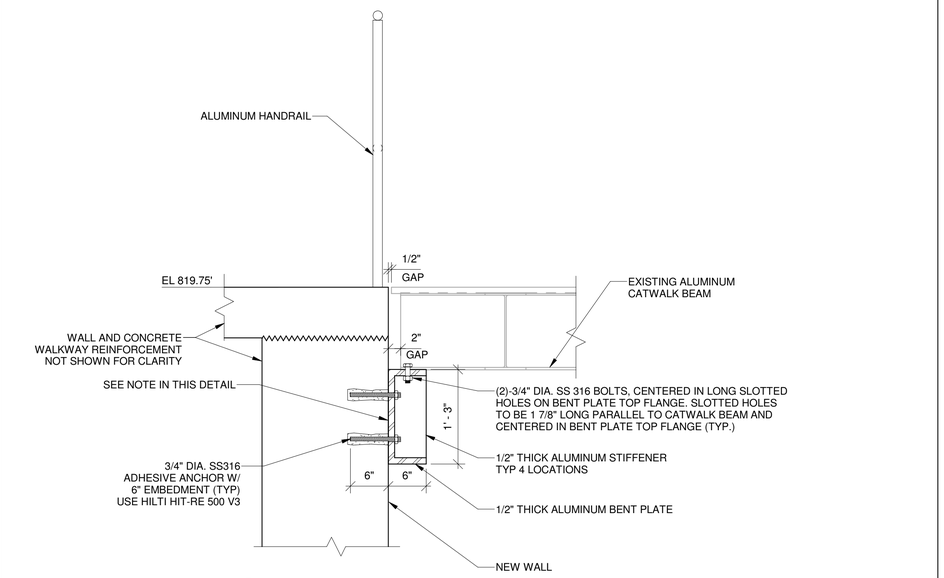
S-008

SHEET 9 OF 13



ELEVATION

SCALE: 1" = 1'-0"



1 SECTION
S-009

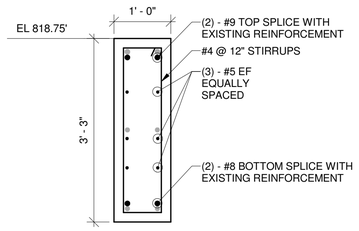
SCALE: 1" = 1'-0"

NOTE:

1. ALL ALUMINUM SURFACE IN CONTACT WITH CONCRETE OR A DISSIMILAR MATERIAL SHALL HAVE A SHOP COAT OF HEAVY BITUMASTIC

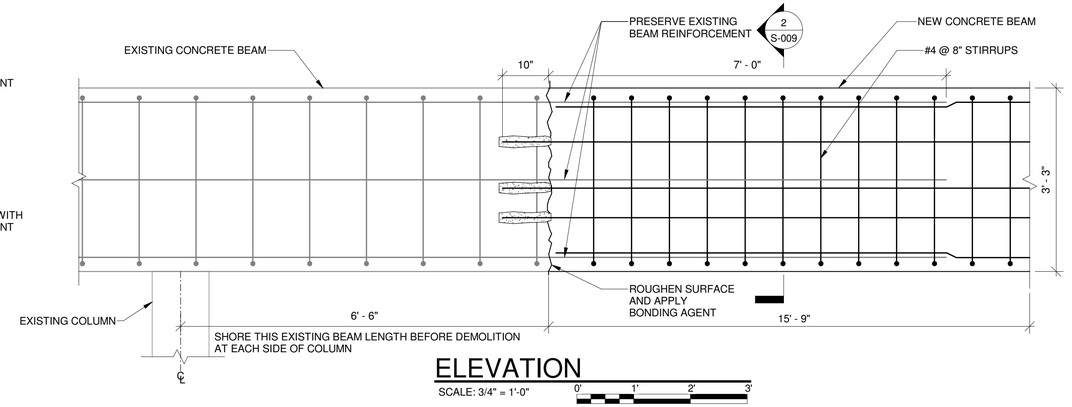
B DETAIL
S-007

SCALE: 1" = 1'-0"



2 SECTION
S-009

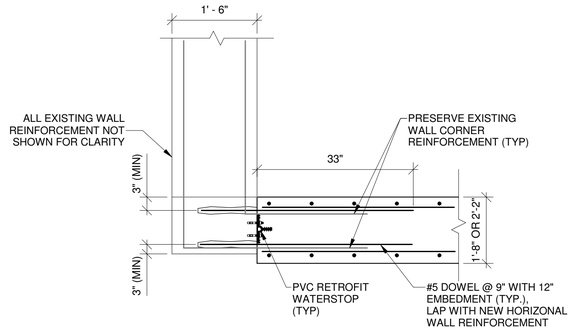
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ELEVATION

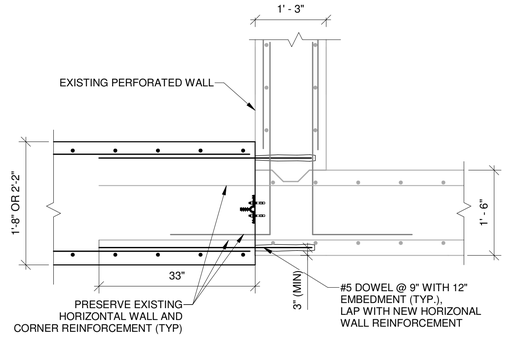
SCALE: 3/4" = 1'-0"

D BEAM CONNECTION DETAIL
S-007



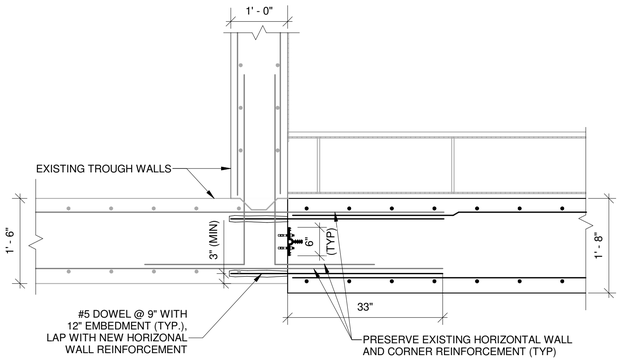
E DETAIL
S-006

SCALE: 3/4" = 1'-0"



F DETAIL
S-006

SCALE: 3/4" = 1'-0"



G DETAIL
S-006

SCALE: 3/4" = 1'-0"

NOTES:

1. EXISTING WALL CORNER REINFORCEMENT SHOWN IS BASED ON RECORD DRAWINGS AND SHALL BE VERIFIED BY THE CONTRACTOR. COORDINATE RETROFIT WATERSTOP PLACEMENT BASED ON WALL REINFORCEMENT OBSERVED AFTER HYDRO-BLASTING.

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. CHIP EXISTING CONCRETE WALL OR BEAM SURFACES WHERE NECESSARY TO EXPOSE EXISTING WALL REINFORCEMENT AS SHOWN.
3. CLEAN EXPOSED CONCRETE TO FREE SURFACE OF OIL, GREASE, CORROSION, DIRT DEPOSITS, DUST, LAITANCE OR OTHER SURFACE IMPURITIES.
4. CLEAN ALL EXISTING CUT/EXPOSED REINFORCEMENT TO REMOVE ANY CORROSION OR OTHER IMPURITIES.
5. AVOID DRILLING THROUGH EXISTING WALL AND BEAM REINFORCEMENT. MOVE SLIGHTLY IF NEEDED. RECOMMENDED USE OF GPR TO LOCATE EXISTING REINFORCEMENT.
6. FOLLOW EPOXY ADHESIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt
10/11/2022 9:05:28 PM

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1	SEPTEMBER 2022	95% DESIGN SUBMITTAL	CG

SEALS

100% SUBMITTAL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

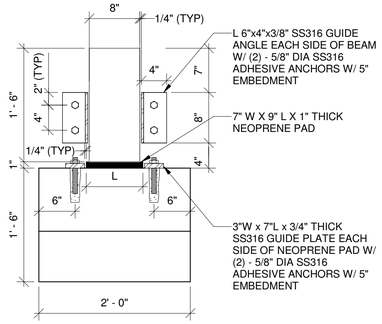
SEDIMENTATION BASIN 2
CONNECTION DETAILS I

DATE:	OCTOBER 2022
PROJECT NO.:	30030286
DESIGNED BY:	C. GALLO/ P. LUNKAD
DRAWN BY:	K. RAGHAVI
CHECKED BY:	H. HOBI

SCALE:
AS INDICATED

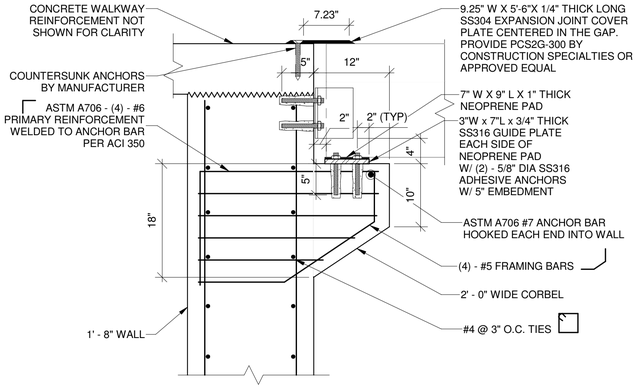
S-009

SHEET 10 OF 13



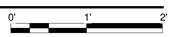
ELEVATION

SCALE: 1" = 1'-0"

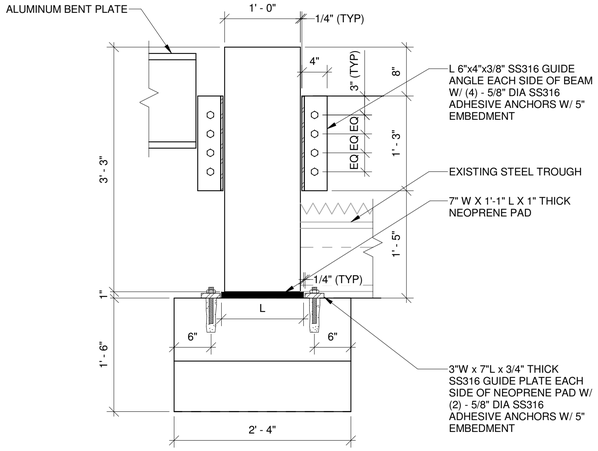


SECTION

SCALE: 1" - 1'-0"

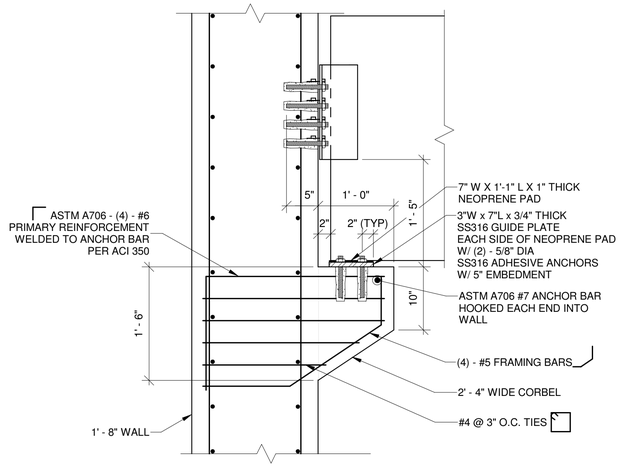


CORBEL DETAIL A



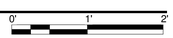
ELEVATION

SCALE: 1" = 1'-0"

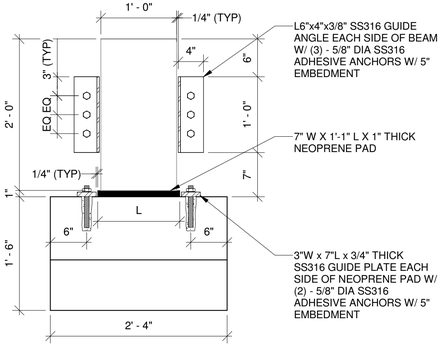


SECTION

SCALE: 1" - 1'-0"

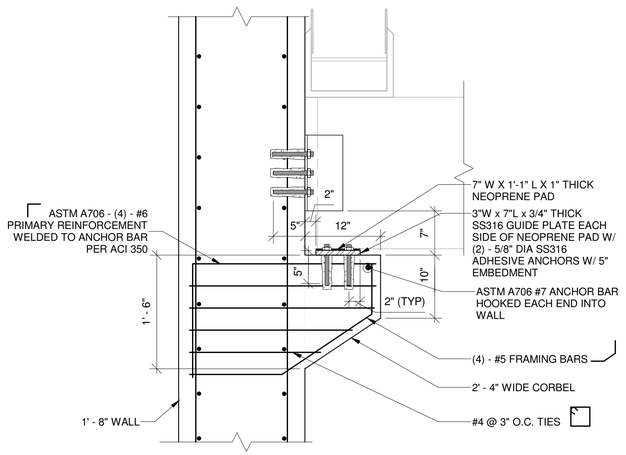


CORBEL DETAIL B



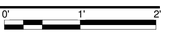
ELEVATION

SCALE: 1" = 1'-0"



SECTION

SCALE: 1" - 1'-0"



CORBEL DETAIL C

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS FOR EXISTING BEAM TO CORBEL CONNECTIONS.
2. CHIP SURFACE OF EXISTING CONCRETE BEAM END WHERE NECESSARY TO PROVIDE 2" GAP AS SHOWN IN DETAILS.
3. CLEAN EXPOSED CONCRETE TO FREE SURFACE OF OIL, GREASE, CORROSION, DIRT DEPOSITS, DUST, LAITANCE OR OTHER SURFACE IMPURITIES.
4. CLEAN ALL EXISTING CUT/EXPOSED REINFORCEMENT TO REMOVE ANY CORROSION OR OTHER IMPURITIES.
5. AVOID DRILLING THROUGH NEW WALL REINFORCEMENT. MOVE SLIGHTLY IF NEEDED.
6. FOLLOW WRITTEN INSTALLATION INSTRUCTIONS FOR HILTI HIT-RE 500 V3 EPOXY ADHESIVE OR APPROVED EQUAL.

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SEALS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

SEDIMENTATION BASIN 2 CONNECTION DETAILS II

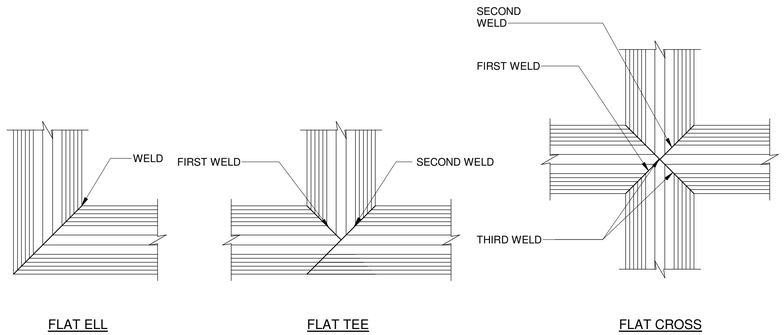
DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-010

SHEET 11 OF 13

10/11/2022 9:05:28 PM BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt

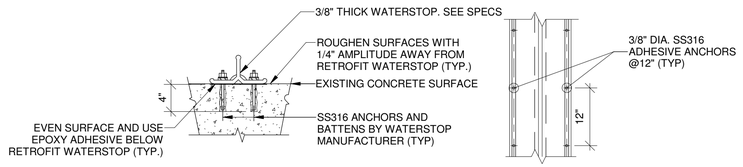


FLAT ELL FLAT TEE FLAT CROSS

WATERSTOP JOINTS
SCALE : NTS

NOTES:

1. ALL WELDS SHALL BE PER WATERSTOP MANUFACTURER'S RECOMMENDATIONS AND INCLUDE WELDS BETWEEN REGULAR WATERSTOPS AND BETWEEN RETROFIT/REGULAR WATERSTOPS.
2. IT IS RECOMMENDED THAT ABOVE WATERSTOP JOINTS TO BE ASSEMBLED AT MANUFACTURER'S SHOP.

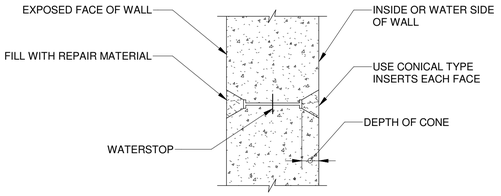


NOTE :

1. SEE WATERSTOP DIMENSIONS AS SHOWN ON THE DRAWING

ELEVATION

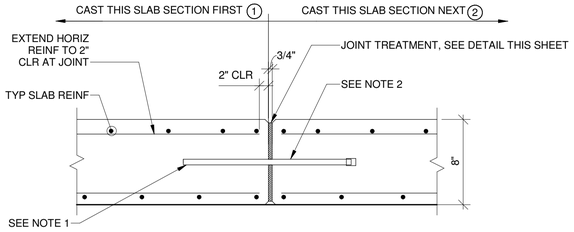
WATERSTOP BETWEEN NEW AND EXISTING CONCRETE
SCALE : NTS



NOTES:

1. THE SPACING OF FORM TIES ON EXPOSED PORTIONS OF WALLS SHALL BE APPROXIMATELY EQUAL HORIZONTALLY AND VERTICALLY AND SHALL BE UNIFORM IN EACH DIRECTION.

FORM SNAP- TIE HOLE
SCALE : NTS

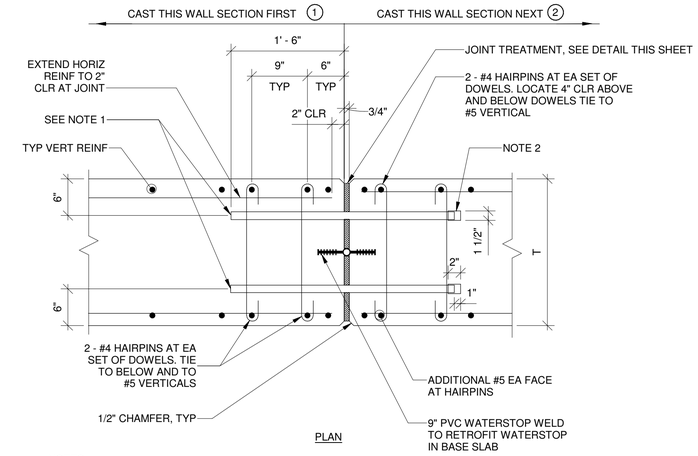


NOTES:

1. 5/8" DIA x 3'-0" SMOOTH STEEL BAR DOWELS. LOCATE AT CENTER OF SLAB. ALIGN AND TIE IN PLACE TO REINFORCING. PROVIDE CORROSION RESISTANCE COATING WITH A LUBRICANT AT HALF LENGTH OF DOWEL LOCATED AT THE SECOND CAST PORTION.
2. 1" ID x 2" PLASTIC EXP CAP WITH 1" POLYSTYRENE BETWEEN END OF DOWEL AND END OF CAP. TAPE TO BAR FOR WATERTIGHT SEAL.

PLAN

SLAB EXPANSION JOINT
SCALE : NTS



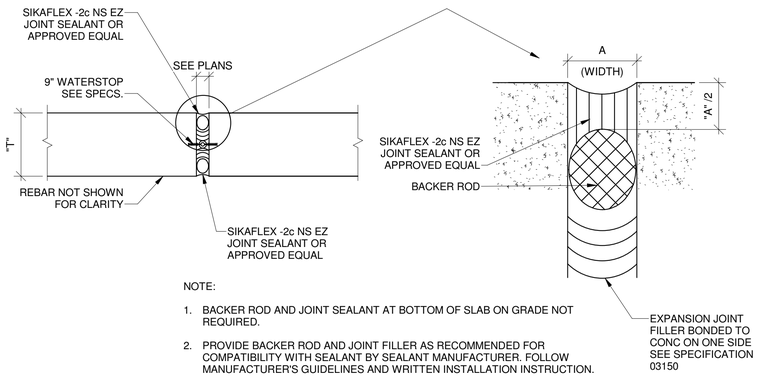
PLAN

NOTES:

1. 1" DIA x 3'-0" SMOOTH STEEL BAR DOWELS. LOCATE AT 1'-0" MAX FROM T & B OF WALL AND AT 1'-6" MAX SPACING. ALIGN AND TIE IN PLACE TO REINFORCING. PROVIDE CORROSION RESISTANCE COATING WITH A LUBRICANT AT HALF LENGTH OF DOWEL LOCATED AT THE SECOND CAST PORTION.
2. 1-1/2" ID x 2" PLASTIC EXP CAP WITH 1" POLYSTYRENE BETWEEN END OF DOWEL AND END OF CAP. TAPE TO BAR FOR WATERTIGHT SEAL.

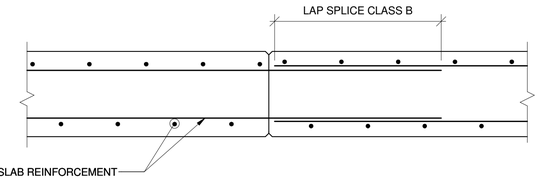
WALL VERTICAL EXPANSION JOINT
SCALE : NTS

WALL VERTICAL CONSTRUCTION JOINT
SCALE : NTS



SECTION

TYPICAL CORBEL BAR WELD DETAIL
SCALE : NTS



SLAB CONSTRUCTION JOINT
SCALE : NTS

NOTE:

1. BACKER ROD AND JOINT SEALANT AT BOTTOM OF SLAB ON GRADE NOT REQUIRED.
2. PROVIDE BACKER ROD AND JOINT FILLER AS RECOMMENDED FOR COMPATIBILITY WITH SEALANT BY SEALANT MANUFACTURER. FOLLOW MANUFACTURER'S GUIDELINES AND WRITTEN INSTALLATION INSTRUCTION.

EXPANSION JOINT AT WALL AND SLABS
SCALE : NTS

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL
SEDIMENTATION BASIN 2
TYPICAL DETAILS

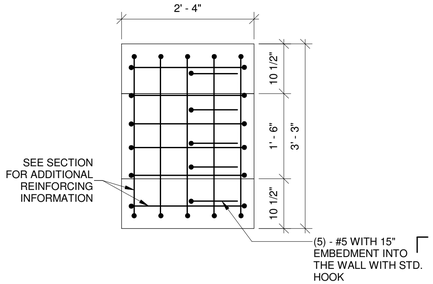
DATE:	OCTOBER 2022
PROJECT NO.:	30030286
DESIGNED BY:	C. GALLO/ P. LUNKAD
DRAWN BY:	K. RAGHAVI
CHECKED BY:	H. HOBI

SCALE: AS INDICATED

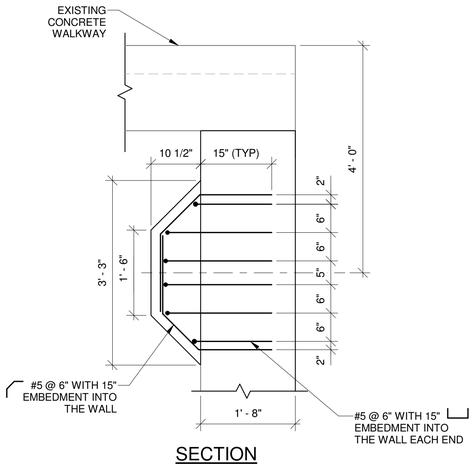
S-011

SHEET 12 OF 13

10/11/2022 9:05:29 PM BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt



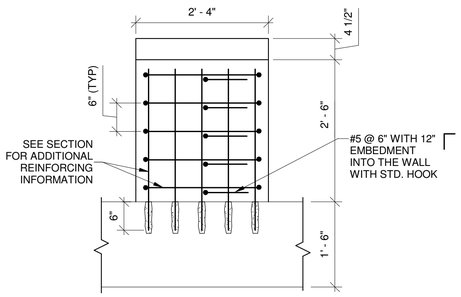
ELEVATION



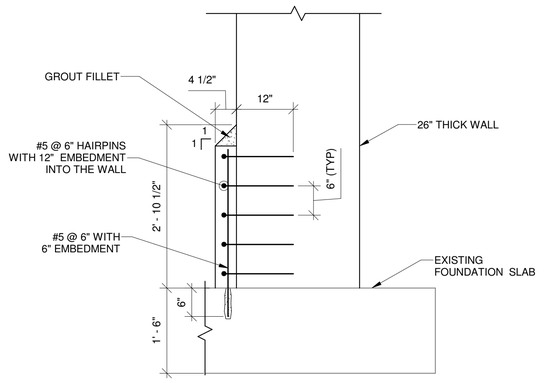
SECTION

HEADSHAFT SPROCKET SUPPORT DETAIL AT SOUTH WALL

SCALE: 3/4" = 1'-0"



ELEVATION



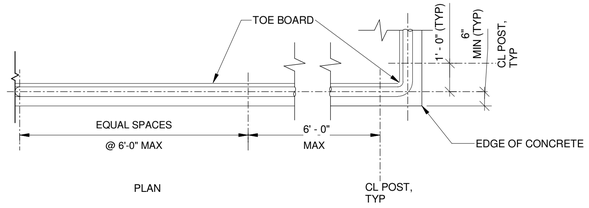
SECTION

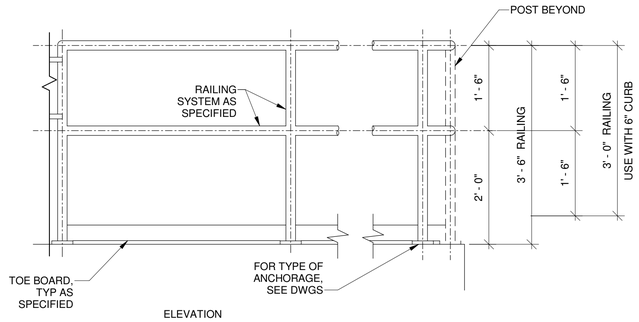
NON- HEADSHAFT SPROCKET SUPPORT DETAIL AT SOUTH WALL

SCALE: 3/4" = 1'-0"

NOTES:

1. WALL AND FOUNDATION SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.
2. SPROCKET LOCATION, DIMENSIONS AND ANCHORAGE SHALL BE PER MANUFACTURER'S SHOP DRAWINGS.
3. PROVIDE MINIMUM 6" ANCHOR EDGE DISTANCE FROM EACH SIDE.
4. AVOID DRILLING THROUGH REINFORCEMENT. MOVE SLIGHTLY AS NEEDED.
5. PROVIDE 2" CONCRETE COVER FOR ALL REINFORCEMENT.
6. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE EQUIPMENT LOCATION AND POSITIONING WITHIN SEDIMENTATION BASIN EXISTING AND NEW WALLS.



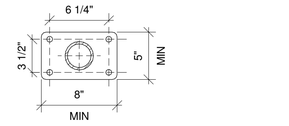


ELEVATION

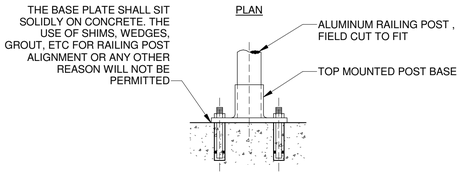
THESE DETAILS ARE TO BE USED IN CASE ONLY WHEN NEW GUARDRAIL WILL BE INSTALLED ON THE WALKWAY SLAB. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.

ALUMINUM GUARDRAIL

SCALE : NTS



PLAN



ELEVATION

NOTE:

ALL ALUMINUM SURFACE IN CONTACT WITH CONCRETE OR A DISSIMILAR MATERIAL SHALL HAVE A SHOP COAT OF HEAVY BITUMASTIC.

TYPE "A"

PLAN

ELEVATION

NOTES:

1. ALL ALUMINUM SURFACE IN CONTACT WITH CONCRETE OR A DISSIMILAR MATERIAL SHALL HAVE A SHOP COAT OF HEAVY BITUMASTIC.
2. USE SIDE MOUNTED POST BRACKET AS A TEMPLETE FOR THE ANCHOR BOLTS.

TYPE "B"

GUARDRAIL ANCHORAGE

SCALE : NTS

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
STRUCTURAL

SPROCKET SUPPORT AND RAILING DETAILS

DATE: OCTOBER 2022
PROJECT NO.: 30030286
DESIGNED BY: C. GALLO/ P. LUNKAD
DRAWN BY: K. RAGHAVI
CHECKED BY: H. HOBI

SCALE: AS INDICATED

S-012

SHEET 13 OF 13

10/11/2022 9:05:29 PM BIM 360://AUS-30030286 Task number 04-City of Atlanta - East Area Water Quality Control Facility (BP2) Sedimentation Basin Structural Repairs/S-3D-SB2_R21.rvt

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #29: Sed Basin -2 Sidewalk Connections

Status	Open		
To	Brandon Dow (Lakeshore Engineering)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Jun 5, 2023	**Due Date**	Jun 12, 2023
Location		**Project Stage**	Course of Construction
Cost Impact		**Schedule Impact**	TBD
Spec Section		**Cost Code**	
Drawing Number		**Reference**	RFI-29
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To	Brandon Dow (Lakeshore Engineering)		

Activity

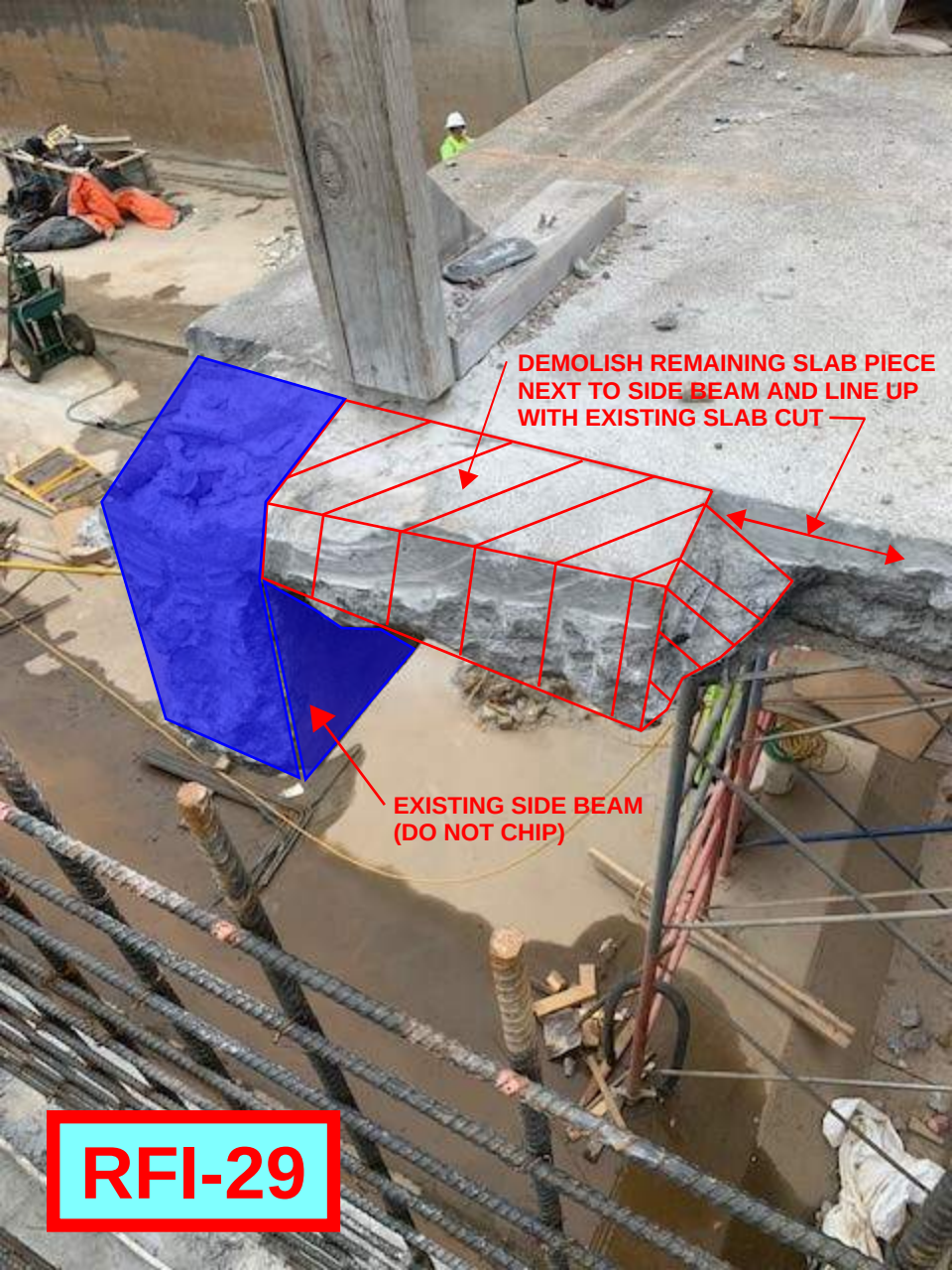
Question

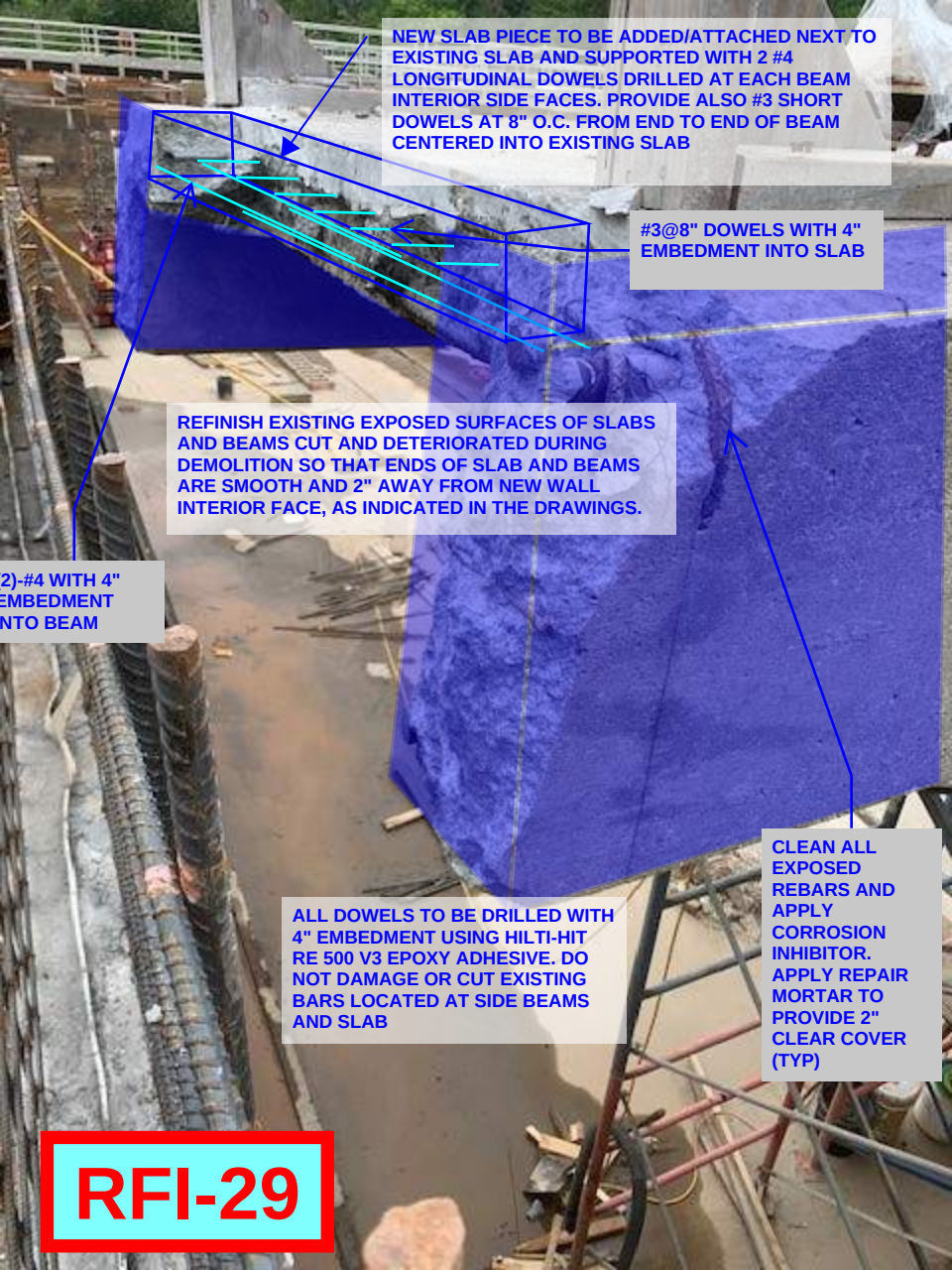
Question from Brandon Dow Lakeshore Engineering *on Monday, Jun 5, 2023 at 11:56 AM EDT*
Please review and comment on the existing conditions for the two sidewalk connections highlighted.

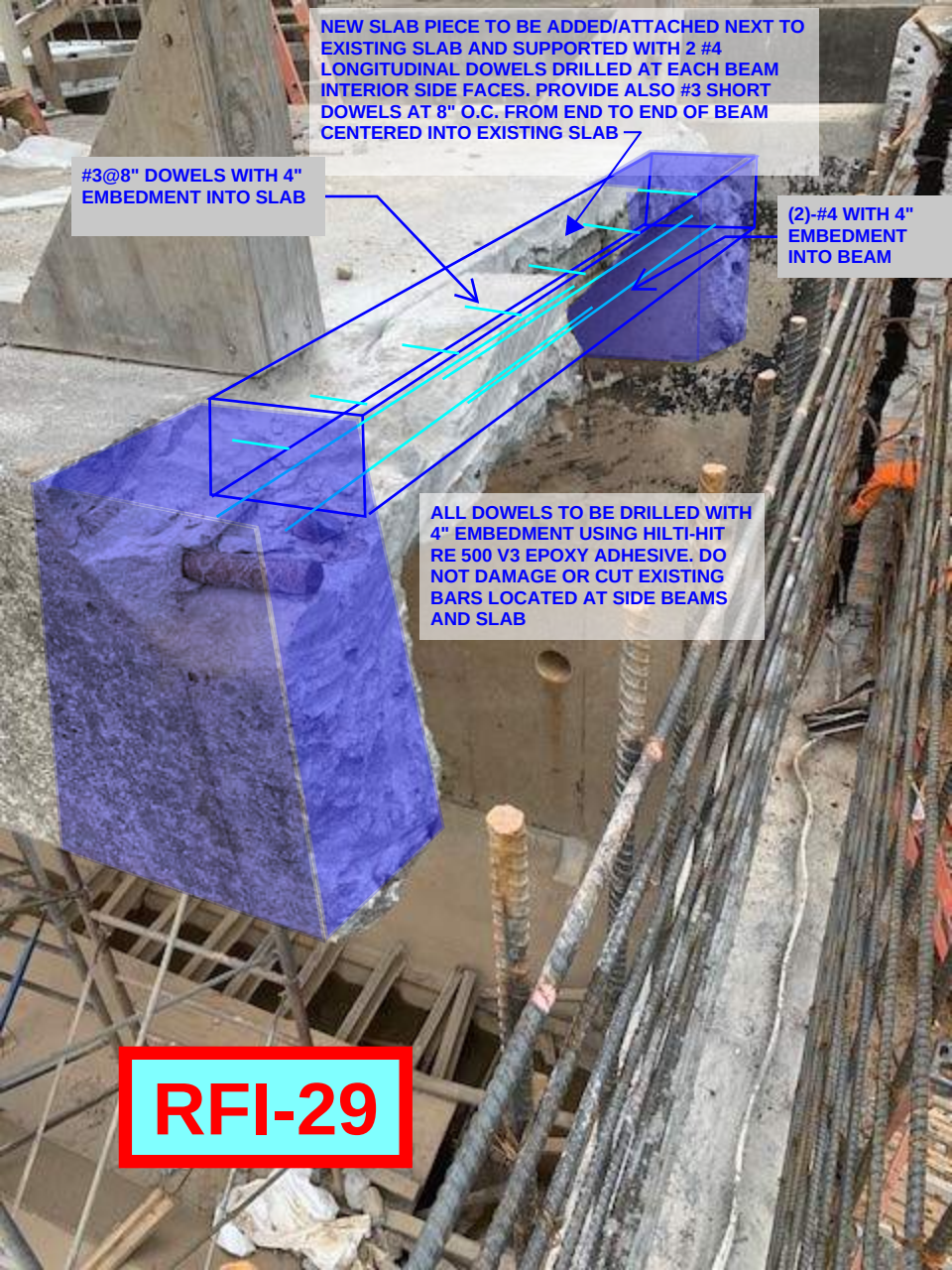
Awaiting an Official Response

ARCADIS RESPONSE:

Please see below details and sketches for the walkway slab and beams repair.


DEMOLISH REMAINING SLAB PIECE
NEXT TO SIDE BEAM AND LINE UP
WITH EXISTING SLAB CUT
EXISTING SIDE BEAM
(DO NOT CHIP)
RFI-29


NEW SLAB PIECE TO BE ADDED/ATTACHED NEXT TO EXISTING SLAB AND SUPPORTED WITH 2 #4 LONGITUDINAL DOWELS DRILLED AT EACH BEAM INTERIOR SIDE FACES. PROVIDE ALSO #3 SHORT DOWELS AT 8" O.C. FROM END TO END OF BEAM CENTERED INTO EXISTING SLAB
#3@8" DOWELS WITH 4" EMBEDMENT INTO SLAB
REFINISH EXISTING EXPOSED SURFACES OF SLABS AND BEAMS CUT AND DETERIORATED DURING DEMOLITION SO THAT ENDS OF SLAB AND BEAMS ARE SMOOTH AND 2" AWAY FROM NEW WALL INTERIOR FACE, AS INDICATED IN THE DRAWINGS.
2)-#4 WITH 4" EMBEDMENT NTO BEAM
CLEAN ALL EXPOSED REBARS AND APPLY CORROSION INHIBITOR. APPLY REPAIR MORTAR TO PROVIDE 2" CLEAR COVER (TYP)
ALL DOWELS TO BE DRILLED WITH 4" EMBEDMENT USING HILTI-HIT RE 500 V3 EPOXY ADHESIVE. DO NOT DAMAGE OR CUT EXISTING BARS LOCATED AT SIDE BEAMS AND SLAB
RFI-29


NEW SLAB PIECE TO BE ADDED/ATTACHED NEXT TO EXISTING SLAB AND SUPPORTED WITH 2 #4 LONGITUDINAL DOWELS DRILLED AT EACH BEAM INTERIOR SIDE FACES. PROVIDE ALSO #3 SHORT DOWELS AT 8" O.C. FROM END TO END OF BEAM CENTERED INTO EXISTING SLAB
#3@8" DOWELS WITH 4" EMBEDMENT INTO SLAB
(2)-#4 WITH 4" EMBEDMENT INTO BEAM
ALL DOWELS TO BE DRILLED WITH 4" EMBEDMENT USING HILTI-HIT RE 500 V3 EPOXY ADHESIVE. DO NOT DAMAGE OR CUT EXISTING BARS LOCATED AT SIDE BEAMS AND SLAB
RFI-29

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Project: 21091 21091-East Area WQCF Improvements
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Rev.2 RFI #23: Sed Basin -2 wall clarifications

Status	Open		
To	**Scott Miller - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Feb 8, 2023	**Due Date**	**Feb. 27, 2023**
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	S-008	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

RFI-23

Activity

Question

Due to field conditions we need to utilize a different approach on the waterstop that involves the existing concrete slab joints. See the attached sketch. We plan to use the as drawn waterstop details on the joints to the existing walls. See our intended cleaning and installation work plan.

RFI-23

East Area CSO – Sed Basin 2 Work Plan

1. Wall Construction
    a. Remove / Chip out all loose concrete
    b. Prepare the area under the water stops – by grinding / chipping to ¼" amplitude (see sketch)
    c. Pressure wash the under wall area – removing all loose material, dirt, and foreign objects
    d. Install inside forms
    e. Install rebar
    f. Install bulkheads
    g. Install water stops
    h. Install outside forms
    i. Place Concrete
        i. We plan to install 6" of 4,500 psi grout with the Xypex additive in the bottom of all wall pours
2. Concrete Pour sequence
    a. We will use the wall layout as shown on drawing S-006
    b. Lower Walls 1,2,3,4 then walls 5,6,7
    c. Upper Walls 1,2,3,4 then walls 5,6,7


Synko
Flex
SF302
BS
sealant
925 - 1"
long
6" or 9" PVC
waterstop - at the
construction or
expansion joint
clean and smooth
this area - to 1/4"
ampltiude
the PVC waterstop will sit down
in a " 3/8" deep pocket" and then
a bead of the BS 925 sealant will
be installed around it

Brandon Dow

From: Nathan Rife <nrife@henry.com>
Sent: Friday, February 24, 2023 10:22 AM
To: Brandon Dow
Cc: Curtis Gore (lsu63@comcast.net)
Subject: RE: Synko-Flex and PVC waterstop

That looks great!

Regards,

Nathan Rife | *Technical Sales, Pipe Sealants* | **Henry a Carlisle Company** | M 832.570.5761 | www.henry.com

---

From: Brandon Dow <bdow@lakeshoreengineering.com>
Sent: Friday, February 24, 2023 9:05 AM
To: Nathan Rife <nrife@henry.com>
Cc: Curtis Gore (lsu63@comcast.net) <lsu63@comcast.net>
Subject: RE: Synko-Flex and PVC waterstop

*** **CAUTION:** This email was sent from an EXTERNAL source. DO NOT CLICK any links or attachments unless you recognize the sender and know the content is safe. ***

Please review and comment on this application of the two henry products

---

From: Nathan Rife <nrife@henry.com>
Sent: Thursday, February 23, 2023 5:03 PM
To: Brandon Dow <bdow@lakeshoreengineering.com>
Subject: RE: Synko-Flex and PVC waterstop

It doesn't need to be that large of a gap if you don't want it to be. All you have to have is enough 925 to seal the distance between the two products. A ½" to separate them is all that is really necessary.

Regards,

Nathan Rife | *Technical Sales, Pipe Sealants* | **Henry a Carlisle Company** | M 832.570.5761 | www.henry.com

---

From: Brandon Dow <bdow@lakeshoreengineering.com>
Sent: Thursday, February 23, 2023 3:31 PM
To: Nathan Rife <nrife@henry.com>
Subject: RE: Synko-Flex and PVC waterstop

*** **CAUTION:** This email was sent from an EXTERNAL source. DO NOT CLICK any links or attachments unless you recognize the sender and know the content is safe. ***

So this is the area we want to use your products in
Is this the right application?
Please confirm

RFI-23

Henry COMPANY

Building Envelope Systems

February 21, 2023

RE: Henry Synko-Flex Waterstop

We understand Synko-Flex waterstop is being considered for use within a new concrete wall in lieu of a PVC waterstop. Synko-Flex is often used in lieu of PVC waterstop and is designed to function for the life of the concrete wall.

Synko-Flex has been installed successfully as a waterstop within critical concrete walls and structures on thousands of municipal projects over the past 30 years.

For additional information regarding is available at www.henry.com or available upon request from Henry Product Support at 800-486-1278.

Respectfully,

Adrian Jacobs
Director, Technical Services
Henry Company
ajacobs@henry.com

The comments of Henry Company and Carlisle Construction Materials (CCM) contained herein are not deemed to be an approval of the installation in accordance with the construction documents or considered as an approval to change the contract documents. It is the contractor's responsibility to obtain approvals for alternates, substitutions and/or contract change orders. Henry Company will not be responsible for specific building designs by others, for deficiencies in construction, installation or workmanship unless specifically stated.

RFI-23

TECHNICAL DATA SHEET
Synko-Flex® Waterstop

Physical Property	Typical Value	Test Method
Appearance	Black strips	-
Ductility	5.0 min.	ASTM D113
Flash Point	600°F min.	ASTM D92
Flow Resistance	No Flow	Fed. Spec SSS-210 (in vertical position 5 days at 135°F)
Hydrocarbon Content	50% to 70%	ASTM D4
Penetration	50 to 120	ASTM D217
Resistance to Hydrostatic Head	68 feet of water (on non-moving joints)	
Softening Point	320°F	ASTM D36
Specific Gravity	1.20 to 1.35	ASTM D71
Volatile Matter	2.0% max.	ASTM D6

Approvals and Certifications

- Meets Federal Specification SSS-210
- Certified NSF/ANSI Standard 61 for use in potable water systems

Description

Henry® Synko-Flex® Waterstop is a specially formulated non-swelling preformed joint sealant that provides a lasting, watertight bond to both fresh and cured concrete surfaces. It is a single component, self-sealing adhesive compound, extruded in a square cross-section between two quick-release protective wrappers. It bonds to cured concrete surfaces and fuses with fresh concrete during the hydration and curing process to achieve a watertight seal within cold joints at footings, walls and slabs on a wide variety of concrete structures. It does not rely on swelling to achieve its watertight seal, and therefore, it is unaffected by rain or wet conditions which may occur prior to joint completion.

Features

- Easy to install
- Eliminates split forming, wiring to rebar, heat welding of splices
- Unaffected by rain or wet conditions during installation
- Excellent chemical resistance
- Bonds to most all substrates
- Unaffected by cyclic wetting and drying
- Never a risk of fracturing concrete like swelling type waterstops
- Safe for use in potable water structures

Product Size

Length/strip……..…..3 ft.
Cross section (as extruded)……....1 in. x 1 in.
Cross section (as installed)…….…. 5/8 in. x 1-1/2 in.

Packaging
Number of strips per carton……..……35

Usage

Synko-Flex® is designed to provide a watertight seal of cold joints in a wide range of concrete structures including: residential and commercial basements, secondary containment structures, highway tunnels, concrete lined storm drainage and irrigation channels, pedestrian tunnels and below-grade walkways, swimming pools and water features, below-grade parking garages, waste-water treatment plants, fish hatcheries and aquariums, potable water reservoirs, and water theme parks. **Synko-Flex®** may also be used to seal around concrete, steel, PVC, or HDPE pipe penetrations through concrete walls or floor slabs. **Synko-Flex®** is also ideal for use as a joint sealant on precast structures such as box culverts, septic tanks and utility vaults.

Henry® Company, 999 N. Sepulveda Blvd., Ste. 800 El Segundo, CA 90245
Tel: 800-486-1278 **Email:** techservices@henry.com
www.henry.com

Revision Date: 2/9/2018

Surface Preparation

Joint surfaces should be clean and dry before priming and just prior to placing the **Synko-Flex®** strips. Concrete should cure a minimum of 24 hours prior to priming. Ensure that concrete surfaces are free from form oils, release agents, curing compounds, laitance and other dirt or debris. Use a wire brush or stiff bristle brush to clean surface prior to priming.

Application

Positioning: Synko-Flex® is generally positioned in the center of the joint. It may be placed at the bottom of a keyway, if a keyway is incorporated into the joint design. However, a keyway is not required for the use of this product. Two inches of concrete coverage is recommended.

Standard Method: Apply primer to the cured surface and allow to dry. Drying time generally takes 2 to 3 hours. Drying time will take longer in low temperatures and in humid environments.

Peel the protective release paper from one side of the **Synko-Flex®** strip. Place the strip onto the primed surface pressing firmly along the entire length of the strip. The strip should be depressed to approximately 5/8 inch in thickness forcing it to widen to approximately 1-1/2 inches. Splice strips together with a 1-inch overlap or side lap. Remove the remaining release film. Fresh concrete may then be poured directly against the **Synko-Flex®**. The waterstop sealing system is complete when the fresh concrete cures.

In cold weather, both the **Synko-Flex®** strips and the concrete surface should be warmed just prior to application.

Alternate Application Method: Synko-Flex® may also be installed directly in the fresh concrete.

Horizontal Applications: Peel the protective release paper from one side of the **Synko-Flex®** strip. While concrete is still wet, carefully press the **Synko-Flex®** strips into the fresh concrete, leaving approximately ½ inch exposed above the concrete surface. When concrete cures, remove remaining release film, and continue with pour.

Vertical Applications: Peel off release paper from one side of the strip, leaving the polyethylene release film on the formwork side of the **Synko-Flex®** to prevent the **Synko-Flex®** from adhering to the formwork and to keep the **Synko-Flex®** clean once the forms are removed. The**Synko-Flex®** is then nailed to the inside of the concrete form using small finishing nails. Chamfer strips (1/2”) should be positioned on each side of the **Synko-Flex®** strip. Finishing nails will pull through the **Synko-Flex®** strips when end form is removed.

Limitations: Synko-Flex® is designed for use in non-moving or reinforced joints. Contact manufacturer regarding applications where limited movement could be expected.

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. For more information on Henry’s® product warranty and liability disclaimer please visit www.henry.com/warranty. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry® Product Support at productsupport@henry.com or by calling 800-486-1278.

Henry and Synko-Flex are registered trademarks of Henry Company

The technical and application information herein is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product’s suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use. Henry® Company data sheets are updated on a regular basis; it is the user’s responsibility to obtain and to confirm the most recent version. Information contained in this data sheet may change without notice.

RFI-23

Henry®

Synko-Flex®

The labor saving alternative to conventional waterstops.



Synko-Flex® is a preformed plastic adhesive waterstop for poured-in-place concrete applications:

- Secondary Containment Structures
- Tunnels
- Underground Parking Garages
- Swimming Pools
- Concrete-Lined Storm Drainage & Irrigation Channels
- Potable Water Reserves
- Seals Embedded Steel, PVC or HDPE Pipe Penetrations

Synko-Flex® Waterstop

How it works:

Synko-Flex® bonds to cured concrete surfaces and fuses with fresh concrete during the hydration and curing process to achieve a watertight seal.

Advantages:

- Does not rely on swelling to be watertight
- Unaffected by rain, groundwater, cyclical wetting or drying
- No risk of 'blow-outs' in joints
- No adhesive required



- For use in through-wall penetrations
- Can be used with various types of pipes, Steel, PVC, HDPE and Fiberglass



- Easy handling strips for difficult vertical applications



- Unaffected by rain or wet conditions during installation
- Unaffected by cyclic wetting and drying
- Never a risk of fracturing concrete like swelling type waterstops

Synko-Flex® Waterstop FR

Excellent chemical and fuel resistance:

- Gasoline
- Jet A Fuel
- Kerosene
- Motor Oil
- Transmission Fluid
- Brake Fluid
- Mineral Sprits
- Toluene
- Alcohol
- Anti Freeze
- Runway De-Icers
- Insecticides





RFI-23

Synko-Flex® Waterstop SF302



- NSF Approved
- Specially formulated non-swelling preformed joint sealant that provides a lasting, watertight bond to both fresh and cured concrete surfaces
- Single-component, self-sealing adhesive compound, extruded in a square cross-section between two quick-release protective wrappers
- Bonds to cured concrete surfaces and fuses with fresh concrete during the hydration and curing process to achieve a watertight seal within cold joints at the footing, walls and slabs on a wide variety of concrete structures
- Size: 1" x 1" x 3' strips
- 35 strips per case
- 105 linear feet

Hydro-Flex® Waterstop HF302



- Preformed adhesive hydrophilic waterstop designed to swell in the presence of water providing a watertight seal in cold joints on concrete structures
- Highly advanced product is made up of butyl rubber, polypropylene elastomers, hydrophilic fillers and plasticizers providing a more uniform and controlled volumetric expansion upon contact with water, excellent for cold weather application
- Self-adhered and bonds to a wide variety of substrates
- Ability to swell up to 250%, allows it to penetrate into poorly consolidated concrete surfaces
- Size: 1/2" x 1 1/8" x 16.6' coils
- 6 coils per case
- 100 linear feet

Synko-Flex® Waterstop FR SF312



- Specially formulated non-swelling, preformed adhesive waterstop designed to control the ingress and egress of hydrocarbons into concrete joints
- Provides a watertight seal in residential and commercial basements, secondary containment structures, highway tunnels, concrete lined storm drainage and irrigation channels, pedestrian tunnels and below-grade walkways, below-grade parking garages, wastewater treatment plants and other structures
- Excellent chemical resistance to gasoline, jet fuel, kerosene, motor oil, transmission and brake fluids and other corrosive chemicals
- Size: 1/2" x 1 1/8" x 16.6' coils
- 6 coils per case
- 100 linear feet

Synko-Flex® Solvent Primer SF311



- Solvent Based Primer is a thin penetrating solution of select asphalt, base in petroleum solvent
- Penetrates the pores and seals dusty concrete surfaces to provide an optimal surface for the adhesion and bonding of Hydro-Flex™ and/or Synko-Flex® preformed plastic gaskets
- Size: 1 gallon pails
- 4 pails per case
- NSF Approved

Synko-Flex® Emulsion Primer SF300



- Emulsion Primer is a thin penetrating solution of premium, mineral colloid asphalt emulsion
- Penetrates the pores and seals dusty concrete surfaces to provide an optimal surface for the adhesion and bonding of Hydro-Flex™ and/or Synko-Flex® preformed plastic gaskets or other asphaltic coatings
- Odorless and non-flammable in the wet state
- May be applied by brush or spray
- Size: 1 gallon pails
- 4 pails per case
- NSF Approved

Contact a Henry representative at 800-486-1278 or visit www.henry.com.

Henry®

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RFI-23

TECHNICAL DATA SHEET

Henry® 925 BES Sealant

Building Envelope Systems® Sealant

Physical Property	Typical Value	Test Method
Color	Black, Gray, White	-
Application Temperature (see Limitations)	10 ºF to 110 ºF (-12 ºC to 43 ºC)	-
Service Temperature, cured	-40 ºF to 180 ºF (-40 ºC to 82 ºC)	-
Durometer Hardness	25 ±5 Shore A	ASTM D2240
Density	13 lbs/gal	-
Elongation, max	450-550%	ASTM D412
Dry Time	Initial Set: 60-90 min at 77 ºF (25 ºC) Set Through: 24 hours	-
Modulus	40-50% psi	-
Tensile Strength	150-200 psi	ASTM D412
VOC Content, max	5 g/L	EPA Method 24

Approvals and Certifications

- Meets ASTM C719 ± 35%
- Meets Fed Spec TT-S-00230C, Type II, Class A
- Meets ASTM C920 Type S, Grade NS, Class 35
- Granted SWR Institute Certificate of Validation

Description

Henry® 925 BES Sealant is a premium, moisture cure sealant for construction joints subject to dynamic joint movement. This one-part, low odor, moisture cure product provides excellent weathering resistance, flexibility, very low VOC, through use of a silyl-terminated polyether (STPE) polymer. Upon curing, it is paintable with latex based paints. This product is fully compatible with Henry air barrier, flashing, roofing and waterproofing systems.

Features and benefits

- Low odor, low VOC
- Moisture cure using STPE base polymer
- Paintable with latex based paint, upon curing

Usage

Designed for multiple construction uses, **Henry® 925 BES Sealant** can be used as a building envelope sealant for self-adhered air barriers, as well as an external joint sealant for Henry air barrier, waterproofing, and roofing systems. **Henry® 925 BES Sealant** is an alternative to silicone and moisture cure urethanes, in above-grade construction applications, and is optimal for construction joints up to 1" (25mm) width that are subject to dynamic joint movement of ± 35%.

Application

Surface Prep: Joints must be sound, smooth, uniform and free from defects and foreign materials. Joints must also be clean, dry, free of frost and all contaminants, such as curing compounds, sealers, or coatings. Sealant adhesion should be tested on each different substrate prior to use by applying a bead allowing to cure thoroughly. To test adhesive strength, pull one end of the bead.

Apply: Cut nozzle to desired bead size; puncture inner seal. Apply at a 45° angle while pushing sealant ahead of nozzle. The width of the joint should be a minimum of 4 times the anticipated movement. In joints up to ½" (13 mm) wide, the depth of the sealant should be equal to the width, but not less than ¼" (6 mm). In joints wider than ½" (13 mm), the depth should be maintained at ½" (13 mm). Maximum joint width for installation is 1" (25 mm). In vertical and horizontal joints, tooling is necessary to aid contact with the substrate and eliminate air bubbles.

Henry® Company, 999 N. Pacific Coast Highway, Ste. 800, El Segundo, CA 90245
Tel: 800-486-1278 **Email:** techservices@henry.com
www.henry.com

Revision Date: 1/18/2022

Limitations: **Henry® 925 BES Sealant** may be installed when substrate and air temperatures are as low as 10 °F. Application in temperatures between 10°F and 32°F may proceed only if the substrate is free of frost or ice. The product should not be applied in the rain or on wet surfaces; damp surfaces are acceptable.

If frost or ice is present on the substrate, it must be warmed to a temperature above 32 °F using hot air gun, heater, etc. to melt the frozen moisture. When installed in temperatures below 32 °F, an extended curing time is expected.

Prior to cold weather installation, **Henry® 925 BES Sealant** should be stored at room temperatures above 35 °F for a minimum of 24 hours, to improve application and tooling.

Clean-up

Clean hands and equipment with biodegradable terpene solvent such as citrus-based hand cleaner.

Product size/packaging

10.3 oz cartridge
20 oz sausage
2 gallon bucket

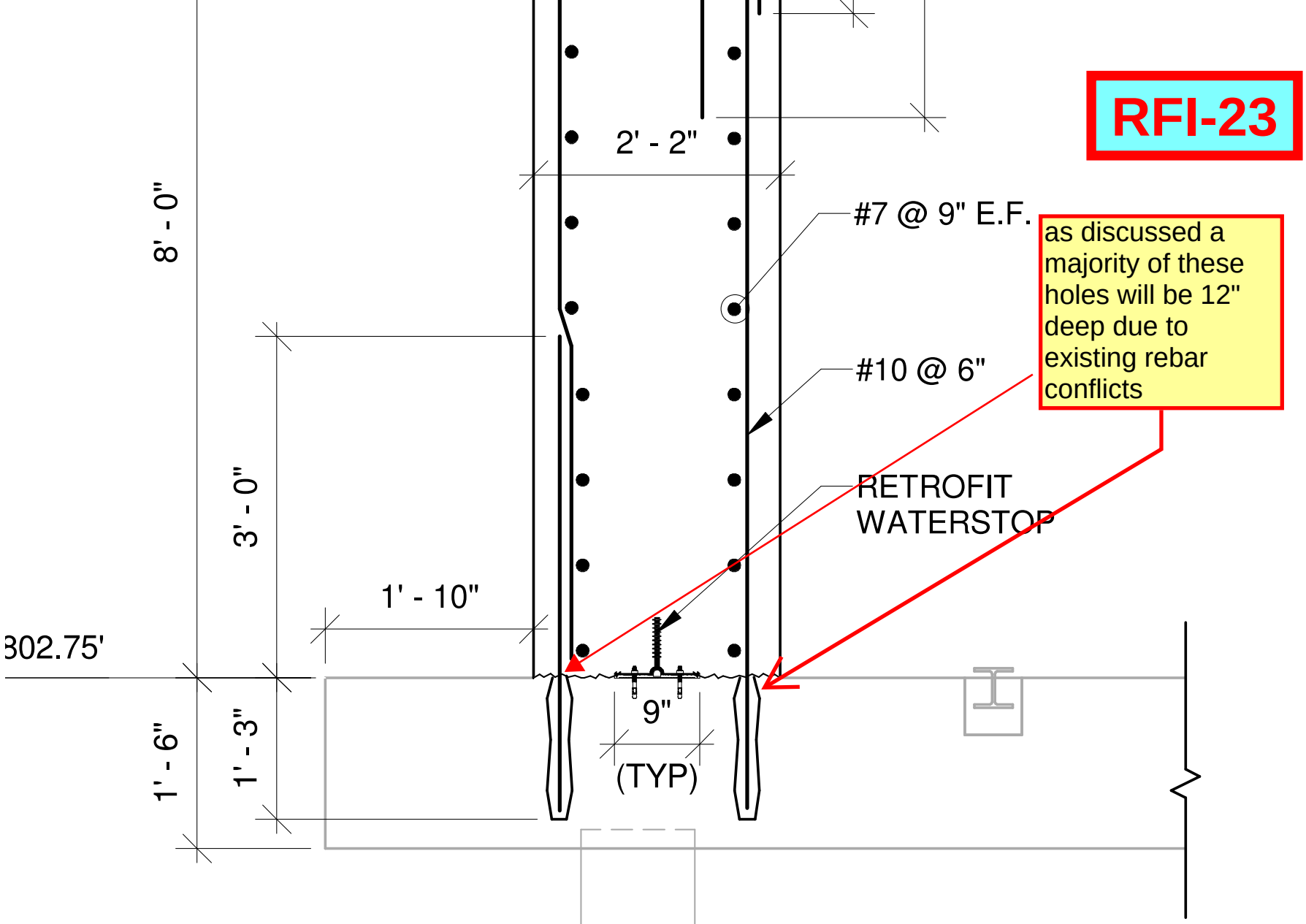
Storage

Henry® 925 BES Sealant has a shelf life of 12 months from date of manufacture when stored in original unopened container at or below 80 °F (27 °C). Containers should always be kept sealed when not in use.

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. For more information on the Henry® product warranty and liability disclaimer please visit www.henry.com/warranty. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry® Product Support at productsupport@henry.com or by calling 800-486-1278.

Henry, Blueskin, and Air-Bloc are registered trademarks of Henry Company.
Covered by US patent 6,901,712; Canadian patent 2,413,550.

The technical and application information herein is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use. Henry® Company data sheets are updated on a regular basis; it is the user's responsibility to obtain and to confirm the most recent version. Information contained in this data sheet may change without notice.


RFI-23
2' - 2"
#7 @ 9" E.F.
as discussed a majority of these holes will be 12" deep due to existing rebar conflicts
#10 @ 6"
RETROFIT WATERSTOP
8' - 0"
3' - 0"
1' - 10"
302.75'
1' - 6"
1' - 3"
9"
(TYP)

RFI-23

Arcadis has reviewed the latest RFI-23 Rev.2 submittal sent by Lakeshore Engineering. The proposed solution is Approved as Noted below.

Arcadis/ BPA RFI Understanding:

1. The included photograph shows the existing slab horizontal joint that is to receive the new concrete wall. It shows the proposed location of the new Synko-Flex SF302 waterstop that is to be used to substitute the new retrofit PVC waterstop shown in the contract drawings.

2. The Hydrodemolition procedure has left a very rough surface on the slab joint where the wall was removed, leaving a highly uneven surface with some loose concrete pieces, remains of a metal waterstop, cracking, and very bumpy areas along the slab joint. This makes surface repair procedure very complicated, labor intensive and longer to complete.

3. As an alternate solution, the use of a Synkoflex-SF302 type waterstop was suggested by the City engineer and the contractor. This waterstop would be placed closer to the interior face of the wall between the existing rebar and the new rebar that is to be drilled. It will be installed closer to the interior wall face.

4. The manufacturer (Henry Company) provided a letter dated February 21, 2023, certifying that their product (Synko-Flex) can successfully replace the PVC waterstop specified for the new wall at the existing slab joint.

5. Contractor has provided a construction sequence for the construction of the new wall including the chipping and removal of all loose concrete, and the preparation of the area where the new waterstop will be laid leaving a ¼" amplitude after cleaning and smoothing the area.

Arcadis/ BPA Comments:

1. After a conversation with Mr. Nathan Rife (Henry Company) and the City Engineer, a 1/8" maximum amplitude is desired (not ¼") in order to have a more even surface where the waterstop will be laid with the adhesive. No sharp edges are allowed.

2. The goal is not to leave any air gaps between the waterstop bottom and the existing prepared area in the concrete slab to avoid leakages. The bottom of the waterstop needs to have a full continuous contact with the prepared area of the existing slab that will receive the waterstop.

3. The two Synko-Flex short waterstop pieces (shown in the photo also) running perpendicular to the longitudinal waterstop at each of the vertical construction joints will have to meet these requirements also.

4. A very thorough and continuous inspection of the Synko-Flex SF302 installation is required to be provided by Contractor.

RFI-23

5. The 6” grout intended to be placed to cover the joint irregularities remaining after the pressure wash cleaning of the joint before the concrete wall pour has to be carefully measured by contractor.

6. The top of the 6” grout level must be 6” above the highest existing slab elevation.

7. There should be no delays in the subsequent concrete pour after the grout is placed to avoid a “cold joint” condition between the grout and the concrete interface.

AMERICAN FIBERGLASS TANK REPAIR

Composite Solutions for the ***21st Century***

American Fiberglass Tank Repair
Continental USA
and Islands
877-427-0090 ext: 2122

www. americanfiberglasstank.com

To: Lakeshore Engineering
Attn: Brandon Dow
1259 Ellsworth Drive
Atlanta , GA 30318

Phone: 404-456-2054 ext:
Mobile:
Fax:
Email: bdow@lakeshoreengineering.com

Apr 4, 2024
Proposal Number: **24-0318**

For: Reline/ Replace Manway & 2 Nozzles
1510 key road
Atlanta , GA

Services Requested: Reline, replace 24" manway and two 2" nozzles on a 10' diameter x 13' tall, side entry FRP tanks containing Sodium Hypochlorite at ambient.

********* Proposal *********

Item	Units	Price
Mobilize - Field Engineer, crew, materials and equipment to Atlanta, GA site.	1	$1,100.00
Install New 24 Inch Manway- Remove manway. Grind area around hole to clean, solid substrate. Insert new manway. Apply a one inch cant of thixotropic resin at the nozzle neck / tank wall junction. Hand lay-in 5 collars and 3 wraps of 1 -1/2 and 4 wraps at both the interior and exterior of the tank plus two plies veil at interior. Flood coat, wax coat	1	$8,200.00
Reline Tank - Grind tank interior walls and floor to clean, solid substrate. Install a 5 ply floor pan (2 plies 1-1/2 oz. chopped mat/1 ply 18 oz. woven roving/2 plies 1-1/2 oz. chopped mat) to tank floor. Extend 12 inches up cylinder wall . Install 2 plies Veil corrosion barrier from top of floor pan to top of cylinder wall. Flood coat, wax coat.	1	$36,265.00
Replace Two 2" nozzles- Grind area around hole to clean, solid substrate. Insert new nozzle. Apply a one-inch cant of thixotropic resin at nozzle neck/tank wall junction. Hand lay-in five collars and three wraps at interior and exterior surfaces. Flood coat, wax coat.	2	$5,400.00

This work was completed under PCO-22

Charges for Services: $50,965.00

Pricing quoted above is valid for 60 days from date of issue.

Notes:
1. Tank will be emptied, clean and dried prior to AFTR arrival.
2. Customer is responsible for supplying waste disposal for all AFTER generated, non hazardous debris.
3. Customer to supply sanitary facilities and electricity (20 amp, 120v) for AFTR crew use.

TERMS Net 30 days

_____ _____
Signature *Date*

We accept the above proposal with the terms and conditions listed. It is understood that weather, equipment problems and other situations beyond the contractor's control may effect the actual start date and finish dates of this project. The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the contractor. All quotations and agreements are contingent upon weather, accidents, fires, equipment failures, availability of materials and all other causes beyond our control. Prices are based on costs and conditions existing on date of quotation and are subject to change by the Contractor until customer has signed this agreement and a deposit has been made. All work to be completed in a workman like manner according to specific industry standards. Any delay, alteration, deviation or extension of work outlined above directly or indirectly caused by the customer or customer's facilities, equipment, tank conditions, agents, employees, invitees or local regulators may involve extra costs over and above indicated on this proposal. Any variance from the payment terms stated in this proposal may result in an increase in the quoted price.

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Atlanta , GA 30318

Phone: 404-456-2054 ext:
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Fax:
Email: bdow@lakeshoreengineering.com

Feb 13, 2024
Proposal Number: **24-0222**

For: Curb Laminates Tank 200. Inspection
1510 key road
Atlanta , GA

Services: Requested

Restore curb laminates on tank 200, a 10' diameter x 12' tall, side entry FRP tanks containing Bisulfite at ambient. Perform 10-year inspection on one additional tank

********* Proposal *********

Item	Units	Price
Mobilize - Field Engineer, crew, materials and equipment to Atlanta, GA site.	1	$1,100.00
Refurbish Knuckle Laminates-Grind tank knuckle, 12" onto tank walls and 8" onto tank floor to clean, solid substrate. Hand Lay-in a five-ply curb system (MMRMM) to prepared area. Flood coat, wax coat. Sod Bisulfite Tanks at Custer	2	$18,700.00
Perform Ten- Year Inspections - Perform complete and comprehensive inspections on 2 tanks. Visual inspection (interior & exterior), examine FRP surfaces for spidering, disbondment & abrasive wear. Check floor and ceiling for stress cracks, flanges and apertures with bore-scope. Perform Barcol Hardness testing at 12 locations. Perform acetone wipe-tests at 3 locations. Check plumb and laser-measure tank for roundness. Check laminates for disbondment. Provide written, photographic report detailing findings, and recommendations to correct any defects.	1	$3,000.00

Criteria for testing will be:

FTPI 2007-1 - http://www.fiberglasstankandpipe.com/ast_inspection.html (no acoustic emissions)

. **NLPA 631, Chapters A&D** - http://www.nlpa-online.org/standards.html

ASTM D-3299 - http://www.astm.org/Standards/D3299.html

NYDEC - Part 598.7 (d) http://nyrules.elaws.us/nycrr/title6_chapterv_subchapter_part598_s598.7

Prevailing Wages Apply

PO# 21091

Charges for Services: $22,800.00

Pricing quoted above is valid for 60 days from date of issue.

Notes:
1. Tank will be emptied, clean and dried prior to AFTR arrival.
2. Customer is responsible for supplying waste disposal for all AFTER generated, non hazardous debris.
3. Customer to supply sanitary facilities and electricity (20 amp, 120v) for AFTR crew use.
4. Quote based on both curbs being installed during one mobilization.

TERMS Net 30 days

This work was completed under PCO-21

We accept the above proposal with the terms and conditions listed. It is understood that weather, equipment problems and other situations beyond the contractor's control may effect the actual start date and finish dates of this project. The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the contractor. All quotations and agreements are contingent upon weather, accidents, fires, equipment failures, availability of materials and all other causes beyond our control. Prices are based on costs and conditions existing on date of quotation and are subject to change by the Contractor until customer has signed this agreement and a deposit has been made. All work to be completed in a workman like manner according to specific industry standards. Any delay, alteration, deviation or extension of work outlined above directly or indirectly caused by the customer or customer's facilities, equipment, tank conditions, agents, employees, invitees or local regulators may involve extra costs over and above indicated on this proposal. Any variance from the payment terms stated in this proposal may result in an increase in the quoted price.

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Atlanta , GA 30318

Phone: 404-456-2054 ext:
Mobile:
Fax:
Email: bdow@lakeshoreengineering.com

Apr 8, 2024
Proposal Number: **24-0411**

For: 3' Floor Pan
1510 key road
Atlanta , GA

Services Requested: Install a 3' floor pan on a 10' diameter x 12' tall, side entry FRP tanks containing Sodium Bisulphate at ambient.

********* Proposal *********

Item	Units	Price
Mobilize - Field Engineer, crew, materials and equipment to Atlanta, GA site.	1	$1,100.00
Install 3' Floor Pan-Grind tank floor and up interior walls approximately 3' to clean, solid substrate. Hand lay-in a 5-ply floor pan system (MMRMM)* that will cover entire floor and extend 3' up cylinder wall. Flood coat, Wax coat.	1	$22,480.00

.

This work was completed under PCO-21

Charges for Services: $23,580.00

Pricing quoted above is valid for 60 days from date of issue.

Notes:
1. Tank will be emptied, clean and dried prior to AFTR arrival.
2. Customer is responsible for supplying waste disposal for all AFTER generated, non hazardous debris.
3. Customer to supply sanitary facilities and electricity (20 amp, 120v) for AFTR crew use.

TERMS Net 30 days

_____ _____
Signature *Date*

We accept the above proposal with the terms and conditions listed. It is understood that weather, equipment problems and other situations beyond the contractor's control may effect the actual start date and finish dates of this project. The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the contractor. All quotations and agreements are contingent upon weather, accidents, fires, equipment failures, availability of materials and all other causes beyond our control. Prices are based on costs and conditions existing on date of quotation and are subject to change by the Contractor until customer has signed this agreement and a deposit has been made. All work to be completed in a workman like manner according to specific industry standards. Any delay, alteration, deviation or extension of work outlined above directly or indirectly caused by the customer or customer's facilities, equipment, tank conditions, agents, employees, invitees or local regulators may involve extra costs over and above indicated on this proposal. Any variance from the payment terms stated in this proposal may result in an increase in the quoted price.

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Email: bdow@lakeshoreengineering.com

Sep 6, 2023
Proposal Number: **23-0907**

For: 3 Ten-Year Inspections
1510 key road
Atlanta , GA

Services Requested: Ten year inspection on (3) 6600 gallon, side entry FRP tanks containing NaCOI at ambient. Inspections to be performed over two mobilizations.

********* Proposal *********

Item	Units	Price
Mobilize - Field Engineer, assistant, materials and equipment to Atlanta, GA site.	2	$2,200.00
Perform Three Ten Year Inspections - Perform complete and comprehensive inspections on 2 tanks. Visual inspection (interior & exterior), examine FRP surfaces for spidering, disbondment & abrasive wear. Check floor and ceiling for stress cracks, flanges and apertures with bore-scope. Perform Barcol Hardness testing at 12 locations. Perform acetone wipe tests at 3 locations. Check plumb and laser-measure tank for roundness. Check laminates for disbondment. Provide written, photographic report detailing findings, and recommendations to correct any defects.	3	$10,600.00

Criteria for testing will be:

FTPI 2007-1 - http://www.fiberglasstankandpipe.com/ast_inspection.html (no acoustic emissions)

. **NLPA 631, Chapters A&D** - http://www.nlpa-online.org/standards.html

ASTM D-3299 - http://www.astm.org/Standards/D3299.html

NYDEC - Part 598.7 (d) http://nyrules.elaws.us/nycrr/title6_chapterv_subchapter_part598_s598.7

This work was completed under PCO-18

Charges for Services: $12,800.00

Pricing quoted above is valid for 60 days from date of issue.

Notes:
1. Tank will be emptied, clean and dried prior to AFTR arrival.
2. Customer is responsible for supplying waste disposal for all AFTER generated, non hazardous debris.
3. Customer to supply sanitary facilities and electricity (20 amp, 120v) for AFTR crew use.

TERMS Net 30 days

_____ _____
Signature *Date*

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LEGEND

- AIR COMPRESSOR
- FLOW METER
- BACKFLOW PREVENTER
- FLEXIBLE PIPE
- MUFFLER
- UNDERCUT DOOR (UC (WIDTH) (CFM))
- ANGLE GATE VALVE (MANUAL)
- SUPPLY AIR
- RETURN OR EXHAUST AIR
- THERMOSTAT
- CONTROL SWITCH (S S)
- DOOR LOUVER NO. INDICATES SIZE IN SQ.FT. (2)
- PRESSURE REDUCING VALVE, PILOT OPERATED
- GATE VALVE
- CHECK VALVE
- MIXER VALVE
- AUTOMATIC CONTROL VALVE 2-WAY
- AUTOMATIC CONTROL VALVE 3-WAY
- PRESSURE REDUCING VALVE, SELF CONTAINED
- SOLENOID OPERATED VALVE (S)
- GLOBE VALVE (MANUAL) N.C.
- BALL VALVE (MANUAL)
- MOTORIZED BALL VALVE (M)
- DRAIN
- STRAINER WITH BLOW OFF VALVE AND PLUG
- UNION CONNECTION
- FLANGE CONNECTION
- PRESSURE RELIEF VALVE
- COMBINATION BALANCING COCK & FLOW SENSOR
- TRIPLE DUTY VALVE (STRAIGHT, ANGLE PATTERN)
- BUTTERFLY VALVE
- HOSE CONNECTOR
- AIR VENT
- EXPANSION JOINT OR COMPENSATOR
- PIPE ANCHOR
- PIPE GUIDE
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER-FLUSH TOP
- ECCENTRIC REDUCER-FLUSH BOTTOM
- PIPE ELBOW, 90 TURNED DOWN
- PIPE ELBOW, 90 TURNED UP
- PIPE TEE, 90 TURNED DOWN
- PIPING TEE, OUTLET TURNED UP
- PRESSURE GAGE WITH SHUTOFF COCK (BALL VALVE) (P)
- PRESSURE SWITCH (PS)
- THERMOMETER
- FAN (M)
- EXHAUST FAN

- SUPPLY AIR DUCT SECTION-UP
- SUPPLY AIR DUCT SECTION-DOWN
- RETURN AIR DUCT SECTION-UP
- RETURN AIR DUCT SECTION-DOWN
- MOTORIZED DAMPER (M)
- SMOKE DAMPER WITH ACCESS DOOR (M, SD)
- FIRE DAMPER WITH ACCESS DOOR (FD)
- MANUAL VOLUME DAMPER (VD)
- BACKDRAFT DAMPER (BD)
- CHANGE OF ELEVATION: RISE (R) OR DROP (D) (SLOPE)
- ACCESS DOOR OR ACCESS PANEL (OR)
- MITERED ELBOW WITH TURNING VANES
- FLEXIBLE CONNECTOR
- SPLITTER DAMPER-SEE PLAN FOR NECK SIZES (NK=X/2)
- AIR EXTRACTOR WITH VANES
- DUCT TRANSITION-RECTANGULAR
- DUCT TRANSITION-RECTANGULAR TO ROUND
- DUCT ELBOW-TURNED UP 90 - RECTANGULAR
- DUCT ELBOW-TURNED DOWN 90 - RECTANGULAR
- CEILING DIFFUSSER-ROUND NECK
- SUPPLY REGISTER OR GRILLE-SIDEWALL
- SUPPLY CEILING REGISTER
- RETURN OR EXHAUST-REGISTER OR GRILLE-SIDEWALL
- RETURN OR EXHAUST-CEILING REGISTER
- RETURN OR EXHAUST-REGISTER OR GRILLE - LOW SIDEWALL (LSW)
- SUPPLY-REGISTER OR GRILLE-LOW SIDEWALL (LSW)
- VANED ELBOW (SHORT RADIUS)
ROUND ELBOW (SHORT RADIUS)
- DUCT SIZE - FIRST FIGURE IS SIDE SHOWN (12X8)
- FLEXIBLE DUCTWORK
- SMOKE DETECTOR - DUCT MOUNTED (SD)
- MOTOR ACTUATED DAMPER (M)
- MOTOR ACTUATED DISK DAMPER (M)
- OPPOSED BLADE DAMPER
- PARALLEL BLADE DAMPER
- FLEXIBLE CONNECTOR
- SMOKE DETECTOR (SURFACE MOUNTED) (SD)
- SMOKE DETECTOR (DUCT MOUNTED) (SD)
- VENT (PLUMBING) (V)
- COLD WATER (DOMESTIC) (CW)
- MAKE UP WATER (MU)
- SANITARY (WASTE) (SAN)
- NATURAL GAS (NG)
- NON-POTABLE WATER (NPW)
- HOT WATER (DOMESTIC) (HW)
- CENTRIFUGAL PUMP (M)
- SUBMERSIBLE PUMP (M)
- HIGH PRESSURE STEAM
- MEDIUM PRESSURE STEAM

- LOW PRESSURE STEAM
- HPC - HIGH PRESSURE CONDENSATE
- MPC - MEDIUM PRESSURE CONDENSATE
- LPC - LOW PRESSURE CONDENSATE
- BBD - BOILER BLOW DOWN
- PC - PUMP CONDENSATE
- VPD - VACUUM PUMP DISCHARGE
- MU - MAKE-UP WATER
- ATV - ATMOSPHERIC VENT
- FOD - FUEL OIL DISCHARGE
- FOG - FUEL OIL GAUGE
- FOS - FUEL OIL SUCTION
- FOR - FUEL OIL RETURN
- FOV - FUEL OIL TANK VENT
- HWS - LOW TEMPERATURE HOT WATER SUPPLY
- MTWS - MEDIUM TEMPERATURE HOT WATER SUPPLY
- HTWS - HIGH TEMPERATURE HOT WATER SUPPLY
- HWR - LOW TEMPERATURE HOT WATER RETURN
- MTWR - MEDIUM TEMPERATURE HOT WATER RETURN
- HTWR - HIGH TEMPERATURE HOT WATER RETURN
- A - COMPRESSED AIR
- VAC - VACUUM AIR
- IA - INSTRUMENT AIR
- G - GAS
- FOV - FUEL OIL TANK VENT
- RD - REFRIGERANT DISCHARGE
- RS - REFRIGERANT SUCTION
- B - BRINE SUPPLY
- BR - BRINE RETURN
- CW - CONDENSER WATER SUPPLY
- CR - CONDENSER WATER RETURN
- CWS - CHILLED WATER SUPPLY
- CWR - CHILLED WATER RETURN
- FILL - FILL LINE
- H - HUMIDIFICATION LINE
- DRAIN
- HCS - HOT/CHILLED WATER SUPPLY
- HCR - HOT/CHILLED WATER RETURN
- RL - REFRIGERANT LIQUID
- HPWS - HEAT PUMP WATER SUPPLY
- HPWR - HEAT PUMP WATER RETURN

ABBREVIATIONS

AC	AIR CONDITIONING, AIR CONDITIONING UNIT
AD	ACCESS DOOR
AF/BI FAN	AIRFOIL/BACKWARD INCLINED FAN
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
APD	AIR PRESSURE DROP
B	BOILER
BD	GRAVITY BACKDRAFT DAMPER
BFP	BACK FLOW PREVENTER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOR	BOTTOM OF REGISTER
BOU	BOTTOM OF UNIT
CDA	CEILING AIR DIFFUSER (TYPE A)
CFM	CUBIC FEET OF STANDARD AIR PER MINUTE
CO	CLEANOUT
CONT	CONTINUATION
CUH	CABINET UNIT HEATER
CW	CITY WATER
DB	DRY BULB
DI	DUCTILE IRON
DIA	DIAMETER
DM	DAMPER MOTOR
E	EXHAUST
EAR	EXHAUST AIR RELIEF
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EL/ELEV	ELEVATION
ER-1	EXHAUST AIR REGISTER (TYPE 1)
ES	ENTHALPY SENSOR
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
F.A.	FREE AREA
F.C.	FLEXIBLE CONNECTOR
FD	FIRE DAMPER WITH ACCESS DOOR, FLOOR DRAIN
FIN FLR	FINISHED FLOOR
FPM	FEET PER MINUTE
FRP	FIBROUS REINFORCED PLASTIC (FIBERGLASS)
GPM	GALLONS PER MINUTE
H	HEATING
HP	HORSEPOWER
HV	HEATING VENTILATING UNIT
HVAC	HEATING VENTILATING AIR CONDITIONING UNIT
HW	HOT WATER (DOMESTIC)
HWP	HOT WATER CIRCULATING PUMP
IN. WG	INCHES OF WATER GAGE
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAU	MAKEUP AIR UNIT
MD	MOTORIZED DAMPER
MFG	MANUFACTURER
NC	NORMALLY CLOSED, NOISE CRITERIA
NG	NATURAL GAS
NK	NECK
NO	NORMALLY OPEN
NPW	NON PORTABLE WATER
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
P	PUMP
PD	PRESSURE DROP
PF	PROPELLER FAN
Ø, PH	PHASE
PS	PRESSURE SENSOR, PRESSURE SWITCH
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RO	ROOF OPENING
RPM	REVOLUTIONS PER MINUTE
RR-1	RETURN AIR REGISTER (TYPE 1)
RS	REFRIGERANT SUCTION, ROOF SUMP
SAN	SANITARY
SD	SMOKE DETECTOR, SMOKE DAMPER, SUPPLY DIFFUSER
SF	SUPPLY AIR FAN
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SR-1	SUPPLY AIR REGISTER (TYPE 1)
SV	SOLENOID VALVE
T	THERMOSTAT
T-1	SPACE THERMOSTAT OR SENSOR
T-2	OUTSIDE AIR THERMOSTAT OR SENSOR
T-3	LOW LIMIT THERMOSTAT (FREEZE STAT)
T-4	HI LIMIT THERMOSTAT (FIRESTAT)
T-5	DISCHARGE THERMOSTAT
T-7	NIGHT SETBACK THERMOSTAT
TEMP	TEMPERATURE
TOD	TOP OF DUCT
TOU	TOP OF UNIT
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UTR	UP THROUGH ROOF
V	VOLTS, VENTILATING, PLUMBING VENT
VAV	VARIABLE AIR VOLUME
VC	COOLING CONTROL VALVE
VEL	VELOCITY
VH	HEATING CONTROL VALVE
VD	VOLUME DAMPER
VTR	VENT THROUGH ROOF (PLUMBING)
W/	WITH
WB	WET BULB
WC	WATER COLUMN, WATER CLOSET
WPD	WATER PRESSURE DROP

10X10 CD-1 — 10X10 SQUARE NECK SIZE, CEILING DIFFUSER (TYPE 1)
10"ø CD-1 — 10" ROUND NECK SIZE, CEILING DIFFUSER (TYPE 1)
400-4 — 400 CFM, 4 WAY BLOW

GENERAL NOTES

1. ALL DUCT DIMENSIONS ARE CLEAR DIMENSIONS TO INSIDE OF DUCT. DIMENSIONS TO DUCTS FROM FLOOR OR WALL SHALL BE TO THE OUTSIDE OF DUCT. WHERE INTERNAL INSULATION IS REQUIRED, THE DUCT SIZE SHALL BE INCREASED TO GIVE CLEAR INSIDE DIMENSIONS.
2. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED. COORDINATE FINAL EQUIPMENT SIZE WITH STRUCTURAL TRADES FURNISHING HOUSEKEEPING PADS.
3. FINAL OPENING DIMENSIONS, CONCRETE PAD SIZES, AND LOCATIONS MUST BE COORDINATED DURING CONSTRUCTION WITH APPROVED EQUIPMENT.
4. FINAL SIZES OF PIPING CONNECTIONS TO ALL EQUIPMENT SHALL BE DETERMINED BY EQUIPMENT FURNISHED.
5. FOR LOUVER LOCATIONS SEE STRUCTURAL DRAWINGS.
6. ALL PIPING AND DUCTS IN FINISHED ROOMS SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS. ACCESS DOORS SHALL BE INSTALLED FOR ANY CONCEALED DEVICE REQUIRING ADJUSTMENT.
7. FOR INTERLOCKING WIRING SCHEMATICS SEE ELECTRICAL DRAWINGS.
8. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE, NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. PE048668 PROFESSIONAL 08-JUL-2022 ENGINEER JOHN KULBAGA

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Atlanta, GA 30339
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www.arcadis-us.com

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

HVAC LEGEND AND NOTES

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

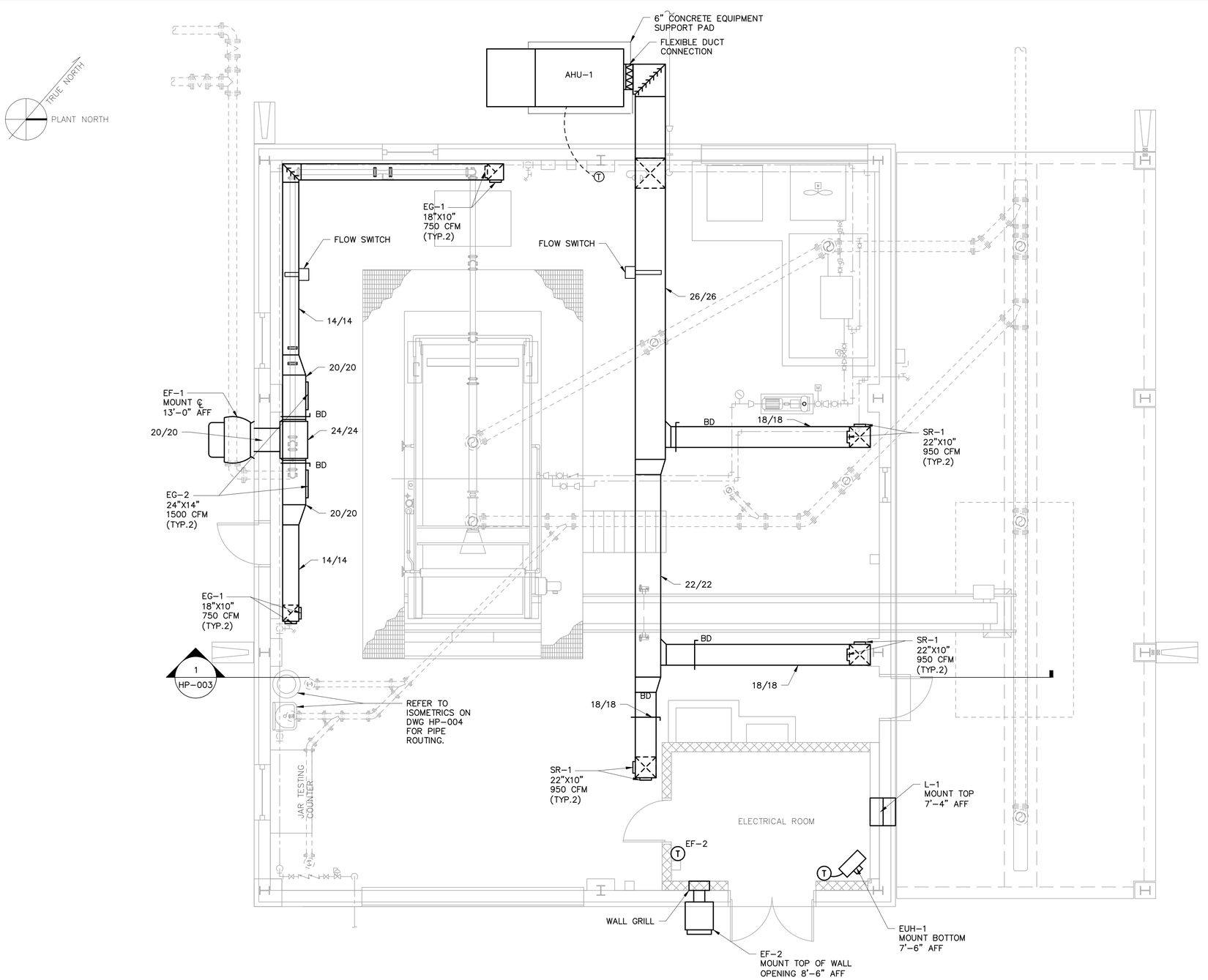
SCALE: NONE

HP-001

SHEET 71 OF 150

User: JKULBAGA Spec: AUS-NOSMOD File: C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-001.DWG Scale: 1:1 SavedDate: 7/8/2022 Time: 15:39 Plot Date: Kulbaga, John; 7/8/2022; 15:40 ; Layout: 71

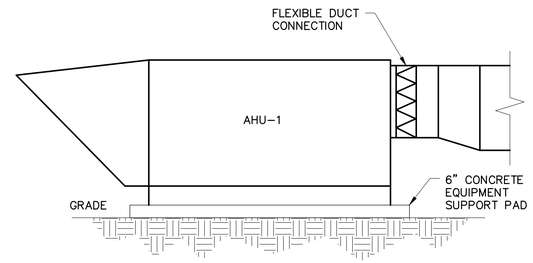
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SLUDGE DEWATERING BUILDING – PLAN

SCALE: 1/4" = 1'

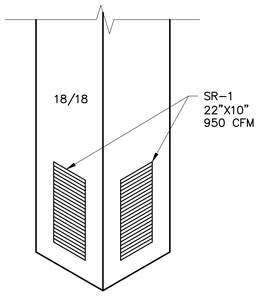




AHU-1 DETAIL

SCALE: 1/2" = 1'





SR-1 DETAIL

SCALE: N.T.S.

NOTES:

1. INSTALL DUCTWORK DOWN TO 1'-0" AFF.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA — JOHN KULBAGA — No. PE043808 — PROFESSIONAL ENGINEER — 08-JUL-2022

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

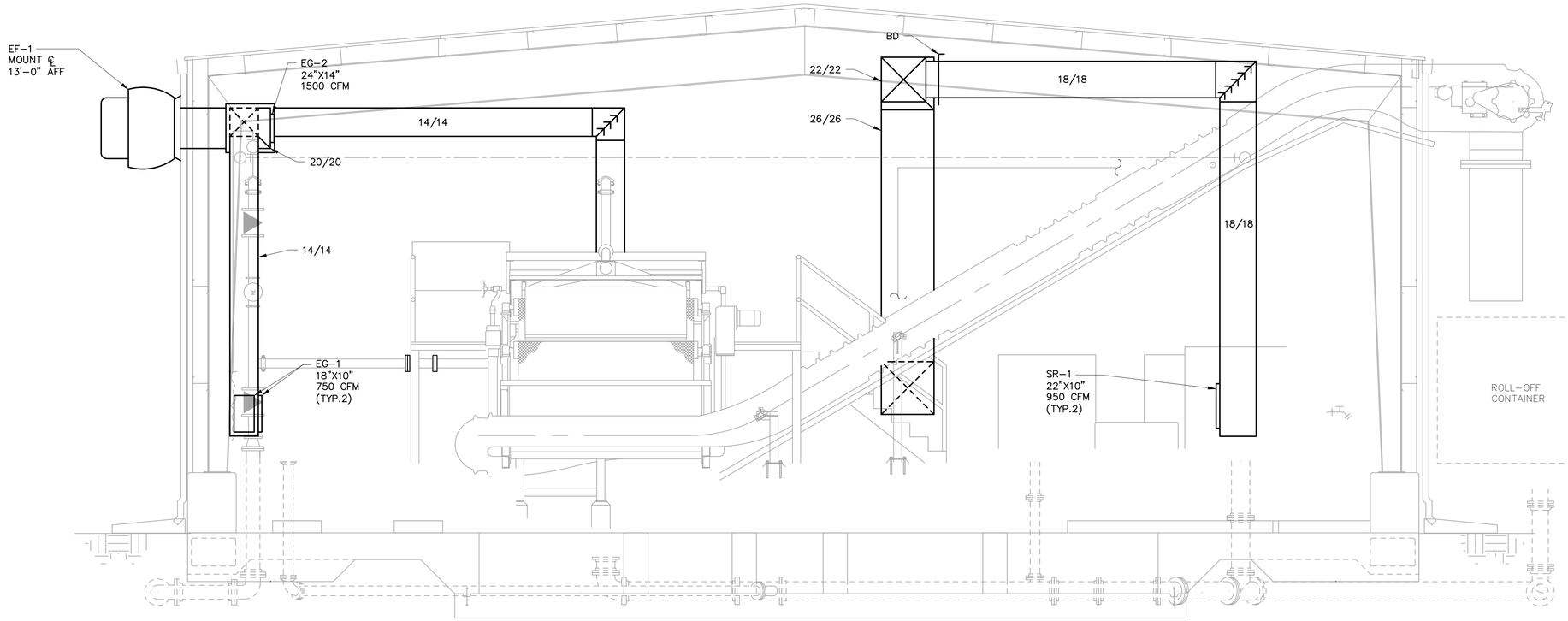
SLUDGE DEWATERING BUILDING HVAC PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: AS SHOWN

HP-002

SHEET 72 OF 150



1 / HP-002 SLUDGE DEWATERING BUILDING – SECTION

0 2' 4' 6'

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SEALS

GEORGIA REGISTERED No. PE034808 PROFESSIONAL ENGINEER JOHN KULBAGA 08-JUL-2022

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W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING HVAC SECTION

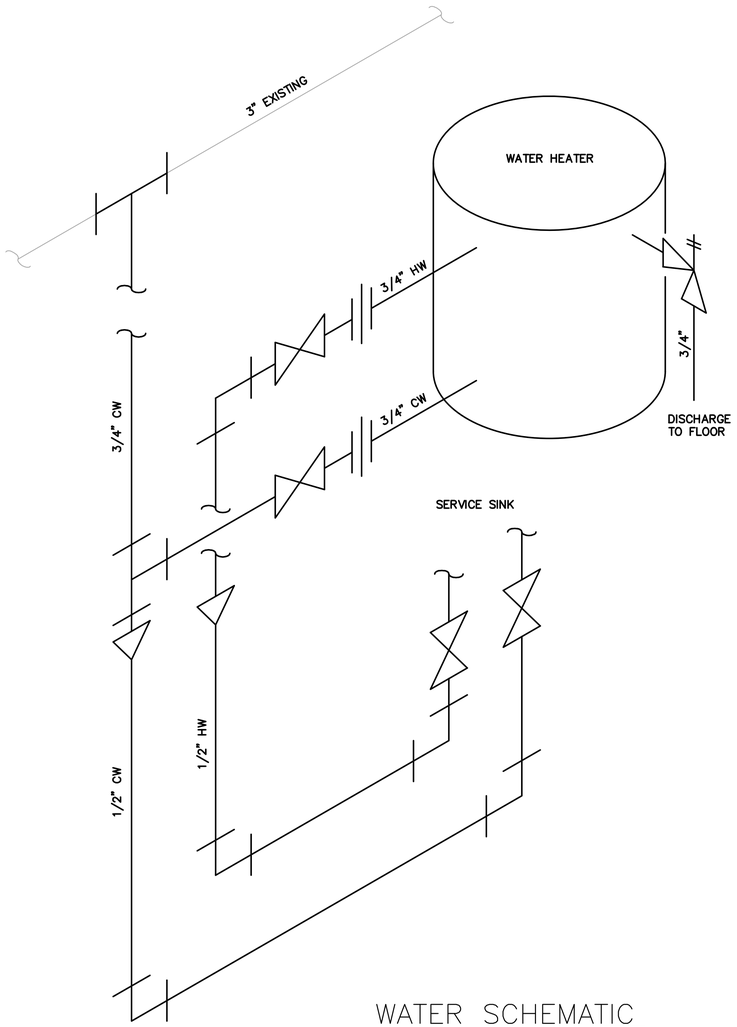
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: 3/8"=1'

HP-003

SHEET 73 OF 150

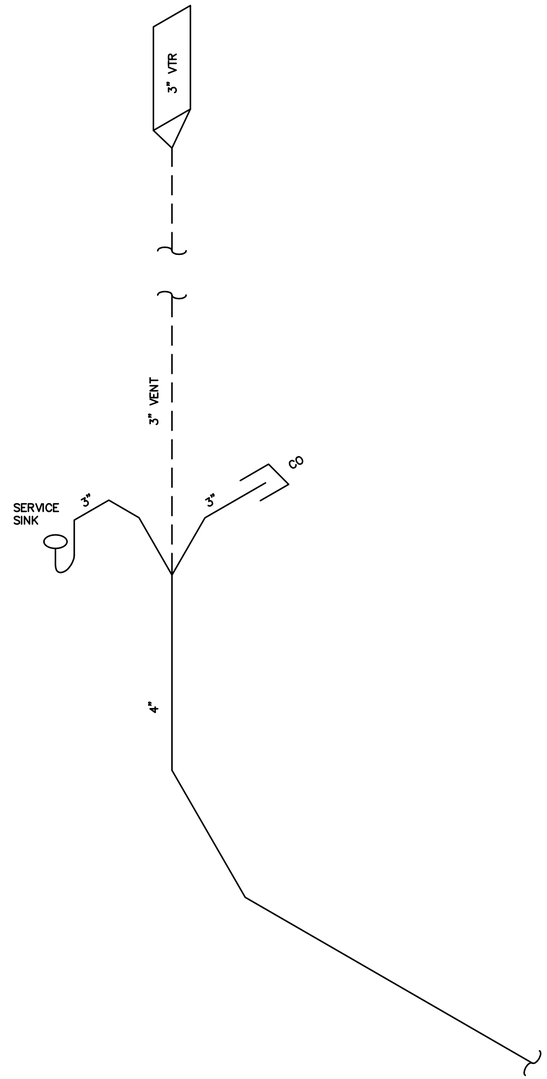
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WATER SCHEMATIC FOR SERVICE SINK

SCALE: N.T.S.

NOTE: REFER TO SPEC FOR WATER HEATER INFORMATION.



SANITARY SCHEMATIC FOR SERVICE SINK

SCALE: N.T.S.

NOTE: REFER TO SPEC FOR SERVICE SINK INFORMATION.

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NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED No. PE040628 PROFESSIONAL 08-JUL-2022 ENGINEER JOHN KULBAGA

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING PLUMBING SCHEMATICS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

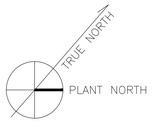
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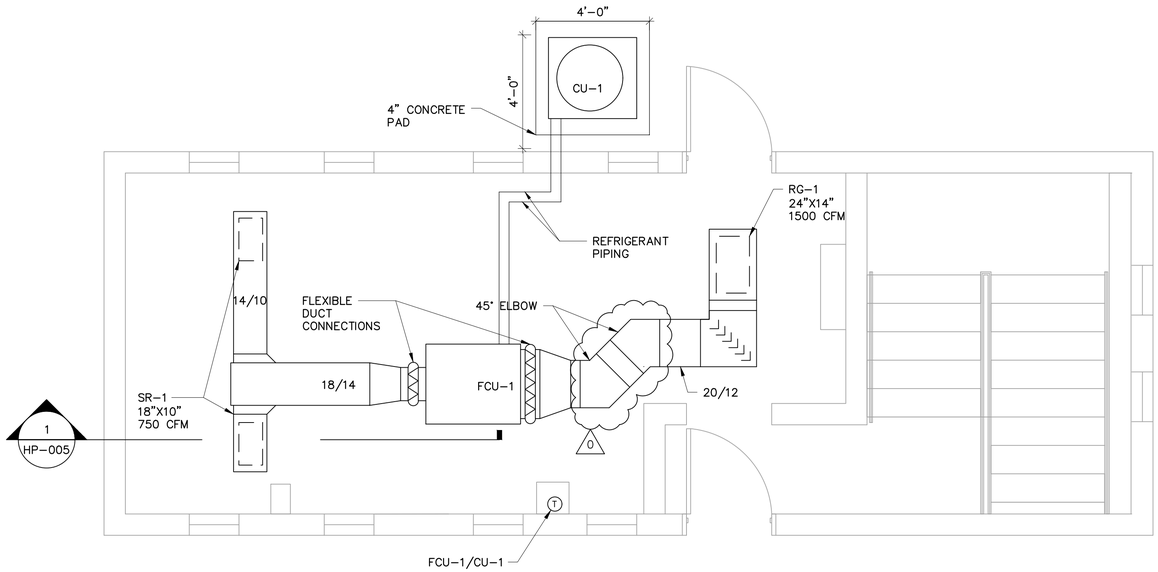
HP-004

SHEET 74 OF 150

User: JKULBAGA Spec: AUS-NCSMOD File: C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-004.DWG Scale:1:1 SavedDate:7/18/2019 Time:14:41 Plot Date: Kulbaga, John: 7/9/2022, 04:35 : Layout:74

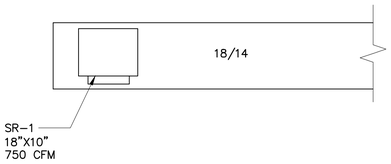
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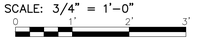
SLUDGE PUMPING STATION ELECTRICAL ROOM

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



1 HP-005 SECTION

SCALE: 3/4" = 1'-0"



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W.01.02.0085

SHEET TITLE

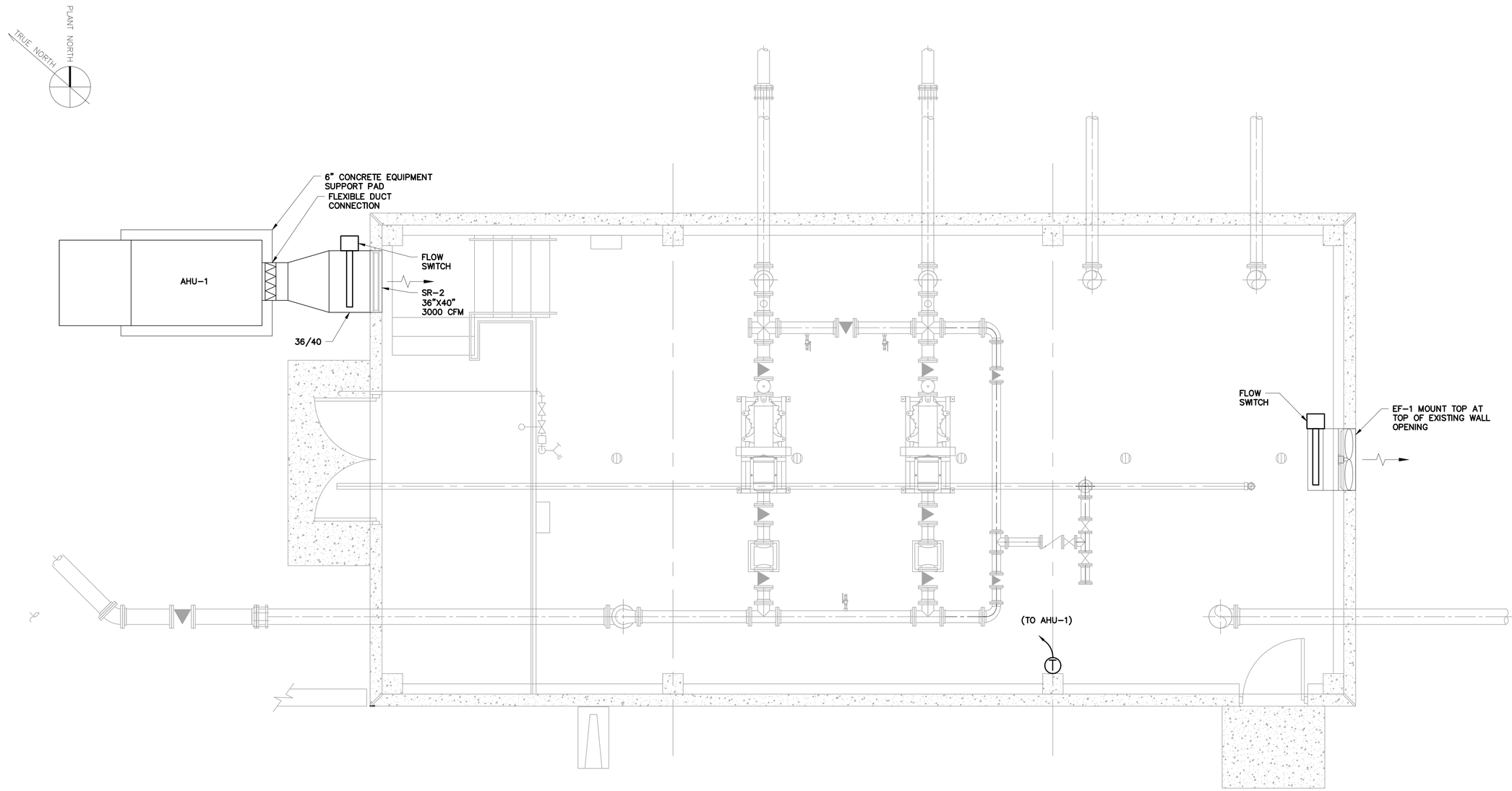
SLUDGE PUMP STATION HVAC PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: AS SHOWN

HP-005

SHEET 75 OF 150



SOLIDS PROCESSING PUMP STATION HVAC PLAN

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

0 2' 4' 6'

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SEALS

GEORGIA REGISTERED No. PE024824 PROFESSIONAL ENGINEER JOHN KULBAGA 08-JUL-2022

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING PUMP STATION HVAC PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: NONE

HP-006

SHEET 76 OF 150

User: JKULBAGA Spec: AUS-NOSMOD File: C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-006.DWG Scale: 1:1 SavedDate: 7/9/2022 Time: 04:38 Plot Date: Kulbaga, John; 7/9/2022 - 04:40 , Layout: 76

User: JKULBAGA Spec: AUS-NCSMOD File: C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-007.DWG Scale:1:1 SavedDate:7/30/2019 Time:10:32 Plot Date: Kulbaga, John: 7/9/2022, 04:45 : Layout:77

AIR HANDLING UNIT SCHEDULE

TAG	LOCATION	TYPE	SA	OA	SUPPLY FAN			HEATING SECTION OUTPUT (KW)	MCA	FILTER		ELECTRICAL	AHU		REMARKS
			CFM	CFM	ESP (IN)	HP	BLOWER			TYPE	MERV	VOLTAGE	MAKE	MODEL	
AHU-1	SLUDGE DEWATERING BUILDING	MAKE-UP AIR UNIT	5700	5700	0.45	3	CENTRIFUGAL	90	116.5	2" PLEATED	8	480/3/60	REZNOR	REH-90D	1,2,3,4,5,6
AHU-1	SOLIDS PROCESSING PUMP STATION	MAKE-UP AIR UNIT	3000	3000	0.25	1	CENTRIFUGAL	60	80.4	2" PLEATED	8	480/3/60	REZNOR	REH-60D	1,2,3,4,5,6

REMARKS:
1. PROVIDE ROOF CURB.
2. 100% OUTSIDE AIR UNIT.
3. PROVIDE WALL MOUNTED HEATING THERMOSTAT.
4. PROVIDE ELECTRIC HEATER WITH SCR ELECTRONIC MODULATION HEATING.
5. PROVIDE INTAKE WEATHER HOOD WITH SCREEN AND RAIN BAFFLES.
6. PROVIDE FLOW SWITCH FOR DUCT-MOUNTED SUPPLY DUCT, WITH ALARM UPON FAILURE OF UNIT.

ELECTRIC UNIT HEATER SCHEDULE

TAG	LOCATION	TYPE	AIRFLOW DISCHARGE	KW	AIRFLOW (CFM)	TEMP. RISE (DEGREE F)	THROW (FT)	ELECTRICAL		MAKE	MODEL	REMARKS
								HP	V/PH/HZ			
EUH-1	SLUDGE DEWATERING ELECTRICAL ROOM	BLOWER HEATER	HORIZONTAL	2.6	410	21	12	1/40	480/3/60	CHROMALOX	LUH-02-21-34	1,2,3

REMARKS:
1. PROVIDE UNIT WITH UL LISTED DISCONNECT SWITCH NEMA 4X RATED.
2. PROVIDE WALL MOUNT SWIVEL BRACKET FOR UNIT MOUNTING.
3. PROVIDE 120V WALL MOUNTED THERMOSTAT, CHROMALOX MODEL WR80.

FAN SCHEDULE

TAG	LOCATION	TYPE	CFM	E.S.P. (IN W.C.)	DRIVE	ELECTRICAL		MAKE	MODEL	REMARKS
						HP	VOLTAGE			
EF-1	SLUDGE DEWATERING BUILDING	WALL MOUNTED CENTIRFUGAL	6,000	0.25	BELT	2	480/3/60	LOREN COOK	ACW-B 195W9B	1,2,3,4,5,9
EF-2	ELECTRICAL ROOM	WALL MOUNTED CENTIRFUGAL	1,000	0.25	BELT	1/4	120/1/60	LOREN COOK	ACW-B 100W3B	1,2,3,4,5,7
EF-1	SOLIDS PROCESSING PUMP STATION	WALL MOUNTED PROPELLER	3,000	0.25	BELT	1/2	480/3/60	LOREN COOK	20XMP	1,3,5,8,9

REMARKS:
1. INTEGRAL PRE-WIRED NEMA 4X DISCONNECT SWITCH.
2. GRAVITY BACKDRAFT DAMPER.
3. STANDARD FINISH.
4. ALUMINUM BIRDSCREEN.
5. SPARE BELT SET.
6. BELT GUARD.
7. SQUARE WALL GRILLE.
8. INTEGRAL WALL HOUSING WITH GRAVITY BACKDRAFT DAMPER AND INLET GUARD.
9. PROVIDE FLOW SWITCH FOR DUCT-MOUNTED EXHAUST DUCT, WITH ALARM UPON FAILURE OF UNIT.

LOUVER SCHEDULE

MARK	LOCATION	SERVICE	TYPE	SIZE (IN.)	AIRFLOW CFM	FREE AREA (SQ FT)	MAKE	MODEL	REMARKS
L-1	ELECTRICAL ROOM	INTAKE	MOTORIZED W/DAMPER	24"x24"	1000	1.43	RUSKIN	ELC6375DAX	1,2,3,4,5

REMARKS:
1. 6" DEEP, FIXED BLADE WITH INTEGRAL DAMPER, 6063T5 EXTRUDED ALUMINUM CONSTRUCTION.
2. KYNAR OR FLUOROPOLYMER FINISH ON ENTIRE LOUVER AND BIRDSCREEN.
3. BIRDSCREEN MOUNTED ON EXTERIOR.
4. INSECT SCREEN MOUNTED ON INTERIOR.
5. HONEYWELL MODEL M4185 OR EQUAL, 120/1/60.

REGISTER, GRILLE, DIFFUSER SCHEDULE

MARK	SERVICE	TYPE	STATIC PD (IN WC)	PATTERN	DAMPER	FINISH	MAKE	MODEL	REMARKS
SR	SUPPLY	REGISTER	0.08	DOUBLE DEFLECTION	YES	CLEAR ANODIZE	TITUS	272FS	1,2,3,4
EG	EXHAUST	GRILLE	0.08	EGGCRATE	YES	CLEAR ANODIZE	TITUS	50F	1,2,3,4
RG	RETURN	GRILLE	0.08	EGGCRATE	YES	CLEAR ANODIZE	TITUS	50F	1,2,3,4

REMARKS:
1. ALL ALUMINUM CONSTRUCTION.
2. SEE DRAWING FOR SIZES, AIRFLOW, AND QUANTITY.
3. DUCT MOUNTING.
4. INTEGRAL BALANCING DAMPER.

BALANCING DAMPER SCHEDULE

MARK	TYPE	MOUNTING TYPE	MAKE	MODEL	REMARKS
BD	OPPOSED BLADE	DUCT	RUSKIN	MD35	1,2,3

REMARKS:
1. GALVANIZED STEEL CONSTRUCTION.
2. ALUMINUM CONSTRUCTION.
3. LOCKING QUADRANT.

SPLIT SYSTEM FAN COIL UNIT SCHEDULE

TAG	FAN SECTION	E.S.P.	FAN	COOLING CAPACITY		MAKE	INDOOR UNIT	INDOOR UNIT ELECTRICAL			MAKE	OUTDOOR UNIT	OUTDOOR UNIT ELECTRICAL			SEER	REMARKS
	CFM	INCHES W.C.	HP	SENSIBLE MBH	TOTAL MBH		MODEL	VOLTAGE	MCA	MFS		MODEL	VOLTAGE	MCA	MFS		
FC-1/CU-1	1,500	0.35	1.0	42.3	60.0	TRANE	BCHD-036	208/1/60	9.6	20.0	TRANE	4TTB33060	208/1/60	35.0	60.0	13	1,2,3,4,5,6,7,8,9

REMARKS:
1. PROVIDE DRAIN PAN & CONDENSATE DRAIN PIPING ROUTED TO EXERIOR OF BUILDING.
2. PROVIDE HARD-WIRED THERMOSTAT FOR 24 VAC CONTROL VOLTAGE.
3. PROVIDE PRE-CHARGED LINE SETS FOR INSTALLATION OF REFRIGERANT PIPING.
4. PROVIDE INDOOR UNIT WITH 2-INCH MERV 8 FILTERS.
5. REFRIGERANT R-410A.
6. EVAPORATOR COIL ENTERING AIR DRY BULB/WET BULB TEMPERATURES 80/67 DEGREES F.
7. CONDENSING UNIT ENTERING AIR DRY BULB TEMPERATURE 95 DEGREES F.
8. PROVIDE LOW AMBIENT OPERATION CAPABILITY.
9. PROVIDE DISCONNECT SWITCH.

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE
HVAC EQUIPMENT SCHEDULES

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: B. LOHMAN
DRAWN BY: J. BROWN
CHECKED BY: B. LOHMAN

SCALE: NONE

HP-007

SHEET 77 OF 150

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P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #52: HVAC Control Panels

Revision	0	**Status**	Open
To	TIM WEST - Atlanta DWM)	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Nov 7, 2025	**Due Date**	Nov 14, 2025
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-52

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Friday, Nov 7, 2025 at 10:29 AM EST*

We've reviewed the drawings and specifications in regards to the HVAC controls and request the following:

- The HVAC controls / alarm systems for the sludge dewatering & Solids Processing pump station buildings were designed around a HVAC control panel. After review we feel both systems will need a control panel to function / alarm per the drawings.
- The specifications don't include details on a HVAC control panel for either building. Please provide the specifications for each panel. The specifications should include
    - wiring diagrams
    - enclosure details/ ratings
    - alarm details
        - Local- horn/ lights (we feel this approach would be best and the most economical)
        - or go to the Plant SCADA system
        - or both
        - If a horn / light approach is desired please provide details on the material
- We have not included cost in the bid to supply the control panels or any type of alarm device. We have included the instruments noted on Drawing HP-007 and detailed out in spec section 15950-2.1

Awaiting an Official Response

Arcadis Response:
Engineer has compared the Greenheck wiring diagram supplied with the units and specification section 15950 and makes the following recommended modifications to the wiring.

Control devices to be 30.5 mm, heavy duty, oiltight, suitable for outdoor application. Lights and handswitches to be on control section of AHU , accessible from outside unit. Relays and wiring to be within control section of AHU, unless otherwise noted. The description and modifications apply to unit at the Dewatering Building and the Sludge Processing Building.

Per the control description within 15950, the following devices are required that are not currently installed.

Hand off auto switch, allowing continuous operation/running of unit.
Power on indicator light – white
Freeze thermostat in ductwork – freezeStat
Freeze stat wired to relay, with amber indicating light labeled “FreezeStat activated” (low temperature)

When freezestat is active, unit is disabled.

Differential pressure switch with sensing lines across intake filter, wired to relay and green indicating light, labeled Fan Running. Under normal running operation green light is on. When pressure increases light goes off.

Relay contact NC also wired in series with RF contact, wired to amber pilot light, labeled Dirty Filter.

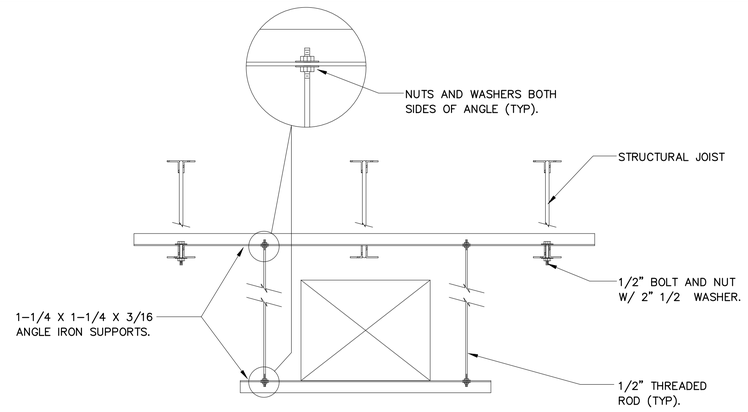
Relay contact RF is wired to the MCC starter for EF1 (exhaust fan 1) and when RF is closed EF1 is to run.

Thermostat S5 on schematic is the room thermostat in the Dewatering Building, set at 55F. When temperature is at or below 55F, the room overload relay is activated and full heat mode is active.

TS4 is the duct thermostat, for normal heating conditions.

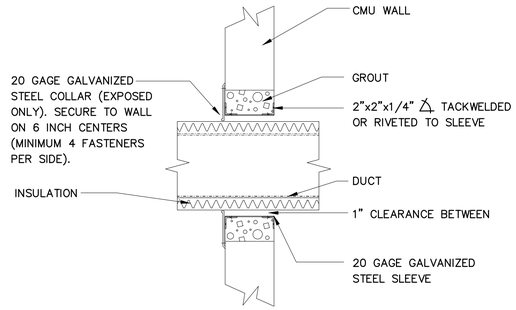
The duct mounted smoke detector is not required as this system is 100% outside air, no recirculation.

RFI-52



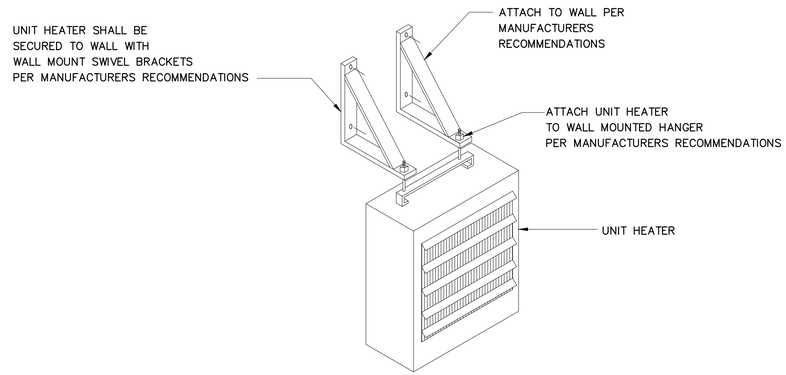
DUCT HANGER DETAIL

SCALE: N.T.S.



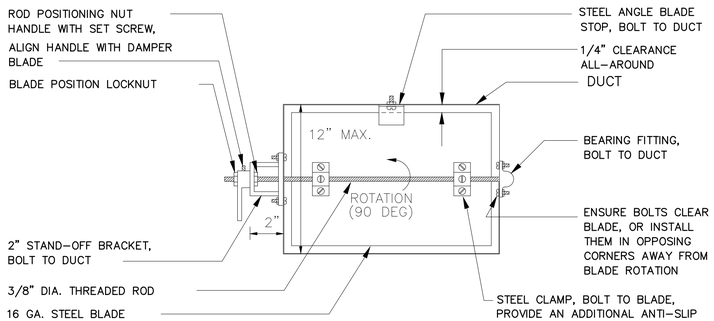
DUCT PENETRATION THROUGH WALL (NOT APPLICABLE TO FIRE-RATED WALLS)

SCALE: N.T.S.



ELECTRIC UNIT HEATER DETAIL

SCALE: N.T.S.

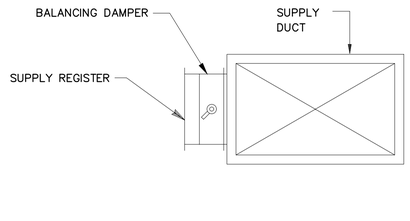


NOTES:

1. DAMPERS FOR ROUND DUCTS SHALL BE SIMILAR TO THE DAMPER SHOWN ABOVE.
2. ENSURE THAT FULL 90° DAMPER BLADE MOVEMENT IS UNOBSTRUCTED.
3. FOR DUCT HEIGHTS MORE THAN 12", PROVIDE FACTORY-FABRICATED OPPOSED BLADE DAMPERS

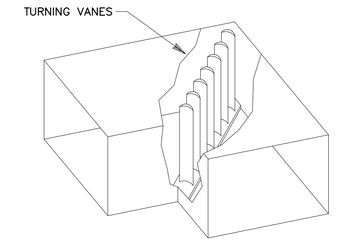
MANUAL DAMPER (ADJUSTABLE SINGLE-BLADE BALANCING TYPE)

SCALE: N.T.S.



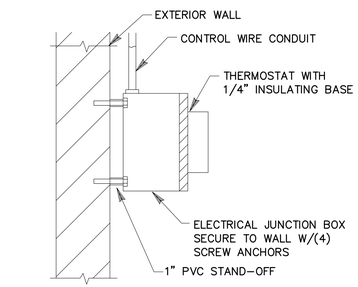
SUPPLY AIR REGISTER DETAIL

SCALE: N.T.S.



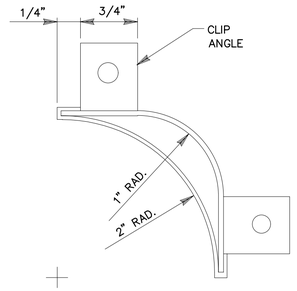
TYPICAL ELBOW DETAIL

SCALE: N.T.S.



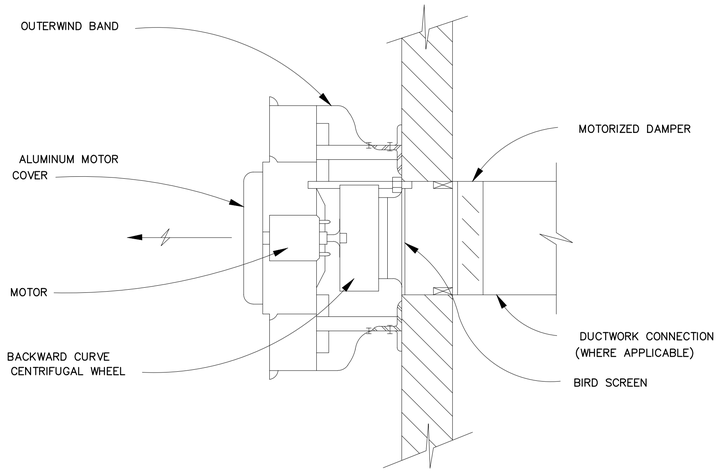
WALL MOUNTED THERMOSTAT

SCALE: N.T.S.



TYPICAL TURNING VANE DETAIL

SCALE: N.T.S.



CENTRIFUGAL WALL EXHAUST FAN DETAIL

SCALE: N.T.S.

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. PE024564 PROFESSIONAL ENGINEER JOHN KULBAGA 08-JUL-2022

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

HVAC AND PLUMBING DETAILS 1

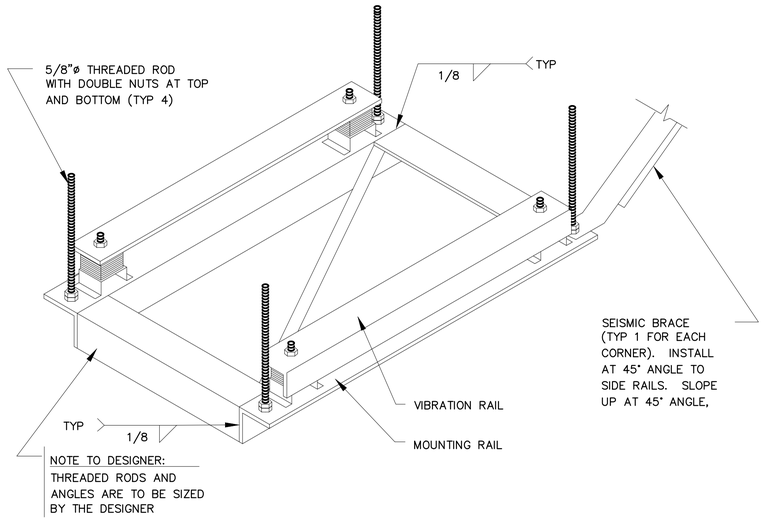
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: NONE

HP-008

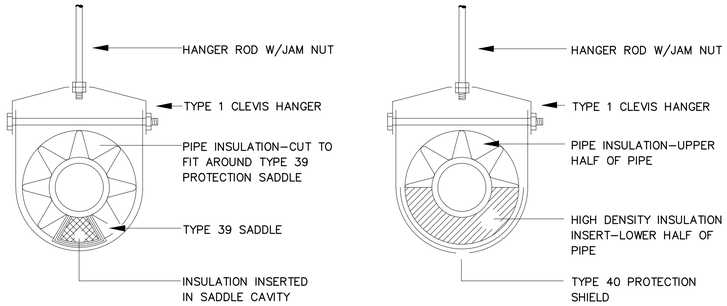
SHEET 78 OF 150

User: JKULBAGA Spec:AUS-NCSMOD File:C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-008.DWG Scale:1:1 SavedDate:7/18/2019 Time:15:27 Plot Date: Kulbaga, John: 7/9/2022: 04:54 : Layout:78



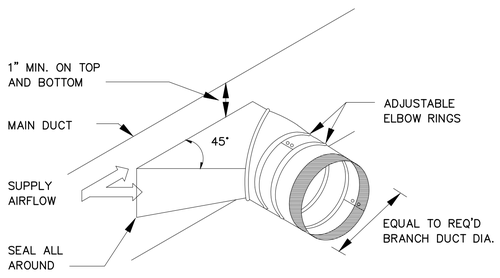
PLATFORM FOR SUSPENDING EQUIPMENT FROM ROOF STRUCTURE

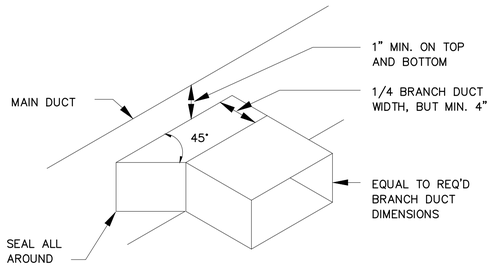
SCALE: N.T.S.



HANGER DETAILS – INSULATED PIPE

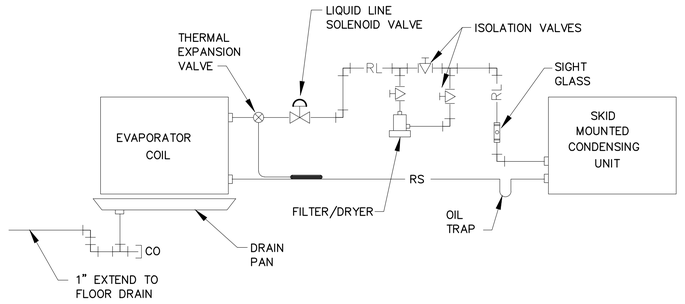
SCALE: N.T.S.





TYPICAL BRANCH TAKE–OFF FITTING

SCALE: N.T.S.



NOTE: SIZES PER MANUFACTURER'S SPECIFICATIONS

TYPICAL REFRIGERANT PIPING DETAIL

SCALE: N.T.S.

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SEALS

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

HVAC AND PLUMBING DETAILS 2

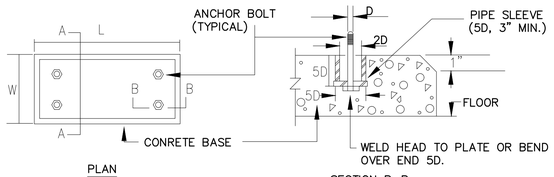
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	B. LOHMAN
DRAWN BY:	J. BROWN
CHECKED BY:	B. LOHMAN

SCALE: NONE

HP–009

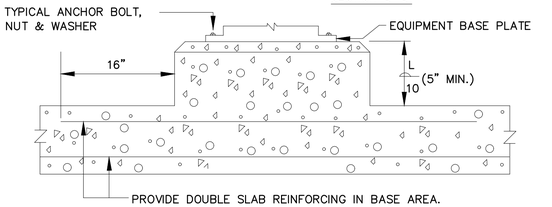
SHEET 79 OF 150

User: JKULBAGA Spec: AUS–NCSMOD File: C:\USERS\JKULBAGA\ONEDRIVE – ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP–009.DWG Scale:1:1 SavedDate:7/18/2019 Time:15:29 Plot Date: Kulbaga, John: 7/9/2022: 04:56 : Layout:79

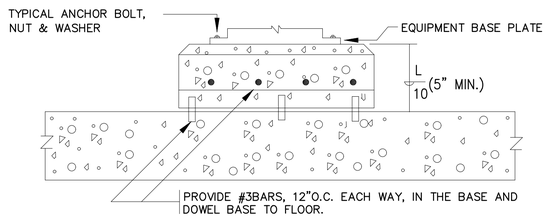


PLAN

SECTION B–B



SECTION A–A (BASE POURED WITH FLOOR SLAB)



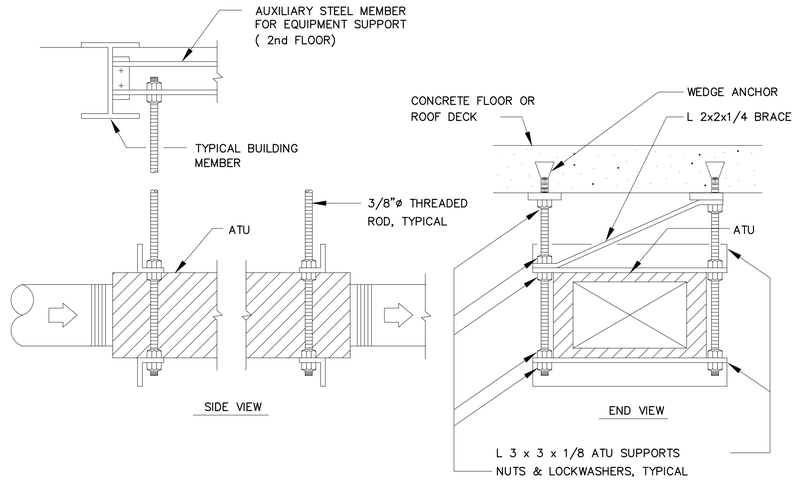
SECTION A–A (BASE NOT POURED WITH SLAB)

EQUIPMENT PAD DETAIL

SCALE: N.T.S.

NOTE:

1. THIS DETAIL APPLIES TO EQUIPMENT NOT SPECIFIED TO BE MOUNTED ON SPRING ISOLATED BASES.
2. L AND W DIMENSIONS SHALL BE 6 INCHES GREATER THAN THE EQUIPMENT BASE PLATE.



AIR TERMINAL UNIT MOUNTING DETAIL

SCALE: N.T.S.

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SEALS

GEORGIA REGISTERED No. PE034562 PROFESSIONAL ENGINEER JOHN KULBAGA 08-JUL-2022

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EAST AREA WATER QUALITY CONTROL
FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

HVAC AND PLUMBING
DETAILS 3

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: B. LOHMAN
DRAWN BY: J. BROWN
CHECKED BY: B. LOHMAN

SCALE: NONE

HP–010

SHEET 80 OF 150

User: JKULBAGA Spec: AUS-NOSMOD File: C:\USERS\JKULBAGA\ONEDRIVE - ARCADIS\DOCUMENTS\CLIENTS PROJECTS\OTHER\ATLANTA CSO\DRAWINGS\EDITED\HP-010.DWG Scale:1:1 SavedDate:7/18/2019 Time:15:31 Plot Date: Kulbaga, John; 7/9/2022; 04:58 | Layout:80

SYMBOLS FOR PLANS

- A 3 a — SURFACE, RECESSED OR PENDANT MOUNTED INCANDESCENT OR HIGH INTENSITY DISCHARGE LIGHTING FIXTURE
- A 3 a — SURFACE, RECESSED, PENDANT MOUNTED, WALL MOUNTED FLUORESCENT LIGHTING FIXTURE OR LED
- A 3 a — WALL MOUNTED INCANDESCENT OR HIGH INTENSITY DISCHARGE LIGHTING FIXTURE
- A/P 3 a — POLE OR POST–TOP MOUNTED LIGHTING UNIT
- A/P 3 a — ROADWAY LIGHTING UNIT
- A 3 a — FLOODLIGHT

LETTER "A" DENOTES TYPE OF FIXTURE;
"3" DENOTES PANELBOARD BRANCH CIRCUIT NO. 3;
"a" DENOTES CONTROLLED BY LOCAL SWITCH "a".
"P" DENOTES FURNISHED WITH POLE.

- 3 — WALL MOUNTED EXIT LIGHT
- 3 — CEILING OR PENDANT MOUNTED EXIT LIGHT
- A 3 — BATTERY OPERATED AUXILIARY LIGHTING UNIT MOUNT 7'–6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED
- 3 — REMOTE MOUNTED AUXILIARY LIGHTING HEAD MOUNT 7'–6" ABOVE FLOOR
- Sa — SINGLE POLE SWITCH CONTROLS FIXTURES MARKED "a"
- S2b — DOUBLE POLE SWITCH CONTROLS FIXTURES MARKED "b"
- S3c — THREE–WAY SWITCH CONTROLS FIXTURES MARKED "c"
- S4d — FOUR–WAY SWITCH CONTROLS FIXTURES MARKED "d"
- 20, — DUPLEX CONVENIENCE RECEPTACLE, 2 POLE, 3 WIRE, 120 VOLTS A.C. 20 AMP RECEPTACLE DESIGNATIONS. X DENOTES PANEL. Y DENOTES GROUND FAULT TYPE (GFCI), SURGE SUPPRESSION TYPE (SS) OR WEATHERPROOF ENCLOSURE (WP). CKT # DENOTES CIRCUIT NUMBER. AMPERE RATING AS INDICATED ON PLAN (0)
- DUPLEX RECEPTACLE (GROUND TYPE)
- GROUND FAULT INTERRUPTER RECEPTACLE
- SINGLE RECEPTACLE (GROUND TYPE)
- WELDING RECEPTACLE, 60 A, 3–PHASE, 4 WIRE
- FLOOR MOUNTED RECEPTACLE
- MANUAL MOTOR STARTER
- MAGNETIC MOTOR STARTER
- MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH
- DISCONNECT SWITCH. SIZE AS INDICATED.
- T — WALL MOUNTED THERMOSTAT – MOUNTED 5'–0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED
- POWER DISTRIBUTION PANEL OR PANELBOARD
- UNIT HEATER
- M — MOTOR – FOR HORSEPOWER RATING, SEE PANELBOARD SCHEDULE OR SINGLE LINE DIAGRAM
  DC = DC MOTOR
- D — D = DAMPER MOTOR
  M = MOTORIZED VALVE
- TELEPHONE TERMINAL CABINET, TTB
- TELEPHONE OUTLET, WALL MOUNTED, WIRING AS REQUIRED
- J — JUNCTION BOX, SIZE PER NEC
- GROUND ROD – COPPER CLAD. 3/4" X 10' LONG.
- TEST WELL GROUND ROD
- EXOTHERMIC WELDED CONNECTION
- CONTROL STATION
- COMBINED CONTROL STATION AND DISCONNECT SWITCH
- VALVE CONTROLLER

- CONDUIT RUNS CONCEALED IN FLOOR, WALL AND UNDERGROUND
- CONDUIT RUNS EXPOSED
- CONDUIT TURNING UP OR TOWARD OBSERVER
- CONDUIT TURNING DOWN OR AWAY FROM OBSERVER
- FLEXIBLE CONDUIT
- DIRECT BURIAL CABLE
- G — GROUNDING CABLE. #4/0 BARE, STRANDED CU. UNLESS OTHERWISE NOTED.
- T — CONDUIT FOR TELEPHONE COMPANY'S WIRING
- EQUIPMENT TO BE DEMOLISHED
- E — EXISTING ELECTRICAL UTILITY/CONDUIT/CABLE
- EDB — EXISTING ELECTRICAL DUCT BANK
- SC — EXISTING ELECTRICAL SIGNAL/CONTROL CONDUIT/CABLE
- SCDB — EXISTING SIGNAL/CONTROL DUCT BANK
- E — NEW ELECTRICAL UTILITY/CONDUIT/CABLE
- EDB — NEW ELECTRICAL DUCT BANK
- SC — NEW ELECTRICAL SIGNAL/CONTROL CONDUIT/CABLE
- SCDB — NEW SIGNAL/CONTROL DUCT BANK

NOTE: "E", "EDB", ETC. LETTERS MAY BE OMITTED ON PLAN DRAWINGS.

CONT. SYMBOLS FOR PLANS

- C–324 — HOMERUN, CONDUIT AND WIRE NUMERALS DENOTE RACEWAY NUMBER
- DENOTES SECTION NO. OR DETAIL LETTER
  DENOTES SHEET NO. ON WHICH SECTIONS OR DETAIL IS EITHER SHOWN AND/OR TAKEN
- P7001 — CONDUIT NUMBER FOR WIRING – SEE SCHEDULE
- A.F.F. — ABOVE FINISHED FLOOR
- W — DENOTES WATERTIGHT EQUIPMENT
- WP — DENOTES WEATHERPROOF EQUIPMENT
- XP — DENOTES EXPLOSIONPROOF EQUIPMENT
- SV — SOLENOID VALVE
- EWC — ELECTRIC WATER COOLER
- CTB — TERMINAL BOX
  CTB = CONTROL WIRING TERMINAL BOX
  STB = SIGNAL WIRING TERMINAL BOX
- TB — JUNCTION BOX WITH TERMINAL STRIP
- J — JUNCTION BOX
- T — TERMINAL BOX
- P — PULL BOX
- MANUFACTURER SUPPLIED HEAT TRACING CABLE
- T — THERMOSTAT
- H — HANDHOLE

FIRE ALARM SYSTEM

- FACP — FIRE ALARM PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- B — FIRE ALARM BELL
- F — MANUAL FIRE ALARM CALL STATION PULL TYPE
- F — FIRE ALARM HORN
- SD — SMOKE DETECTOR
- F — STROBE LIGHT
- F — COMBINED FIRE ALARM HORN AND STROBE
- R — SHUTDOWN RELAY

DOOR ALARM

- DOOR ALARM DOOR SWITCH
- K — DOOR ALARM KEY BYPASS SWITCH

SYMBOLS FOR ONE LINE DIAGRAMS

- 100/15 — MOLDED CASE CIRCUIT BREAKER, THERMAL MAGNETIC TRIP, 3–POLE UNLESS OTHERWISE NOTED. UPPER NUMERAL INDICATES FRAME SIZE. LOWER NUMERAL INDICATES TRIP SETTING.
- MCP/15 — MOTOR CIRCUIT PROTECTOR. NUMERAL INDICATES CONTINUOUS CURRENT RATING. MCPL = WITH CURRENT LIMITING FUSES.
- 100 — UNFUSED DISCONNECT SWITCH. NUMERAL DENOTES AMPERE RATING.
- 100/70 — FUSED DISCONNECT SWITCH, 3–POLE UNLESS OTHERWISE NOTED. UPPER NUMERAL INDICATES FUSE CLIP AMPERE SIZE. LOWER NUMERAL INDICATES FUSE RATING. WHERE "E" IS INDICATED PROVIDE "E" RATED FUSE BASED ON TRANSFORMER'S MANUFACTURERS RECOMMENDATION.
- 3 — CT = CURRENT TRANSFORMER, NUMERAL DENOTES QUANTITY.
- 2PT — PT = POTENTIAL TRANSFORMER, DRAWOUT TYPE NUMERAL DENOTES QUANTITY. CPT = CONTROL POWER TRANSFORMER, DRAWOUT TYPE WITH FUSE.
- 2PT — PT = POTENTIAL TRANSFORMER, NUMERAL DENOTES QUANTITY. CPT = CONTROL POWER TRANSFORMER WITH FUSE.
- FUSED DISCONNECT SWITCH DRAWOUT TYPE
- 2 WINDING TRANSFORMER, SIZE AS NOTED
- 3 WINDING TRANSFORMER, SIZE AS NOTED

MAGNETIC STARTER

FVNR 1a 1b 2

- FVNR = FULL VOLTAGE, NON–REVERSING
- FVR = FULL VOLTAGE, REVERSING
- FVTS = FULL VOLTAGE TWO SPEED
- RVNR = REDUCED VOLTAGE, NON–REVERSING AUTO–TRANSFORMER TYPE
- PW = PART WINDING
- LC = LIGHTING CONTACTOR
- AUXILIARY CONTACTS 1a = ONE NORMALLY OPEN, 1b = ONE NORMALLY CLOSED
- NUMERAL INDICATES NEMA SIZE

- 5 — SQUIRREL CAGE INDUCTION MOTOR. NUMERAL DENOTES HORSEPOWER.
- G — GENERATOR
- A — A = AMMETER; V = VOLTMETER; W = WATTMETER; WH = WATTHOUR METER; D = DEMAND METER; EX = EXCITER; FM = FREQUENCY METER; RT = RUNNING TIME METER; TA = TACHOMETER; TG = TACHOMETER GENERATOR; PF = POWER FACTOR METER; VAR = VARMETER; VR = VOLTAGE REGULATOR; KWH = KILOWATTHOUR METER
- CLF — FUSE–CLF DENOTES CURRENT LIMITING TYPE
- R — INDICATING LIGHTS: R=RED, B=BLUE, G=GREEN, A=AMBER
- E — ELECTRICALLY INTERLOCKED
- K — MECHANICALLY INTERLOCKED
- K — KEY INTERLOCK
- EI — ELECTRICAL INTERLOCK
- NORMALLY OPEN CONTACT (DEENERGIZED POSITION)
- NORMALLY CLOSED CONTACT (DEENERGIZED POSITION)
- VS — VOLTMETER SELECTOR SWITCH
- AS — AMMETER SELECTOR SWITCH
- CS — CIRCUIT BREAKER CONTROL SWITCH
- CTB — CURRENT TEST BLOCK
- PTB — POTENTIAL TEST BLOCK
- TS — TEST SWITCH
- 52 — HIGH VOLTAGE VACUUM CIRCUIT BREAKER, DRAWOUT TYPE, ELECTRICALLY OPERATED, STORED–ENERGY TYPE, D.C. CLOSE AND TRIP.
- LIVE FEEDER INDICATOR, NEON TUBES, 2 PER PHASE
- Y — PHASING RECEPTACLE
- MPR — MICROPROCESSOR–BASED PROTECTION RELAY
- MPM — MICROPROCESSOR–BASED POWER MONITOR & DISPLAY
- MSR — MICROPROCESSOR–BASED STATUS RELAY
- MPD — MICROPROCESSOR–BASED POWER DISPLAY
- MPA — MICROPROCESSOR–BASED POWER MONITOR & ANALYZER (GE MULTILIN PQM OR EQUAL)
- MPC — MICROPROCESSOR–BASED POWER MONITOR & CONTROL
- MTU — MICROPROCESSOR–BASED TRIP UNIT (PROTECTION, MONITORING & COMMUNICATION)
- EQUIPMENT ENCLOSURE AND/OR CONTROLLER
- EQUIPMENT TO BE DEMOLISHED
- SPACE HEATER

SYMBOLS FOR ELEMENTARY DIAGRAMS

- STATUS INDICATION
- FIELD MOUNTED
- FRONT PANEL MOUNTED
- COMPUTER CONTROL SYSTEM CONFIGURABLE FUNCTION (DISPLAYED ON CRT)
- REAR PANEL MOUNTED
- COMPUTER CONTROL SYSTEM CONFIGURABLE FUNCTION (NOT DISPLAYED ON CRT)
- ⊖ — 120 VAC POWER SUPPLY
- OL'S — 3 OVERLOADS
- ETM — ELAPSED TIME METER

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SEALS

GEORGIA REGISTERED No. PE047045 PROFESSIONAL ENGINEER THOMAS H. POWELL 7/18/22

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SYMBOLS, LEGEND, AND GENERAL NOTES (1 OF 2)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E–001

SHEET 81 OF 150

User:HGILES Spec:AUS–NOSMOD File:I:\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E–001.DWG Scale:1:1 SavedDate:7/7/2022 Time:12:07 Plot Date: Giles, Hamilton; 7/9/2022; 14:24 ; Layout:81

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA002DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-002.DWG Scale:1:1 SavedDate:7/7/2022 Time:17:24 Plot Date: Seabrun, Kuron: 7/8/2022; 12:18 ; Layout:B2

COMMONLY USED SUFFIX LETTERS APPLIED TO RELAY FUNCTION NUMBERS

SUFFIX LETTER	RELAY APPLICATION
A	ALARM ONLY
B	BUS PROTECTION
G GS	GROUND–FAULT PROTECTION (RELAY CT IN A SYSTEM NEUTRAL CIRCUIT) OR GENERATOR PROTECTION
L	LINE PROTECTION
M	MOTOR PROTECTION
N	GROUND FAULT PROTECTION (RELAY COIL CONNECTED IN RESIDUAL CT CIRCUIT)
T	TRANSFORMER PROTECTION
V	VOLTAGE

EXAMPLES:
(1) 87T – TRANSFORMER DIFFERENTIAL RELAY
(2) 51G – TIME–OVERCURRENT RELAY USED FOR GROUND FAULT PROTECTION
(3) 49M – MOTOR WINDING OVERLOAD (OR OVER TEMPERATURE) RELAY

ABBREVIATIONS

A	AMBER LIGHT (BKR. TRIPPED)
AA	AUTOMATIC ALTERNATOR
AF	AMP FRAME
AM	AMMETER
ASC	AUTOMATIC SEQUENCING CONTACT
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUMS	SYS. AUTO–MAIN SWITCH
BFP	BELT FILTER PRESS
BTD	BEARING TEMPERATURE DETECTOR
BTS	BEARING TEMPERATURE SWITCH
CJB	CONTROL JUNCTION BOX
CV	CONE VALVE
DCU	DISTRIBUTED CONTROL UNIT
DCS	DIGITAL CONTROL SYSTEM
ECS	ENG. CONTROL SWITCH
EDH	ELECTRIC DUCT HEATER
EMS	ELECTRICAL MONITORING SYSTEM
EOV	ELECTRICALLY OPERATED VALVE
EP	ELECTRIC PNEUMATIC
ESPB	EMERGENCY STOP PUSH BUTTON
ET	VOLTAGE TRANSDUCER
EUH	ELECTRIC UNIT HEATER
FC	FLOW CONTROLLER
FE	FLOW ELEMENT
FIT FL	FLOW INDICATING TRANSMITTER FAILURE RELAY/CONTACTOR
FM1 FM2	FREQUENCY METER–INCOMING FREQUENCY METER–RUNNING
FOH	FAN–OFF–HEATER SELECTOR SWITCH
FQIT	FLOW QUANTITY INDICATING TRANSMITTER
FS	FLOAT SWITCH
FSR	FORWARD–STOP–REVERSE PUSHBUTTON, MOMENTARY–CONTACT TYPE
FSRL	FORWARD–STOP–REVERSE PUSHBUTTON, MOMENTARY–CONTACT TYPE WITH LOCKOUT LATCH
FT	FREQUENCY TRANSDUCER
G	GREEN LIGHT (BREAKER OPEN)
GCS	GENERATOR MONITORING & CONTROL SYSTEM
GFP	GROUND FAULT PROTECTION
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
H	HORN
H/TJB	HEAT TRACING JUNCTION BOX
HA	HAND–AUTOMATIC SELECTOR SWITCH
HLOT	HIGH LUBE OIL TEMPERATURE SWITCH
HOA	HAND–OFF–AUTOMATIC SELECTOR SWITCH
HOS	HAND–OFF–STANDBY SELECTOR SWITCH
HS	HORN SILENCE PUSH BUTTON
HSDB	SLUDGE DEWATERING BUILDING LOW VOLTAGE PANEL
HSPB	SLUDGE PUMP BUILDING HIGH VOLTAGE PANEL
HT	HEAT TRACING
HWT	HIGH WATER TEMPERATURE SWITCH
IL	INDICATING LIGHT
IT	CURRENT TRANSDUCER
JOC	JOG–OPEN–CLOSE PUSHBUTTON, MOMENTARY–CONTACT TYPE
JT	WATT TRANSDUCER
KS	KEY SWITCH
LC	LEVEL CONTROLLER
LCI	LOAD COMMUTATED INVERTER
LCP	LOCAL CONTROL PANEL
LDSS	LEAD UNIT SELECTOR SWITCH
LE	LEVEL ELEMENT
LI	LEVEL INDICATOR
LIT	LEVEL INDICATING TRANSMITTER
LLOP	LOW LUBE OIL PRESSURE SWITCH
LOR	LOCAL–OFF–REMOTE SELECTOR SWITCH
LR	LOCAL–REMOTE SELECTOR SWITCH
LS	LIMIT SWITCH
LSDB	SLUDGE DEWATERING BUILDING LOW VOLTAGE PANEL
LSPB	SLUDGE PUMP BUILDING LOW VOLTAGE PANEL
LTS	LIGHT TEST PUSH BUTTON
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MHC	MECHANICALLY HELD LIGHTING CONTACTOR
MHP	DENOTES MEDIUM VOLTAGE POWER

CONT.–ABBREVIATIONS

MLO	MAIN LUGS ONLY
MOV	MOTOR OPERATED VALVE
MS	MASTER CONTROL SWITCH
MSH	MOISTURE SWITCH HIGH
MSC	MANUFACTURER SUPPLIED CABLE
MSD	MOISTURE SENSING DETECTION PANEL
MSH	MOTOR SPACE HEATER
MTP	MOTOR THERMAL PROTECTOR (BUILT–IN)
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPENED
OC	OPEN–CLOSE SWITCH
OL	OVERLOAD RELAY/CONTACTOR
OSC	OPEN–STOP–CLOSE PUSHBUTTON
PE	PNEUMATIC ELECTRIC
PFCC	POWER FACTOR CORRECTION CAPACITOR (HARMONIC FILTER)
PFT	POWER FACTOR TRANSDUCER
PHL	PHOTOELECTRIC SWITCH
PJB	POWER JUNCTION BOX
PLC	PROGRAMMABLE LOGIC CONTROLLER
PS	PRESSURE SWITCH
RC	RATE CONTROLLER
RESET	RESET BUTTON
RO	RUN–OFF SWITCH
RSFS	REMOTE–SLOW–FAST–STOP SELECTOR SWITCH
RTD	RESISTANCE TEMPERATURE DETECTORS
RTM	RUNNING TIME METER
SC	SPEED CONTROLLER
SCR	SILICON CONTROLLED RECTIFIER DRIVE
SCV	SURGE CONTROL VALVE
SEL	SELECTOR SWITCH
SF	SLOW–FAST PUSHBUTTON, MOMENTARY–CONTACT TYPE
SFS	SLOW–FAST–STOP PUSHBUTTON, MOMENTARY–CONTACT TYPE
SI	SPEED INDICATOR
SL	SYNCHRONIZING LIGHT
SLR	SLIP LOSS RECOVERY VARIABLE SPEED DRIVE CONTROLLER
SO	SAFE–OFF SWITCH
SOL	SAFE–OFF SWITCH, WITH LOCKOUT LATCH
SPF	SHEAR PIN FAILURE CONTACT
SQ	SEQUENCE SELECTOR SWITCH
SRC	SECONDARY RESISTOR CONTROLLER
SS	SYNCHROSCOPE
SSI	START–STOP PUSHBUTTON, MOMENTARY–CONTACT TYPE WITH RED (RUN) AND GREEN (OFF) INDICATING LIGHTS
SSL	START–STOP PUSHBUTTON, MOMENTARY–CONTACT TYPE WITH LOCKOUT LATCH
SSM	START–STOP PUSHBUTTON, MAINTAINED–CONTACT TYPE
ST1	SERVICE TRANSFORMER NO.1
SV	SOLENOID VALVE
SWSV	SEAL WATER SOLENOID VALVE
T	THERMOSTAT
T/C	THERMOCOUPLE
TG	TACHOMETER GENERATOR
TI	TIMER
TIT	TEMPERATURE INDICATING TRANSMITTER
TJB	TERMINAL JUNCTION BOX
TMS	TRANSFER MODE SELECTOR SWITCH
TQ	TORQUE ALARM SWITCH
TS	TEMPERATURE SWITCH
TSH	TEST SWITCH HIGH
TSP	TWISTED SHIELDED PAIR
TT	TEMPERATURE TRANSDUCER
TVSS	TRANSIENT VOLTAGE SURPRESSION SYSTEM
VFD	VARIABLE FREQUENCY DRIVE
VMI	VOLT METER–INCOMING
VMR	VOLT METER–RUNNING
WP	WEATHER–PROOF
ZS	POSITION SWITCH

SPECIFICATIONS

1. WORK THESE DRAWINGS WITH APPLICABLE PROJECT SPECIFICATIONS.
2. CABLE NUMBERING SCHEME

FIRST DIGIT=CABLE TYPE

H= POWER CABLES > 600V.
P= POWER CABLES 120V. TO <= 600V.
C= CONTROL CABLES.
I= INSTRUMENTATION CABLES–LOW VOLTAGE DC.
S= SPECIAL COMMUNICATION CABLES
X= SPARE CABLES

SECOND DIGIT=PROCESS AREA

2= AREA 83 SLUDGE DEWATERING
3= AREA 93 PUMP STATION
4= AREA 94 CHEMICAL FEED BUILDING & AREA
5= AREA 95 NEW VORTEX SEPARATOR
6= AREA 96 SLUDGE PUMPING BUILDING & AREA
7= AREA 97 FILTER BUILDING
8= AREA 98 CHEMICAL FEED INSIDE FILTER BUILDING

REMAINING DIGITS REPRESENT UNIQUE SEQUENTIAL CABLE NUMBER.

GENERAL NOTES:

1. ALL INSTALLATIONS SHALL MEET THE CITY OF ATLANTA, THE FULTON COUNTY AND THE STATE OF GEORGIA GUIDELINES AND REGULATIONS.
2. ALL ELECTRICAL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE (NESC) AND NFPA–820 – STANDARD FOR FIRE PROTECTION IN WASTEWATER TREATMENT AND COLLECTION FACILITIES.
3. ALL METALLIC CONDUITS, ELECTRICAL EQUIPMENT, STEEL STRUCTURES, PIPING, MOTOR FRAMES ETC. SHALL BE CONNECTED TO THE GROUNDING SYSTEM PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE. UTILIZE UL LISTED BONDING METHODS.
4. ALL EQUIPMENT LOCATION SHALL BE COORDINATED IN FIELD WITH OTHER TRADES. CONDUIT ROUTING AND EQUIPMENT LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY. THE EXACT LOCATION OF ALL EQUIPMENT AND ROUTING OF CABLES AND CONDUITS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION.
5. DRAWINGS ARE PREPARED BASED ON EXISTING DRAWINGS WITHOUT A FIELD SURVEY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT THAT WHAT IS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE ADDITIONAL CONDUITS, PULL BOXES, SWITCHES, CIRCUIT BREAKERS ETC. AS REQUIRED.
6. THE CONTRACTOR SHALL COORDINATE WITH THE CITY AND ENGINEER, AND SUBMIT A SEQUENCE OF CONSTRUCTION TO MEET THE ABOVE REQUIREMENT. THE CITY AND ENGINEER RESERVE THE RIGHT TO APPROVE, DISAPPROVE OR REVISE AS DEEMED NECESSARY.
7. ALL CONDUCTORS, CABLES, ETC. ASSOCIATED WITH THE REPLACEMENT MCCS SHALL BE REMOVED FROM CONDUITS AS PER THE APPROVED SEQUENCE OF CONSTRUCTION. CONDUITS MAY BE CLEANED AND REUSED IF THEY ARE NOT DAMAGED AND THEY DO NOT SHOW ANY SIGN OF DETERIORATION.
8. NEW WIRING USING EXISTING CONDUITS, TERMINAL AND PULL BOXES SHALL BE PROVIDED UP TO THE MAXIMUM POSSIBLE EXTENT TO MAINTAIN STRUCTURAL INTEGRITY OF THE EXISTING INFRASTRUCTURE. PROVIDE NEW CONDUITS, TERMINAL AND PULL BOXES AS REQUIRED. ALL WIRING SHALL BE NEW AND RUN UNSPLICED BETWEEN TWO TERMINATION POINTS. NO EXCEPTIONS. ALL UNUSED EXISTING CONDUITS SHALL BE CAPPED AT BOTH ENDS AND ABANDONED IN–PLACE.
9. POWER WIRING SHALL NOT BE COMBINED UNLESS NOTED OTHERWISE ON THE DRAWINGS. IF COMBINED, CONDUCTOR AMPACITY DERATING SHALL BE APPLIED AS PER THE NEC.
10. CONTROL WIRING (14 AWG CONDUCTORS) MAY BE COMBINED INTO A COMMON CONTROL CONDUIT AS PERMITTED BY THE NEC TO MINIMIZE THE NUMBER OF CONDUIT RUNS TO THE CONTROL PANEL AND TO MAINTAIN STRUCTURAL INTEGRITY OF THE EXISTING INFRASTRUCTURE.
11. SIGNAL WIRING (TWISTED SHIELDED PAIR CABLES) MAY BE COMBINED INTO A COMMON SIGNAL CONDUIT AS PERMITTED BY THE NEC TO MINIMIZE THE NUMBER OF CONDUIT RUNS TO THE CONTROL PANEL AND TO MAINTAIN STRUCTURAL INTEGRITY OF THE EXISTING INFRASTRUCTURE.
12. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH THE LAST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE.
13. EXISTING CSO FACILITY SHALL REMAIN OPERATIONAL DURING DEMOLITION. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER, CONTROL AND ANY ANCILLIARY EQUIPMENT AND LABOR AS REQUIRED.
14. THE CONTRACTOR SHALL COMPLETE ALL DEMOLITION WORK WITH MINIMUM PRE–APPROVED DOWNTIME. THE CONTRACTOR SHALL SUBMIT DOWNTIME APPROVAL REQUEST IN WRITING. THE CITY AND ENGINEER RESERVE THE RIGHT TO APPROVE, DISAPPROVE OR REVISE AS DEEMED NECESSARY.
15. REFER TO ALL CONTRACT DOCUMENTS INCLUDING CIVIL, MECHANICAL AND INSTRUMENTATION AND CONTROL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIRED. THE CONTRACTOR SHALL PROVIDE ANY ANCILLIARY EQUIPMENT, LABOR AND MATERIAL NECESSARY TO COMPLETE THE WORK.
16. REMOVE ALL EXISTING WIRING BACK TO THEIR SOURCE OR ORIGIN. ABANDON ALL UNUSED EXISTING CONDUITS IN–PLACE AND CAP.
17. THE CONTRACTOR SHALL NOT DISCARD ANY EQUIPMENT WITHOUT COORDINATION WITH THE CITY.
18. ALL CONDUCTORS, CABLES, STC. SHALL BE REMOVED FROM ALL UNUSED CONDUITS.

HAZARDOUS AREA CLASSIFICATION

INSTALLATION SHALL MEET NFPA 820 AND NEC ART 500. EXTENT OF HARZARDOUS AREAS IS BASED ON THESE STANDARDS. HAZARD IS FROM METHANE AND GASOLINE (CLASS 1 GROUP D MATERIALS PER NEC). NOTE THAT THIS TABLE IS FOR HAZARDOUS AREAS ONLY, FOR CORROSIVE AREAS SEE PROJECT SPEC. 16010.

AREA	CLASSIFICATION	COMMENT
BYPASS TO WRC HEADWORKS, PUMP STATION,	A) CLASS I, DIV. 1: BELOW GRADE PUMP WELL B) CLASS I, DIV. 2: SPACE 18 INCHES HIGH ABOVE HATCH AND 3 FEET BEYOND HATCH OR ENCLOSED SPACE C) CLASS I, DIV. 2: SPHERE OF 3–FOOT RADIUS AROUND VENT	
HEADBOX, NEW VORTEX SEPARATOR	A) CLASS I, DIV. 1: SPACES BENEATH CHANNEL COVERS B) CLASS I, DIV. 2: ALL EXTERIOR SPACES ABOVE STRUCTURE, 18 INCHES HIGH C) CLASS I, DIV. 2: 10 FOOT SPACE, 18 INCHES HIGH BEYOND STRUCTURE PERIMETER	
GRIT SETTLING BASIN, SEDIMENTATION BASIN	A) CLASS 1, DIV 1: SPACES BENEATH BASIN COVERS B) CLASS 1, DIV 2: SPACE 10 FEET WIDE AND 18 INCHES HIGH ABOVE GRADE AROUND BASIN PERIMETER C) CLASS 1, DIV. 2: SPACE 18 INCHES BEYOND BASIN COVER AND STRUCTURE SURFACE	
GRIT PUMPS PITS, DETRITUS TANKS, OTHER PUMP PITS & WELLS	A) CLASS 1, DIV.1: BELOW GRADE SPACES B) CLASS 1, DIV.2: SPACE 18 INCHES HIGH ABOVE TOP OF PIT AND SPACE 10 FEET WIDE AND 18 INCHES HIGH BEYOND PIT PERIMETER	
SLUDGE PUMP STATION	A) CLASS 1, DIV. 1: SLUDGE PIT INTERIOR SPACE B) CLASS 1, DIV. 2: SPACE 18 INCHES HIGH ABOVE SLUDGE PIT HATCH AND SPACE 10 FEET WIDE AND 18 INCHES HIGH BEYOND HATCH PERIMETER C) NON–HAZARDOUS: PUMP ROOM SPACE D) ELECTRICAL ROOM – UNCLASSIFIED	
SLUDGE HOLDING TANKS AND PUMP ROOM	A) CLASS I, DIV. 1: TANK INTERIOR SPACES B) CLASS I, DIV. 2: NORTH AND SOUTH PIPING GALLERIES AND STAIRWELLS C) CLASS 1, DIV. 2: SPACE 10 FEET WIDE AND 18 INCHES HIGH ABOVE GRADE AROUND TANK PERIMETER D) CLASS I, DIV. 2: SPACE 18 INCHES BEYOND TANK STRUCTURE SURFACE E) NON–HAZARDOUS: UPPER AND LOWER LEVELS OF PUMP ROOM (HEADHOUSE)	
FILTER BUILDING	A) ELECTRICAL ROOM – UNCLASSIFIED B) NON–HAZARDOUS, CORROSIVE	
BELOW GROUND SUMP PUMP PITS, VALVE VAULTS & SPACES	CLASS I, DIV. 2: BELOW GRADE AND SPACE 10 FEET WIDE BEYOND ENCLOSED SPACE AND 18 INCHES ABOVE	
SOLIDS PROCESSING BUILDING	NON–HAZARDOUS, CORROSIVE	DERATED BY VENTILATION 12 ACH PER NFPA 820 6.2.2.2 ROW 9B
SLUDGE DEWATERING BUILDING	NON–HAZARDOUS, CORROSIVE	DERATED BY VENTILATION 12 ACH PER NFPA 820 6.2.2.2 ROW 12A

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NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SYMBOLS, LEGEND, AND GENERAL NOTES (2 OF 2)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E–002

SHEET 82 OF 150

LAKESHORE ENGINEERING

May 18, 2023

PCO-12

Scott Miller
City of Atlanta CMG
2528 Chattahoochee Circle
Atlanta, GA 30318

RE: East Area Water Quality Control Facility Improvements
PWCD-12 Rev.2 Electrical Gear Changes

Dear Mr. Miller:

As requested, we've updated the price to option-4 of this PWCD. The revised price is One million four hundred twenty four thousand five hundred dollars $1,420,500.00.

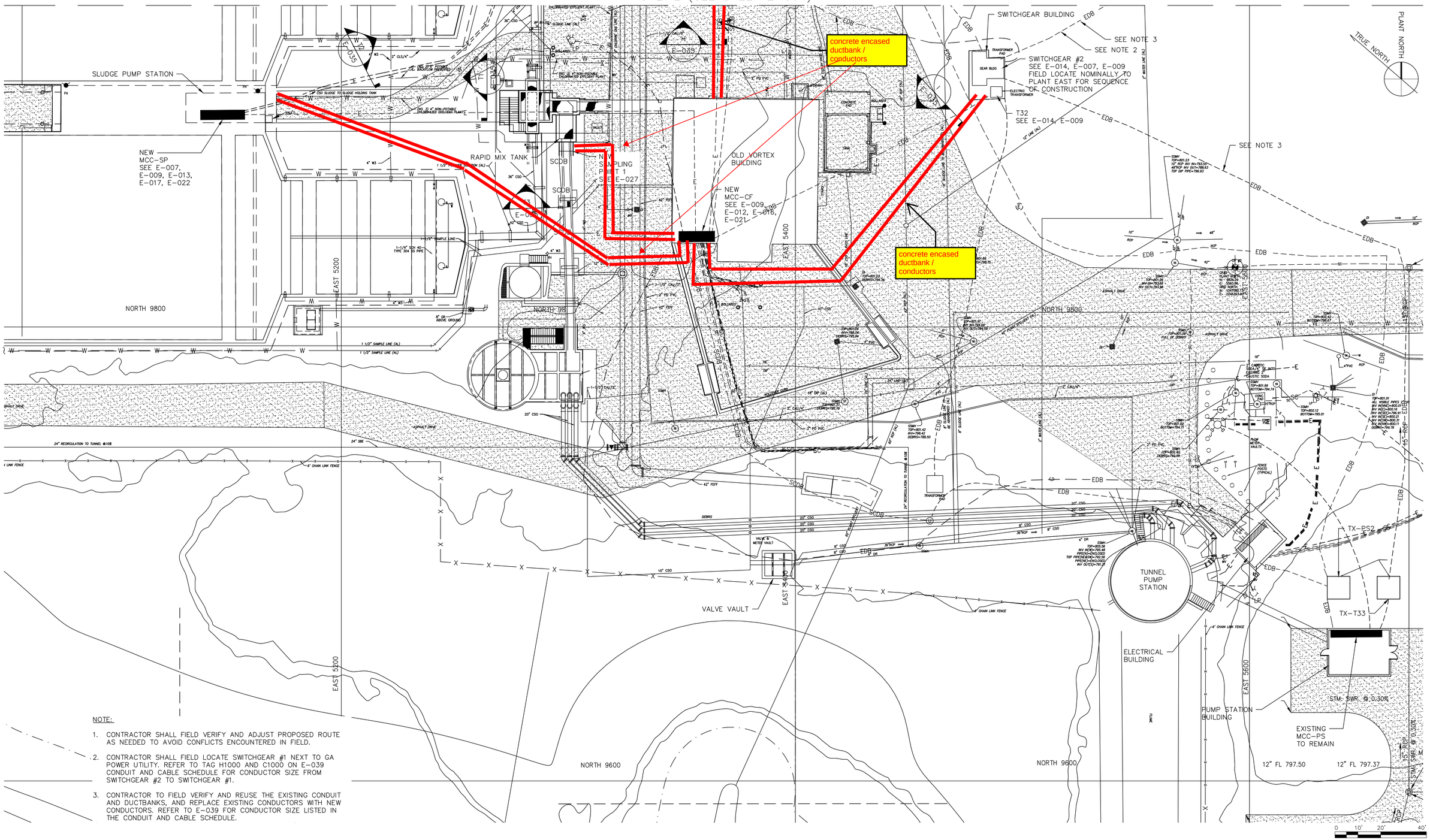
- Option 4 – Additional Cost $1,420,500.00 – Project Delay – 214 Days
  - EATON supplied low voltage Gear and Tech4 supplied medium voltage gear with Main-Tie-Main features added to the Medium & Low voltage equipment. The rating on the medium voltage Switchgear -2 equipment would BE NEMA-1 (indoor use only)
  - The Tech4 supplied E-house enclosure that is made of insulated Aluminum panels that only requires an exhaust fan for cooling, local transformer/house power, and lights for Switchgear -2.
    - There would be long term cost savings with this option.
  - Does include the Arc quenching system.

Two hundred fourteen days need to be added the contract.

Sincerely,

Brandon Dow
Senior Project Manager

MATCHLINE (SEE SHEET E-004)



NOTE:

1. CONTRACTOR SHALL FIELD VERIFY AND ADJUST PROPOSED ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD.
2. CONTRACTOR SHALL FIELD LOCATE SWITCHGEAR #1 NEXT TO GA POWER UTILITY. REFER TO TAG H1000 AND C1000 ON E-039 CONDUIT AND CABLE SCHEDULE FOR CONDUCTOR SIZE FROM SWITCHGEAR #2 TO SWITCHGEAR #1.
3. CONTRACTOR TO FIELD VERIFY AND REUSE THE EXISTING CONDUIT AND DUCTBANKS, AND REPLACE EXISTING CONDUCTORS WITH NEW CONDUCTORS. REFER TO E-039 FOR CONDUCTOR SIZE LISTED IN THE CONDUIT AND CABLE SCHEDULE.

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SEALS

GEORGIA REGISTERED No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL 7/8/22

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL SITE PLAN (1 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

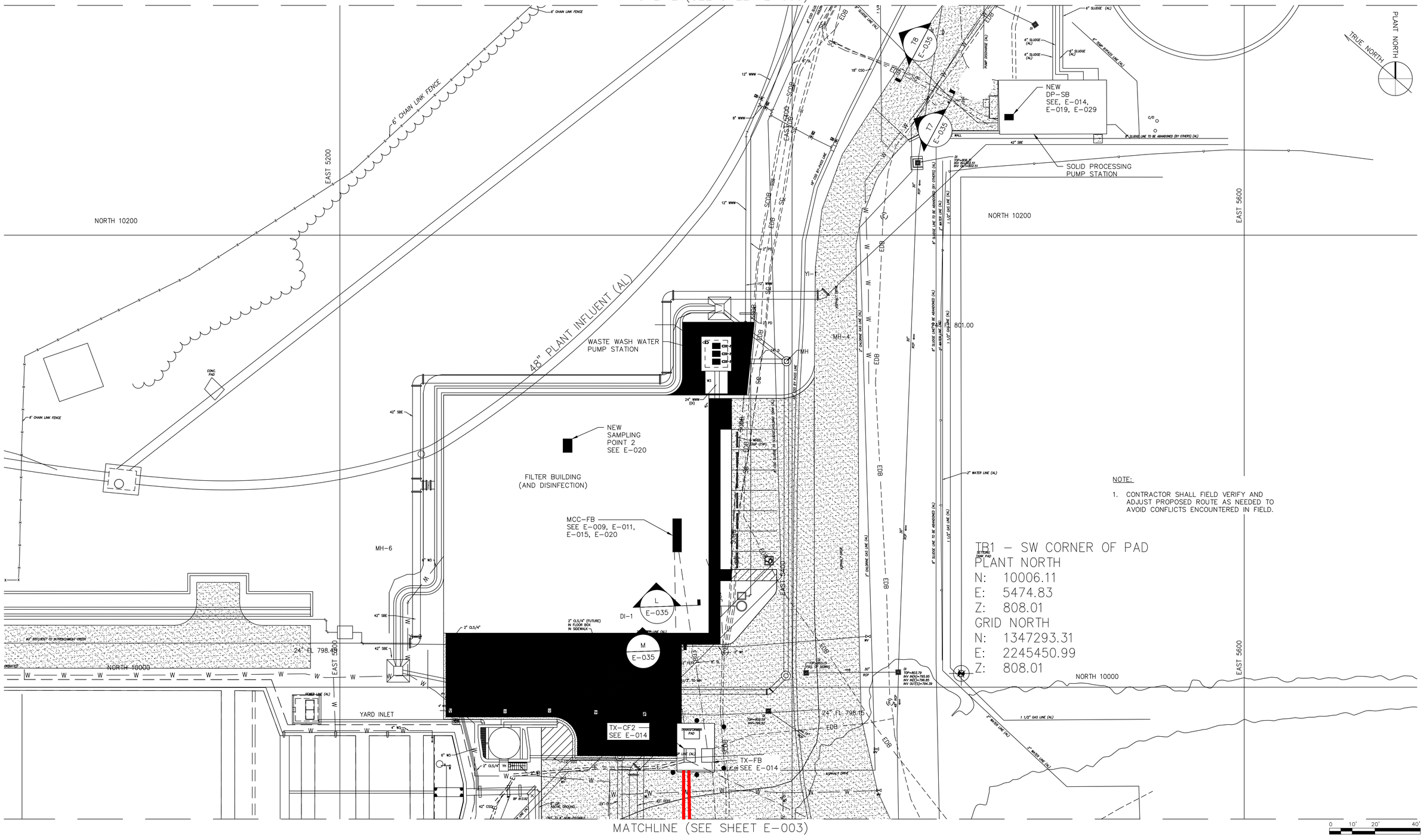
SCALE: 1" = 20'

E-003

SHEET 83 OF 150

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-003.DWG Scale:1:1 SavedDate:7/8/2022 Time:15:46 Plot Date: Seabrun, Kuron: 7/8/2022; 15:50 ; Layout:B3

MATCHLINE (SEE SHEET E-005)



MATCHLINE (SEE SHEET E-003)

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL SITE PLAN (2 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	C. ATKINS
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: 1" = 20'

E-004

SHEET 84 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-004.DWG Scale:1:1 SavedDate:7/7/2022 Time:13:13 Plot Date: Seabrun, Kuron, 7/8/2022, 12:27 : Layout:84

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-005.DWG Scale:1:1 SavedDate:7/7/2022 Time:13:21 Plot Date: Seabrun, Kuron: 7/8/2022, 12:30 : Layout:B5

NORTH 10600

EAST 5200

EAST 5400

EAST 5600

PLANT NORTH

TRUE NORTH

NOTE:

1. CONTRACTOR SHALL FIELD VERIFY AND ADJUST PROPOSED ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD.
2. FURNISH AND INSTALL NEW FIBER OPTIC CABLE.
3. TRANSFORMER T31 IS EXISTING AND LOCATED NEXT TO THE SLUDGE DEWATERING BUILDING. CONTRACTOR SHALL FIELD LOCATE.

TO ADMIN BUILDING (NOTE 2)

TO SWITCHGEAR #4

EXISTING TX-CB2 1000 KVA PAD

T5 E-035

T4 E-035

FIBER CONDUIT

NEW MCC-SDB SEE E-014, E-018, E-024

SLUDGE DEWATERING BUILDING

TO TX-31 SEE NOTE 3

T6 E-035

6' CHAIN LINK FENCE

SLUDGE HOLDING TANK NO. 1

TWO 8"DIP RISERS THAT BEND 90 DEGREES INTO TANK

NORTH 10400

EAST 5400

EAST 5600

DIGESTER

MATCHLINE (SEE SHEET E-004)

0 10' 20' 40'

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL SITE PLAN (3 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: 1" = 20'

E-005

SHEET 85 OF 150

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #7 REV.2 Solids dewatering building ductbank layout

Status	Open		
To	**Steve Scarlett - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	**9/15/2022**	**Due Date**	**9/16/2022**
Location		**Project Stage**	
Cost Impact	Yes (Unknown)	**Schedule Impact**	Yes (Unknown)
Spec Section		**Cost Code**	
Drawing Number	E5	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Brandon Dow - 9-15-2022

We've highlighted in yellow the medium voltage part that will run under the slab.
We've also noted how we plan to address the duct bank on the south side.
We will use an H20 rated lid for these manholes.

Awaiting an Official Response

Answer:

Proposed changes are acceptable.

Contractor to provide proposed cost changes.

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Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #7 REV.1 Solids dewatering building ductbank layout

Status	Open		
To	**Steve Scarlett - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	**9/13/2022**	**Due Date**	**9/15/2022**
Location		**Project Stage**	
Cost Impact	Yes (Unknown)	**Schedule Impact**	Yes (Unknown)
Spec Section		**Cost Code**	
Drawing Number	E5	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Brandon Dow - 9-13-2022

See the revised ductbank and manhole plan.

Awaiting an Official Response

Answer:

Hand holes if located where shown will need to be rated H20 for road duty.

The medium voltage conduit was discussed in the meeting but is not noted on the drawing.

Please detail the connection of the conduits on south side of building as they intercept the existing ductbanks to the south. Contractor may want to consider an additional handhole on south side of building for this intercept.

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1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #7: Solids dewatering building ductbank layout

Status	Open		
To	**Steve Scarlett - COA/CMG**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Aug 22, 2022	**Due Date**	Aug 29, 2022
Location		**Project Stage**	
Cost Impact	Yes (Unknown)	**Schedule Impact**	Yes (Unknown)
Spec Section		**Cost Code**	
Drawing Number	E5	**Reference**	
Linked Drawings			
Received From	Brandon Dow (Lakeshore Engineering)		
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Monday, Aug 22, 2022 at 04:06 PM EDT*

The existing duct bank under the old centrifuge building could not be used. See the attached plan to reroute the old duct banks and fiber optic communication line into a new electric manhole and on into MCC-SDB. There will be additional cost for this work once the plan is approved; a cost estimate will be submitted.

Attachments
RFI-7 Solids dewatering building ductbank.pdf

Awaiting an Official Response

Answer:

Contractor is advised to review sheet C-011 for proposed underground piping, grading, and drainage requirements. The contractor proposed location of new electrical manhole in this RFI -07 conflicts with site improvements shown on C-011, and a new location is suggested.

Contractor shall maintain isolation of medium voltage cables from other insulation classes; MV cables are not to be installed with 600 VAC cables and lower. Communication and Fiber Optic Cables are to be isolated from 600 VAC cables. Consider the installation of electrical handholes/manholes or exterior mounted stainless steel junction boxes for all existing conduits on north and south side of Dewatering Building, to allow construction of Dewatering Building and removal of existing ductbank within footprint of Dewatering Building as required.

Field route conduits as required for in-building use avoiding structural and process mechanical elements, or between handholes for continuation of circuits outside of the building.

NOTES:

1. REPLACE EXISTING 8" SLUDGE LINE FROM SEDIMENTATION BASINS TO SLUDGE HOLDING TANK.
2. REPLACE TWO (2) EXISTING SLUDGE LINES CONNECTING PROPOSED SLUDGE DEWATERING BUILDING TO EXISTING SOLIDS PROCESSING PUMP STATION WITH TWO (2) NEW 6" SLUDGE LINES.
3. DEMOLISH AND FILL EXISTING VALVE AND METER VAULTS (SIZES UNKNOWN) LOCATED BENEATH SLUDGE DEWATERING BUILDING FOOTPRINT.
4. EXTEND 3" W2 LINE OFF EXISTING CITY W2 SYSTEM TO NEW SLUDGE DEWATERING BUILDING. CONTRACTOR TO FIELD VERIFY CONNECTION AND ASSOCIATED ROUTING.
5. INSTALL ONE (1) 8" SLUDGE LINE FROM SLUDGE HOLDING TANK TO SOLIDS PROCESSING PUMP STATION. SEE SHEET M-013.
6. REPLACE EXISTING SLUDGE HOLDING TANK OVERFLOW LINE TO PROPOSED MANHOLE.
7. CONTRACTOR TO FIELD VERIFY AND ADJUST PROPOSED PIPE ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD. PLAN VIEW ROUTE AND ELEVATION PROVIDED AS GENERAL GUIDANCE.
8. CLEANOUTS TO BE INSTALLED ALONG LINE AT MAXIMUM SPACING OF 100 FEET. NOT USED
9. RESTORE ANY DISTURBED EXISTING CURB AND GUTTER, CATCH BASIN, MANHOLE COVERS AND ASPHALT ADJACENT TO PROPOSED SLUDGE DEWATERING BUILDING TO MATCH EXISTING CONDITIONS. (SEE CIVIL DETAILS.)
10. CONCRETE APRONS SHALL BE INSTALLED AT DESIGNATED LOCATIONS. APRONS SHALL BE SLOPED FROM ASPHALT TO MEET FFE/SLAB ELEVATION AT EACH ROLL-UP DOOR ELEVATION (SEE CIVIL DETAILS).
11. REFER TO M-010 AND M-011 FOR CONNECTIONS TO EXISTING SLUDGE TANK.
12. INSTALL 8" CHECKMATE INLINE CHECK VALVE OR EQUAL AT THIS LOCATION IMMEDIATELY UPSTREAM OF MANHOLE.
13. CONTRACTOR TO REPLACE ALL PAVEMENT WITHIN THE DISTURBED AREA AROUND THE SLUDGE DEWATERING BUILDING PLUS MILL AND OVERLAY THE STAGING/LAYDOWN AREA. SEE CIVIL DETAILS FOR PAVEMENT DETAIL.
14. CONTRACTOR TO REPLACE ALL PAVED AREAS DAMAGED DURING CONSTRUCTION. REPLACEMENT TO CONSIST OF PAVEMENT MILL AND OVERLAY.
15. CONTRACTOR TO REPAIR ANY CURB AND GUTTER DISTURBED DURING CONSTRUCTION. SEE CIVIL DETAILS.
16. TOP OF SIDEWALK ELEVATION FOR SLUDGE DEWATERING BUILDING IS 826.80 FT. (TYP.) AND SLOPES AWAY FROM BUILDING TO ASPHALT. TIE INTO PROPOSED GRADING.
17. BOLLARDS (7) TO BE FIELD LOCATED AND VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
18. TOTAL DISTURBED AREA = 0.91 ACRES.
19. CONTRACTOR TO CONFIRM THIS LINE AS STORM, SANITARY OR COMBINED WITH FACILITY STAFF. NOT USED
20. SET STORMWATER MANHOLE TOP 2 FT (MIN) ABOVE PROPOSED GRADE.
21. CONSTRUCT HEADER CURB ALONG CONCRETE SIDEWALK.
22. END CURB AND GUTTER. BEGIN HEADER CURB.
23. ADJUST STORMWATER MANHOLE TOP AS NEEDED TO MATCH PROPOSED GRADE.
24. LOCATION AND ELEVATIONS OF EXISTING SITE FEATURES, UTILITIES AND WORK ARE BASED ON THE BEST AVAILABLE INFORMATION INCLUDING TOPOGRAPHIC SURVEY AND RECORD DRAWINGS. EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A UTILITY LOCATE AND FIELD SURVEY TO CONFIRM EXISTING GRADE ELEVATIONS AND DEPTHS AND LOCATIONS OF ALL STRUCTURES, UTILITIES, AND LINEWORK LOCATED WITHIN THE LIMITS OF DISTURBANCE. THE FIELD SURVEY AND UTILITY LOCATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
25. REFER TO LARGE DIAMETER MANHOLE BASE STANDARD DETAIL FOR CONSTRUCTION OF STORMWATER MANHOLES. 3,000 PSI CONCRETE FILL AROUND PIPE WITHIN MANHOLE AS SHOWN ON DETAIL IS NOT REQUIRED.
26. ADJUST SANITARY SEWER MANHOLE RIM ELEVATIONS AS NEEDED TO MATCH PROPOSED GRADE IN PAVED AREAS.
27. FILLING OF THE BIORETENTION POND WITH THE PERMEABLE SOIL MATERIAL, MULCH, AND LANDSCAPING OF THE BMP SHOULD NOT OCCUR UNTIL THE FINAL PHASE OF CONSTRUCTION AFTER THE PROPOSED BUILDING AND UTILITIES ARE CONSTRUCTED AND FINAL GRADING FOR THE SITE (EXCEPT WHERE THE BIORETENTION AREA WILL BE CONSTRUCTED) HAS BEEN COMPLETED. ONCE THE SITE IS STABILIZED WITH VEGETATION AND IMPERVIOUS SURFACE COVER, THE SEDIMENT SHALL BE REMOVED FROM THE POND AND FINAL CONSTRUCTION OF THE POND COMPLETED.
28. SEAL EXISTING 24" RCP INTO EX. MANHOLE. PROVIDE CORE AND BOOT FOR NEW 24" RCP INTO MANHOLE.
29. ABANDON IN PLACE EXISTING 24" RCP UNDER BUILDING TO EXISTING STMH. SEE SHEET C-001 OUTSIDE PIPING NOTE NO. 1
30. CONTRACTOR TO PROVIDE INLET PROTECTION TO ENSURE NEW MANHOLES AND STRUCTURES ARE PROTECTED FROM COLLECTING SEDIMENT DURING CONSTRUCTION.

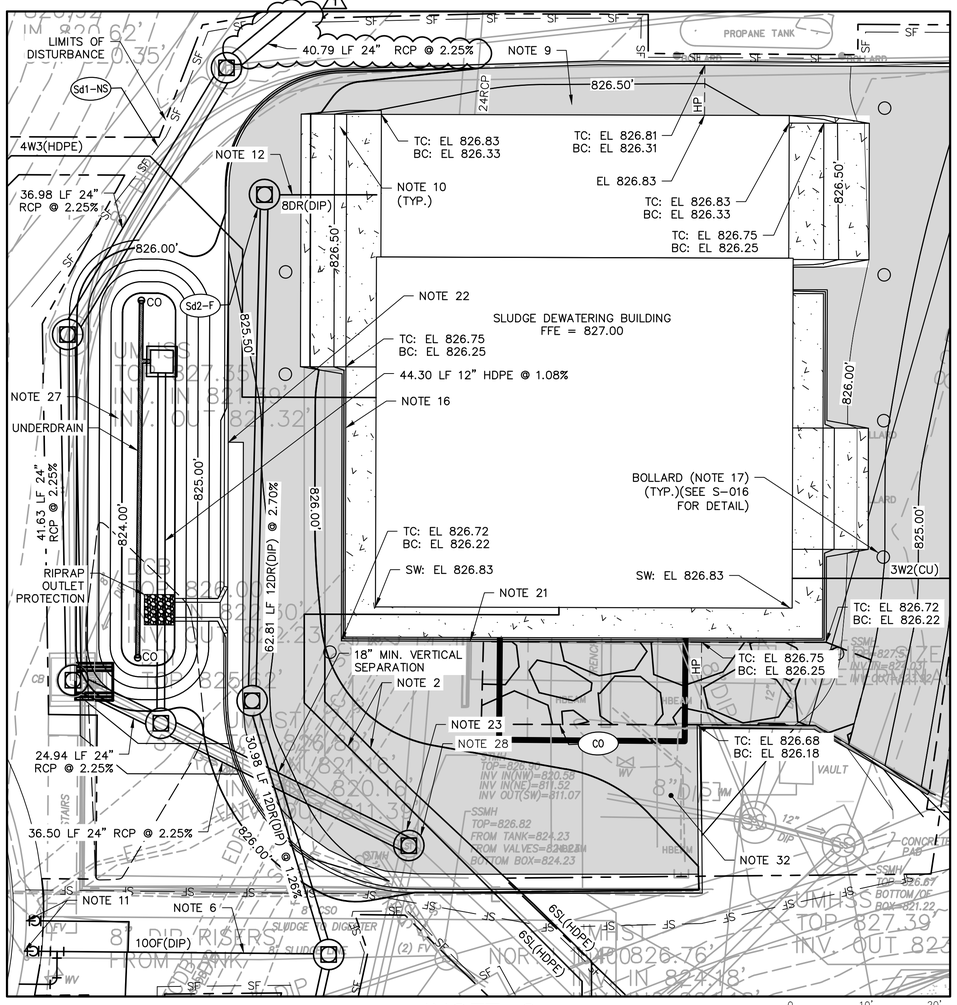
EROSION CONTROL NOTES

Ds1 | Ds2 | Ds3

1. ALL NON IMPERVIOUS DISTURBED AREAS TO BE STABILIZED USING TEMPORARY/PERMANENT STABILIZATION PRACTICES (TYPICAL). ALL TEMPORARY/PERMANENT STABILIZATION PRACTICES ARE TO BE IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION AND APPROVED BY ENGINEER.

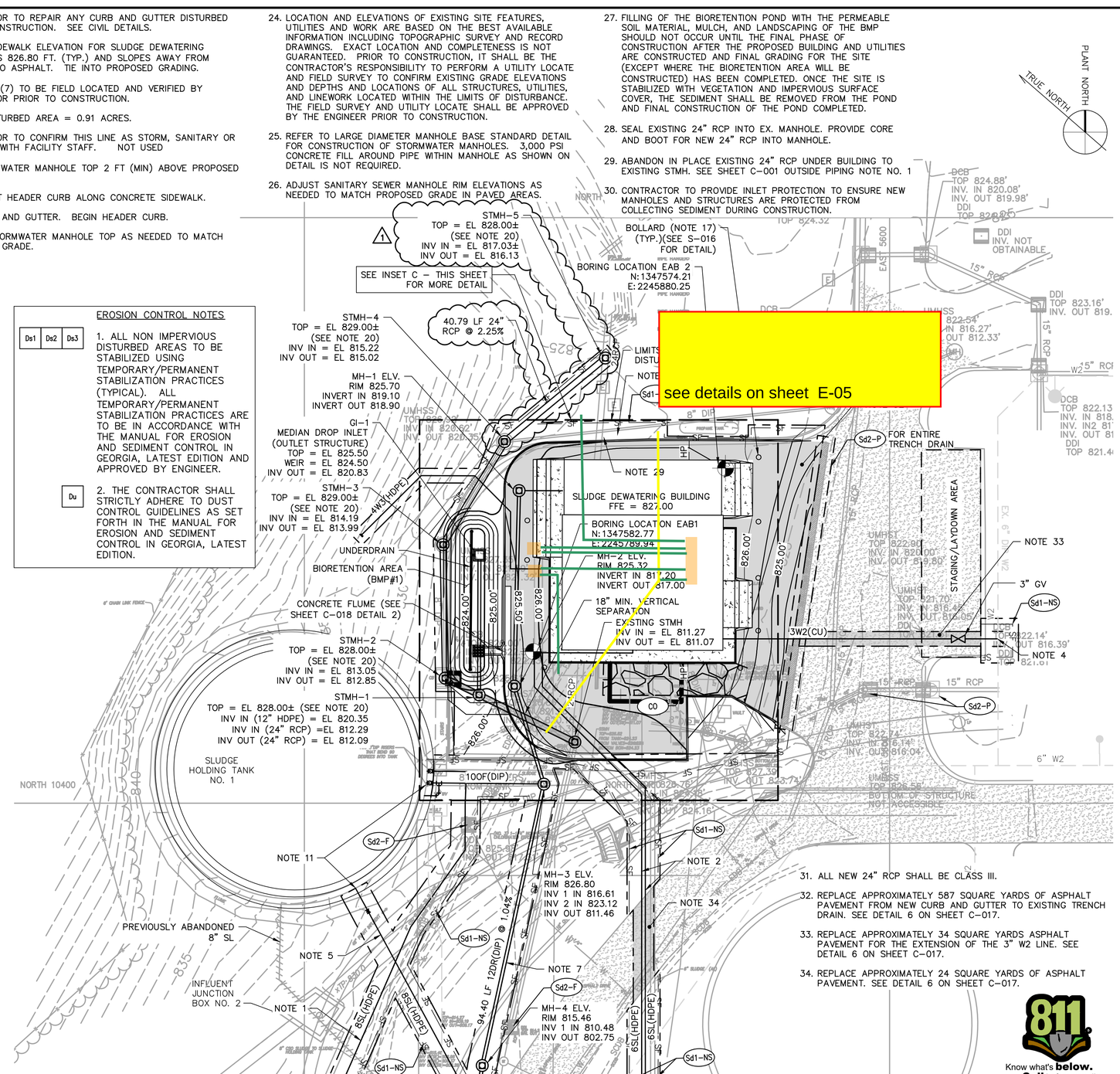
Du

2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL GUIDELINES AS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.



INSET C

SCALE: 1" = 10'



MATCHLINE (SEE SHEET C-010)

31. ALL NEW 24" RCP SHALL BE CLASS III.
32. REPLACE APPROXIMATELY 587 SQUARE YARDS OF ASPHALT PAVEMENT FROM NEW CURB AND GUTTER TO EXISTING TRENCH DRAIN. SEE DETAIL 6 ON SHEET C-017.
33. REPLACE APPROXIMATELY 34 SQUARE YARDS ASPHALT PAVEMENT FOR THE EXTENSION OF THE 3" W2 LINE. SEE DETAIL 6 ON SHEET C-017.
34. REPLACE APPROXIMATELY 24 SQUARE YARDS OF ASPHALT PAVEMENT. SEE DETAIL 6 ON SHEET C-017.

Know what's **below.** **Call** before you dig.

0 10' 20' 40'

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
1	AUG 2022	REVISED SDMH-5 LOCATION	HG
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. 031826 PROFESSIONAL ENGINEER DAVID ANDREW WILSON

8/09/2022

GSWCC NO. 0000044976, EXPIRES 10/02/2022.

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www.arcadis-us.com

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

OUTSIDE PIPING, GRADING, DRAINAGE AND EROSION CONTROL PLAN 3

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	W. HACKETT/DAW
DRAWN BY:	J. BROWN/ADC
CHECKED BY:	A. SHARP/DAW

SCALE: 1" = 20'

20'-0"

C-011

SHEET 16 OF 150

User:ACRAIN Spec:AUS-NCSMOD File:\\ARCADIS-US\OFFICEDATA\ATLANTA-GA\GA02\DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\CIVIL\C-011.DWG Scale:1:1 SavedDate:8/9/2022 Time:15:05 Plot Date: Crain, Angela; 8/9/2022; 15:18 ; Layout:16

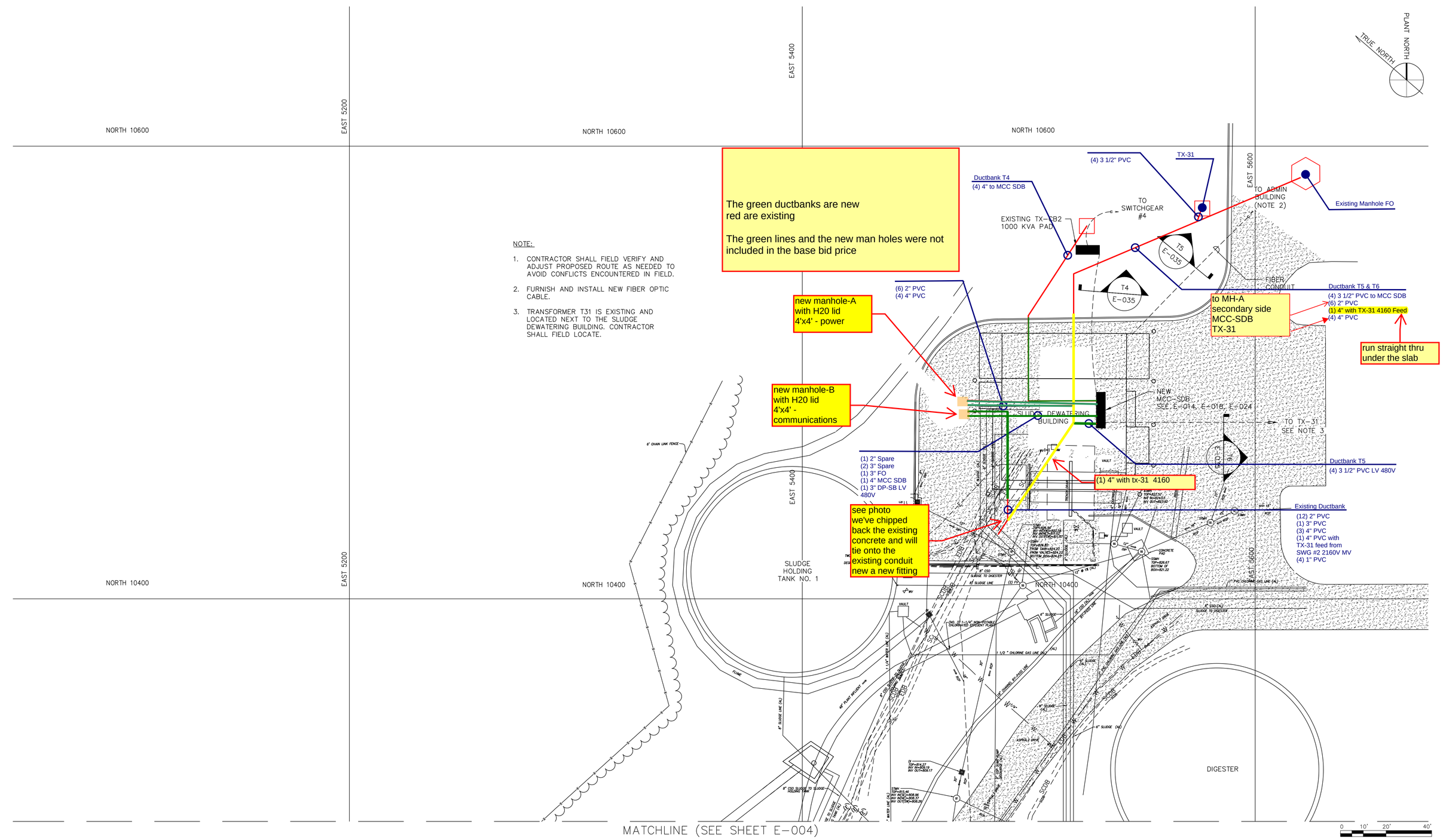
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NOTE:

1. CONTRACTOR SHALL FIELD VERIFY AND ADJUST PROPOSED ROUTE AS NEEDED TO AVOID CONFLICTS ENCOUNTERED IN FIELD.
2. FURNISH AND INSTALL NEW FIBER OPTIC CABLE.
3. TRANSFORMER T31 IS EXISTING AND LOCATED NEXT TO THE SLUDGE DEWATERING BUILDING. CONTRACTOR SHALL FIELD LOCATE.

The green ductbanks are new
red are existing

The green lines and the new man holes were not included in the base bid price



MATCHLINE (SEE SHEET E-004)

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H. ROWELL

ARCADIS
BPA
A Joint Venture
2839 Paces Ferry Road
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Atlanta, GA 30339
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL SITE PLAN
(3 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: 1" = 20'

E-005

SHEET 85 OF 150


we've chipped the existing concrete off the pipes so that a new fitting can be installed

As built Ductbank / Conduit
From the new Swithgear-2 to Switchgear -1
and the Power Generation Building

ITEM -03 - new conduit and conductors

SITE PLAN

williams - russell & associates
engineers — planners
atlanta, georgia

INTRENCHMENT CREEK PLANT MODIFICATIONS
UNDERGROUND DISTRIBUTION SYSTEM
SITE PLAN

REQUEST FOR INFORMATION (RFI)

(Construction)

PROJECT:	East Area Water Quality Control Facility Improvements	**RFI NUMBER:**	**36**
Originated By:	Dow, Brandon	Date Issued:	12/01/2023
Company:	Lakeshore Engineering	Priority:	Normal
Phone Number:	(404) 456-2054	Vendor RFI Number:	36

SUBJECT:	36 - Switchgear -2 Location
Drawing Number:	E-007
Specification Number:	N/A

REQUEST / PROBLEM:

Please provide a final elevation for top of concrete slab for switchgear-2

PROPOSED SOLUTION:

Raise to an elevation to get above the 100- year flood plain

RESPONSE / SOLUTION:

See comments.

LIST OF ATTACHMENTS:

Response By:	Brandon Dow Name	Engineer Title	05/20/2024 Date

Reviewed By	Eric Middlebrooks Name	Engineer Title	04/22/2024 Date
	Rosalind Horne Name	Title	04/23/2024 Date
	Tom Powell Name	Regional Electrical Engineer Title	05/14/2024 Date
	Richard Pearlstein Name	Management Consulting Director Title	03/28/2024 Date

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +14043553976

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
Atlanta, Georgia 30318
P: 404-355-3976

RFI #36: Switchgear -2 Location

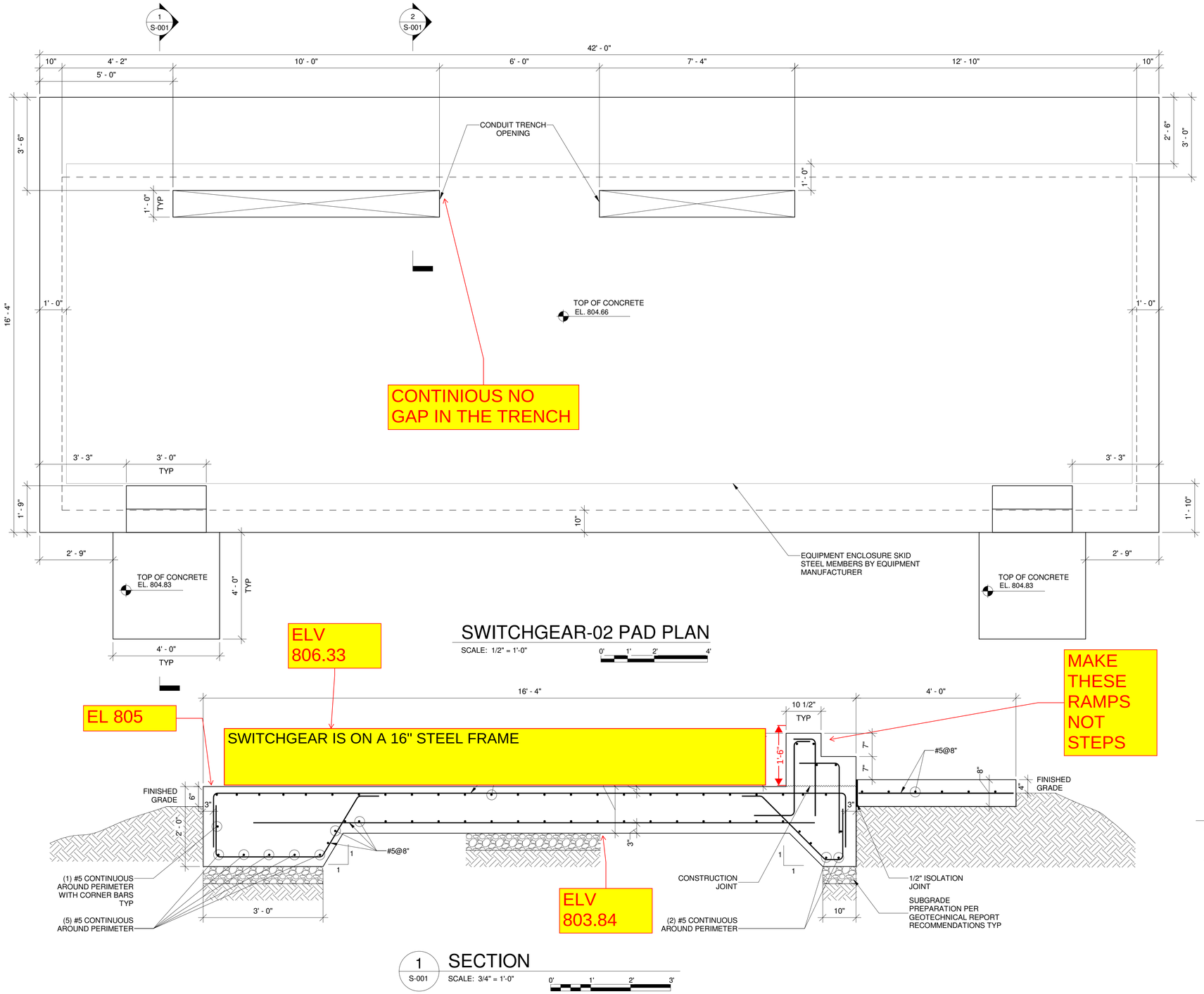
Status	Open		
To	Scott Miller - COA/CMG	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Dec 1, 2023	**Due Date**	Dec 8, 2023
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	e-07	**Reference**	
Linked Drawings			
Received From			
Copies To			

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Friday, Dec 1, 2023 at 05:16 PM EST*
Please provide a final elevation for top of concrete slab for switchgear-2

Awaiting an Official Response



SWITCHGEAR-02 PAD PLAN

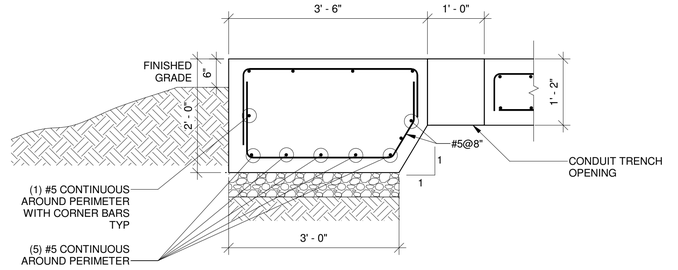
SCALE: 1/2" = 1'-0"

0' 1' 2' 4'

1 S-001 SECTION

SCALE: 3/4" = 1'-0"

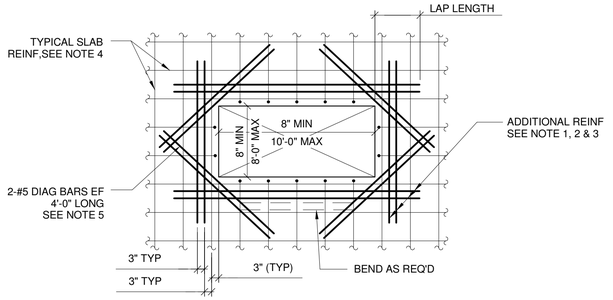
0' 1' 2' 3'



2 S-001 SECTION

SCALE: 3/4" = 1'-0"

0' 1' 2' 3'



RECTANGULAR

NOTES:

1. PROVIDE ADDITIONAL REINFORCEMENT AT EACH SIDE OF ALL OPENINGS, ACCESS HATCHES, PIPE PENETRATIONS, ETC. EQUAL IN AREA TO 1/2 OR MORE OF THE AREA OF REINFORCEMENT CUT BY OPENING IN EACH DIRECTION. ADDITIONAL REINFORCEMENT TO MATCH SIZE OF TYPICAL REINFORCEMENT (MIN. 2 BARS ES AND EF) AND PLACED BETWEEN TYPICAL REINFORCEMENT @3" SPACING ON EACH SIDE OF OPENING. IF A WALL OR BEAM IS ADJACENT TO THE OPENING, THE ADDITIONAL REINFORCEMENT ON THAT SIDE OF THE OPENING CAN BE OMITTED.
2. ANY OPENING 12" OR LESS FROM AN ADJACENT WALL DOES NOT REQUIRE ADDITIONAL REINFORCEMENT AT THAT SIDE OF OPENING.
3. PROVIDE MATCHING DOWELS WHERE REQUIRED TO PROVIDE CLASS "B" LAP WITH ADDITIONAL REINFORCEMENT. (WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT OPENINGS OCCUR, ADDITIONAL REINFORCEMENT SHALL BE COMBINED).
4. PROVIDE STANDARD HOOK AT END OF ALL BARS TERMINATING AT OPENING.
5. DIAGONAL BARS INNERMOST LAYER.

TYPICAL REINFORCING AROUND OPENING IN SLAB

NOT TO SCALE

NOTES:

1. DESIGN FLOOR LIVE LOAD = 150 PSF.
2. ASSUMED SOIL BEARING PRESSURE = 2000 PSF.
3. CONTRACTOR SHALL SUBMIT EQUIPMENT ENCLOSURE ANCHORAGE CALCULATIONS TO RESIST WIND AND SEISMIC LOADS PER APPLICABLE CODES. CALCULATIONS SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
4. CONTRACTOR TO VERIFY SUPPORT DETAILS WITH EQUIPMENT MANUFACTURER PRIOR TO FABRICATION.
5. MANUFACTURER SHALL BE RESPONSIBLE FOR INTERNAL ANCHORAGE OF EQUIPMENT WITH ENCLOSURE.
6. REFER TO EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS PROJECT SPECIFICATIONS FOR CONCRETE REQUIREMENTS.
7. REFER TO EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS PROJECT GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION.
8. CONTRACTOR SHALL COORDINATE CONDUIT OPENING LOCATIONS WITH EQUIPMENT MANUFACTURER BEFORE CONCRETE PLACEMENT.

Autodesk Docs://AUS-30041583-Proposals 2024/S-3D-SG Pad_R24.rvt
5/29/2024 6:24:47 PM

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CONSULTANTS

NO.	DATE	ISSUED FOR	BY

SEALS

DATE:	MAY 2024
PROJECT NO.:	30105595
FILE NAME:	
DESIGNED BY:	N. SADASHIVA
DRAWN BY:	S R. AVINASH KUMAR
CHECKED BY:	C. GALLO

CLIENT

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

ARCADIS PROJ. NO. 30105595

SHEET TITLE

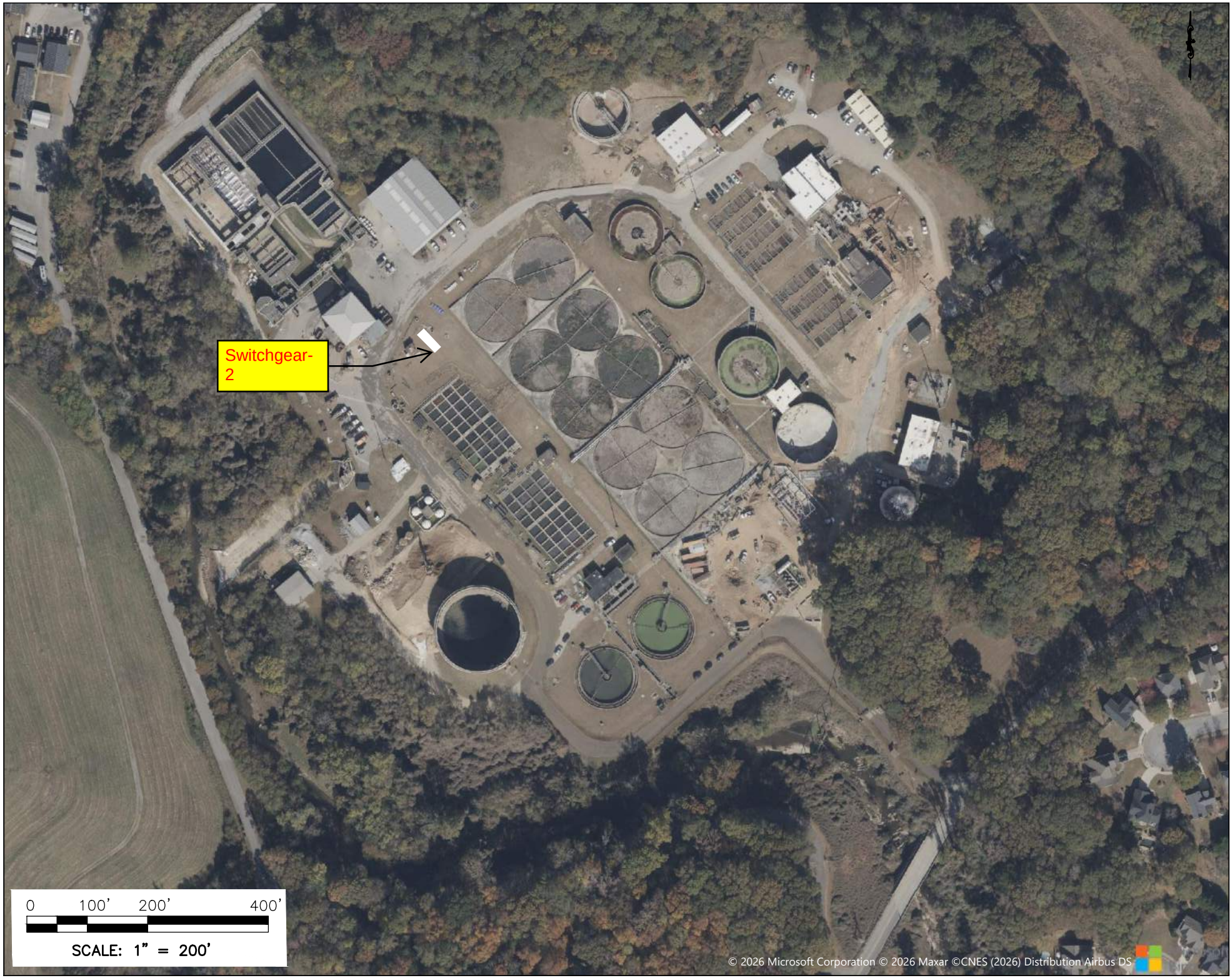
STRUCTURAL

SWITCHGEAR-02 PAD PLAN & SECTIONS

SCALE: As indicated

S-001

SHEET 1 OF 1

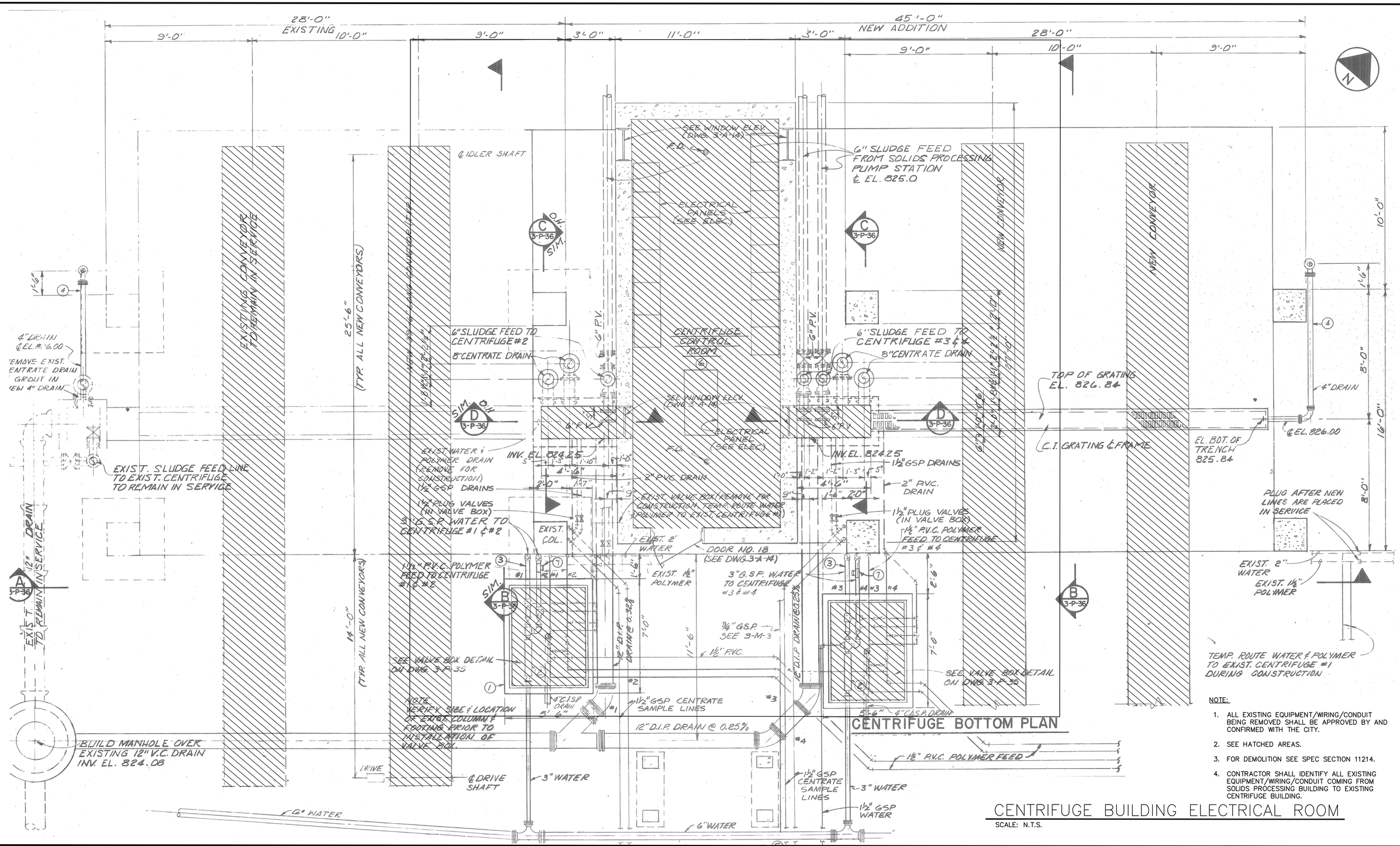

Switchgear-2
0
100'
200'
400'
SCALE: 1" = 200'
© 2026 Microsoft Corporation © 2026 Maxar ©CNES (2026) Distribution Airbus DS

ITEM
-04




ITEM
-04
watershed
management

User:KSEABRUN Sync:AUS--NCSMCD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-006.DWG Scale:1:1 SavedDate:8/3/2018 Time:15:54 Plot Date: Sebrun, Kuron; 7/8/2022; 12:33 ; Layout:B6



CENTRIFUGE BUILDING ELECTRICAL ROOM

SCALE: N.T.S.

NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE APPROVED BY AND CONFIRMED WITH THE CITY.
2. SEE HATCHED AREAS.
3. FOR DEMOLITION SEE SPEC SECTION 11214.
4. CONTRACTOR SHALL IDENTIFY ALL EXISTING EQUIPMENT/WIRING/CONDUIT COMING FROM SOLIDS PROCESSING BUILDING TO EXISTING CENTRIFUGE BUILDING.

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS HOWELL

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RESURGENS 1901 ATLANTA, GA. 30301

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

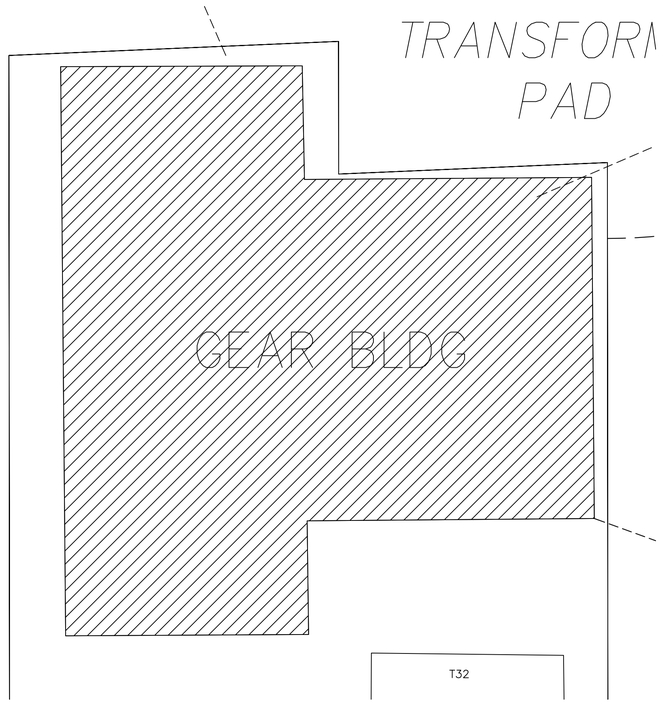
ELECTRICAL DEMOLITION PLAN (1 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-006

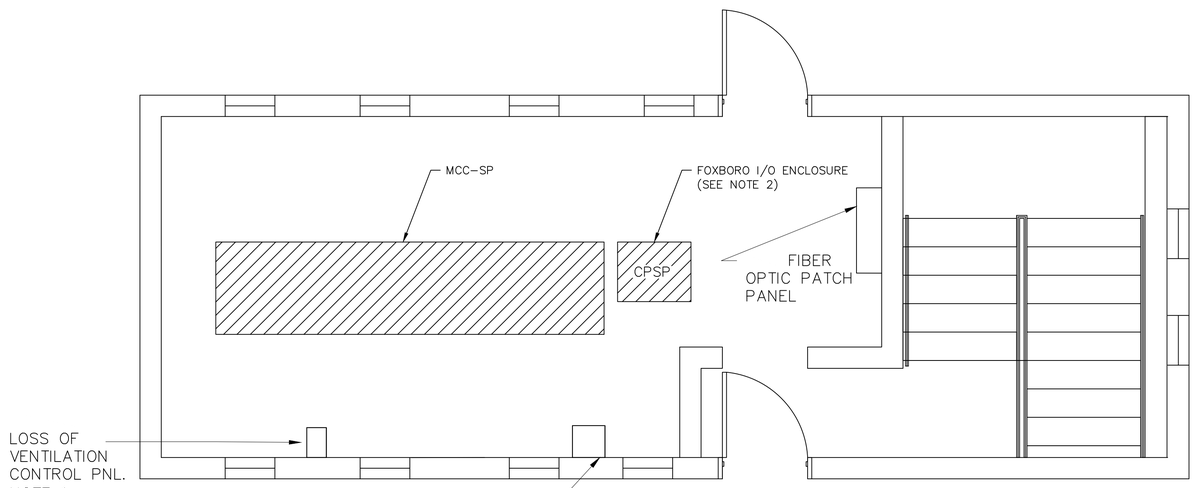
SHEET 86 OF 150



SWITCHGEAR BUILDING

SCALE: 6" = 1'-0"

0 1" 2" 3" 4"



SLUDGE PUMPING STATION ELECTRICAL ROOM

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

0 2' 4' 6'

NOTE:

1. ALL EXISTING EQUIPMENT/WIRING BEING REMOVED SHALL BE APPROVED BY AND CONFIRMED WITH CITY. REFER TO SPEC SECTION 02050 FOR COORDINATION WITH THE CITY PRIOR TO DEMOLITION OR DISPOSAL OF EXISTING EQUIPMENT.

2. EXISTING FOXBORO CP-SP TO BE REPLACED UNDER DIV. 17 SPECS.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL DEMOLITION PLAN (2 OF 3)

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-007

SHEET 87 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-007.DWG Scale:1:1 SavedDate:7/8/2022 Time:15:53 Plot Date: Seabrun, Kuron: 7/8/2022, 15:54 : Layout:87

MOTOR CONTROL CENTER MCCSB

480V, 3Ø, 4W, 600A, E.S.

CKT NO.	EQUIP TAG NO.	NAMEPLATE DATA	RATING VOLT	RATING PH	RATING HP	RATING F.L.A.	STARTER DATA C/B	STARTER DATA DISC	STARTER DATA FUSE	STARTER DATA TYPE	STARTER DATA NEMA SIZE	CIRCUITING DATA POWER WIRE	CIRCUITING DATA CONTROL WIRE	CIRCUITING DATA CONDUIT	CONTROL VOLTAGE
1	33-2	SOLIDS #1	460	3	10	14	MCP			FVNR		3#10, #10G	4#12	3/4"	1/4E
2	-3	PROCESSING #2													
3	-4	PUMPS #3													
4	-5	" #4													
5	-6	SOLIDS #5			5	7.6				FVR			17#10 TO REDUCTION UNIT SP	1 1/2"	3/4E
6	-7	REDUCING #2													
7	-8	UNITS #3													
8	-9	" #4													
9	—	PANEL HSB	460	3	16KW	22	30/3			—	—	4#10, #10G		3/4"C	
10		SPACE													
11		SPACE													

(2)

PANEL HSB

VOLTS 277/480 BUS SIZE 100A PANEL TYPE NHB
PHASE 3Φ MAIN M.L. M'TING SURFACE
WIRE 4W A.I.C. 14,000 BREAKER TYPE BOLT ON

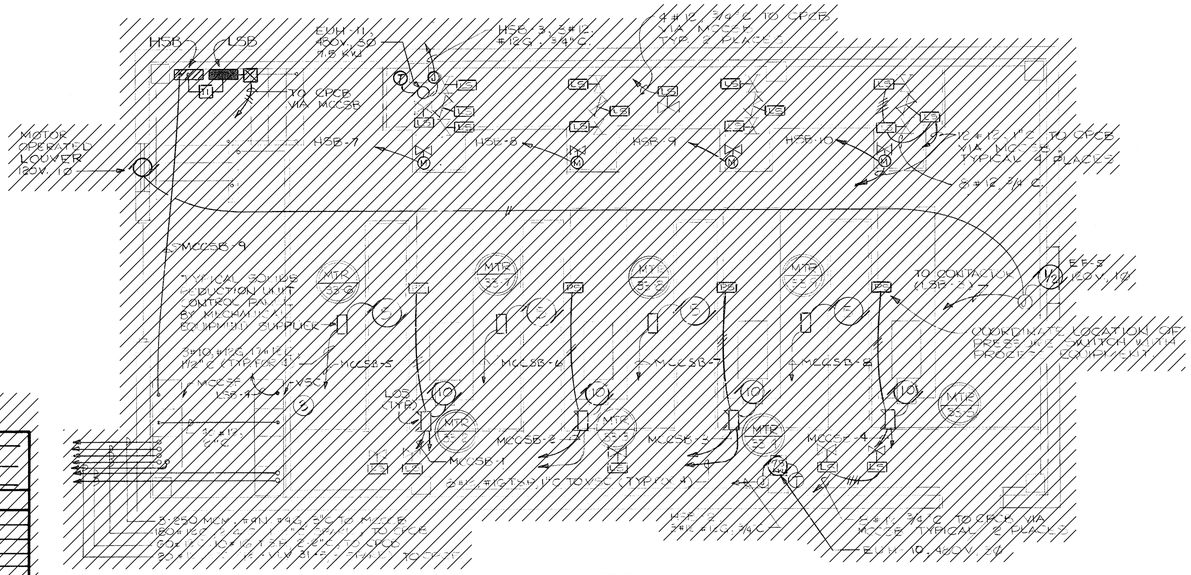
CKT	LOAD	KW	F.L.A.	WIRE SIZE	C/B	
1	LIGHTING	1.17		2 #12	20A/1P	(6) 253W-HPS
2	EUH #10	7.50		3 #12 #12G	20A/3P	
3	EUH #11	7.50		↓	↓	
4	PANEL LSB	1.0		3 #12 #12G	20A/3P	
5	2 TON VALET	3.11		3 #12 #12G	20A/3P	1 HP
6	VLV 31-5	-		3 #12 #12G	20A/3P	1 HP
7	VLV 33-19	-		↓	↓	
8	VLV 33-20	-				
9	VLV 33-1	-				
10	VLV 33-2	-				
11	SPACE				3 POLE	
12	↓				↓	

(4)

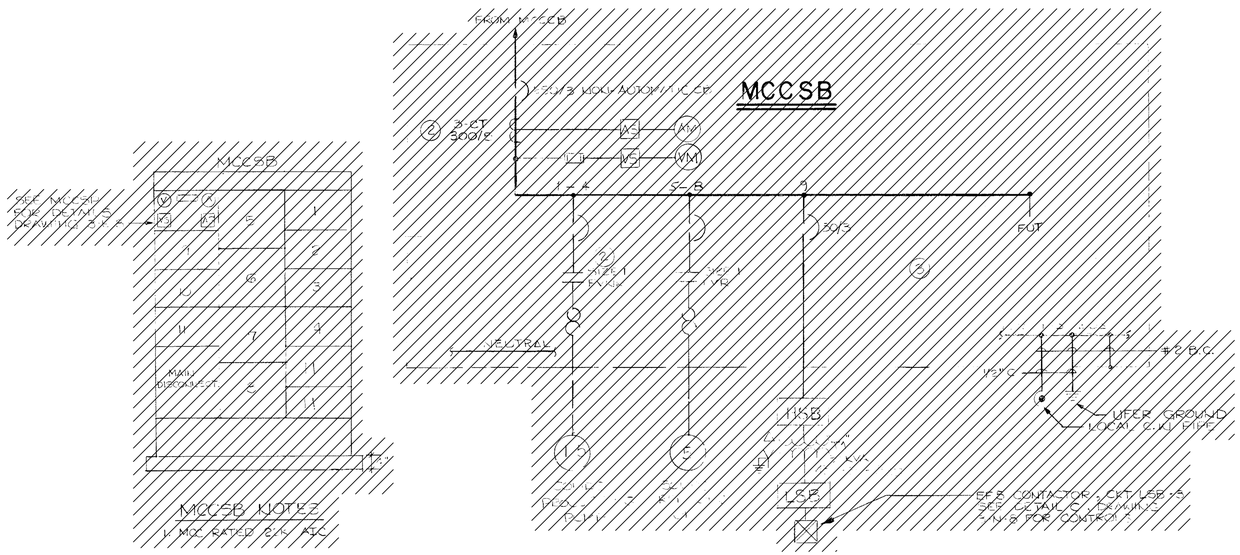
PANEL LSB

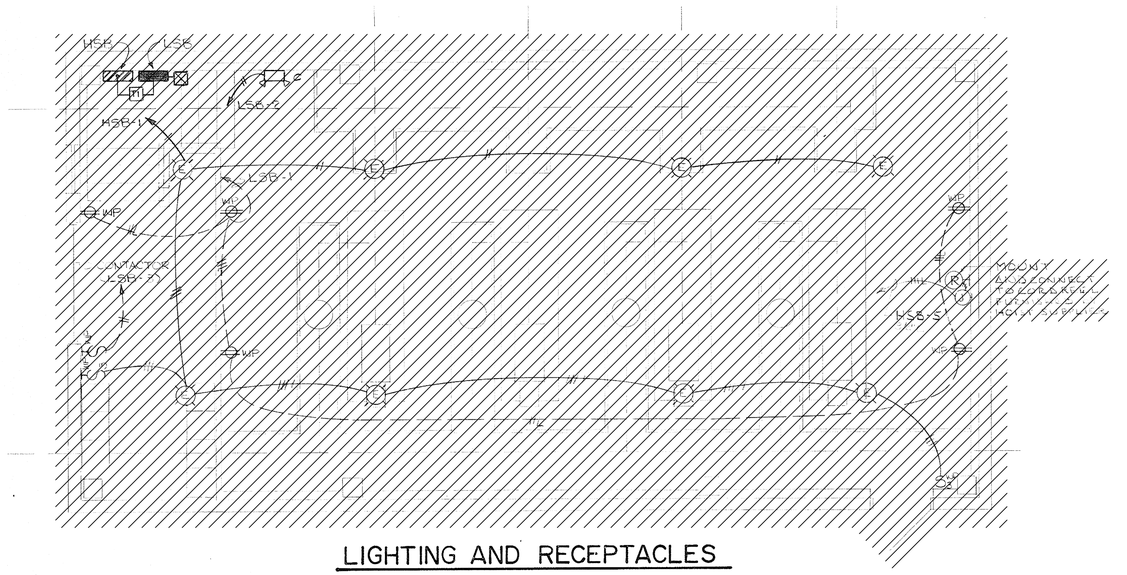
VOLTS 120/240 BUS SIZE 100A PANEL TYPE NEMB
PHASE 3Φ MAIN 50A/3P M'TING SURFACE
WIRE 4W A.I.C. 7,000 BREAKER TYPE BOLT ON

CKT.	LOAD	KW	F.L.A.	WIRE SIZE	C/B	
1	RECEPTACLES	.9	7.5	2#12, #12G	20A/1P	(5) Ⓡ
2	EMERGENCY LTG.	—	—	2#12,		
3	EXH. FAN #5	.46	4.6	2#12,		CONN'S
4	VSC	1.0		2#12, #12G,		
5	SPARE					
6	↓				↓	
7	SPACE				1 POLE	
8						
9						
10						
11						
12	↓					



POWER





LIGHTING AND RECEPTACLES

SOLIDS PROCESSING BUILDING

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

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/19/22 No. PE027356 PROFESSIONAL ENGINEER THOMAS H. POWELL

ARCADIS A Joint Venture
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL DEMOLITION PLAN (3 OF 3)

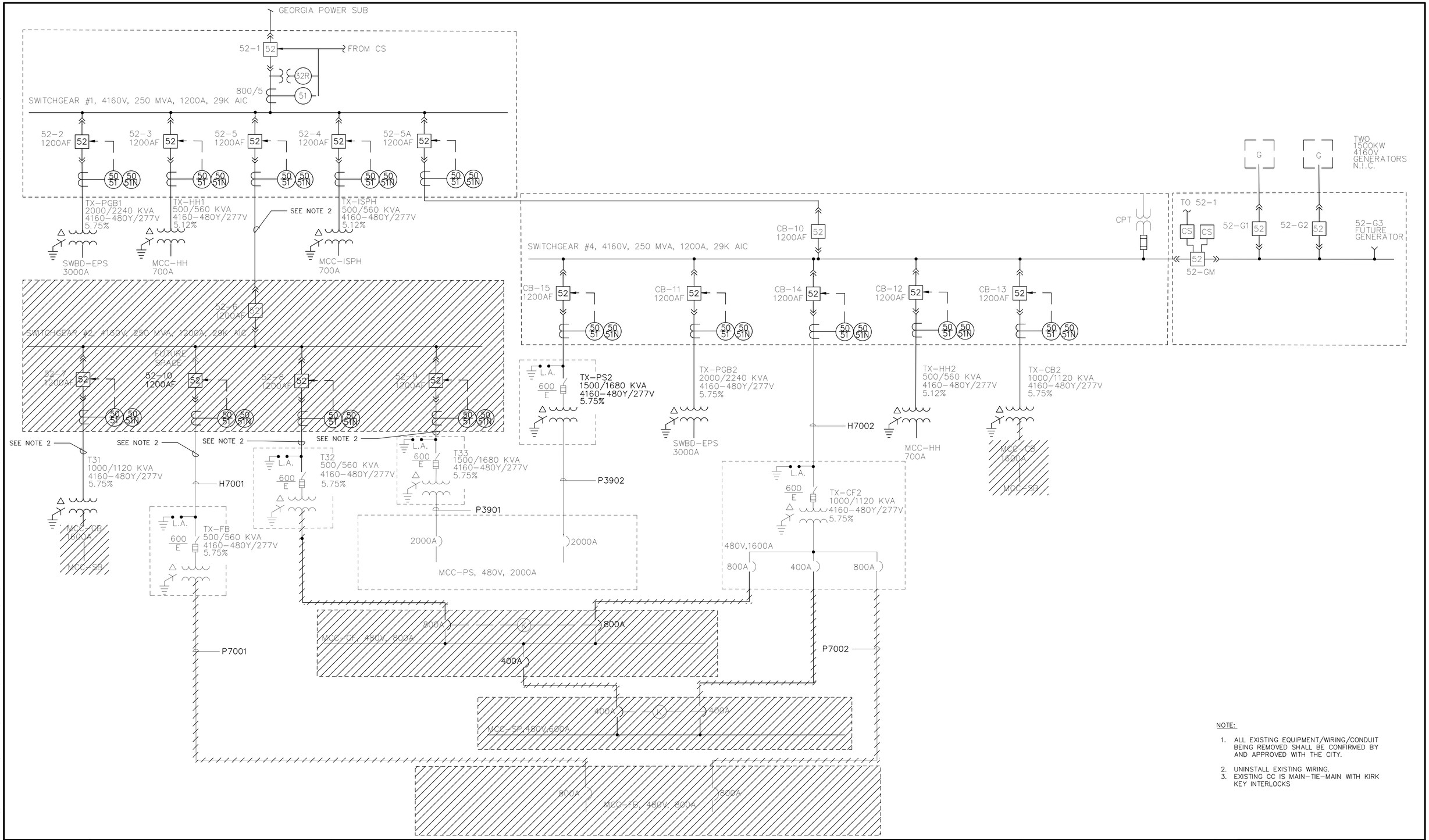
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	C. ATKINS
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-008

SHEET 88 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA20DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-008.DWG Scale:1:1 SavedDate:8/7/2018 Time:15:38 Plot Date: Seabrun, Kuron 7/8/2022, 12:39 Layout:B8



NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE CONFIRMED BY AND APPROVED WITH THE CITY.
2. UNINSTALL EXISTING WIRING.
3. EXISTING CC IS MAIN-TIE-MAIN WITH KIRK KEY INTERLOCKS

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS R. ROWELL

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS
W.01.02.0085

SHEET TITLE
SINGLE LINE DIAGRAM
MAIN SINGLE LINE
DEMOLITION

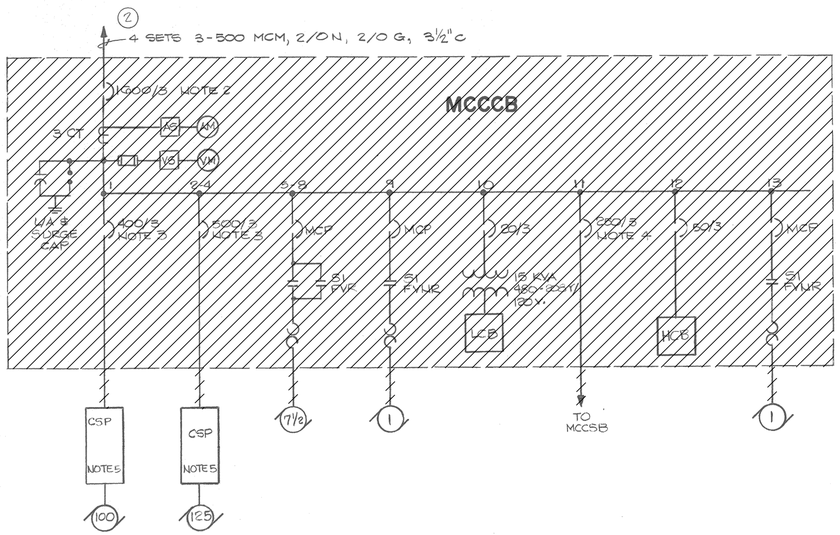
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

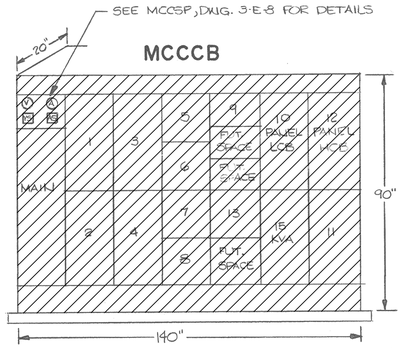
SCALE: NONE

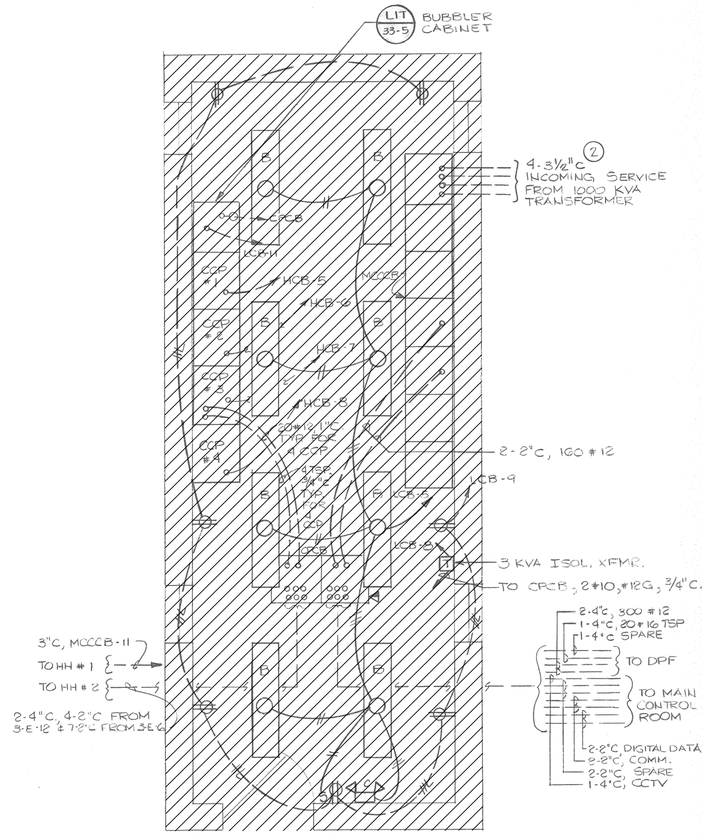
E-009

SHEET 89 OF 150

User:KSEABRUN Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-009.DWG Scale:1:1 SavedDate:7/8/2022 Time:16:17 Plot Date: Seabrun, Kuron: 7/8/2022, 16:53 : Layout:89







PANEL LCB

VOLTS 480/277 — BUS SIZE 225A — PANEL TYPE NEMA 1
PHASE 3 — MAIN 225A — MTNG FLUSH
WIRE 4 — A.I.C. 22,000 — BREAKER TYPE FD, FDE, FDB

CKT	LOAD	KW	FLA	WIRE SIZE	C/B
1	SPACE				
2	SPACE				
3	SPACE				
4	SPACE				
5	SPACE				
6	SPACE				
7	SPACE				
8	SPACE				
9	SPACE				
10	SPACE				
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12	SPACE				
13	SPACE				
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29	SPACE				
30	SPACE				
31	SPACE				
32	SPACE				
33	SPACE				
34	SPACE				
35	SPACE				
36	SPACE				
37	SPACE				
38	SPACE				
39	SPACE				
40	SPACE				
41	SPACE				
42	SPACE				

PANEL HCB

VOLTS 480 — BUS SIZE 400A — PANEL TYPE NEMA 1
PHASE 3 — MAIN 225A — MTNG FLUSH
WIRE 4 — A.I.C. 22,000 — BREAKER TYPE FD, FDE, FDB

CKT	LOAD	KW	FLA	WIRE SIZE	C/B
1	NOTE 1				
2	NOTE 1				
3	NOTE 1				
4	NOTE 1				
5	SPACE				
6	SPACE				
7	SPACE				
8	SPACE				
9	SPACE				
10	SPACE				
11	SPACE				
12	SPACE				
13	SPACE				
14	SPACE				
15	SPACE				
16	SPACE				
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31	SPACE				
32	SPACE				
33	SPACE				
34	SPACE				
35	SPACE				
36	SPACE				
37	SPACE				
38	SPACE				
39	SPACE				
40	SPACE				
41	SPACE				
42	SPACE				

MOTOR CONTROL CENTER MCCCB

3Ø, 4W., 1600A.

CKT NO.	FRAME TYP NO	NAMEPLATE DATA	NAMING	STARTER DATA								WIRING DATA			
												POWER WIRE	CONTROL WIRE	CONDUIT	
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
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40															
41															
42															

CENTRIFUGE CONTROL BUILDING POWER & LIGHTING

NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE CONFIRMED BY AND APPROVED WITH THE CITY.
2. FOR DEMOLITION SEE SPEC SECTION 02050.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/19/22 No. PE024784 PROFESSIONAL ENGINEER THOMAS H. POWELL

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
CENTRIFUGE BUILDING
MCC-CB DEMOLITION

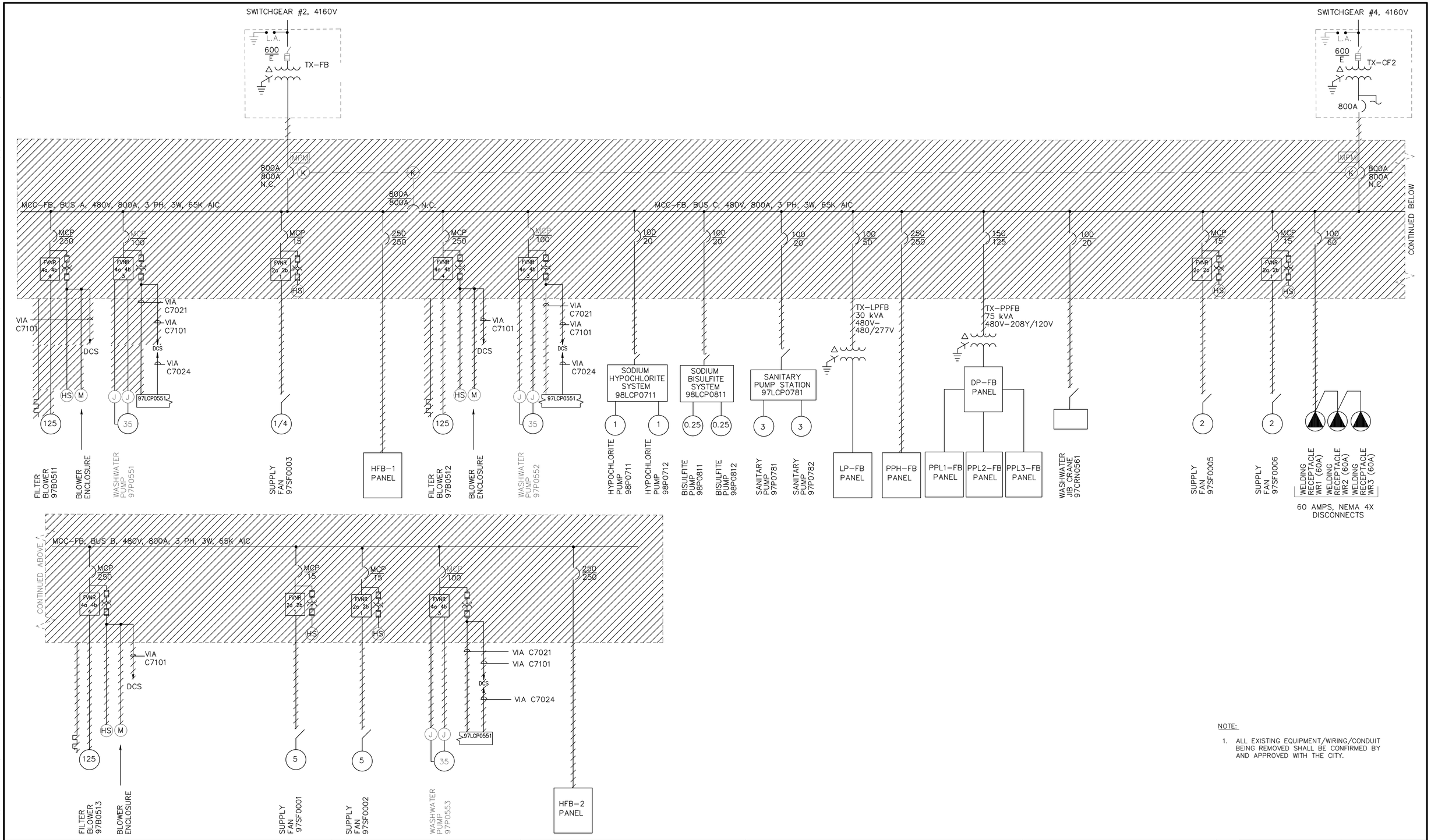
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-010

SHEET 90 OF 150

User:KSEABRUN Spec:AIS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-010.DWG Scale:1:1 SavedDate:3/20/2019 Time:11:29 Plot Date: Sedrun, Kuron; 7/8/2022; 12:46 ; Layout:90



NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE CONFIRMED BY AND APPROVED WITH THE CITY.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H. POWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
FILTER BUILDING
MCC-FB DEMOLITION

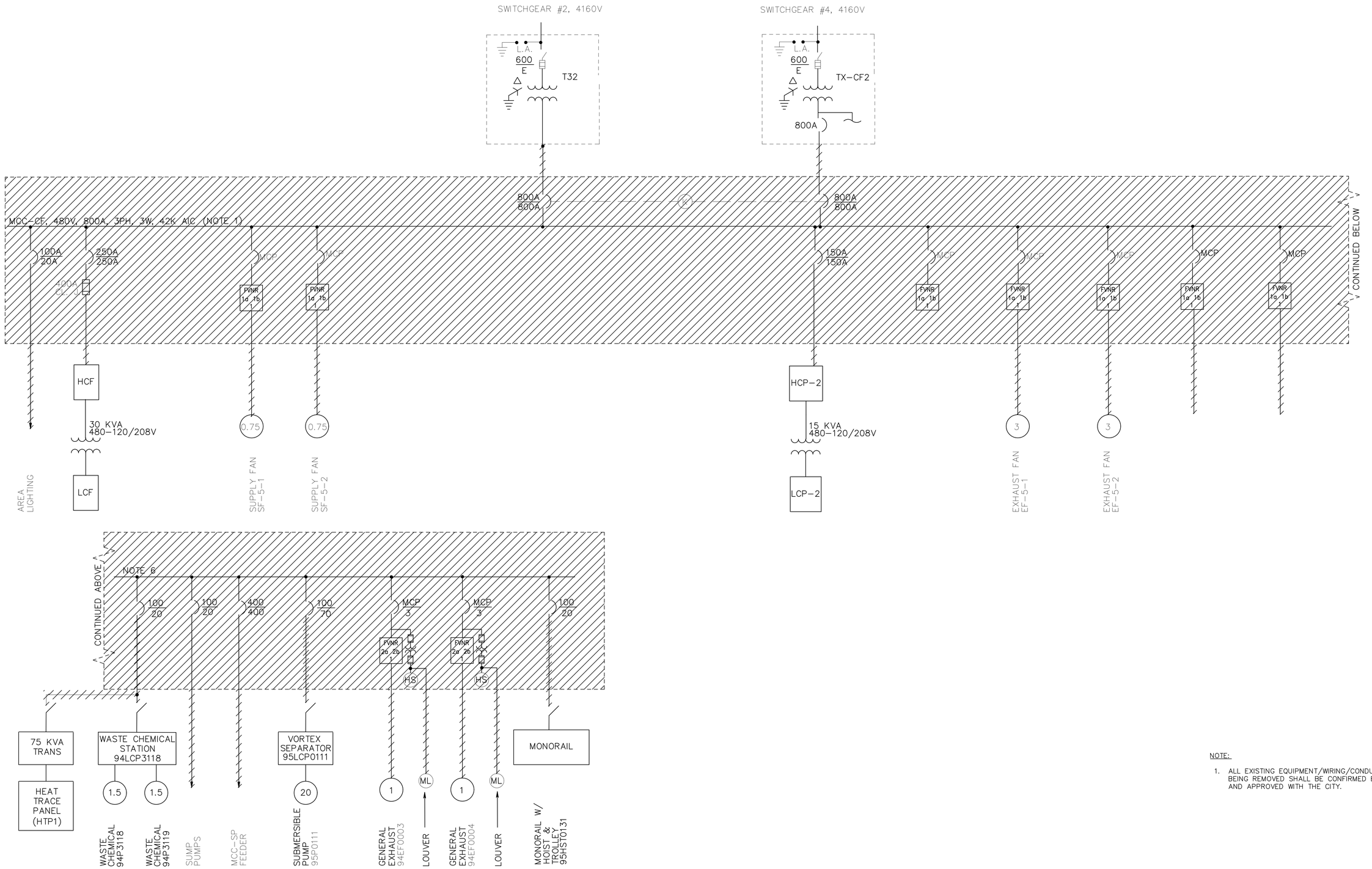
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-011

SHEET 91 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-011.DWG Scale:1:1 SavedDate:2/21/2019 Time:12:52 Plot Date: Seabrun, Kuron, 7/8/2022, 12:49 ; Layout:91



NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE CONFIRMED BY AND APPROVED WITH THE CITY.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047018 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
CHEMICAL BUILDING
MCC-CF DEMOLITION

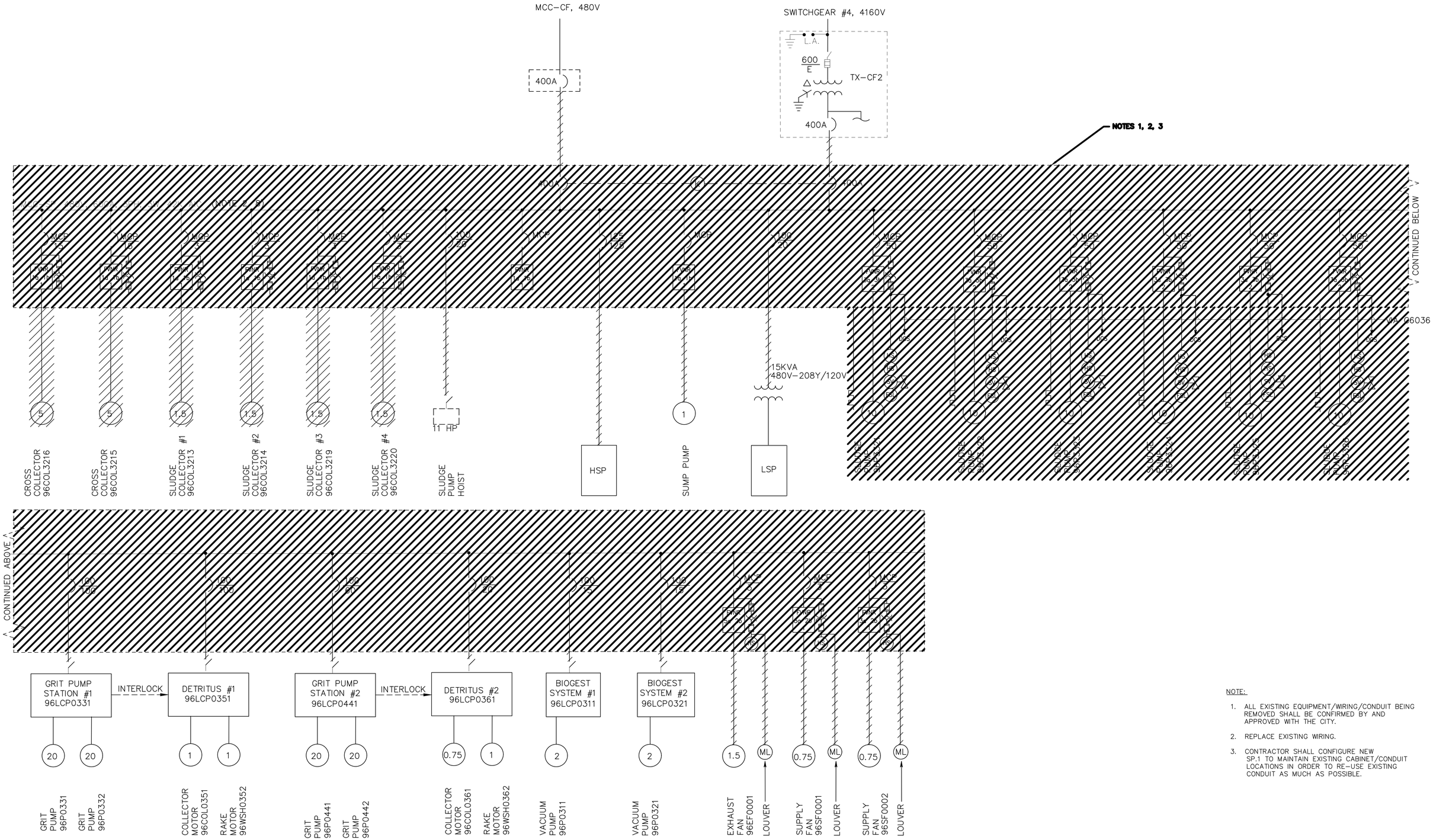
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-012

SHEET 92 OF 150

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-012.DWG Scale:1:1 SavedDate:2/21/2019 Time:15:25 Plot Date: Seabrun, Kuron; 7/8/2022; 12:53 ; Layout:92



NOTE:

1. ALL EXISTING EQUIPMENT/WIRING/CONDUIT BEING REMOVED SHALL BE CONFIRMED BY AND APPROVED WITH THE CITY.
2. REPLACE EXISTING WIRING.
3. CONTRACTOR SHALL CONFIGURE NEW SP.1 TO MAINTAIN EXISTING CABINET/CONDUIT LOCATIONS IN ORDER TO RE-USE EXISTING CONDUIT AS MUCH AS POSSIBLE.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/6/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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Fax: 770-435-2666
www.arcadis-us.com

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
SLUDGE PUMPING STATION MCC-SP DEMOLITION

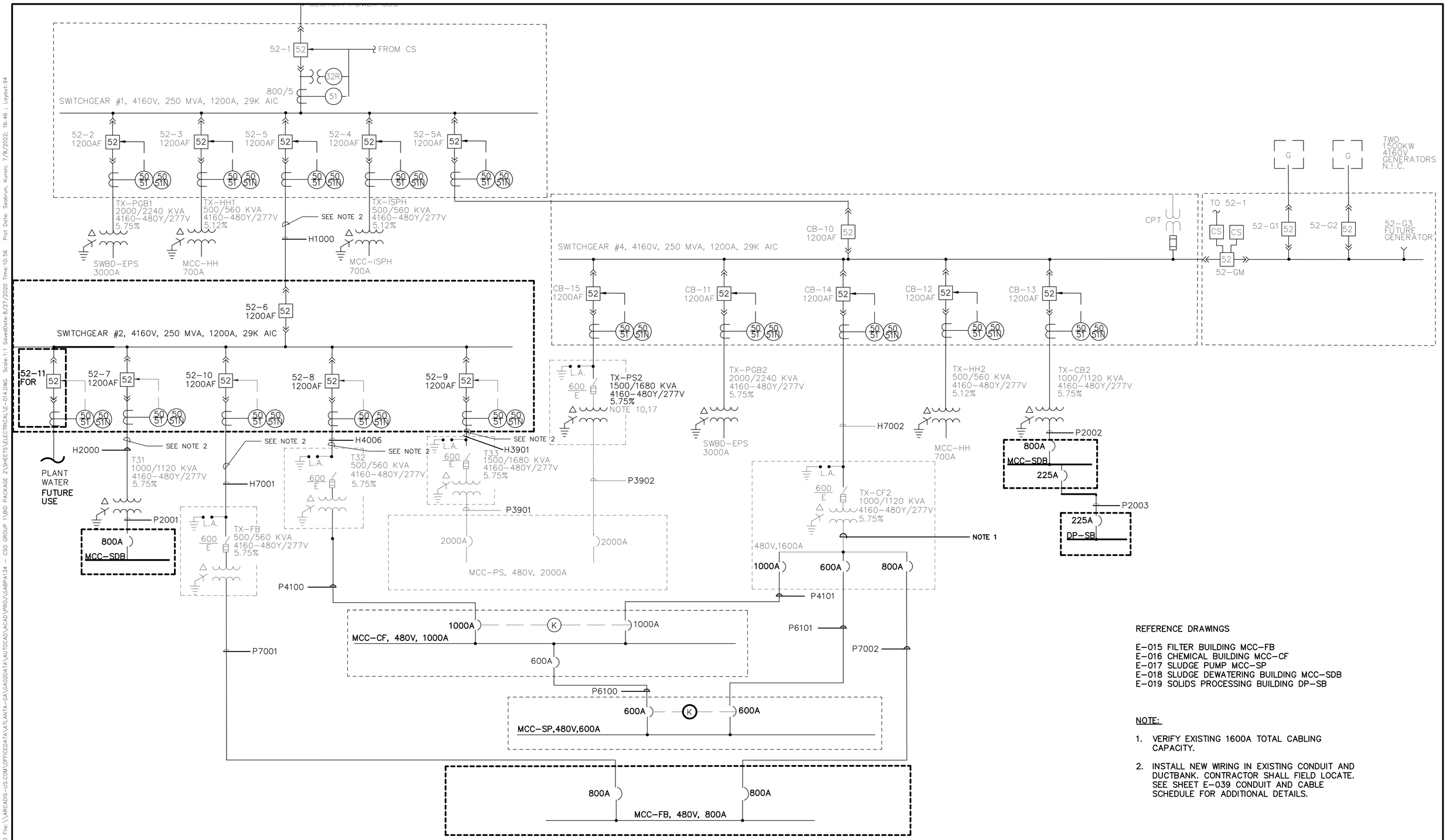
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-013

SHEET 93 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-013 - COPY.DWG Scale:1:1 SavedDate:5/14/2021 Time:01:02 Plot Date: Seabrun, Kuron: 7/8/2022: 12:57 ; Layout:93



REFERENCE DRAWINGS

E-015 FILTER BUILDING MCC-FB
E-016 CHEMICAL BUILDING MCC-CF
E-017 SLUDGE PUMP MCC-SP
E-018 SLUDGE DEWATERING BUILDING MCC-SDB
E-019 SOLIDS PROCESSING BUILDING DP-SB

NOTE:

1. VERIFY EXISTING 1600A TOTAL CABLING CAPACITY.
2. INSTALL NEW WIRING IN EXISTING CONDUIT AND DUCTBANK. CONTRACTOR SHALL FIELD LOCATE. SEE SHEET E-039 CONDUIT AND CABLE SCHEDULE FOR ADDITIONAL DETAILS.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/9/22 No. PE024084 PROFESSIONAL ENGINEER THOMAS H. POWELL

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
MAIN SINGLE LINE 1
PROPOSED

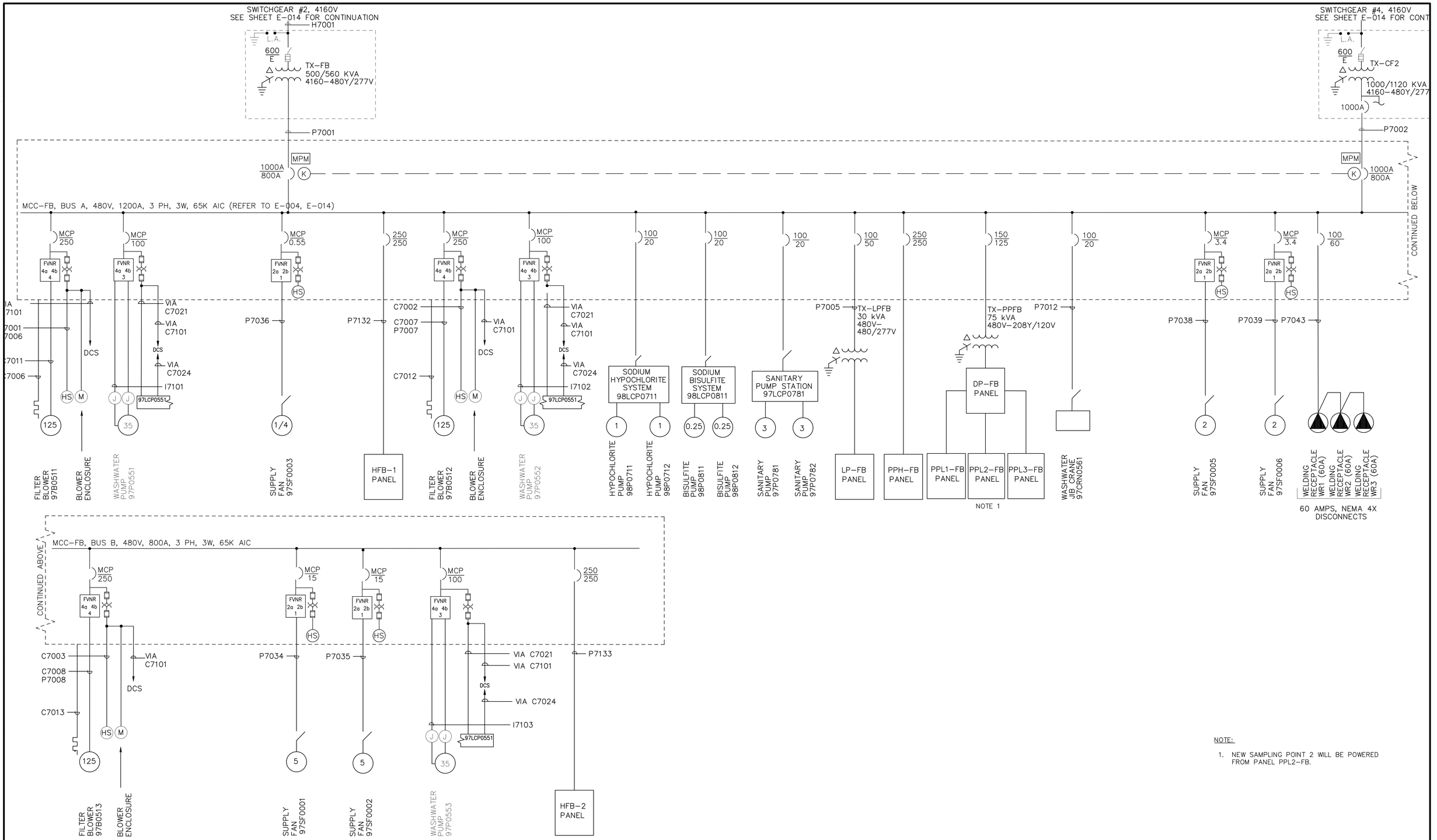
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	C. ATKINS
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-014

SHEET 94 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-014.DWG Scale:1:1 SavedDate:8/27/2020 Time:10:56 Plot Date: Seabrun, Kuron; 7/8/2022; 16:46 ; Layout-94



NOTE:

1. NEW SAMPLING POINT 2 WILL BE POWERED FROM PANEL PPL2-FB.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. ONELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
FILTER BUILDING
MCC-FB PROPOSED

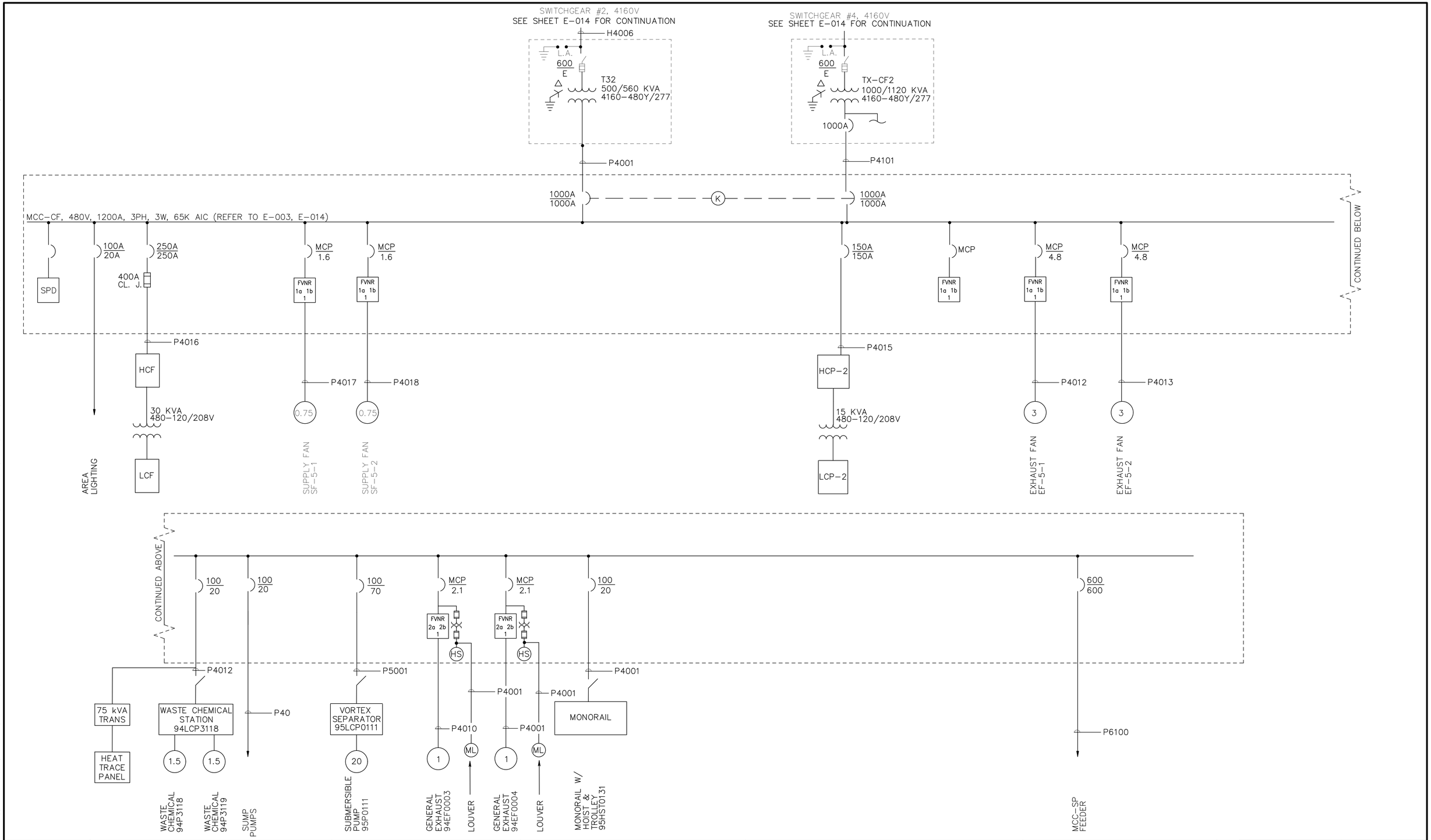
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-015

SHEET 95 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-015.DWG Scale:1:1 SavedDate:3/8/2019 Time:17:11 Plot Date: Seabrun, Kuron; 7/8/2022; 13:02 ; Layout:95



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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
CHEMICAL BUILDING
MCC-CF PROPOSED

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

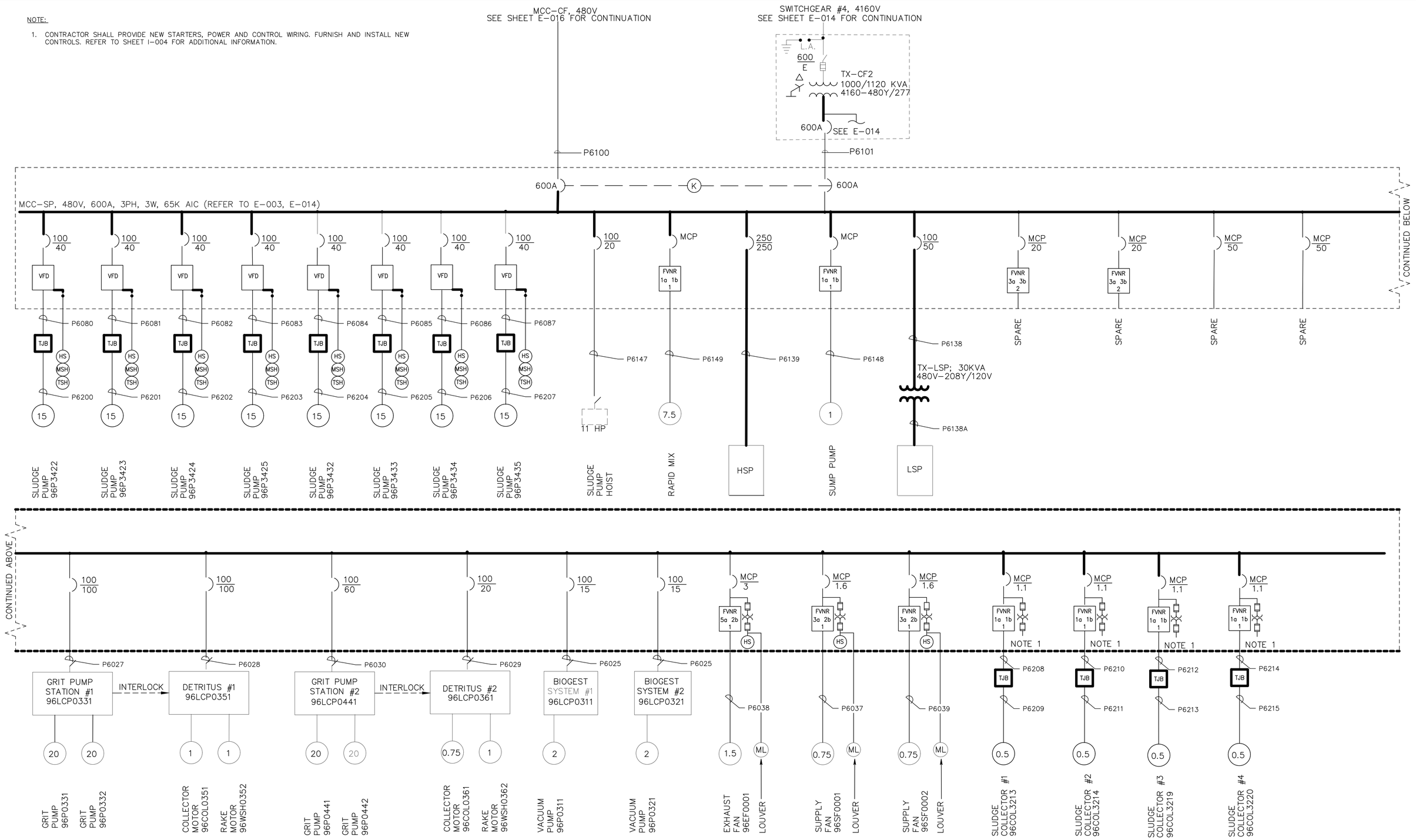
E-016

SHEET 96 OF 150

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-016.DWG Scale:1:1 SavedDate:3/8/2019 Time:16:21 Plot Date: Seabrun, Kuron: 7/8/2022, 13:04 , Layout:96

NOTE:

1. CONTRACTOR SHALL PROVIDE NEW STARTERS, POWER AND CONTROL WIRING. FURNISH AND INSTALL NEW CONTROLS. REFER TO SHEET I-004 FOR ADDITIONAL INFORMATION.

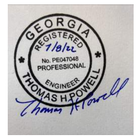


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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
SLUDGE PUMPING STATION MCC-SP
PROPOSED

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-017

SHEET 97 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PRO\[GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-017 - COPY.DWG Scale:1:1 SavedDate:5/14/2021 Time:01:07 Plot Date: Seabrun, Kuron; 7/8/2022; 17:10 ; Layout:97

User:KSEABRUN Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACADDPROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-018.DWG Scale:1:1 SavedDate:2/22/2019 Time:14:56 Plot Date: Seabrun, Kuron; 7/8/2022; 17:49 ; Layout:98

SWITCHGEAR #2, 4160V
SEE SHEET E-014 FOR CONTINUATION
H2000
L.A.
XXX
E
T31
1000/1120 KVA
4160-480Y/277
P2001

SWITCHGEAR #4, 4160V
SEE SHEET E-014 FOR CONTINUATION
L.A.
XXX
E
TX-CB2
1000/1120 KVA
4160-480Y/277
P2002

800A / 800A — K — 800A / 800A

MCC-SDB, 480V, 800A, 3PH, 3W, 65K AIC (REFER TO E-005, E-014)

CONTINUED BELOW

100A / 60A — SPD

100 / 60 — P2037 — WELDING RECEPTACLE

100A / 65A — P2005 — TX-LSDB 25 KVA 480-120/240V — P2006 — LSDB — NOTE 1

600A / 600A — P2007 — HSDB

MCP — FVNR 1a 1b 1 — P2008 — 2 — EXHAUST FAN #1 — HS — MD

CONTINUED ABOVE

100A / 30A — P2010 — BELT CONTROL SYSTEM CP-BFP — 3 — BELT FILTER PRESS 83BFP3720
2 — BELT FILTER PRESS HYDRAULIC WATER
7.5 — PLANT WATER BELT FILTER BOOSTER PUMP 83P3720

100A / 30A — SPARE

100A / 20A — P2022 — BELT CONVEYOR PANEL CP-BCP — P2023 — 3 — BELT FILTER SLUDGE CONVEYOR 83CON3730

100A / 20A — P2011 — VFD — THICKENER LOCAL CONTROL STATION — P2012 — 5 — SLUDGE HOLDING TANK (THICKNER)

225A / 225A — P2003 — DP-SB FEEDER

NOTE:

1. POLYMER SYSTEM POWERED FROM PANEL LSDB.

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SEALS

GEORGIA REGISTERED 7/8/22 No. PE047040 PROFESSIONAL ENGINEER THOMAS H. HOWELL

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SINGLE LINE DIAGRAM
SLUDGE DEWATERING BUILDING MCC-SDB
PROPOSED

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-018

SHEET 98 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-019.DWG Scale:1:1 SavedDate:3/28/2019 Time:13:29 Plot Date: Seabrun, Kuron; 7/8/2022; 13:10 ; Layout:99

MCC-SDB, 480V
SEE SHEET E-018 FOR CONTINUATION

P2003

225A
225A

DP-SB, 480V, 400A, 3PH, 3W, 65K AIC

100A/60A	100/20	100/20	100/30	100/30	100A/100A		100/20	100/20
SPD	P1201	P1202	P1203	P1204	P1205		SPARE	SPARE
	GRINDER PUMP PANEL	GRINDER PUMP PANEL	VFD	VFD	HSB			
	P1201A	P1202A	P1203A	P1204A	P1205A			
	3	3	10	10	TX-LSB 15 KVA 480-120/208V			
	GRINDER PUMP 82P3612	GRINDER PUMP 82P3614	BFP FEED PUMP 82P3602	BFP FEED PUMP 82P3604	P1205B			
			HS PSH PSL	HS PSH PSL	LSB			
					NOTE 1			

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. STOVELL

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

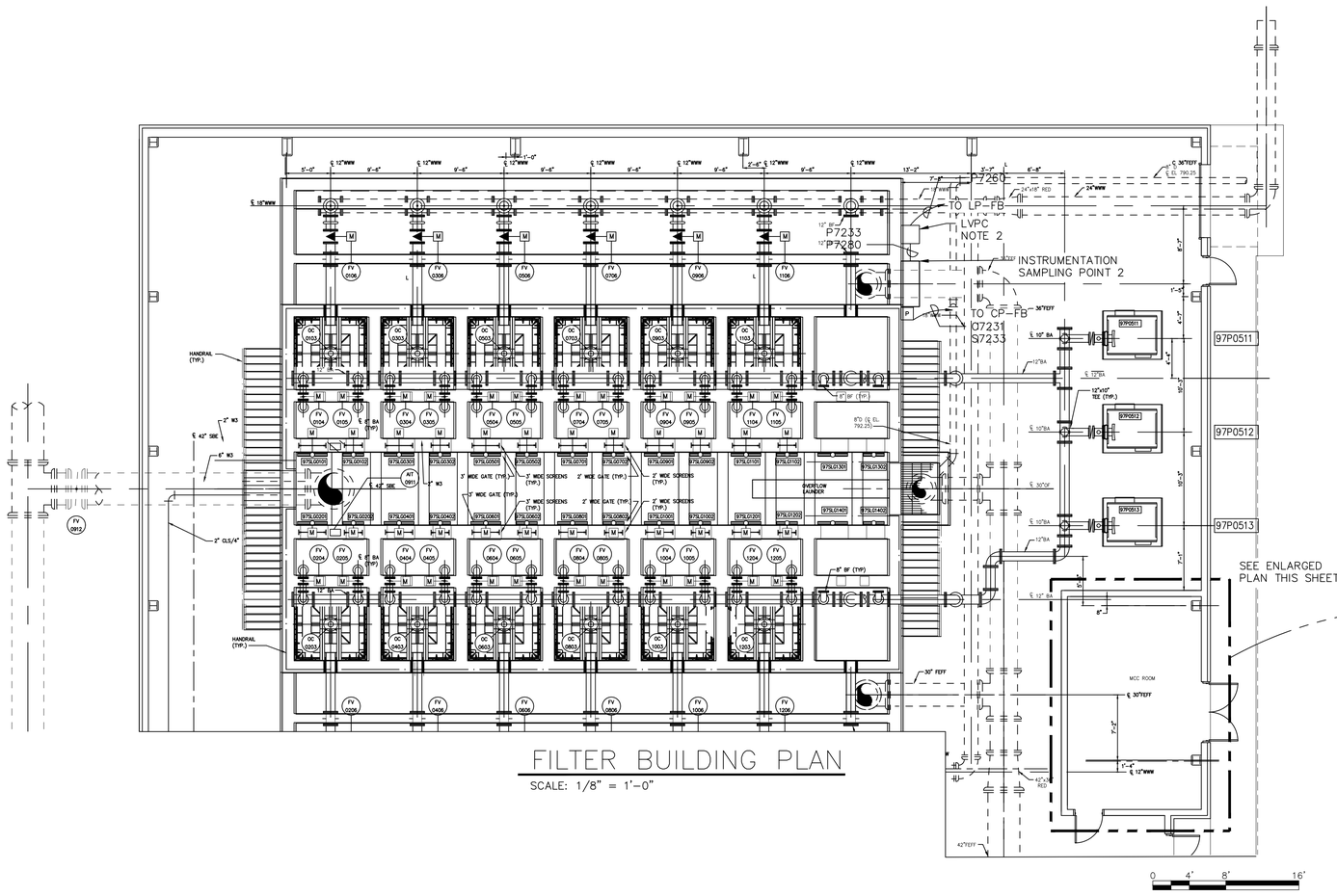
SINGLE LINE DIAGRAM
SOLIDS PROCESSING BUILDING DP-SB
PROPOSED

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: C. ATKINS
DRAWN BY: C. MARTINI
CHECKED BY: I. GONZALEZ

SCALE: NONE

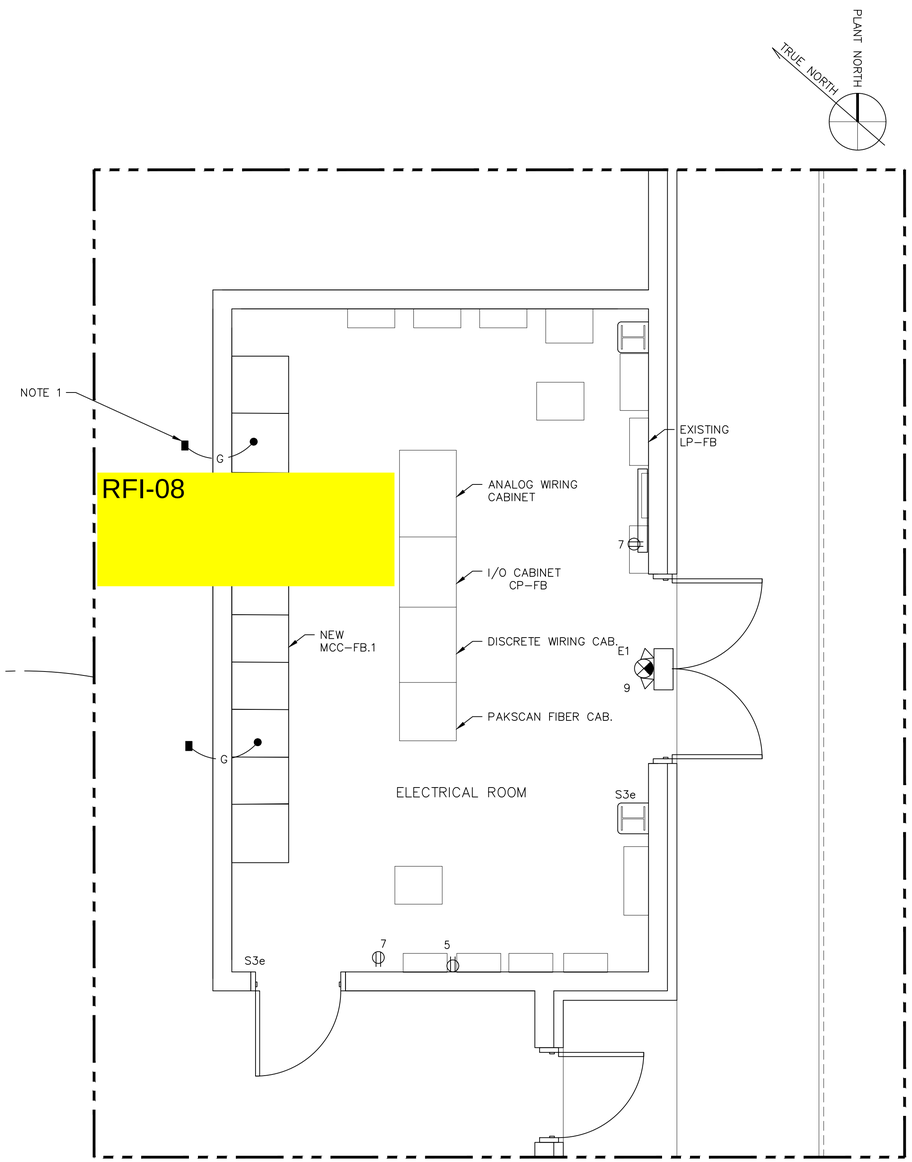
E-019

SHEET 99 OF 150



FILTER BUILDING PLAN

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



ELECTRICAL ROOM

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

NOTES:

1. CONNECT TO EXISTING GROUNDING SYSTEM. MATCH EXISTING GROUND WIRE SIZE.
2. REFER TO LOW VOLTAGE POWER CENTER (LVPC) WITH ENCLOSED TRANSFORMER AND PANELBOARD. REFER TO LVPC PANEL SCHEDULE ON SHEET E-037 FOR ADDITIONAL PANEL INFORMATION. CONTRACTOR TO MOUNT LVPC ON RACK. REFER TO EQUIPMENT RACK DETAIL ON E-046 FOR ADDITIONAL INFORMATION.
3. REFER TO SAMPLING POINT INTERCONNECT DIAGRAM ON E-032 FOR ADDITIONAL INFORMATION.

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SEALS

GEORGIA REGISTERED 7/6/22 No. PE047685 PROFESSIONAL ENGINEER THOMAS H. POWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

FILTER BUILDING ELECTRICAL PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

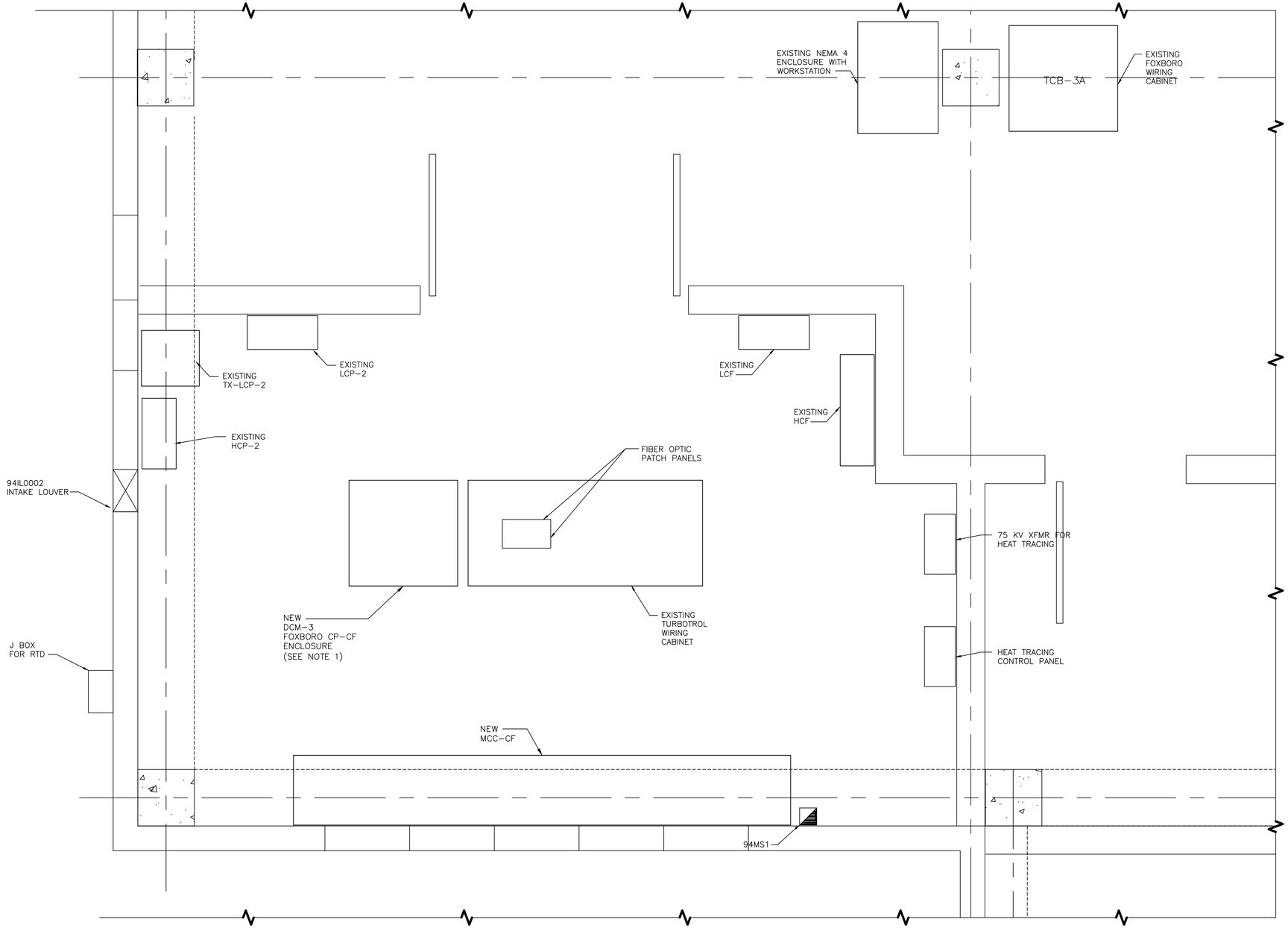
SCALE: AS SHOWN

E-020

SHEET 100 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-020.DWG Scale:1:1 SavedDate:7/7/2022 Time:13:54 Plot Date: Seabrun, Kuron 7/8/2022, 13:13 : Layout:100

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-021.DWG Scale:1:1 SavedDate:7/29/2019 Time:17:05 Plot Date: Seabrun, Kuron; 7/8/2022; 13:14 ; Layout:101



NOTE:

1. EXISTING FOXBORO CP-CF ENCLOSURE TO BE REPLACED UNDER DIV. 17 SPECS. ALSO REFER TO SPEC SECTION 02050 FOR COORDINATION WITH THE CITY PRIOR TO DEMOLITION OR DISPOSAL OF EXISTING EQUIPMENT. INSTALL NEW ENCLOSURE FOR PANEL CPCF, KEEPING EXISTING BACK PLANE WITH FOXBORO EQUIPMENT CONNECTED AS IS. BUILD VIEW MODULAR ENCLOSURE FOR THE PANEL. ENCLOSURE SHALL BE FURNISHED PER SECTION 17500. RECONNECT GROUND AND POWER SYSTEMS FOR A FUNCTIONAL PANEL.

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SEALS

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

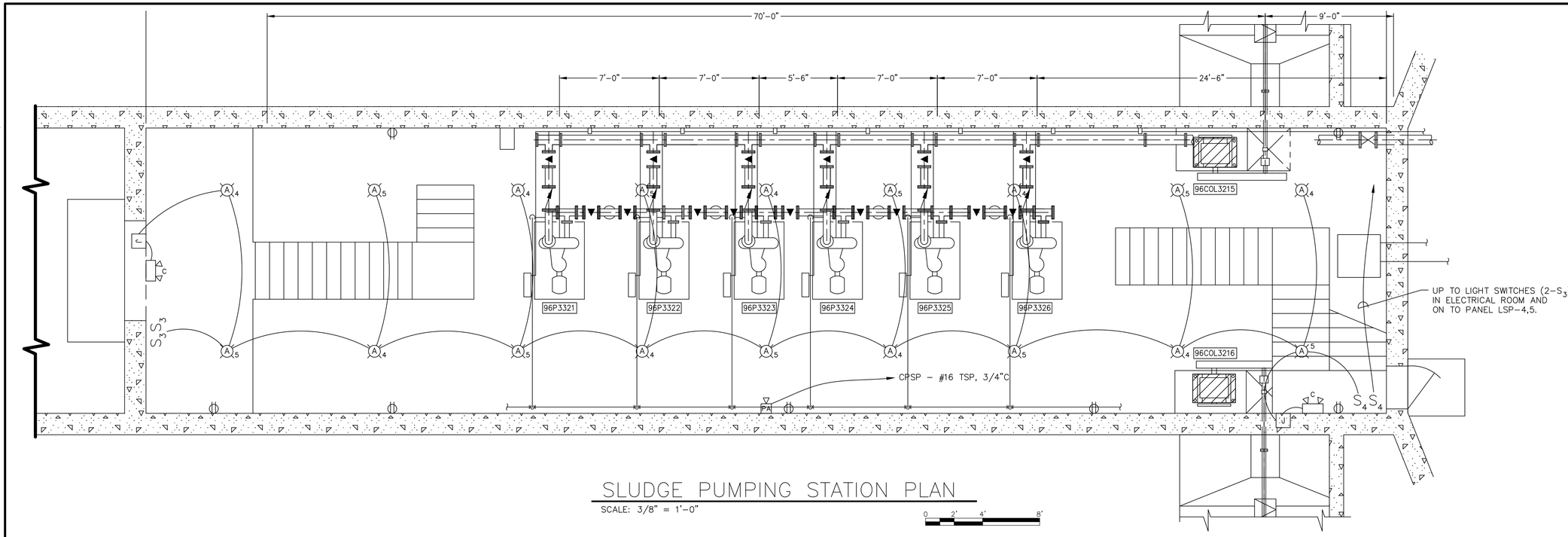
CHEMICAL BUILDING ELECTRICAL PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: 3/4" = 1'-0"

E-021

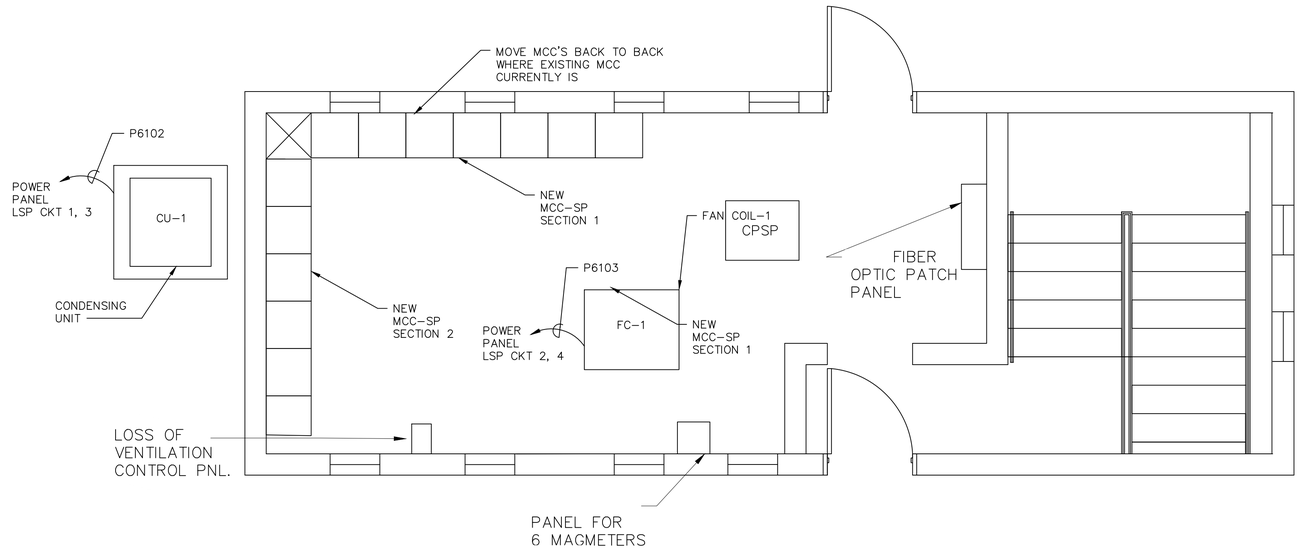
SHEET 101 OF 150



SLUDGE PUMPING STATION PLAN

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

0 2' 4' 8'



SLUDGE PUMPING STATION ELECTRICAL ROOM

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

0 2' 4' 6'

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS HOWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE PUMPING STATION ELECTRICAL PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

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

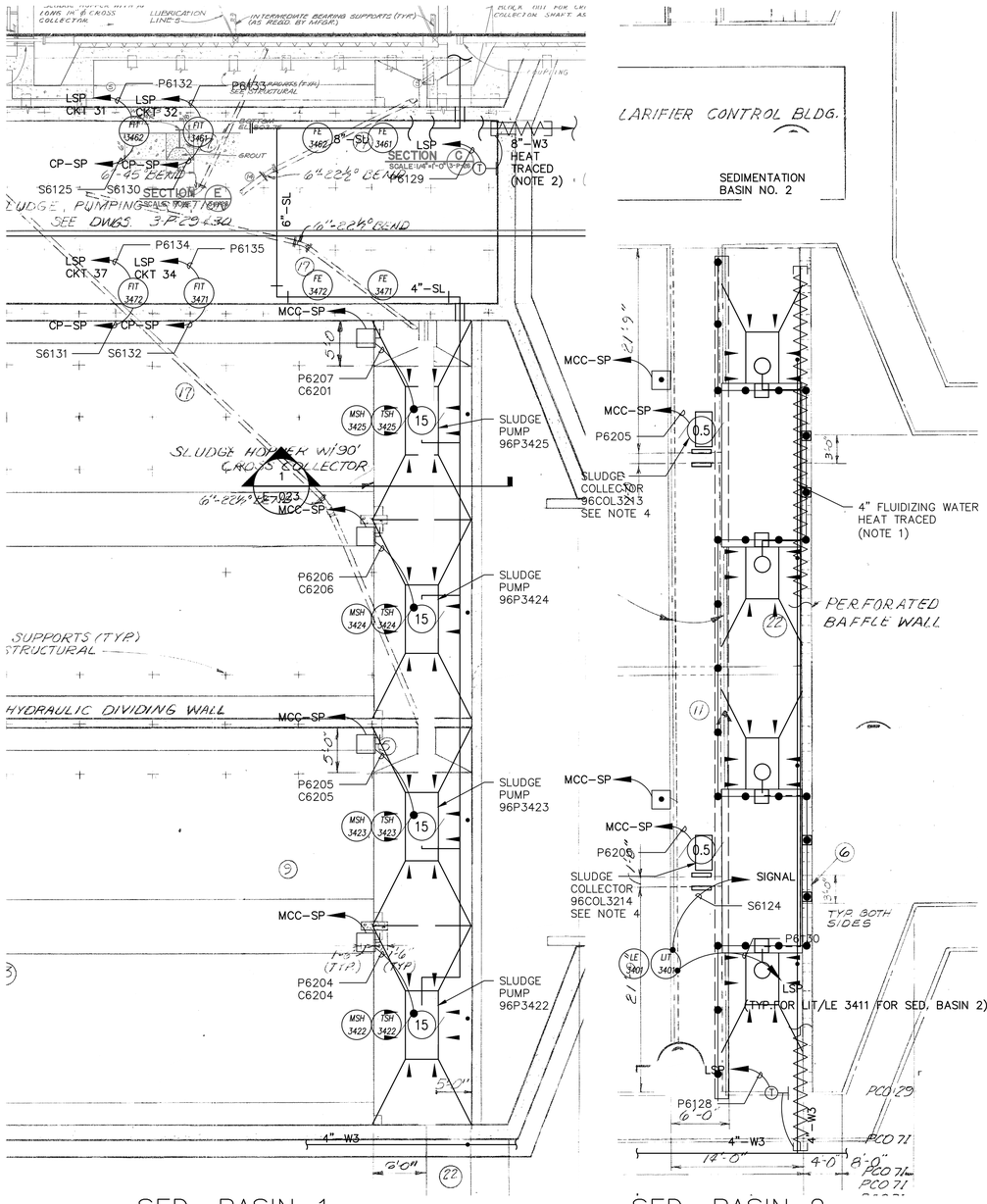
E-022

SHEET 102 OF 150

User:KSEABRUN Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-022.DWG Scale:1:1 SavedDate:7/7/2022 Time:14:24 Plot Date: Seabrun, Kuron 7/8/2022, 13:17 : Layout:102

NOTES:

1. EXPOSED 4" PIPE TO BE HEAT TRACED. REFER TO E-033 FOR SCHEDULE, TAG # HT-1-1 AND HT-2-1.
2. EXPOSED 8" PIPE TO BE HEAT TRACED. REFER TO E-033 FOR HEAT TRACE SCHEDULE, TAG NUMBER HT-4-1.
3. SED. BASIN 1 TOP PLAN TYP. OF SED. BASIN 2. REFER TO INSTRUMENTATION DRAWINGS FOR DEVICE LOOP NUMBERS.
4. DEMOLISH EXISTING SLUDGE COLLECTORS, INCLUDING THE MOTORS, DRIVES, CONTROL AND LOCAL DISCONNECTS, CABLE AND CONDUIT. CONTRACTOR SHALL COORDINATE DEMOLITION WITH SHEET M-004.

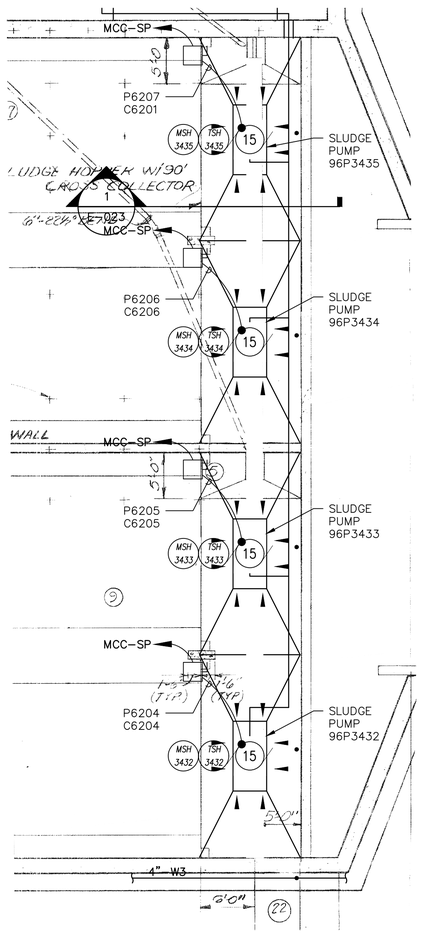


SED. BASIN 1 BOTTOM PLAN

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

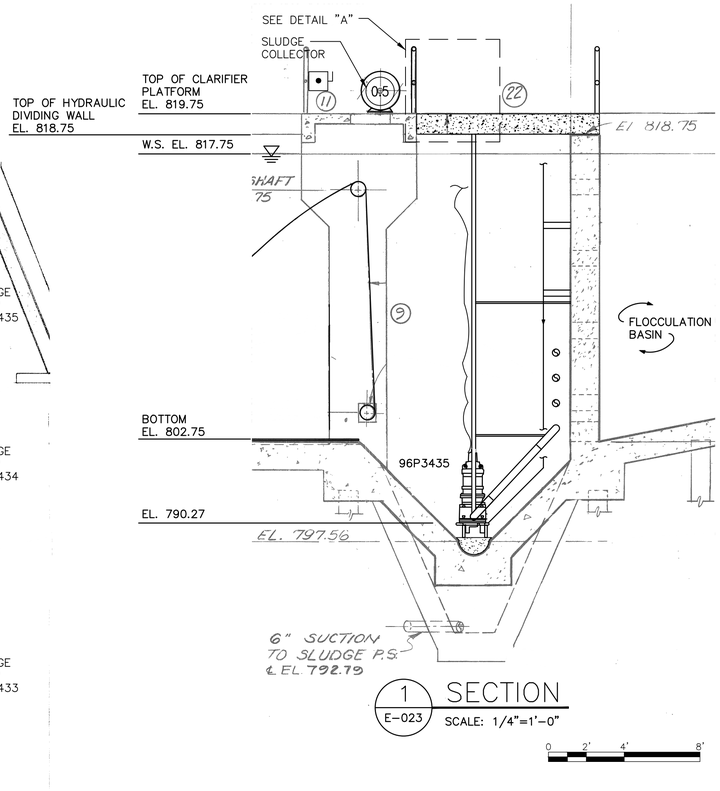
SED. BASIN 2 TOP PLAN (TYP. FOR 2)

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



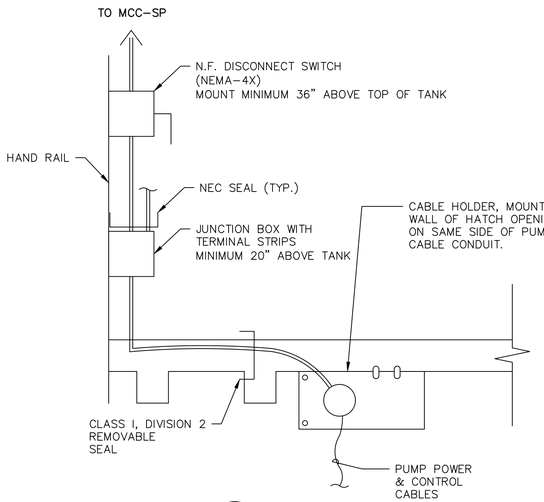
SED. BASIN 2 BOTTOM PLAN

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



1 E-023 SECTION

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



A E-023 DETAIL

SCALE: N.T.S.

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SEALS

GEORGIA REGISTERED No. PE047046 PROFESSIONAL ENGINEER THOMAS R. POWELL 7/8/22

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SEDIMENTATION BASIN & SLUDGE PUMPING EQUIPMENT, POWER & CONTROLS

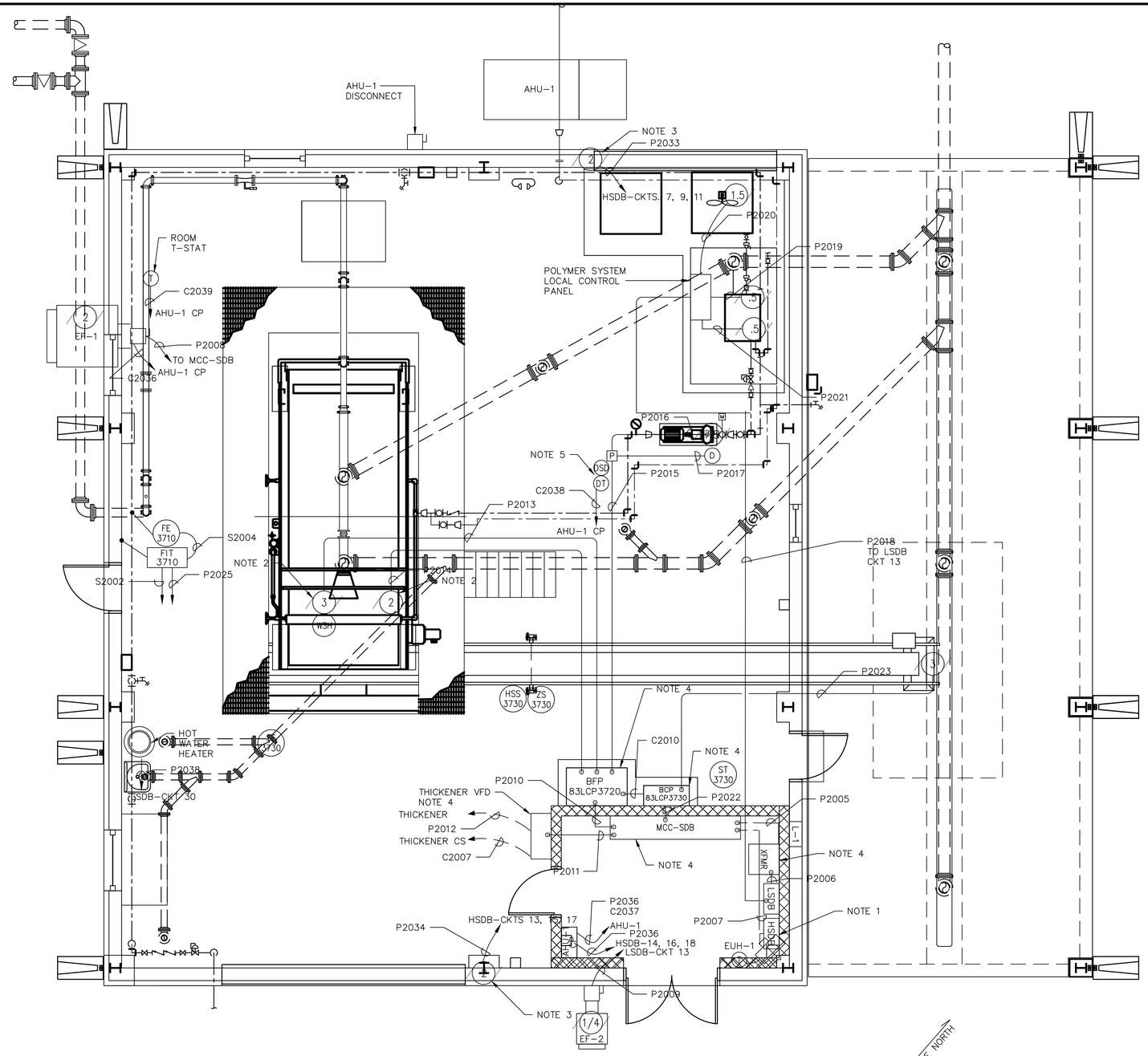
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. ATKINS
CHECKED BY:	I. GONZALEZ

SCALE: AS SHOWN

E-023

SHEET 103 OF 150

User:KSEARBUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-023 - COPY.DWG Scale:1:1 SavedDate:7/8/2022 Time:17:36 Plot Date: Seabrun, Kuron, 7/8/2022; 19:21 ; Layout:103



SLUDGE DEWATERING BUILDING

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

NOTES:

1. ALL ELECTRICAL EQUIPMENT LOCATIONS SHALL BE COORDINATED WITH OTHER DISCIPLINES TO AVOID ANY CONFLICT.
2. MOTOR LOCATED ABOVE FINISHED FLOOR (ON TOP OF BELT FILTER PRESS).
3. MOTOR LOCATED ABOVE FINISHED FLOOR (ON TOP OF ROLL UP DOOR).
4. GROUND MOUNTED CABINETS/ENCLOSURES MUST BE MOUNTED ON A 4" THICK CONCRETE PAD.
5. DUCT THERMOSTAT DUCT SMOKE DETECTOR TO BE PLACED IN AHU-1 AIR DUCT. SEE HP-002.
6. THE CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING FOR HVAC CONTROL CIRCUITS AS REQUIRED IN COORDINATION WITH EQUIPMENT PROVIDED.
7. ZS: MOTION SWITCH, HSS: PULL CORD, SE: ZERO MOTION, ST: SPEED TRANSMITTER.
8. COORDINATE LOCATIONS OF DEVICES WITH VENDOR SHOP DRAWINGS.

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SEALS

GEORGIA REGISTERED Valec No. PE024381 PROFESSIONAL ENGINEER THOMAS H. POWELL

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING POWER AND CONTROL

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

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

E-024

SHEET 104 OF 150

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-024.DWG Scale:1:1 SavedDate:7/8/2022 Time:17:54 Plot Date: Seabrun, Kuron: 7/8/2022; 17:55 ; Layout:104

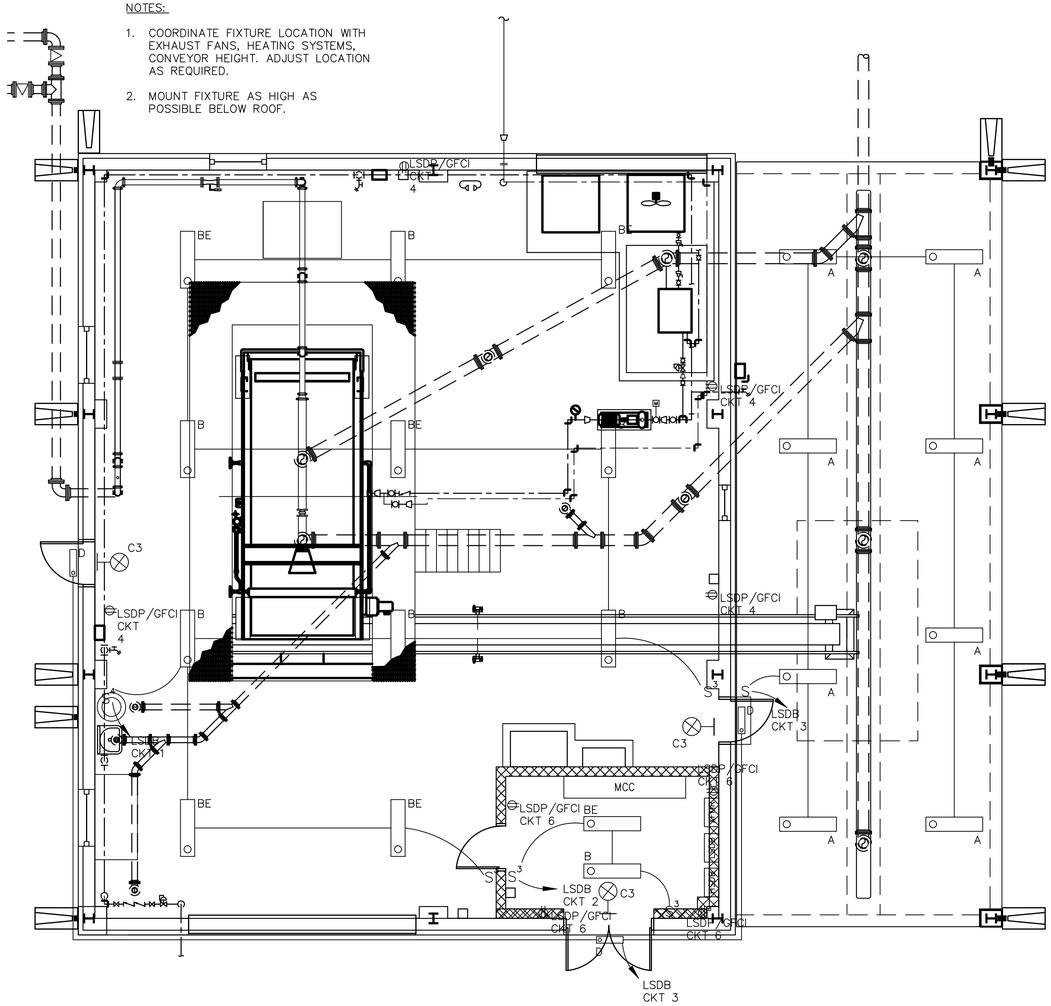
User:KSEARBRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0200ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-025.DWG Scale:1:1 SavedDate:7/7/2022 Time:14:36 Plot Date: Seabrun, Kuron, 7/8/2022, 18:04 , Layout:105

LUMINAIRE SCHEDULE

TYPE	QTY	DESCRIPTION	MOUNTING		LAMPS			VOLTAGE	POWER DRAW		DESIGN BASIS MANUFACTURER / CATALOG NO.	REMARKS
			TYPE	HEIGHT (FT.)	QUANTITY	WATTS-EA	TYPE		TOTAL WATTAGE	TOTAL VA		
A	8	CONFIGURED FROM CREE EDGE AREA, TYPE III MEDIUM, 60 LEDs, 700mA, 4000K	SURFACE	20	40	68		120	544	680	CREE INC. / CAN-EDG-3M-**-04-E-525-40K	SEE NOTE 1
B	7	LED LIGHT FIXTURE	PENDANT	SEE NOTE 2	1	60.6		120	424.2	530.25	EG3-4-S-LED-HO-CW-UE	SEE NOTE 1
BE	6	LED LIGHT FIXTURE	PENDANT	SEE NOTE 2	1	60.6		120	363.6	454.5	EG3-4-S-LED-HO-CW-UE	SAME AS "B" WITH EMERGENCY OPTION, SEE NOTE 1
C3	3	EXIT LIGHTING	SURFACE	8' ABOVE DOOR	1	12	HALOGEN	120	36	45	LHXC	
D	2	WALLPACK	SURFACE	8' ABOVE DOOR	2	94	FLUORESCENT	120	188	235	TWH 70S	

NOTES:

1. COORDINATE FIXTURE LOCATION WITH EXHAUST FANS, HEATING SYSTEMS, CONVEYOR HEIGHT. ADJUST LOCATION AS REQUIRED.
2. MOUNT FIXTURE AS HIGH AS POSSIBLE BELOW ROOF.



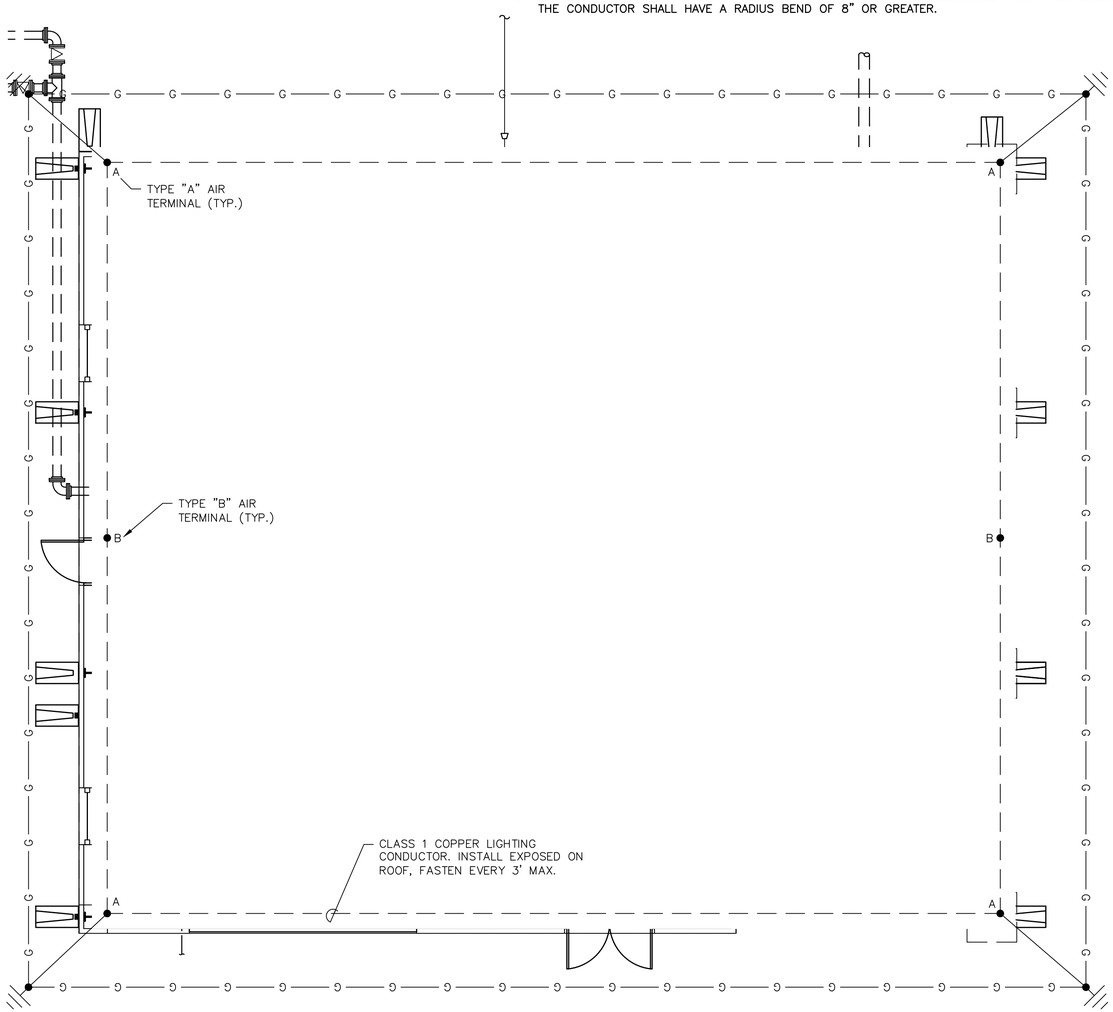
PROPOSED LIGHTING AND RECEPTACLES PLAN

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

LIGHTNING PROTECTION SYSTEM NOTES

1. THE COMPLETED INSTALLATION SHALL MEET THE "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS, UL96A" OF UNDERWRITERS LABORATORIES – LATEST EDITION. THE UL MASTER LABEL SHALL BE FURNISHED TO THE OWNER UPON COMPLETION.
2. METAL BODIES WITHIN 6' OF THE LIGHTNING PROTECTION SYSTEM SHALL BE BONDED TO THE SYSTEM IN ACCORDANCE WITH UL96A – LATEST REQUIREMENTS.
3. UNDERGROUND METALLIC PIPING ENTERING THE BUILDING SHALL BE BONDED TO THE NEAREST DOWN CONDUCTOR OR GROUND ELECTRODE.
4. AIR TERMINALS SHALL BE LOCATED ON THE ROOF TOP EQUIPMENT AS REQUIRED. IF THE METAL THICKNESS OF AN OBJECT IS 3/16" OR GREATER, AIR TERMINALS MAY BE ELIMINATED IF THE OBJECT IS PROPERLY CONNECTED TO THE SYSTEM.
5. ROOF TOP EQUIPMENT NOT SHOWN ON THIS DRAWING SHALL BE PROTECTED AS REQUIRED TO MEET THE REQUIREMENTS LISTED ABOVE INCLUDING THE INSTALLATION OF AIR TERMINALS AND OR BONDING. IF THE METAL THICKNESS OF AN OBJECT IS 3/16 OR GREATER, AIR TERMINALS MAY BE ELIMINATED IF THE OBJECT IS PROPERLY CONNECTED TO THE SYSTEM.
6. ALL LIGHTNING CONDUCTORS ARE TO MAINTAIN A HORIZONTAL OR DOWNWARD PATH. ALL BENDS IN THE CONDUCTOR SHALL HAVE A RADIUS BEND OF 8" OR GREATER.



PROPOSED LIGHTNING PROTECTION SYSTEM

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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SEALS

GEORGIA REGISTERED No. PE047045 PROFESSIONAL ENGINEER THOMAS H. POWELL 7/8/22

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING BUILDING ELEC LIGHTING AND PROTECTION

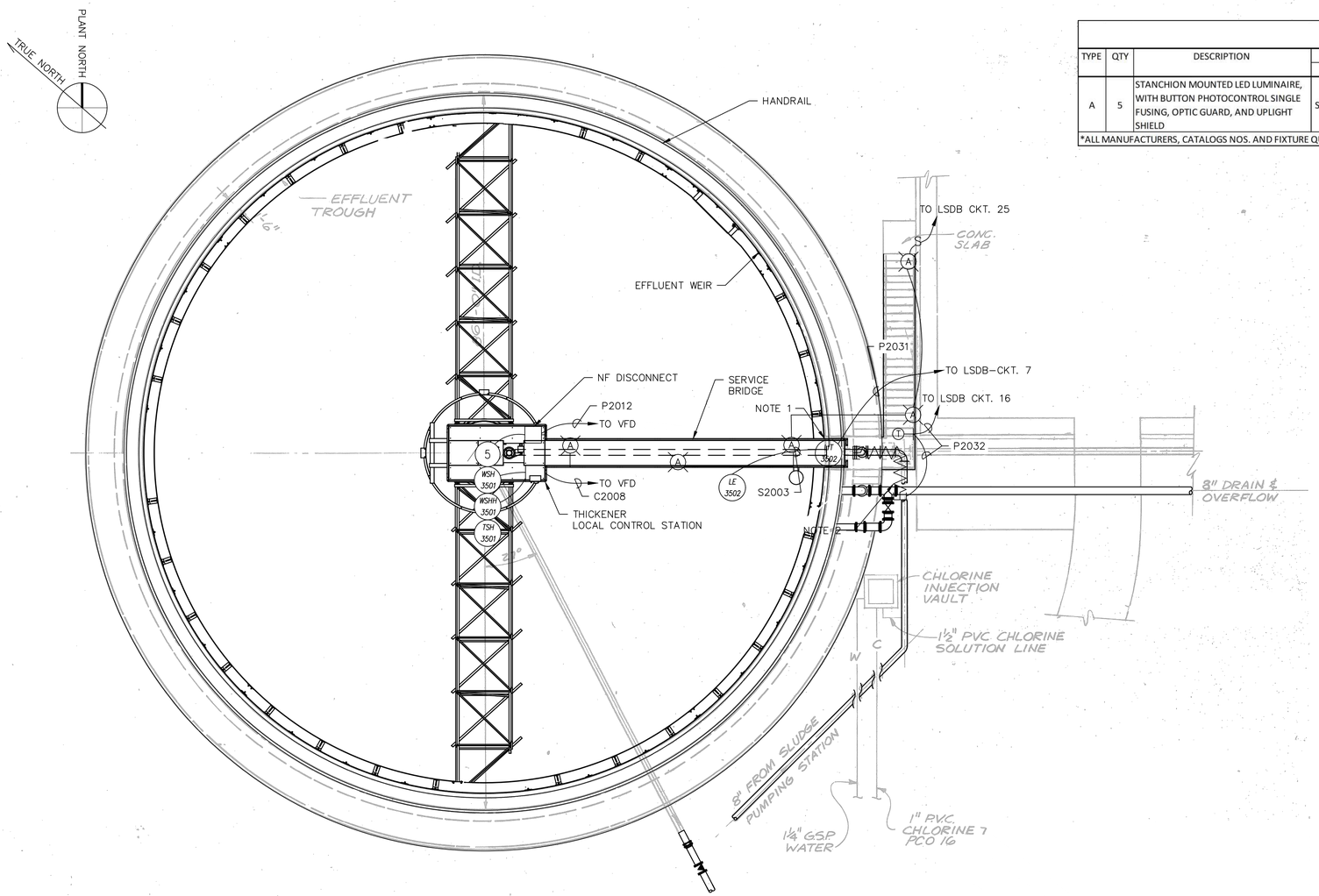
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	C. MARTINI
CHECKED BY:	I. GONZALEZ

SCALE: 3/16" = 1'-0"

E-025

SHEET 105 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-026.DWG Scale:1:1 SavedDate:2/25/2019 Time:17:23 Plot Date: Seabrun, Kuron; 7/8/2022; 18:09 ; Layout:106



SLUDGE HOLDING TANK PLAN

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

0 4' 8' 16'

LUMINAIRE SCHEDULE												
TYPE	QTY	DESCRIPTION	MOUNTING		LAMPS			VOLTAGE	POWER DRAW		DESIGN BASIS MANUFACTURER / CATALOG NO.	REMARKS
			TYPE	HEIGHT (FT.)	QUANTITY	WATTS-EA	TYPE		TOTAL WATTAGE	TOTAL VA		
A	5	STANCHION MOUNTED LED LUMINAIRE, WITH BUTTON PHOTOCONTROL SINGLE FUSING, OPTIC GUARD, AND UPLIGHT SHIELD	STANCHION	8	1	68	LED	120	340	425	HOLOPHANE, PETROLUX / PLED2-05L-**-AS-P3US-NA-**-**-BP-F1-GD-SH	
*ALL MANUFACTURERS, CATALOGS NOS. AND FIXTURE QUANTITIES ARE SUBJECT TO BE EVALUATED AS EQUAL TO OTHER COMPETITIVE BRANDS.												

NOTES:

1. REPLACE EXISTING LIT. CONNECT TO EXISTING CONDUIT/WIRE.
2. 8" SLUDGE LINE TO BE HEAT TRACED. REFER TO E-033 FOR HEAT TRACE SCHEDULE.
3. REFER TO E-043 FOR TANK LUMINARIES DETAIL.

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SEALS

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

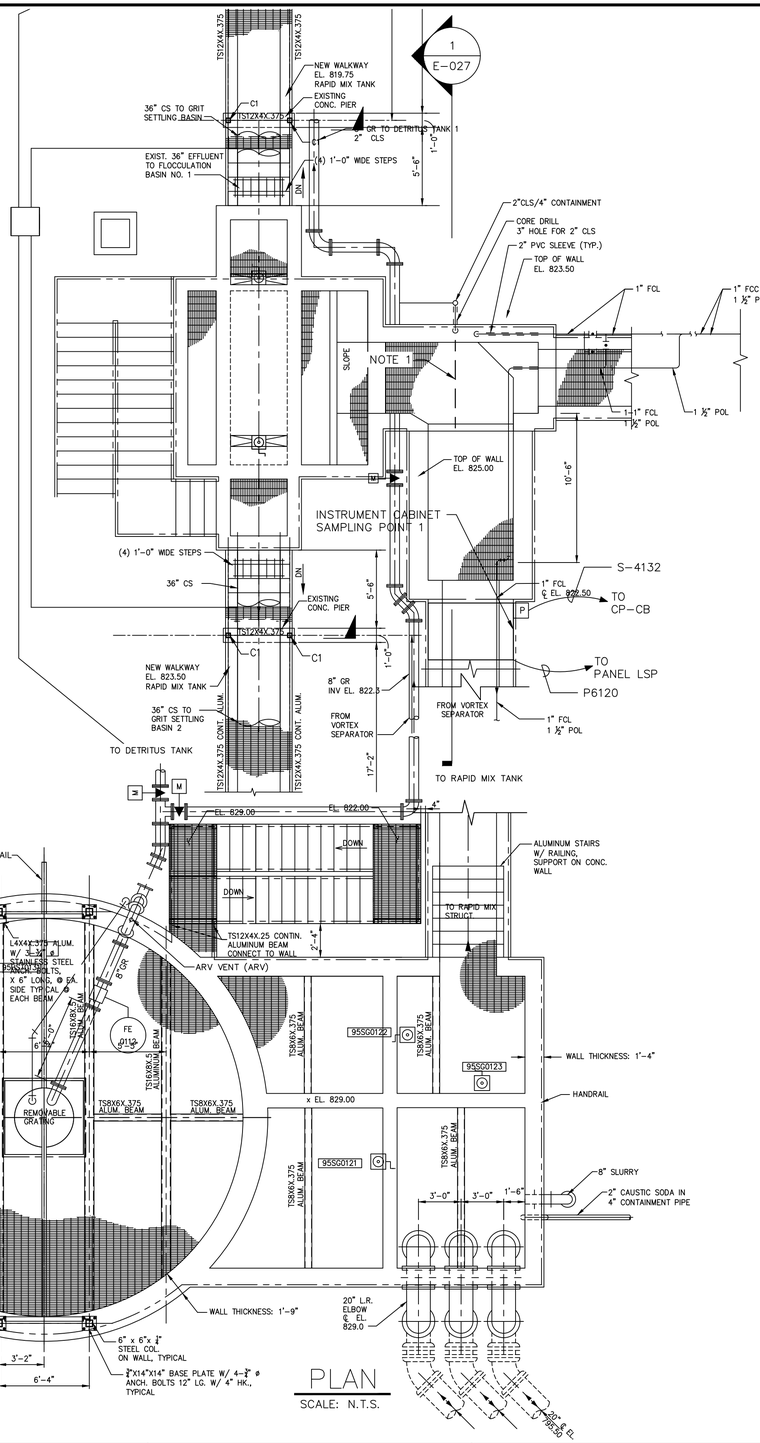
SLUDGE HOLDING TANK POWER AND CONTROL PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	R. KUNZ
CHECKED BY:	I. GONZALEZ

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

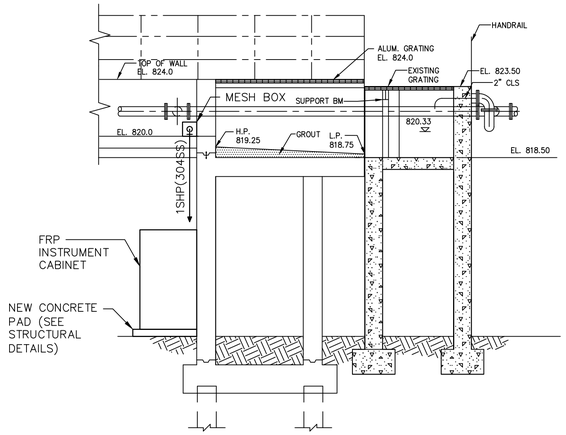
E-026

SHEET 106 OF 150



PLAN

SCALE: N.T.S.



1 / E-027 SECTION

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

NOTE:

1. REFER TO WIRING SCHEMATIC FOR DETAILS. SHEET E-032.
2. M.L.O –MAINS LUGS ONLY.

REFERENCE DRAWINGS: S-14, M-14, M-15, M-16, M-17 (2008, CITY OF ATLANTA INTRENCHMENT CREEK CS TREATMENT PLANT

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SODIUM HYPOCHLORITE DOSING AND SAMPLING POINT POWER PLAN

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

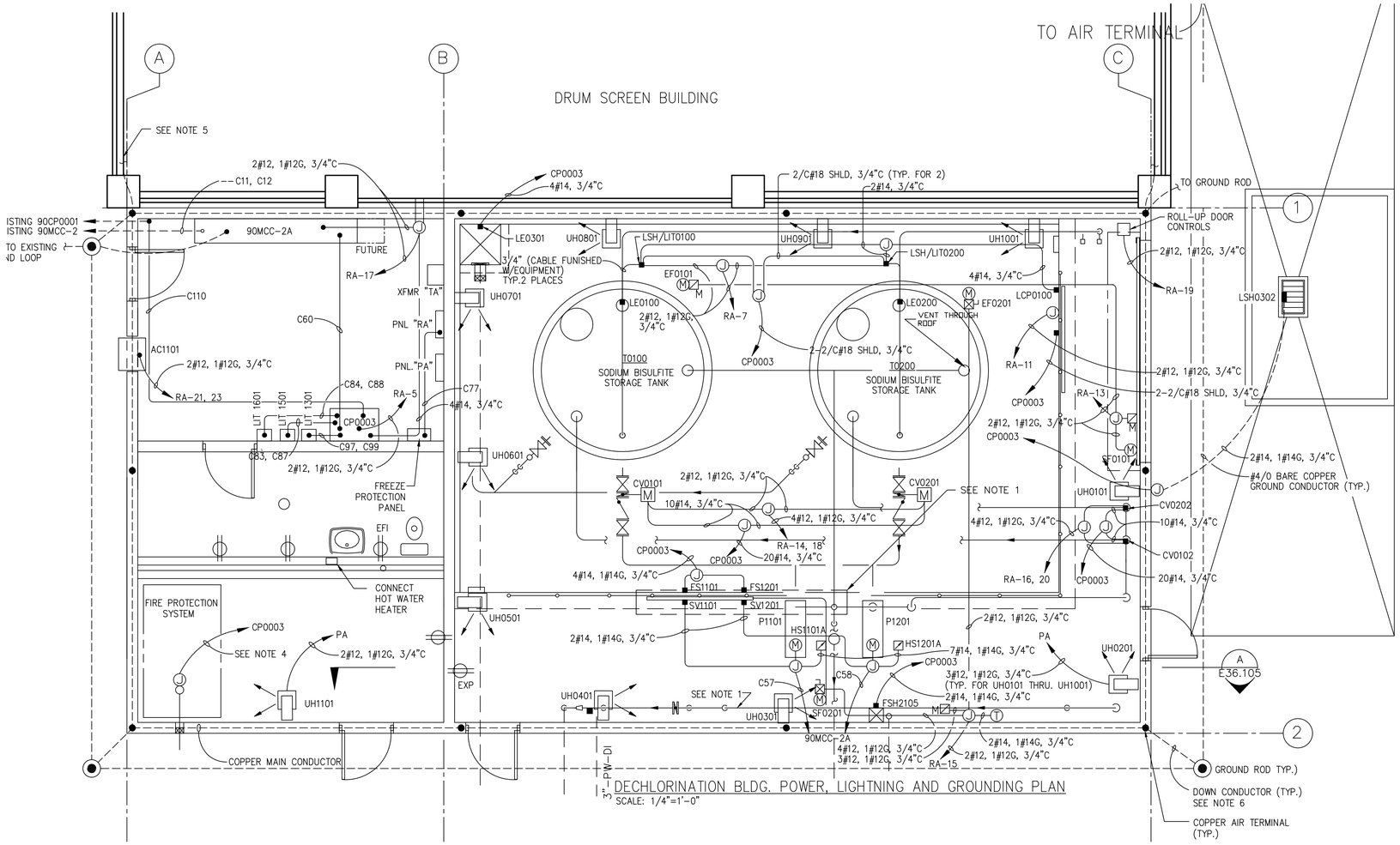
SCALE: AS SHOWN

E-027

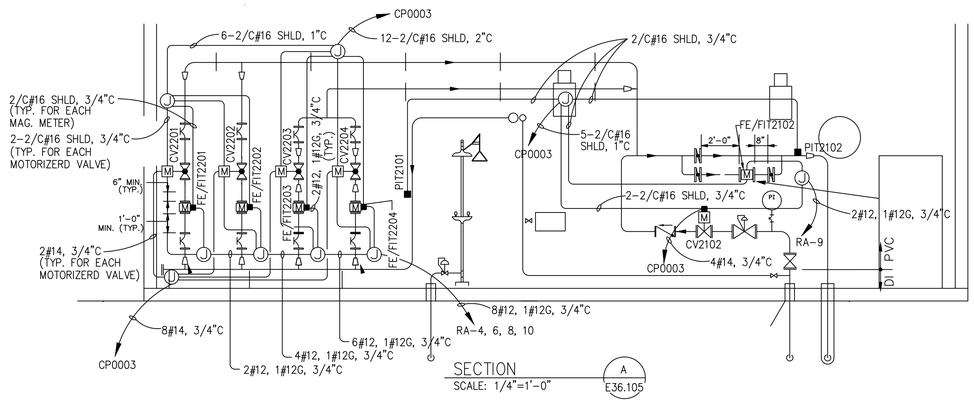
SHEET 107 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-027.DWG Scale:1:1 SavedDate:7/7/2022 Time:14:42 Plot Date: Seabrun, Kuron, 7/8/2022, 13:26 : Layout:107

User:KSEABRUN Spec:AUS-NCSM0D File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-028.DWG Scale:1:1 SavedDate:3/28/2019 Time:13:29 Plot Date: Seabrun, Kuron; 7/8/2022; 13:28 ; Layout:108



DECHLORINATION BLDG. POWER, LIGHTNING AND GROUNDING PLAN
SCALE: 1/4"=1'-0"



SECTION
SCALE: 1/4"=1'-0"
A
E36.105

NOTES:
1. DISCONNECT EXISTING WIRING FOR SV1101 AND SV1201. RECONNECT TO NEW SV1101 AND SV1201 USING EXISTING WIRING.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

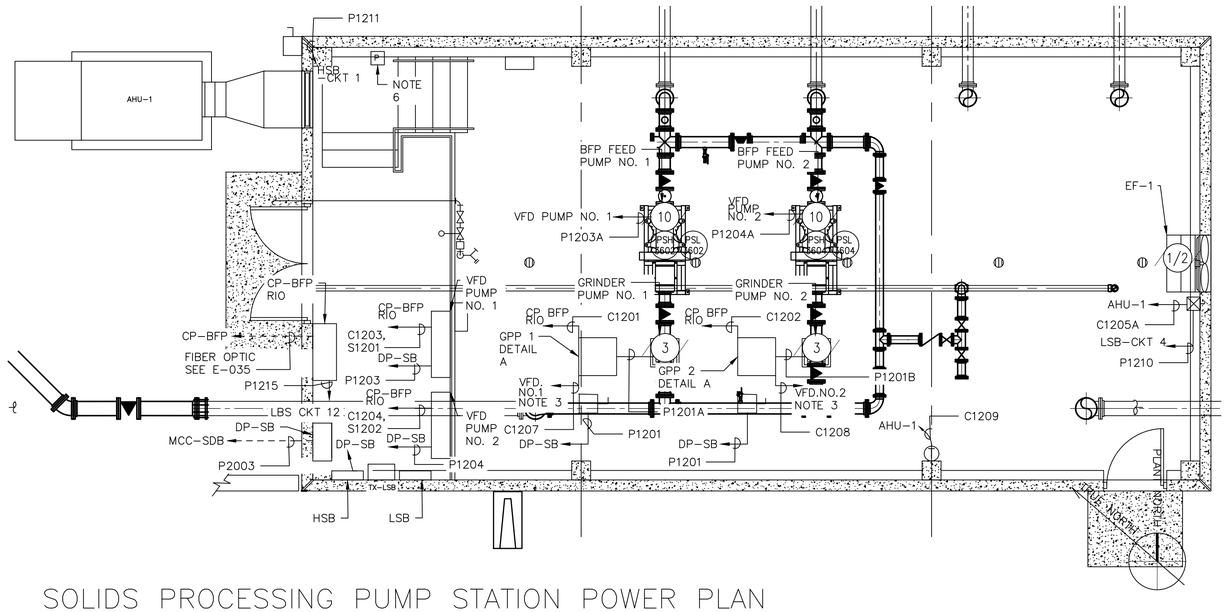
CUSTER AVENUE – POWER & LIGHTING PLAN CHEMICAL STORAGE

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

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

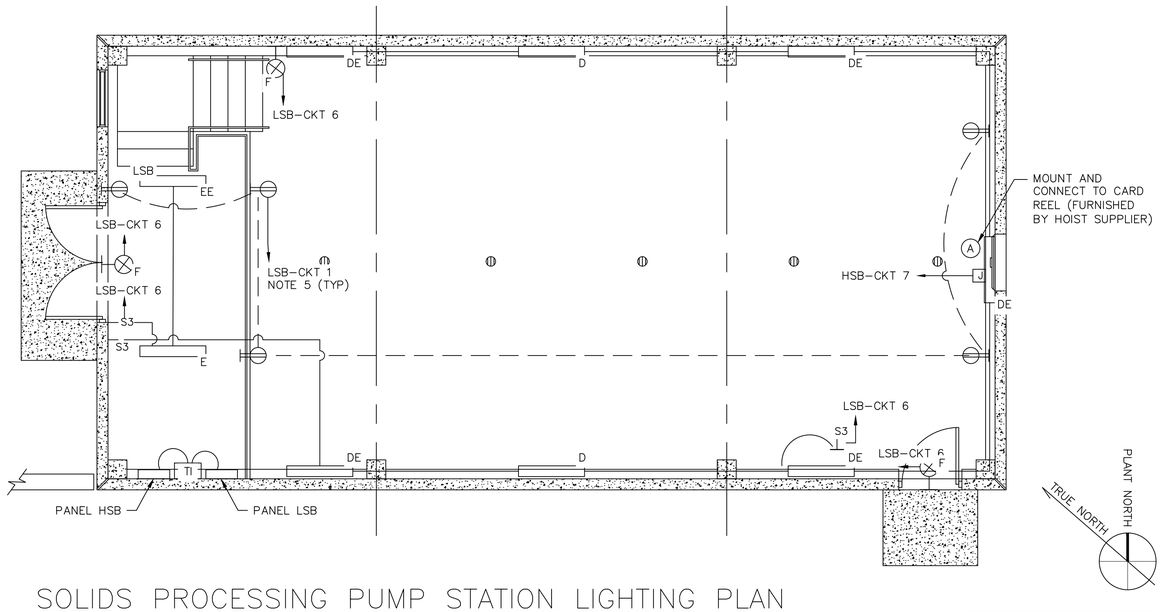
E-028

SHEET 108 OF 150



SOLIDS PROCESSING PUMP STATION POWER PLAN

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



SOLIDS PROCESSING PUMP STATION LIGHTING PLAN

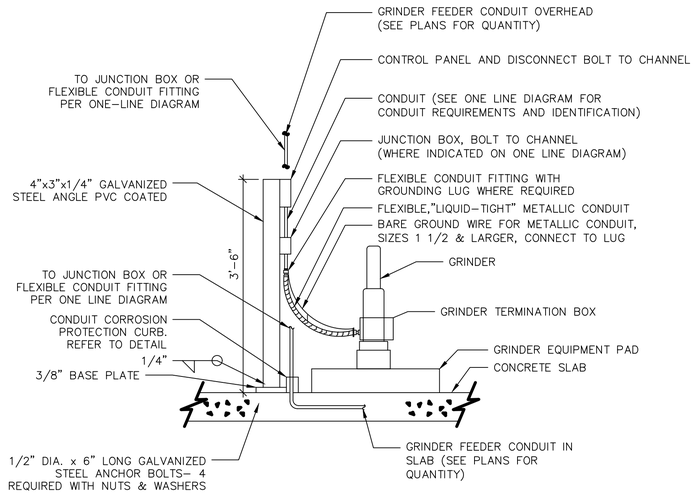
SCALE: 1/4" = 1'-0"

NOTES:
1. REFER TO INTERCONNECTION DIAGRAM SHEET E-034 FOR ADDITIONAL WIRING INFORMATION. REFER TO CONDUIT SCHEDULE SHEET E-042
2. CONTRACT TO FIELD VERIFY ALL EXISTING CONDUIT CONNECTIONS, AND PERFORM INSPECTION OF ALL EXISTING CONDUIT.
3. INTERLOCK W/ VFD CONTROL. SEE SHEET I-018.
4. REFER TO SLUDGE DEWATERING BUILDING.
5. PROVIDE NEW OUTLETS, UTILIZE EXISTING CONDUIT.
6. PULL BOX IS INTENDED TO REROUTE ALL EXISTING CONDUIT & WIRING FROM THE DELETED LSB PANEL TO THE RELOCATED LSB PANEL. CONTRACTOR SHALL TEST EXISTING CONDUIT FOR CONTINUITY AND INTEGRITY, BEFORE REWIRING LOADS TO THEIR END DESTINATION.

LUMINAIRE SCHEDULE

TYPE	QTY	DESCRIPTION	MOUNTING		LAMPS			VOLTAGE	POWER DRAW		DESIGN BASIS MANUFACTURER / CATALOG NO.	REMARKS
			TYPE	HEIGHT(FT.)	QUANTITY	WATTS-EA	TYPE		TOTAL WATTAGE	TOTAL VA		
D	2	FAILSAFE HVSL 4' LED FIXTURE WITH A OPAL LENS	WALL	10	1	44.2	LED	120	88.4	110.5	EATON - FAIL-SAFE (FORMER COOPER LIGHTING) / HVSL4-4-LD4-1HI-40-UNC-O-ED1C	
DE	5	FAILSAFE HVSL 4' LED FIXTURE WITH A OPAL LENS	WALL	10	1	44.2	LED	120	221	276.3	EATON - FAIL-SAFE (FORMER COOPER LIGHTING) / HVSL4-4-LD4-1HI-40-UNC-O-ED1C-EL7W	SAME AS "D" WITH EMERGENCY OPTION
E	1	FAILSAFE HVSL 4' LED FIXTURE WITH A OPAL LENS	PENDANT	10*	1	44.2	LED	120	44.2	55.25	EATON - FAIL-SAFE (FORMER COOPER LIGHTING) / HVSL4-4-LD4-1HI-40-UNC-O-ED1C-PMSC	
EE	1	FAILSAFE HVSL 4' LED FIXTURE WITH A OPAL LENS	PENDANT	10*	1	44.2	LED	120	44.2	55.25	EATON - FAIL-SAFE (FORMER COOPER LIGHTING) / HVSL4-4-LD4-1HI-40-UNC-O-ED1C-EL7W/PMSC	SAME AS "E" WITH EMERGENCY OPTION
F	3	MAGELLAN MEX	SURFACE	10	1	0.81	LED	120	2.43	3	MEX S 1 R SD	

*ALL MANUFACTURERS, CATALOGS NOS. AND FIXTURE QUANTITIES ARE SUBJECT TO BE EVALUATED AS EQUAL TO OTHER COMPETITIVE BRANDS. HEIGHT IS NOTED ABOVE FINISHED FLOOR SURFACE. *HEIGHT ABOVE MEZZANINE



A
E-029

GRINDER TERMINATION AND DEVICE MOUNTING DETAIL

(NTS)

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING BUILDING POWER AND CONTROL

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	C. ATKINS
DRAWN BY:	R. KUNZ
CHECKED BY:	I. GONZALEZ

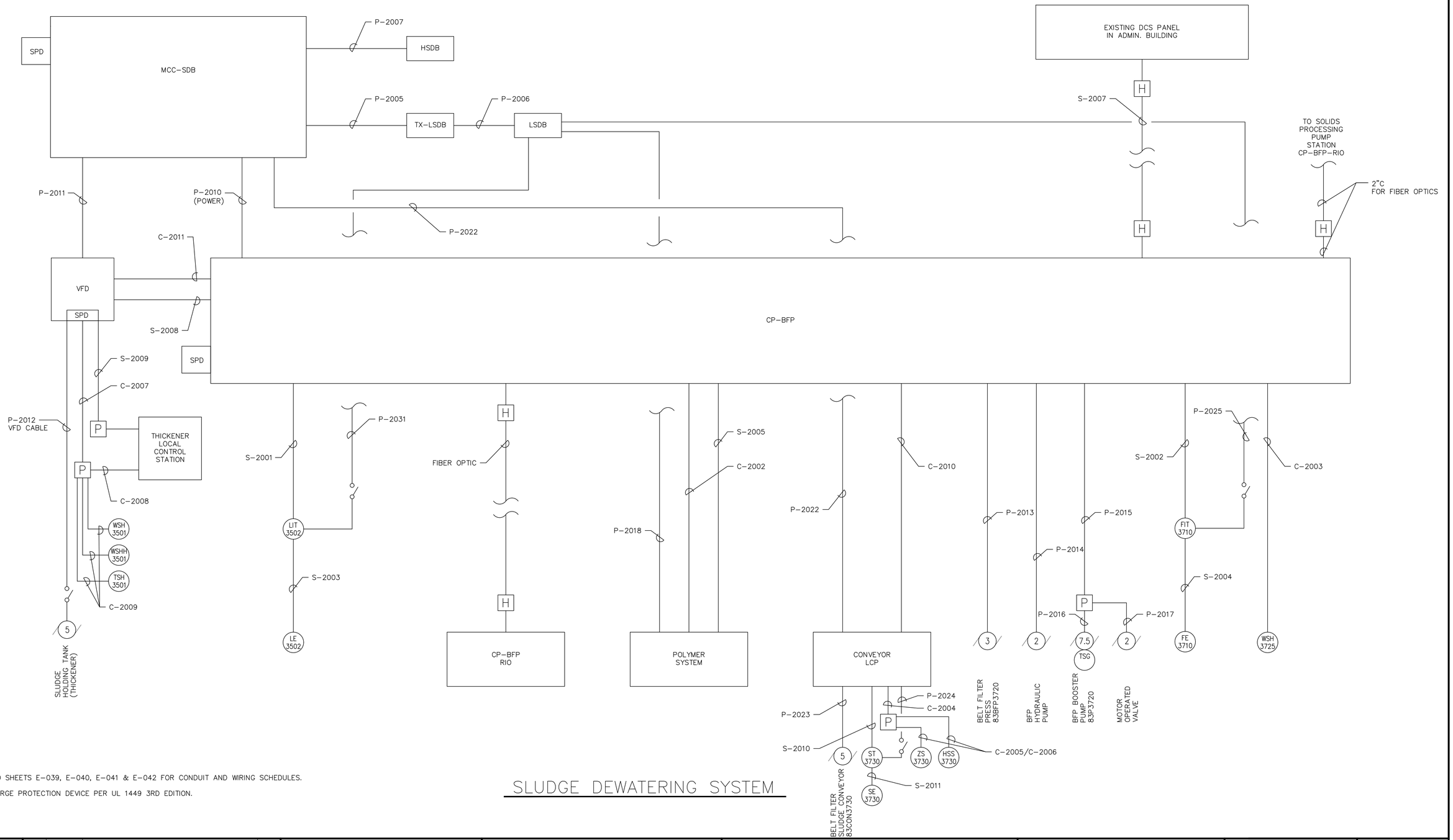
SCALE: 1/4" = 1'-0"

E-029

SHEET 109 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0204TA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-029.DWG Scale:1:1 SavedDate:7/30/2019 Time:17:53 Plot Date: Seabrun, Kuron; 7/8/2022; 13:31 ; Layout:109

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-030.DWG Scale:1:1 SavedDate:7/29/2019 Time:17:04 Plot Date: Seabrun, Kuron; 7/8/2022; 13:35 ; Layout:110



NOTES:

1. REFER TO SHEETS E–039, E–040, E–041 & E–042 FOR CONDUIT AND WIRING SCHEDULES.
2. "SPD" SURGE PROTECTION DEVICE PER UL 1449 3RD EDITION.

SLUDGE DEWATERING SYSTEM

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

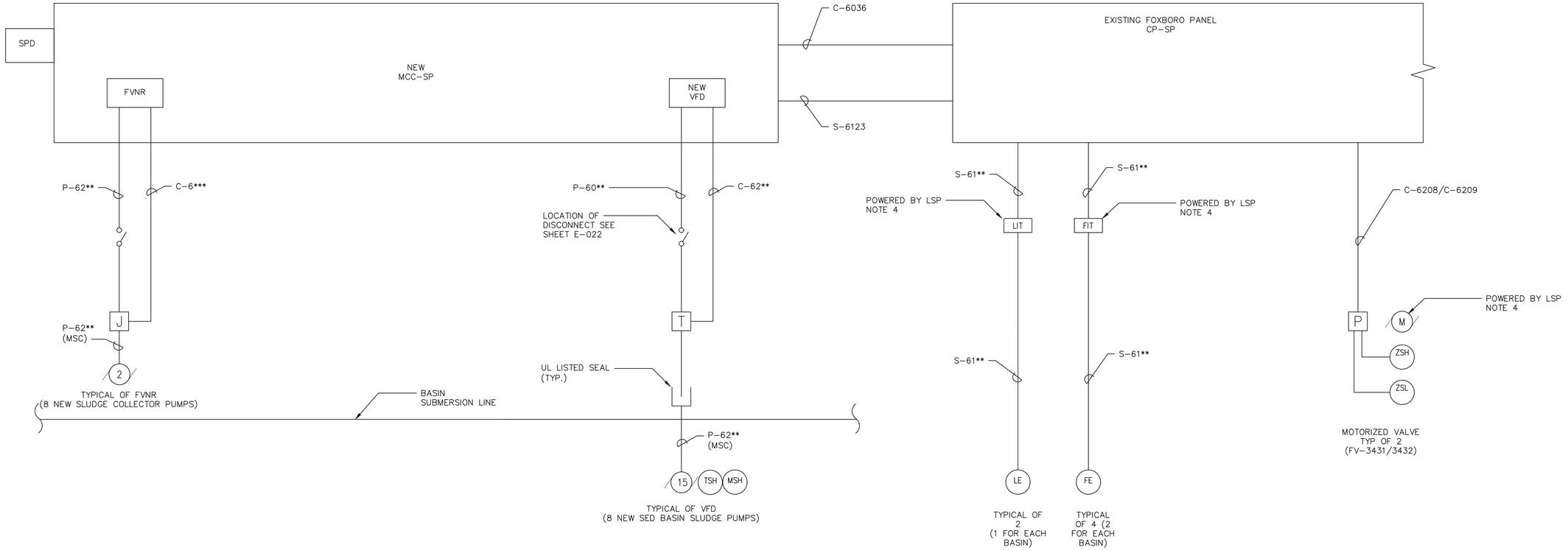
EAWQCF CONTROL WIRING INTERCONNECTION PLANS AND DETAILS 1

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E–030

SHEET 110 OF 150



	PUMP	TSH/MSH	LE	FE	ZH
SED. BASIN 1	96P3422 TO 96P3425	3422 TO 3425	3401	3461, 3462	3431
SED. BASIN 2	96P3432 TO 96P3435	3432 TO 3435	3411	3471, 3472	3441

NOTES:

1. TYPICAL CONDUIT NUMBERS (REFER TO E-040 FOR CONDUIT TABLES)
   P6***= P6031 TO P6036
   C6***= C6030 TO C6035
   P60**= P6080 TO P6087
   S61**= S6124 TO S6135
   P62**= P6200 TO P6215
   C62**= C6200 TO C6207, C6210 TO C6213
2. PROVIDE CLASS 1 DIV 2 UL LISTED SEAL
3. "SPD" – SURGE PROTECTION DEVICE PER UL 1449.
4. 120,1PH,20/1 CB, FROM LSP

SLUDGE PUMPING SYSTEM

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EAWQCF CONTROL WIRING INTERCONNECTION PLANS AND DETAILS 2

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

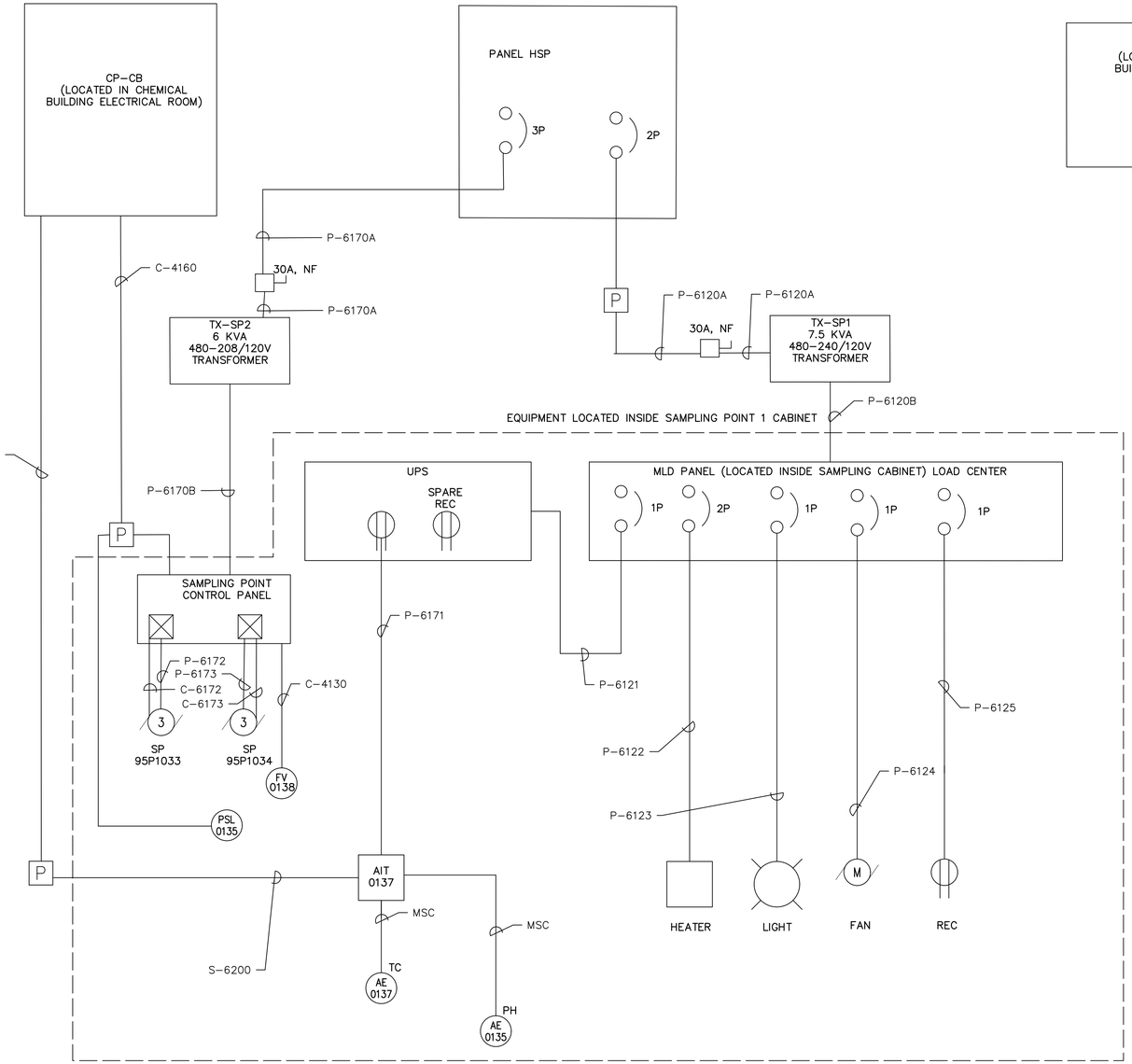
SCALE: NONE

E-031

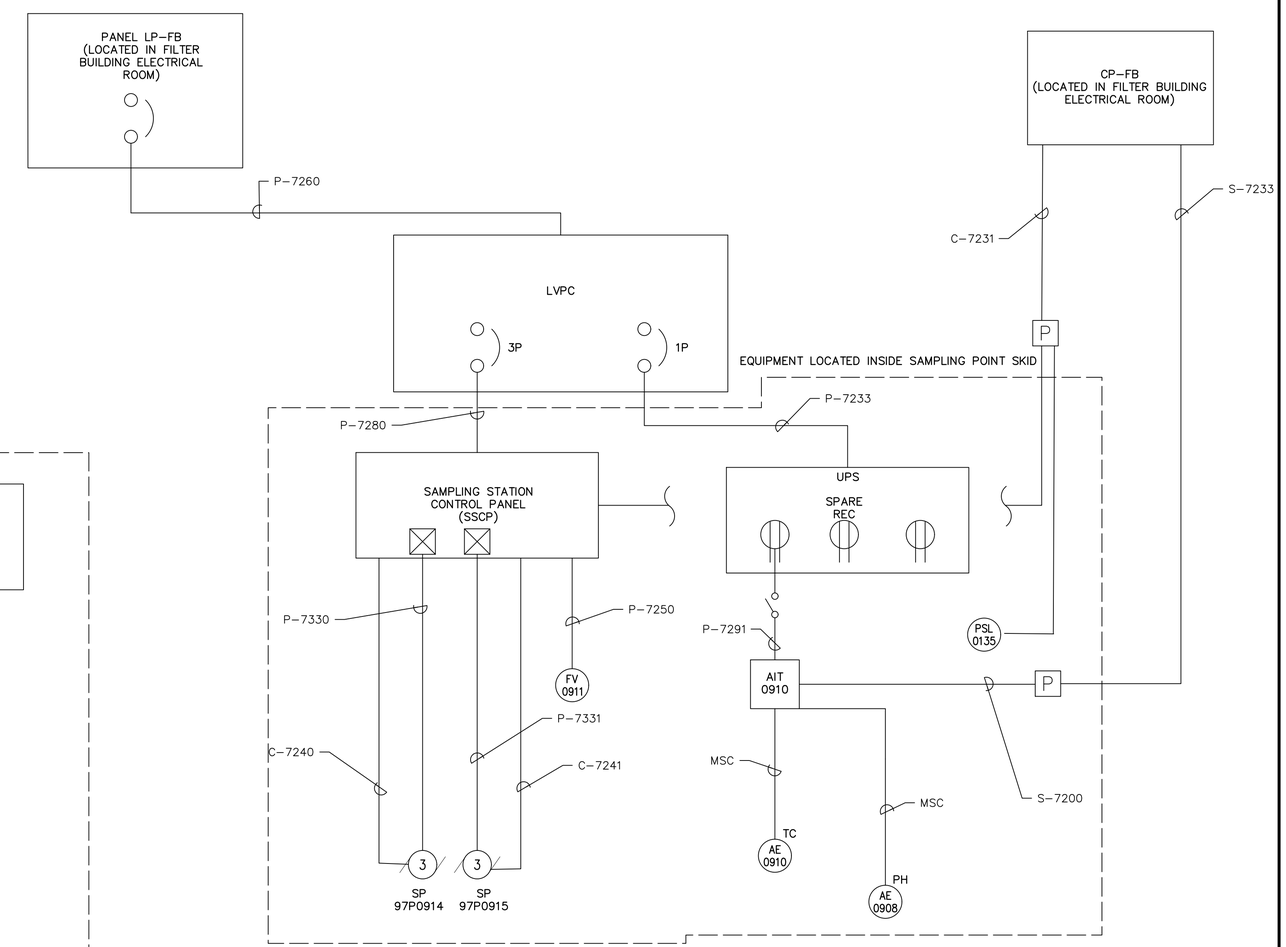
SHEET 111 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-031 - COPY.DWG Scale:1:1 SavedDate:5/14/2021 Time:01:02 Plot Date: Seabrun, Kuron; 7/8/2022; 13:37 ; Layout:111

User:KSEABRUN Spec: AUS-NCSM00 File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-032.DWG Scale:1:1 SavedDate:12/10/2020 Time:01:48 Plot Date: Seabrun, Kuron; 7/8/2022; 13:38 ; Layout:112



PROPOSED SAMPLING POINT 1 SYSTEM



PROPOSED FILTER BUILDING SAMPLING POINT 2 SYSTEM

NOTES:

1. SP – SAMPLING PUMP
2. REFER TO SHEET E-039, E-040 & E-041 FOR CONDUIT/WIRING SCHEDULE

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SEALS

GEORGIA REGISTERED 7/6/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EAWQCF CONTROL WIRING INTERCONNECTION PLANS AND DETAILS 3

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-032

SHEET 112 OF 150

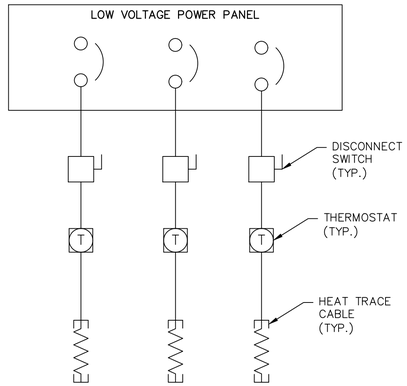
User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-033.DWG Scale:1:1 SavedDate:2/26/2019 Time:18:27 Plot Date: Seabrun Kuron; 7/8/2022; 13:40 ; Layout:113

HEAT TRACING SYSTEM DESCRIPTION

HT TAG / LOOP NO.	LOCN./SERV	PIPING					DESIGN PARAMETERS						CABLE AND CB SELECTION			
		NOM SIZE*	MATERIAL*	INSUL TYPE/THICKNESS*	LIN. FEET*	COMMENTS	Delta T	Thickness	W/Ft	Adj.	Min W/Ft	Tot W	Qty.	W/Ft	V	CB
HT-1-1	SED BASIN 1/FLUIDIZING	4"	DI	FIBERGLASS / 2"	125	HEAT TRACE INSULATED PIPING	70 F	2"	4.60	1.10	5.06	633	1	8	120	20**
HT-2-1	SED BASIN 2/FLUIDIZING	4"	DI	FIBERGLASS / 2"	125	HEAT TRACE INSULATED PIPING	70 F	2"	4.60	1.10	5.06	633	1	8	120	20**
HT-3-1	SLUDGE TANK/SLUDGE PIPE	8"	DI	FIBERGLASS / 2"	20	HEAT TRACE INSULATED PIPING	70 F	2"	7.80	1.10	8.58	172	1	10	120	20***
HT-4-1	SED BASIN/SLUDGE	8"	DI	FIBERGLASS / 2"	10	HEAT TRACE INSULATED PIPING	70 F	2"	7.80	1.10	8.58	86	1	10	120	20**

* REFER TO MECHANICAL DRAWINGS FOR MATERIAL DETAILS AND PIPING LAYOUT.
PIPE SIZE, MATERIALS AND LENGTH SHALL BE CONFIRMED
WITH APPROVED SHOP DRAWINGS AND PIPING CHOICES.

** SEE PANEL LSP
*** SEE PANEL LSDB FOR CIRCUIT REQUIREMENTS
****30 mA GFI



TYPICAL HEAT TRACE

SCALE: N.T.S.

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NO.	DATE	ISSUED FOR	BY
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SEALS

GEORGIA REGISTERED 7/8/22 No. PE047680 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

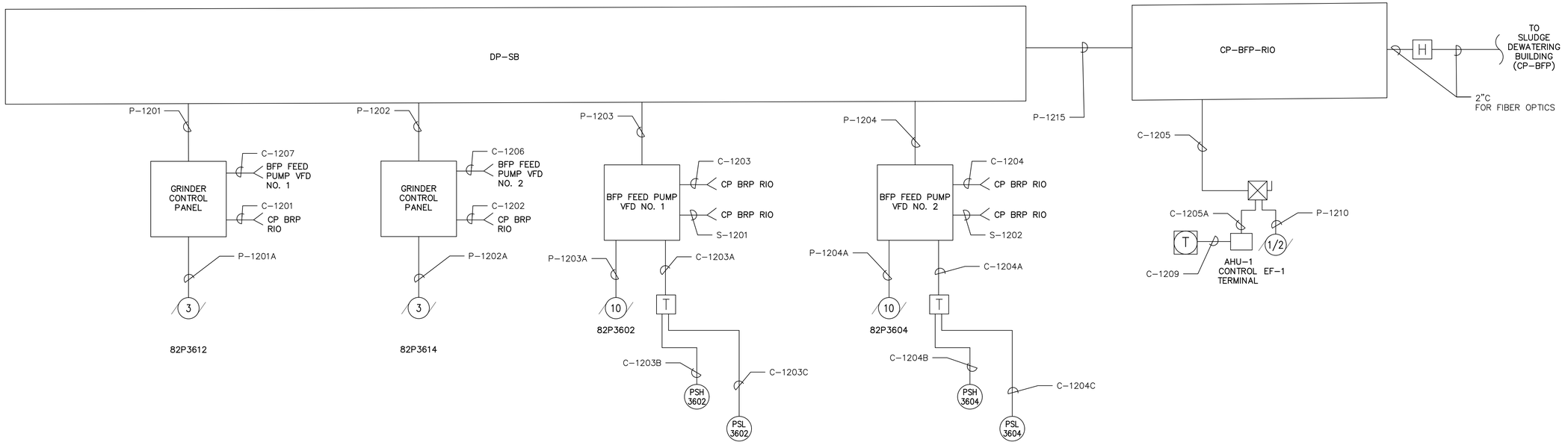
EAWQCF CONTROL WIRING INTERCONNECTION PLANS AND DETAILS 4

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

E-033

SHEET 113 OF 150



SOLIDS PROCESSING PUMP STATION

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-034.DWG Scale:1:1 SavedDate:7/30/2019 Time:17:53 Plot Date: Seabrun, Kuron; 7/8/2022; 13:41 ; Layout:114

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

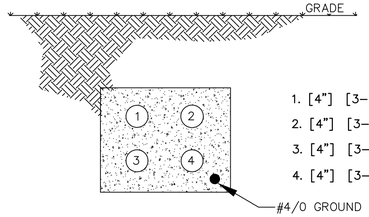
EAWQCF CONTROL WIRING INTERCONNECTION PLANS AND DETAILS 5

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: C. ATKINS
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

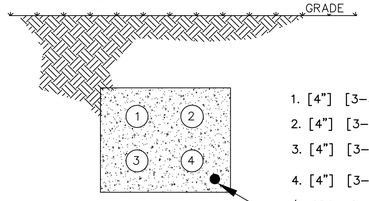
E-034

SHEET 114 OF 150



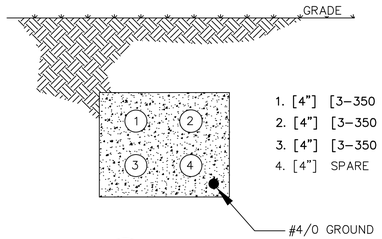
1. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4101)
2. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4101)
3. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4101)
4. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4101)

H SECTION
E–003
SCALE: N.T.S.



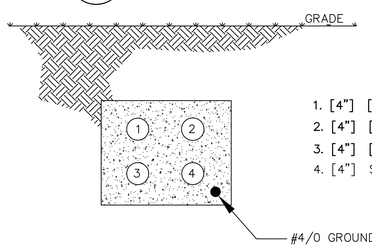
1. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4100)
2. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4100)
3. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4100)
4. [4"] [3–350KCMIL, 1#1/0G] TO MCC–CF (P4100)

I SECTION
E–003
SCALE: N.T.S.



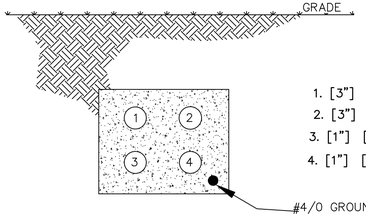
1. [4"] [3–350 KCMIL,1#2/0G] TO NEW MCC–FB (P7001)
2. [4"] [3–350 KCMIL,1#2/0G] TO NEW MCC–FB (P7001)
3. [4"] [3–350 KCMIL,1#2/0G] TO NEW MCC–FB (P7001)
4. [4"] SPARE

L SECTION
E–004
SCALE: N.T.S.



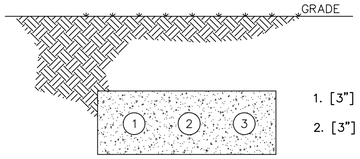
1. [4"] [3–350 KCMIL,1#1/0G] TO NEW MCC–FB (P7002)
2. [4"] [3–350 KCMIL,1#1/0G] TO NEW MCC–FB (P7002)
3. [4"] [3–350 KCMIL,1#1/0G] TO NEW MCC–FB (P7002)
4. [4"] SPARE

M SECTION
E–004
SCALE: N.T.S.



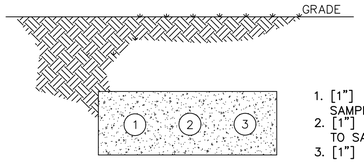
1. [3"] [3–350 KCMIL,1#1/0G] TO MCC SP (P6100)
2. [3"] [3–350 KCMIL,1#1/0G] TO MCC SP (P6100)
3. [1"] [3–#8,1#8G] TO TX–SP2 (SAMPLING POINT 1) (P6170A)
4. [1"] [3–#6,1#6G] TO TX–SP1 (SAMPLING POINT 1) (P6120A)

T1 SECTION
E–003
SCALE: N.T.S.



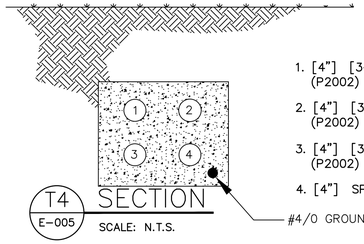
1. [3"] [3–350 KCMIL,1#1/0G] TO MCC SP (P6101)
2. [3"] [3–350 KCMIL,1#1/0G] TO MCC SP (P6101)

T2 SECTION
E–003
SCALE: N.T.S.



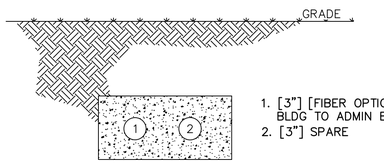
1. [1"] [3 TSP] TO PBOX FOR SIGNAL TO SAMPLING POINT 1 (S4132)
2. [1"] [18– #14, 1#14G] FOR CONTROLS TO SAMPLING POINT 1 (C4160)
3. [1"] SPARE

T3 SECTION
E–003
SCALE: N.T.S.



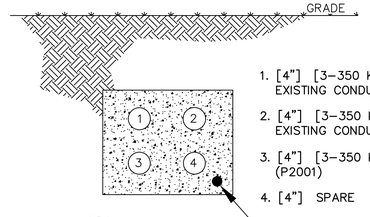
1. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. (P2002)
2. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. (P2002)
3. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. (P2002)
4. [4"] SPARE

T4 SECTION
E–005
SCALE: N.T.S.



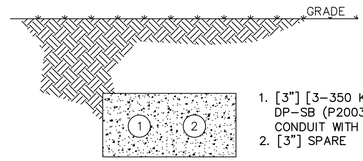
1. [3"] [FIBER OPTIC] FROM DEWATERING BLDG TO ADMIN BLDG DCS
2. [3"] SPARE

T5 SECTION
E–005
SCALE: N.T.S.



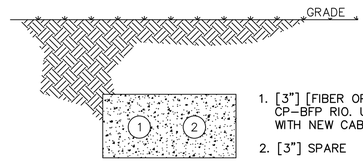
1. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. USE EXISTING CONDUIT WITH NEW CABLE. (P2001)
2. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. USE EXISTING CONDUIT WITH NEW CABLE. (P2001)
3. [4"] [3–350 KCMIL, 1#1/0G] TO MCC–SDB. (P2001)
4. [4"] SPARE

T6 SECTION
E–005
SCALE: N.T.S.



1. [3"] [3–350 KCMIL,1#4G] TO NEW DP–SB (P2003). USE EXISTING CONDUIT WITH NEW CABLE. (P2003)
2. [3"] SPARE

T7 SECTION
E–004
SCALE: N.T.S.



1. [3"] [FIBER OPTIC] FROM CP–BFP TO CP–BFP RIO. USE EXISTING CONDUIT WITH NEW CABLE.
2. [3"] SPARE

T8 SECTION
E–004
SCALE: N.T.S.

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SEALS

GEORGIA REGISTERED 10/12/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

DUCT BANK SECTIONS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	C. ATKINS
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E–035

SHEET 115 OF 150

User:KSEABRUN, Spec:AUS–NCSMOD, File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA020DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E–035.DWG Scale:1:1 SavedDate:7/7/2022 Time:14:49 Plot Date: Seabrun, Kuron: 7/8/2022, 13:44 : Layout:115

PANELBOARD	NEW DISTRIBUTION PANEL HSDB				LOCATION: SDB BLDG.; WALL, ELECTRICAL ROOM								
TYPE	BOLT-ON CB'S				BRANCHES	20/1 UNLESS NOTED							
SERVICE	480 V,3PH,4W				BUSSING	400 A		AIC(AMPS):	100,000 A, SHORT CIRCUIT CAPACITY				
MAINS	MLO				FEED	TOP							
CABINET	NEMA1				MOUNTING	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L- 1	L- 2	L- 3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
			1	4		3.25		2	2	3	20	**ELECTRICAL UNIT HEAATER #1**	
			3	4			3.25	2	4				
			5	4				3.25	2	6			
12' x 14' ROLL-UP DOOR	20	3	7	4	2.85			2	8				
			9	4		2.85		2	10				
			11	4			2.85	2	12				
20' X 14' ROLL-UP DOOR	20	3	13	4	2.85	37.50		2	14	3	60	**AIR CONDITIONER UNIT**	
			15	2		2.85	37.50	2	16				
			17	2			2.85	37.50	2	18			
			19	2				2	20				
			21	2				2	22				
			23	2				2	24				
			25	4				6	26				
			27	4				6	28				
			29	4				6	30				
SPARE			31						32			SPARE	
SPARE			33						34			SPARE	
SPARE			35						36			SPARE	
SPARE			37						38			SPARE	
SPARE			39						40			SPARE	
SPARE			41						42			SPARE	
TOTAL PHASE KVA					46.45	46.45	46.45						
TOTAL KVA					139.35								
MAXIMUM CONNECTED AMPS					167								
PHASE VOLTAGE					480								

DEMAND KVA:	143.63
DEMAND AMPS:	173

PANELBOARD	LSDB****				LOCATION:	SDB ELECTRICAL ROOM - WALL MTED							
TYPE:	BOLT-ON CB'S				BRANCHES:	AS NOTED							
SERVICE:	120/240V , 1 PH, 3 W				BUSSING:	200 A	AIC(AMPS):	22,000 A, SHORT CIRCUIT CAPACITY					
MAINS:	150 A MCB				FEED:	TOP							
CABINET:	NEMA 1				MOUNTING:	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L- 1		L- 2		CD	CKT	POLE	TRIP	LOAD DESCRIPTION
LIGHTS (BUILDING)	20	1	1	1	0.90	0.15			1	2	1	20	LIGHTS (ELECTRICAL ROOM)
LIGHTS (CANOPY)	20	1	3	1			0.60	0.72	5	4	1	20	RECEPTACLES (BELT PRESS AREA)
LOUVER #1	20	1	5	4	1.00	0.72			5	6	1	20	RECEPTACLES (ELECTRICAL ROOM)
MAGNOMETER	20	1	7	6			1.00	0.70	4	8	1	20	EXHAUST FAN 2
ELECTRIC UNIT HEATER	20	2	9	2	3.25					10			
			11	2			3.25	0.20		12	1	20	EXIT LIGHTING
POLYMER LCP	30	1	13	4	2.35					14			
			15					0.18		16			HEAT TRACE (SLUDGE TANK)
			17							18			
			19					1.65		20	1	30	WATER HEATER
			21							22			
SPARE	20	1	23					0.24		24	1	20	WALLPACKS
TANK LIGHTS	20	1	25	1	0.50					26	1	20	SPARE
SPARE	20	1	27							28			SPACES
SPARE	20	1	29							30			SPACES
TOTAL PHASE KVA					8.872		8.535						
TOTAL KVA					17.407								
MAXIMUM CONNECTED AMPS					74								
PHASE VOLTAGE					120								

DEMAND KVA:	19.06625
DEMAND AMPS:	79

* 5 mA GFCI ** 30 mA GFCI *** SE RATED **** PROVIDE SURGE PROTECTION DEVICE

CABINET	EXISTING DISTRIBUTION PANEL HSP.1				LOCATION: SP BLDG.; MCC, ELECTRICAL ROOM								
TYPE	BOLT-ON CB'S				BRANCHES	20/1 UNLESS NOTED							
SERVICE	480V,3PH,4W				BUSSING	225A		AIC(AMPS):	22,000 A, SHORT CIRCUIT CAPACITY				
MAINS	225A MCB				FEED	TOP							
CABINET	NEMA1				MOUNTING	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L- 1	L- 2	L- 3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
ELECTRIC UNIT HEATER 1	20	3	1		10.00 1.00				2	3	20	**CLARIFIER SCUM 1**	
			3			10.00 1.00			4				
			5				10.00 1.00		6				
ELECTRIC UNIT HEATER 2	20	3	7		10.00 1.00				8	3	20	**CLARIFIER SCUM 2**	
			9			10.00 1.00			10				
			11				10.00 1.00		12				
ELECTRIC UNIT HEATER 3	20	3	13		10.00 1.00				14	3	20	**PIPE VALVE**	
			15			10.00 1.00			16				
			17				10.00 1.00		18				
TX-SP2	20	3	19		2.00 2.00				20	3	20	**RAPID MIX GATES**	
			21			2.00 2.00			22				
			23				2.00 2.00		24				
			25		2.50				26	2	20	**TX-SP1**	
			27			2.50			28				
			29						30				
SPACE			31						32			SPACE	
SPACE			33						34			SPACE	
SPACE			35						36			SPACE	
SPACE			37						38			SPACE	
SPACE			39						40			SPACE	
SPACE			41						42			SPACE	
TOTAL PHASE KVA					39.5	39.5	37						
TOTAL KVA					116								
MAXIMUM CONNECTED AMPS					140								
PHASE VOLTAGE					480								

DEMAND KVA:	116.00
DEMAND AMPS:	140

CABINET	EXISTING DISTRIBUTION PANEL LSP				LOCATION: SP BLDG.; MCC, ELECTRICAL ROOM								
TYPE	BOLT-ON CB'S				BRANCHES	20/1 UNLESS NOTED							
SERVICE	120/208 V,3PH,3W				BUSSING	225A		AIC(AMPS):	22,000 A, SHORT CIRCUIT CAPACITY				
MAINS	**125A MCB**				FEED	TOP							
CABINET	NEMA1				MOUNTING	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L- 1	L- 2	L- 3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
FC-1	20	2	1		1.83 1.83				2	2	20	**CU-1**	
			3			1.83 1.83			4				
RECEPTACLE	20	1	5				1.08 1.79		6	1	20	LIGHTS - P.S. BSMT	
RECEPTACLE	20	1	7		1.26 1.69				8	1	20	LIGHTS - P.S. BSMT	
RECEPTACLE	20	1	9			1.62 0.78			10	1	20	LIGHTS - CONTROL ROOM	
RECEPTACLE - BSMT	20	1	11				1.26 0.20		12	1	30	EXHAUST FAN 8	
EXHAUST FAN 1	20	1	13		0.36 0.50				14	1	20	AREA LIGHTS	
INSTRUMENTS	20	1	15			0.30 0.60			16	1	20	INSTRUMENTS	
INSTRUMENTS	20	1	17				0.40 0.60		18	1	20	CHLORINE INJECTOR	
CPSP	20	1	19		0.50 0.50				20	1	20	BLANKET DETECTOR	
HT-1-1 (HEAT TRACE SYSTEM)	20	1	21			0.79 0.79			22	1	20	**HT-2-1 (HEAT TRACE SYSTEM)**	
SPACE			23						24			SPACE	
HT-4-1 (HEAT TRACE SYSTEM)	20	1	25		0.79				26			SPACE	
LIT-3401	20	1	27			0.60 0.60			28			SPACE	
SPACE			29					0.60	30	1	20	**LIT-3411**	
FIT-3461	20	1	31		0.60 0.60				32	1	20	**FIT-3462**	
SPACE			33			0.60			34	1	20	**FIT-3472**	
SPACE			35						36			SPACE	
FIT-3471	20	1	37		0.60				38			SPACE	
SPACE			39						40			SPACE	
SPACE			41						42			SPACE	
TOTAL PHASE KVA					11.06	10.341	5.93						
TOTAL KVA					27.331								
MAXIMUM CONNECTED AMPS					76								
PHASE VOLTAGE					208								

DEMAND KVA:	27.33
DEMAND AMPS:	76

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/18/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H.POWELL

ARCADIS BPA A Joint Venture
2839 Paces Ferry Road
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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL PANEL BOARD SCHEDULES DRAWING 1

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

E-036

SHEET 116 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GAO2DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-036(2).DWG Scale:1:1 SavedDate:7/8/2022 Time:12:02 Plot Date: Seabrun, Kuron: 7/8/2022, 12:03 , Layout:E-036

CABINET	EXISTING DISTRIBUTION PANEL LP-FB				LOCATION: FILTER BUILDING, ELECTRICAL ROOM								
TYPE	BOLT-ON CB'S				BRANCHES	20/1 UNLESS NOTED							
SERVICE	480/277 V,3PH,4W				BUSSING	100A		AIC(AMPS):	22,000 A, SHORT CIRCUIT CAPACITY				
MAINS	**100A MCB**				FEED	TOP							
CABINET	NEMA1				MOUNTING	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	L- 1	L- 2	L- 3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
LIGHTING-FILTER OPERATION AREA	20	1	1		**2.38**	**1.80**			2	1	20	LIGHTING-FILTER OPERATION AREA	
LIGHTING-FILTER OPERATION AREA	20	1	3			**2.85**	**2.61**		4	1	20	LIGHTING-FILTER OPERATION AREA	
LIGHTING-FILTER OPERATION AREA	20	1	5				**2.38** **1.80**		6	1	20	LIGHTING-FILTER OPERATION AREA	
LIGHTING-CHEM. STORAGE ROOMS	20	1	7		**2.40**	**1.50**			8	1	20	LIGHTING-LAB	
SPARE	20	1	9			**0.00**	**0.00**		10	1	20	SPARE	
EMERGENCY LIGHTS	20	1	11				**1.80** **1.80**		12	1	30	ELECTRICAL ROOM	
SPACE		1	13			**2.50**			14	3	40	**LVPC (SAMPLING POINT 2)**	
SPACE		1	15				**2.00**		16				
SPACE		1	17						18				
SPACE		1	19						20			SPACE	
SPACE		1	21						22			SPACE	
SPACE		1	23						24			SPACE	
			25						26				
			27						28				
			29						30				
			31						32				
			33						34				
			35						36				
			37						38				
			39						40				
			41						42				
TOTAL PHASE KVA					**10.575**	**7.46**	**9.775**						
TOTAL KVA					**27.81**								
MAXIMUM CONNECTED AMPS					**22**								
PHASE VOLTAGE					**480**								

DEMAND KVA:	**27.31**
DEMAND AMPS:	**33**

PANELBOARD	LOW VOLTAGE POWER CENTER (LVPC)				LOCATION: FILTER BUILDING SAMPLING POINT 2								
TYPE	BOLT-ON CB'S				BRANCHES	20/1 UNLESS NOTED							
SERVICE	120/208 V, 3PH, 4W				BUSSING	100A		AIC(AMPS):	10,000 A, SHORT CIRCUIT CAPACITY				
MAINS	50A MCB				FEED	TOP							
CABINET	NEMA1				MOUNTING	SURFACE							TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	L- 1	L- 2	L- 3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
UPS	20	1	1		**1.50**	**2.00**			2	3	20	**SAMPLING STATION CONTROL PANEL**	
			3			**2.00**			4				
			5				**2.00**		6				
			7						8				
TOTAL PHASE KVA					**3.5**	**2**	**2**						
TOTAL KVA					**7.5**								
MAXIMUM CONNECTED AMPS					**29**								
PHASE VOLTAGE					**120**								

DEMAND KVA:	**5.48**
DEMAND AMPS:	**13**

PANELBOARD	**MLD** PANEL				LOCATION: SAMPLING POINT 1								
TYPE	BOLT-ON CB'S				BRANCHES: AS NOTED								
SERVICE	120/240 V, 1PH, 3W				BUSSING: 100 A			AIC(AMPS):	18,000 A, SHORT CIRCUIT CAPACITY				
MAINS	125A MAIN LUGS				FEED: TOP								
CABINET	NEMA1				MOUNTING: SURFACE								TRIP=AS NOTED
LOAD DESCRIPTION	TRIP	POLE	CKT	CD	L- 1	L- 2		CD	CKT	POLE	TRIP	LOAD DESCRIPTION	
FAN	20	1	1	3	**0.20**				2			**SPACE**	
RECEPTACLE	20	1	3	5		**1.08**	**1.00**	2	4	2	20	**HEATER**	
UPS	20	1	5	6	**1.50**	**1.00**		2	6				
LIGHT	20	1	7	1		**0.64**			8			**SPACE**	
TOTAL PHASE KVA					**2.7**	**2.72**							
TOTAL KVA					**5.42**								
MAXIMUM CONNECTED AMPS					**23**								
PHASE VOLTAGE					**240**								

DEMAND KVA:	**5.36**
DEMAND AMPS:	**22**

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H.POWELL

ARCADIS BPA
A Joint Venture
2839 Paces Ferry Road
Suite 900
Atlanta, GA 30339
Tel: 770-431-8666
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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL PANELBOARD SCHEDULES DRAWING 2

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

E-037

SHEET 117 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-037.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:14 Plot Date: Seabrun, Kuron 7/8/2022, 13:47 : Layout:117

PANELBOARD	SPCBP****	LOCATION: SAMPLING POINT 1 MLD PANEL MAIN BREAKER	
TYPE	BOLT-ON CB'S	BRANCHES	AS NOTED
SERVICE	120/240 V, 1PH, 3W	BUSSING	100A AIC(AMPS): 18,000 A, SHORT CIRCUIT CAPACITY
MAINS	125A MAIN LUGS	FEED	TOP
CABINET	NEMA1	MOUNTING	SURFACE TRIP=AS NOTED

LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L-1	KVA L-2	KVA L-3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION
SPARE	20	1	1	0					2			
			3			1.50		6	4	1	20	**UPS**
FAN	20	1	5	4			1.00		6			
RECEPTACLE	20	1	7	5	0.20				8			
LIGHT	20	1	9	1		1.80			10			
			11						12			
HEATER	30	1	13	2	0.88				14			
			15						16			
			17						18			
			19		2.50				20			
SPARE			21						22			SPARE
SPARE			23						24			SPARE
SPARE			25						26			SPARE
SPARE			27						28			SPARE
TOTAL PHASE KVA					2.78	3.3	1					
TOTAL KVA					6.08							
MAXIMUM CONNECTED AMPS					51							
PHASE VOLTAGE					120							

DEMAND KVA:	6.53
DEMAND AMPS:	27

*** 5 Ma GFCI** ****30mA GFCI** *****SE RATED** ******PROVIDE SURGE PROTECTION DEVICE**

39484

PANELBOARD	SPCBP****	LOCATION: FILTER BUILDING SAMPLING POINT 2 LVPC PANEL	
TYPE	BOLT-ON CB'S	BRANCHES	20/1 UNLESS NOTED
SERVICE	120/240 V, 3PH, 3W	BUSSING	100A AIC(AMPS): 18,000 A, SHORT CIRCUIT CAPACITY
MAINS	40A MCB	FEED	TOP
CABINET	NEMA1	MOUNTING	SURFACE TRIP=AS NOTED

LOAD DESCRIPTION	TRIP	POLE	CKT	CD	KVA L-1	KVA L-2	KVA L-3	CD	CKT	POLE	TRIP	LOAD DESCRIPTION
UPS	20	1	1	6	1.50	1.00		6	2	3	30	**SAMPLING ST. 2 CONTROL PANEL**
			3				1.00	6	4			
			5				1.00	6	6			
			7									
			9									
			11									
			13									
			15									
			17									
			19									
			21									
			23									
			25						26			
			27						28			
TOTAL PHASE KVA					2.5	1	1					
TOTAL KVA					4.5							
MAXIMUM CONNECTED AMPS					10							
PHASE VOLTAGE					240							

DEMAND KVA:	5.18
DEMAND AMPS:	6

*** 5 Ma GFCI** ****30mA GFCI** *****SE RATED** ******PROVIDE SURGE PROTECTION DEVICE**

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PRO\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-038.DWG Scale:1:1 SavedDate:7/7/2022 Time:17:06 Plot Date: Seabrun, Kuron 7/8/2022, 13:49 , Layout:118

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2022

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H.POWELL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL PANELBOARD SCHEDULES DRAWING 3

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: C. ATKINS
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

E-038

SHEET 118 OF 150

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
4160 SWITCHGEAR #2														
H1000	5-4"	3	#250 KCMIL	1	#3/0				4160	SWGR 2	SWITCHGEAR #2	SWGR 1	SWITCHGEAR #1	NEW WIRING IN EXISTING CONDUIT AND DUCTBANK
H2000	4"	3	#2/0	1	#6				4160	SWGR 2	SWITCHGEAR #2	TX-31	TRANSFORMER T31	NEW WIRING IN EXISTING CONDUIT AND DUCTBANK
H7001	4"	3	#1	1	#6				4160	SWGR 2	SWITCHGEAR #2	TX-FB	SUBSTATION TX-FB	NEW WIRING IN EXISTING CONDUIT AND DUCTBANK
H4006	4"	3	#1	1	#6				4160	SWGR 2	SWITCHGEAR #2	TX-32	SUBSTATION TX-32	NEW WIRING IN EXISTING CONDUIT AND DUCTBANK
H3901	4"	3	#250 KCMIL	1	#4				4160	SWGR 2	SWITCHGEAR #2	TX-33	SUBSTATION TX-33	NEW WIRING IN EXISTING CONDUIT AND DUCTBANK
C1600	2"					10	#12		120	SWGR 2	SWITCHGEAR #2	SWGR 1	SWITCHGEAR #1	
C4116	2"					5	#16 TSP		120	SWGR 2	SWITCHGEAR #2	CB	CHEMICAL BUILDING	

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
AREA 97: FILTER BUILDING														
C7001	3/4"			1	#14	6	#14			MCC-FB	MOTOR CONTROL CENTER	HS 97B0511	HAND-OFF-AUTO BLOWER 1	NEW WIRE
C7002	3/4"			1	#14	6	#14			MCC-FB	MOTOR CONTROL CENTER	HS 97B0512	HAND-OFF-AUTO BLOWER 2	NEW WIRE
C7003	3/4"			1	#14	6	#14			MCC-FB	MOTOR CONTROL CENTER	HS 97B0513	HAND-OFF-AUTO BLOWER 3	NEW WIRE
C7006	3/4"			1	#14	2	#14			MCC-FB	MOTOR CONTROL CENTER	97B0511	FILTER BLOWER 1/ SPACE HEATER	NEW WIRE
C7007	3/4"			1	#12	2	#12			MCC-FB	MOTOR CONTROL CENTER	97B0512	FILTER BLOWER 2/ SPACE HEATER	NEW WIRE
C7008	3/4"			1	#12	2	#12			MCC-FB	MOTOR CONTROL CENTER	97B0513	FILTER BLOWER 3/ SPACE HEATER	NEW WIRE
C7011	3/4"			1	#12	2	#12			MCC-FB	MOTOR CONTROL CENTER	97B0511	COOLING FAN 1	NEW WIRE
C7012	3/4"			1	#12	2	#12			MCC-FB	MOTOR CONTROL CENTER	97B0512	COOLING FAN 2	NEW WIRE
C7013	3/4"			1	#12	2	#12			MCC-FB	MOTOR CONTROL CENTER	97B0513	COOLING FAN 3	NEW WIRE
C7014	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0002	MOTOR CONTROL CENTER	97UH0001	ELECTRIC HEATER 1	NEW WIRE
C7015	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0001	MOTOR CONTROL CENTER	97UH0002	ELECTRIC HEATER 2	NEW WIRE
C7016	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0001	MOTOR CONTROL CENTER	97UH0003	ELECTRIC HEATER 3	NEW WIRE
C7017	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0004	MOTOR CONTROL CENTER	97UH0004	ELECTRIC HEATER 4	NEW WIRE
C7018	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0004	MOTOR CONTROL CENTER	97UH0005	ELECTRIC HEATER 5	NEW WIRE
C7019	3/4"			1	#14	2	#14			MCC-FB STARTER 97EF0002	MOTOR CONTROL CENTER	97UH0006	ELECTRIC HEATER 6	NEW WIRE
C7021	2"			1	#14	50	#14			MCC-FB	MOTOR CONTROL CENTER	97LCP0551	WASHWATER PUMP LOCAL CONTROL PANEL	NEW WIRE
C7024										DCS		97LCP0551	WASHWATER PUMP LOCAL CONTROL PANEL	NEW WIRE
C7101	2"			1	#14	80	#14			MCC-FB	MOTOR CONTROL CENTER	DCS		NEW WIRE
C7104	3/4"			1	#14	2	#14			MCC-FB	MOTOR CONTROL CENTER	97PSH0511	BLOWER 1 DISCHARGE PRESSURE SWITCH	NEW WIRE
C7105	3/4"			1	#14	2	#14			MCC-FB	MOTOR CONTROL CENTER	97PSH0512	BLOWER 2 DISCHARGE PRESSURE SWITCH	NEW WIRE
C7106	3/4"			1	#14	2	#14			MCC-FB	MOTOR CONTROL CENTER	97PSH0513	BLOWER 3 DISCHARGE PRESSURE SWITCH	NEW WIRE
C7201	1"			1	#12	10	#12			PPL2-FB	LOW VOLTAGE POWER PANEL PPL2-FB 120/208	MCC-FB	PUMP & BLOWER MOTORS (5) SPACE HEATERS	NEW WIRE
C7208	3/4"			1	#12	6	#12			PPL2-FB	LOW VOLTAGE POWER PANEL PPL2-FB 120/208	MCC-FB	3 BLOWERS STARTER CONTACTS FOR ENCLOSURE BLOWERS	NEW WIRE
C7215	3/4"			1	#12	2	#12			PPL2-FB	LOW VOLTAGE POWER PANEL PPL2-FB 120/208	MCC-FB	HYDRAULIC FITRATION PUMP STARTER CONTACTS FOR HYDRAULIC UNIT COOLING FAN	NEW WIRE
C7230	3/4"			1	#12	2	#12			PPL2-FB	LOW VOLTAGE POWER PANEL PPL2-FB 120/208	MCC-FB	HYDRAULIC FITRATION PUMP STARTER CONTACTS FOR HYDRAULIC UNIT COOLING FAN	NEW WIRE
C7231	3/4"			1	#14	18	#14			CP-FB	I/O CABINET CP-FB	SSCP	SAMPLING POINT 2CONTROL PANEL AND PSL	NEW; VIA PULLBOX
C7240	3/4"			1	#14	16	#14			PB	SAMPLING POINT 2	SSCP	SAMPLING POINT 2CONTROL PANEL	NEW
C7241	3/4"			1	#14	2	#14			PB	SAMPLING POINT 2	PSL 0912	SAMPLING POINT 2 PSL	NEW
C7250	3/4"			1	#14	12	#14			SAMPLING POINT 2 2	MOTOR CONTROL DEVICES	FCV-0911	MOTORIZED VALVE	NEW
C7290	3/4"			1	#14	12	#14			SAMPLING POINT 2 2	MOTOR CONTROL DEVICES	PSL 0912	MOTORIZED VALVE	NEW
I7101	3/4"			1	#14	5		#14		MCC-FB	MOTOR CONTROL CENTER	U-97P0551	WASHWATER PUMP 1 CTR. JUNCTION BOX(TS,MS)	NEW WIRE
I7102	3/4"			1	#14	5		#14		MCC-FB	MOTOR CONTROL CENTER	U-97P0552	WASHWATER PUMP 2 CTR. JUNCTION BOX(TS,MS)	NEW WIRE
I7103	3/4"			1	#14	5		#14		MCC-FB	MOTOR CONTROL CENTER	U-97P0553	WASHWATER PUMP 3 CTR. JUNCTION BOX(TS,MS)	NEW WIRE
P7001	REFER TO DUCT BANK DETAIL FOR INFORMATION								480	TX-FB	500/560 KVA, 4160-480V FILTER BUILDING XFMR	MCC-FB	MOTOR CONTROL CENTER	NEW WIRE
P7002	REFER TO DUCT BANK DETAIL FOR INFORMATION								480	TX-CF2	1000/1120 KVA, 4160-480V CHEMICAL/SLUDGE PUMP/FILTER BUILDING XFMR	MCC-FB	MOTOR CONTROL CENTER	NEW WIRE
P7003	2-1/2"	3	250 KMCIL	1	#4					MCC-FB	MOTOR CONTROL CENTER	PPH-FB	480V 3-PHASE POWER PANEL PPH-FB	NEW WIRE

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
P7004	2"	3	#1/0	1	#6				480	MCC-FB	MOTOR CONTROL CENTER	TX-PPFB	480-208/120V XFMR	NEW WIRE
P7005	1"	3	#6	1	#10				480	MCC-FB	MOTOR CONTROL CENTER	TX-LPFB	480-480/277V XFMR	NEW WIRE
P7006	2"	3	#2/0	1	#6					MCC-FB	MOTOR CONTROL CENTER	97B0511	FILTER BLOWER 1	NEW WIRE
P7007	2"	3	#2/0	1	#6					MCC-FB	MOTOR CONTROL CENTER	97B0512	FILTER BLOWER 2	NEW WIRE
P7008	2"	3	#2/0	1	#6					MCC-FB	MOTOR CONTROL CENTER	97B0513	FILTER BLOWER 3	NEW WIRE
P7012	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97CRN0561	WASHWATER JB CRANE	NEW WIRE
P7013	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	96LCP0781	SANITARY PUMP STATION LOCAL PANEL	NEW WIRE
P7031	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97EF0001	EXHAUST FAN 1 DISCONNECT	NEW WIRE
P7032	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97EF0002	EXHAUST FAN 2 DISCONNECT	NEW WIRE
P7033	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97EF0004	EXHAUST FAN 4 DISCONNECT	NEW WIRE
P7034	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0001	SUPLLY FAN 1	NEW WIRE
P7035	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0002	SUPLLY FAN 2	NEW WIRE
P7036	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0003	SUPLLY FAN 3	NEW WIRE
P7037	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0004	SUPLLY FAN 4	NEW WIRE
P7038	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0005	SUPLLY FAN 5	NEW WIRE
P7039	3/4"	3	#12	1	#12					MCC-FB	MOTOR CONTROL CENTER	97SF0006	SUPLLY FAN 6	NEW WIRE
P7043	1"	3	#6	1	#10					MCC-FB	MOTOR CONTROL CENTER	WR1, WR2, WR3	WELDING RECPTACLES	NEW WIRE
P7044	2"	3	#4	1	#6					MCC-FB	MOTOR CONTROL CENTER	PJ-97P0551	WASHWATER PUMP 1 CTR. JUNCTION BOX	NEW WIRE
P7045	2"	3	#4	1	#6					MCC-FB	MOTOR CONTROL CENTER	PJ-97P0552	WASHWATER PUMP 2 CTR. JUNCTION BOX	NEW WIRE
P7046	2"	3	#4	1	#6					MCC-FB	MOTOR CONTROL CENTER	PJ-97P0553	WASHWATER PUMP 3 CTR. JUNCTION BOX	NEW WIRE
P7046	2-1/2"	3	250 KMCIL	1	#4	1	#4		480	MCC-FB	MOTOR CONTROL CENTER	HFB-1	480V 3 PHASE POWER PANEL HFB-1	NEW WIRE
P7047	2-1/2"	3	250 KMCIL	1	#4	1	#4		480	MCC-FB	MOTOR CONTROL CENTER	HFB-2	480V 3 PHASE POWER PANEL HFB-2	NEW WIRE
P7130	1"	6	#10	1	#10					MCC-FB	MOTOR CONTROL CENTER	PJ-97P0553	WASHWATER PUMP 3 CTR. JUNCTION BOX	NEW WIRE
P7132	3/4"	3	#10	1	#10					MCC-FB	MOTOR CONTROL CENTER	HFB-1	480V 3 PHASE POWER PANEL HFB-1	NEW WIRE
P7133	3/4"	2	12	1	#12					MCC-FB	MOTOR CONTROL CENTER	HFB-2	480V 3 PHASE POWER PANEL HFB-2	NEW WIRE
P7233	3/4"	2	#12	1	#12				120	LVPC	LOW VOLTAGE POWER CENTER	UPS	UNINTERUPTIBLE POWER SUPPLY	NEW
P7250	3/4"	6	#12	1	#12				120	SSCP	SAMPLING POINT 2 CONTROL PANEL	FV-0911	MOTORIZED VALVE	NEW
P7260	3/4"	3	#8	1	#8				480	LP-FB	LOW VOLTAGE POWER PANEL LP-FB 480/277	LVPC	LOW VOLTAGE POWER CENTER	NEW
P7280	3/4"	4	#12	1	#12				120/208	LVPC	LOW VOLTAGE POWER CENTER	SSCP	SAMPLING POINT 2CONTROL PANEL	NEW
P7291	3/4"	2	#12	1	#12				120	UPS	UNINTERRUPTIBLE POWER SUPPLY	AIT	CHLORINE AND PH TRANSMITTER	
P7330	3/4"	3	#12	1	#12				208	SSCP	SAMPLING POINT 2 CONTROL PANEL	97PO914	SAMPLING PUMP 1	NEW
P7331	3/4"	3	#12	1	#12				208	SSCP	SAMPLING POINT 2 CONTROL PANEL	97PO915	SAMPLING PUMP 2	NEW
S7200	3/4"					1		TSP		PB-SAMPLING CAB 2	PULL BOX FOR SAMPLING TRANSMITTERS	AIT	CHLORINE AND PH TRANSMITTER	NEW
S7233	3/4"					2 1 SPARE		TSP		CP-FB	I/O CABINET CP-FB	PB-SAMPLING CAB 2	PULL BOX FOR SAMPLING TRANSMITTERS	NEW

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2022

IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/18/22 No. PE047081 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CONDUIT SCHEDULE NO. 1

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

E-039

SHEET 119 OF 150

User:KSEABRUN Spec: AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-039.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:48 Plot Date: Seabrun, Kuron: 7/7/2022, 18:01 : Layout:119

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE					
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE			TAG NUMBER	NAME	TAG NUMBER	NAME	
AREA 96: SLUDGE PUMP STATION														
C6030	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3321, HS3331, SV3331, FSL3341	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6031	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3322, HS3332, SV3332, FSL3342	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6032	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3323, HS3333, SV3333, FSL3343	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6033	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3324, HS3334, SV3334, FSL3344	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6034	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3325, HS3335, SV3335, FSL3345	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6035	1"			1	#14	12	#14			MCC-SP	MOTOR CONTROL CENTER	96HS3326, HS3336, SV3336, FSL3346	CONTROL/HAND SWITHCES, SOLENOID VALVES, SEAL	EXISTING CONTROL VIA MOTOR STARTER
C6036	2 1/2"			1	#14	168	#14			MCC-SP	MOTOR CONTROL CENTER	CP-SP	I/O CABINET CP-SP	CONTROLS VIA MOTOR STARTERS
C6037	1"			1	#12	4	#12			MCC-SP	MOTOR CONTROL CENTER	SMOKE DETECTOR ALARM/BEACON	SMOKE DETECTOR & ALARM BEACON/SLUDGE	EXISTING CONTROL VIA MOTOR STARTER
C6172	3/4"			1	#14	4	#14			PB	SAMPLING POINT 1	SSCP	SAMPLING POINT 1 CONTROL PANEL	NEW
C6173	3/4"			1	#14	4	#14			PB	SAMPLING POINT 1	PSL-0135	PRESSURE MONITOR	NEW
C6200	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-000	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6201	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-001	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6202	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-002	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6203	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-003	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6204	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-004	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6205	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-005	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6206	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-006	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6207	3/4"			1	#14	4	#14			MCC-SP	MOTOR CONTROL CENTER	TB-007	TERMINAL BOX	NEW CONTROL VIA MOTOR VFD
C6208	3/4"			1	#14	4	#14			CP-SP	CONTROL PANEL	FV-3431	MOTORIZED VALVE BASIN 1	
C6209	3/4"			1	#14	4	#14			CP-SP	CONTROL PANEL	FV-3432	MOTORIZED VALVE BASIN 2	
C6210	3/4"			1	#14	6	#14			MCC-SP	MOTOR CONTROL CENTER		LOCAL CONTROL STATION - SLUDGE COLLECTOR 1	
C6211	3/4"			1	#14	6	#14			MCC-SP	MOTOR CONTROL CENTER		LOCAL CONTROL STATION - SLUDGE COLLECTOR 2	
C6212	3/4"			1	#14	6	#14			MCC-SP	MOTOR CONTROL CENTER		LOCAL CONTROL STATION - SLUDGE COLLECTOR 3	
C6213	3/4"			1	#14	6	#14			MCC-SP	MOTOR CONTROL CENTER		LOCAL CONTROL STATION - SLUDGE COLLECTOR 4	
C6214	3/4"			1	#14	2	#14			MCC-SP	LOCAL CONTROL STATION - SLUDGE COLLECTOR 1		SLUDGE COLLECTOR 1 PIN FAILURE	
C6215	3/4"			1	#14	2	#14			MCC-SP	LOCAL CONTROL STATION - SLUDGE COLLECTOR 2		SLUDGE COLLECTOR 2 PIN FAILURE	
C6216	3/4"			1	#14	2	#14			MCC-SP	LOCAL CONTROL STATION - SLUDGE COLLECTOR 3		SLUDGE COLLECTOR 3 PIN FAILURE	
C6217	3/4"			1	#14	2	#14			MCC-SP	LOCAL CONTROL STATION - SLUDGE COLLECTOR 4		SLUDGE COLLECTOR 4 PIN FAILURE	
P6025	3/4"	3	#12	1	#12					MCC-SP	MOTOR CONTROL CENTER	96LCP0311	LOCAL PANEL - BIOJECT 1	NEW WIRE
P6026	3/4"	3	#12	1	#12					MCC-SP	MOTOR CONTROL CENTER	96LCP0312	LOCAL PANEL - BIOJECT 2	NEW WIRE
P6027	3/4"	3	#3	1	#8					MCC-SP	MOTOR CONTROL CENTER	96LCP0331	LOCAL PANEL - N. GRIT PUMP STATION 1	NEW WIRE
P6028	3/4"	3	#12	1	#12					MCC-SP	MOTOR CONTROL CENTER	96LCP0351	LOCAL PANEL - DETRITUS 1	NEW WIRE
P6029	3/4"	3	#12	1	#12					MCC-SP	MOTOR CONTROL CENTER	96LCP0361	LOCAL PANEL DETRITUS 2	NEW WIRE
P6030	3/4"	3	#3	1	#8					MCC-SP	MOTOR CONTROL CENTER	96LCP0441	LOCAL PANEL - S. GRIT PUMP STATION 2	NEW WIRE
P6080	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-000	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6081	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-001	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6082	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-002	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6083	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-003	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6084	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-004	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6085	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-005	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6086	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-006	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6087	3/4"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TB-007	TERMINAL BOX	NEW POWER VIA MOTOR VFD
P6037	3/4"	3	#12	1	#12	2	#14			MCC-SP	MOTOR CONTROL CENTER	96SF0001	SUPPLY FAN 1	NEW WIRE
P6038	3/4"	3	#12	1	#12	2	#14			MCC-SP	MOTOR CONTROL CENTER	96EF0001	EXHAUST FAN 1	NEW WIRE
P6039	3/4"	3	#12	1	#12	2	#14			MCC-SP	MOTOR CONTROL CENTER	96SF0002	SUPPLY FAN 2	NEW WIRE
P6102	3/4"	2	#12	1	#12	2	#14			LSP	LOW VOLTAGE POWER PANEL	96CU	CU-1 (COOLING UNIT)	NEW WIRE
P6103	3/4"	2	#12	1	#12	2	#14			LSP	LOW VOLTAGE POWER PANEL	96FC	FC-1	NEW WIRE
P6100	REFER TO DUCT BANK DETAILS FOR MORE INFORMATION								480	MCC-CF	MOTOR CONTROL CENTER	MCC-SP	MOTOR CONTROL CENTER	NEW WIRE
P6101	REFER TO DUCT BANK DETAILS FOR MORE INFORMATION								480	TX-CF2	1000/1120 KVA 4160-480Y/277V	MCC-SP	MOTOR CONTROL CENTER	NEW WIRE
P6120A	REFER TO DUCT BANK DETAILS FOR MORE INFORMATION								480	HSP	480V PANEL	TX-SP1	7.5KVA , 1 PHASE, 480-240/120V TRANSFORMER	NEW WIRE ; VIA NF DISCONNECT
P6120B	3/4"	3	#8	1	#8				208/120	TX-SP1	7.5KVA , 1 PHASE, 480-240/120V TRANSFORMER	ML-PANEL	SAMPLING POINT 1 1 LOAD CENTER	IN SAMPLING CAB
P6121		2	#12	1	#12				120	ML-PANEL	LOAD CENTER		UPS	IN SAMPLING CAB

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE					
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE			TAG NUMBER	NAME	TAG NUMBER	NAME	
AREA 96: SLUDGE PUMP STATION														
P6122		2	#12	1	#12				120	ML-PANEL	LOAD CENTER		HEATER	IN SAMPLING CAB
P6123		2	#12	1	#12				120	ML-PANEL	LOAD CENTER		LIGHT	IN SAMPLING CAB
P6124		2	#12	1	#12				120	ML-PANEL	LOAD CENTER		FAN	IN SAMPLING CAB
P6125		2	#12	1	#12				120	ML-PANEL	LOAD CENTER		RECEPTACLE	IN SAMPLING CAB
P6126		2	#12	1	#12				120	ML-PANEL	LOAD CENTER	FCV-0138	MOTORIZED VALVE	IN SAMPLING CAB
P6127	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL		HEAT TRACE	HT-1-1
P6128	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL		HEAT TRACE	HT-2-1
P6129	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL		HEAT TRACE	HT-4-1
P6130	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	LIT-3401	LEVEL INDICAITNG TRANSMITTER	SED BASIN 1
P6131	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	LIT-3411	LEVEL INDICAITNG TRANSMITTER	SED BASIN 2
P6132	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FIT-3461	FLOW INDICAITNG TRANSMITTER	SED BASIN 1
P6133	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FIT-3462	FLOW INDICAITNG TRANSMITTER	SED BASIN 1
P6134	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FIT-3471	FLOW INDICAITNG TRANSMITTER	SED BASIN 2
P6135	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FIT-3472	FLOW INDICAITNG TRANSMITTER	SED BASIN 2
P6136	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FV-3431	MOTORIZED VALVE BASIN 1	
P6137	3/4"	2	#12	1	#12				120	LSP	120/208V LOW VOLTAGE PANEL	FV-3432	MOTORIZED VALVE BASIN 2	
P6138	3/4"	3	#8	1	#10				480	MCC-SP	MOTOR CONTROL CENTER	TX-LSP	480-120/208V XFMR	NEW
P6138A	1-1/4"	3	#1	1	#6				208	TX-LSP	480-120/208V XFMR	LSP	120/208V PANEL	NEW
P6139	2	3	#4/0	1	#4				480	MCC-SP	MOTOR CONTROL CENTER	HSP	480V PANEL	NEW
P6140	3/4"	3	#12	1	#12				480	HSP	480V PANEL	EUH 1	ELECTRIC UNIT HEATER 1	NEW
P6141	3/4"	3	#12	1	#12				480	HSP	480V PANEL	EUH 2	ELECTRIC UNIT HEATER 2	NEW
P6142	3/4"	3	#12	1	#12				480	HSP	480V PANEL	EUH 3	ELECTRIC UNIT HEATER 3	NEW
P6143	3/4"	3	#12	1	#12				480	HSP	480V PANEL	CS 1	CLARIFIER SCUM 1	NEW WIRE
P6144	3/4"	3	#12	1	#12				480	HSP	480V PANEL	CS 2	CLARIFIER SCUM 2	NEW WIRE
P6145	3/4"	3	#12	1	#12				480	HSP	480V PANEL	-	PIP VALVE	NEW WIRE
P6146	3/4"	3	#12	1	#12				480	HSP	480V PANEL	-	RAPID MIX GATES	NEW WIRE
P6147	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	-	SUMP PUMP HOIST	NEW WIRE
P6148	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	-	SUMP PUMP	NEW WIRE
P6170A	REFER TO DUCT BANK DETAILS FOR MORE INFORMATION								480	HSP	480V PANEL	TX-SP2	6KVA , 3PHASE, 480-208/120V TRANSFORMER	NEW WIRE; VIA NF DISCONNECT
P6170B	3/4"	4	#12	1	#8				208/120	TX-SP2	6KVA , 3PHASE, 480-208/120V TRANSFORMER	SSCP	SAMPLING POINT 1 CONTROL PANEL	NEW WIRE
P6171	3/4"	2	#12	1	#12				120	UPS	SAMPLING POINT 1 1 UPS	AIT	CHLORINE AND PH TRANSMITTER	IN SAMPLING CAB
P6172	3/4"	3	#12	1	#12				208	SSCP	SAMPLING POINT 1 CONTROL PANEL	SP95P1033	SAMPLIN POINT 1 PUMP 1	IN SAMPLING CAB
P6173	3/4"	3	#12	1	#12				208	SSCP	SAMPLING POINT 1 CONTROL PANEL	SP95P1034	SAMPLIN POINT1 PUMP 2	IN SAMPLING CAB
P6200	3/4"		MSC						480	TB-000	TERMINAL BOX	96P3422	SLUDGE PUMP 1	NEW
P6201	3/4"		MSC						480	TB-001	TERMINAL BOX	96P3423	SLUDGE PUMP 2	NEW
P6202	3/4"		MSC						480	TB-002	TERMINAL BOX	96P3424	SLUDGE PUMP 3	NEW
P6203	3/4"		MSC						480	TB-003	TERMINAL BOX	96P3425	SLUDGE PUMP 4	NEW
P6204	3/4"		MSC						480	TB-004	TERMINAL BOX	96P3432	SLUDGE PUMP 5	NEW
P6205	3/4"		MSC						480	TB-005	TERMINAL BOX	96P3433	SLUDGE PUMP 6	NEW
P6206	3/4"		MSC						480	TB-006	TERMINAL BOX	96P3434	SLUDGE PUMP 7	NEW
P6207	3/4"		MSC						480	TB-007	TERMINAL BOX	96P3435	SLUDGE PUMP 8	NEW
P6208	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	96COL3213	SLUDGE COLLECTOR 1	NEW
P6209	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	96COL3214	SLUDGE COLLECTOR 1	NEW
P6210	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	96COL3219	SLUDGE COLLECTOR 1	NEW
P6211	3/4"	3	#12	1	#12				480	MCC-SP	MOTOR CONTROL CENTER	96COL3220	SLUDGE COLLECTOR 1	NEW
S6200						2		TSP		PB-SAMPLING CAB 1	PULL BOX FOR SAMPLING TRANSMITTERS	AIT	CHLORINE AND PH TRANSMITTER	IN SAMPLING CAB
S6123	2 1/2"	3	#8	1	#10	16		TSP		MCC-SP	MOTOR CONTROL CENTER	CP-SP	I/O CABINET CP-SP	NEW
S6124	3/4"					1		TSP		CP-SP	CONTROL PANEL	LIT-3401	LEVEL INDICAITNG TRANSMITTER	NEW
S6125	3/4"					1		TSP		CP-SP	CONTROL PANEL	FIT-3461	FLOW INDICAITNG TRANSMITTER	NEW
S6126	3/4"					1		MSC		LIT	LEVEL INDICAITNG TRANSMITTER	LE-3401	LEVEL ELEMENT	NEW
S6127	3/4"					1		MSC		FIT	FLOW INDICAITNG TRANSMITTER	FE-3461	FLOW ELEMENT	NEW
S6128	3/4"					1		TSP		CP-SP	CONTROL PANEL	LIT-3411	LEVEL INDICAITNG TRANSMITTER	NEW
S6129	3/4"					1		MSC		LIT	LEVEL INDICAITNG TRANSMITTER	LE-3411	LEVEL ELEMENT	NEW
S6130	3/4"					1		TSP		CP-SP	CONTROL PANEL	FIT-3462	FLOW INDICAITNG TRANSMITTER	NEW
S6131	3/4"					1		TSP		CP-SP	CONTROL PANEL	FIT-3471	FLOW INDICAITNG TRANSMITTER	NEW
S6132	3/4"					1		TSP		CP-SP	CONTROL PANEL	FIT-3472	FLOW INDICAITNG TRANSMITTER	NEW
S6133	3/4"					1		MSC		FIT	FLOW INDICAITNG TRANSMITTER	FIT-3462	FLOW ELEMENT	NEW
S6134	3/4"					1		MSC		FIT	FLOW INDICAITNG TRANSMITTER	FIT-3471	FLOW ELEMENT	NEW
S6135	3/4"					1		MSC		FIT	FLOW INDICAITNG TRANSMITTER	FIT-3472	FLOW ELEMENT	NEW

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2022

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/18/22 No. PE026585 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CONDUIT SCHEDULE NO. 2

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: C. ATKINS
DRAWN BY: C. ATKINS
CHECKED BY: T. POWELL

SCALE: NONE

E-040

SHEET 120 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-040.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:25 Plot Date: Seabrun, Kuron 7/8/2022, 18:17 - Layout:120

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE					
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE			TAG NUMBER	NAME	TAG NUMBER	NAME	
AREA 94: SCREEN/CHEMICAL BUILDING														
C4022	3/4"			1	#12	4	#12		120	MCC-CF	MOTOR CONTROL CENTER	94IL0003	INTAKE LOUVER CHEMICAl BUILDING	NEW WIRE
C4023	3/4"			1	#12	4	#12		120	MCC-CF	MOTOR CONTROL CENTER	94IL0004	INTAKE LOUVER CHEMICA BUILDING	NEW WIRE
C4130	3/4"			1	#12	6	#12		120	SSCP	SAMPLING POINT 1 CONTROL PANEL	FV-0138	MOTORIZED VALVE	NEW WIRE
C4160	REFER TO DUCK BANK DETAILS FOR MORE INFORMATION								120	CP-CB	CHEMICAL BUILDING CONTROL PANEL	SSCP	SAMPLING POINT 1 CONTROL PANEL AND PSL	NEW WIRE ; VIA PULLBOX
P4010	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	94EF0003	GENERAL EXHAUST FAN CHEMICAL BUILDING	NEW WIRE
P4011	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	94EF0004	GENERAL EXHAUST FAN CHEMICAL BUILDING	NEW WIRE
P4012	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	EF-5-1	EXHAUST FAN	NEW WIRE
P4013	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	EF-5-2	EXHAUST FAN	NEW WIRE
P4015	1-1/2"	3	#1/0	1	#1/0					MCC-CF	MOTOR CONTROL CENTER		HCP-2	NEW WIRE
P4016	2-1/2"	3	#250	1	#4					MCC-CF	MOTOR CONTROL CENTER		HCF	NEW WIRE
P4017	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	SF-5-1	SUPPLY FAN	NEW WIRE
P4018	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	SF-5-2	SUPPLY FAN	NEW WIRE
P4100	REFER TO DUCK BANK DETAILS FOR MORE INFORMATION								480	TX-32	500/560 KVA 4160-480Y/277V	MCC-CF	MOTOR CONTROL CENTER	NEW
P4101	REFER TO DUCK BANK DETAILS FOR MORE INFORMATION								480	TX-FB	1000/1120 KVA 4160-480Y/277V	MCC-CF	MOTOR CONTROL CENTER	NEW WIRE
P5001	1"	3	#6	1	#10					MCC-CF	MOTOR CONTROL CENTER	95LCP0111	VORTEX LOCAL CONTROL PANEL	NEW WIRE
P5004	3/4"	3	#12	1	#12					MCC-CF	MOTOR CONTROL CENTER	95HST0131	NEW VORTEX SEPARATOR MONO. W/ HOIST & TROLLEY	NEW WIRE
S4132	REFER TO DUCK BANK DETAILS FOR MORE INFORMATION								-	CP-CB	CHEMICAL BUILDING CONTROL PANEL	SSCP	SAMPLING POINT 1 PULLBOX FOR CONTROLS	NEW WIRE

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE					
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE			TAG NUMBER	NAME	TAG NUMBER	NAME	
AREA 83: SLUDGE DEWATERING BUILDING														
C2007	1"			1	#14	26	#14			*	SLUDGE THICKENER MIXER VFD	*	PULL BOX	
C2008	1"			1	#14	20	#14			*	PULL BOX	*	SLUDGE THICKENER LOCAL CONTROL STATION	
C2009	3/4"			1	#14	6	#14			*	PULL BOX	WSH/WSHH/TSH3501	CONTROL SWITCHES	
C2010	3/4"			1	#14	14	#14			CP-BFP	BFP LOCAL CONTROL PANEL	CP-BCP	BELT CONVEYOR PANEL	
C2011	1"			1	#14	24	#14			*	SLUDGE THICKENER MIXER VFD	CP-BFP	BFP LOCAL CONTROL PANEL	

User:KSEABRUN Spec:AUS-NCSMCD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-041.DWG Scale:1:1 SavedDate:7/7/2022 Time:15:37 Plot Date: Seabrun, Kuron: 7/7/2022, 18:01 : Layout:121

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/6/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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RESURGENS ATLANTA, GA. 1847 1961

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CONDUIT SCHEDULE NO. 3

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: X" = XX'

E-041

SHEET 121 OF 150

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
AREA 82: SOLIDS PROCESSING BUILDING														
P2003	REFER TO DUCT BANK DETAIL FOR INFORMATION								480	MCC-SDB	MOTOR CONTROL CENTER	DP-SB	DISTRIBUTION PANEL	
P2004	REFER TO DUCT BANK DETAIL FOR INFORMATION									CP-BFP	BFP LOCAL CONTROL PANEL	CP-BFP-RIO	BFP REMOTE I/O CONTROL PANEL	
P1201	3/4"	3	#12	1	#12				480	DP-SB	DISTRIBUTION PANEL	GPP 1	GRINDER PUMP PANEL 1	LOCAL CONTROL PANEL
P1201A	3/4"	3	#12	1	#12				480	GPP 1	GRINDER PUMP PANEL 1	82P3612	GRINDER PUMP	
P1202	3/4"	3	#12	1	#12				480	DP-SB	DISTRIBUTION PANEL	GPP 2	GRINDER PUMP PANEL 2	LOCAL CONTROL PANEL
P1202A	3/4"	3	#12	1	#12				480	GPP 2	GRINDER PUMP PANEL 2	82P3614	GRINDER PUMP	
P1203	3/4"	3	#10	1	#10				480	DP-SB	DISTRIBUTION PANEL		BFP FEED PUMP NO.1 VFD	TO VFD
P1203A	3/4"	3	#10	1	#10				480		BFP FEED PUMP NO.1 VFD	82P3602	BFP FEED PUMP NO.1	
P1204	3/4"	3	#10	1	#10				480	DP-SB	DISTRIBUTION PANEL		BFP FEED PUMP NO.2 VFD	TO VFD
P1204A	3/4"	3	#10	1	#10				480		BFP FEED PUMP NO.2 VFD	82P3604	BFP FEED PUMP NO.2	
P1205	1-1/2"	4	#3	1	#8				480	DP-SB	DISTRIBUTION PANEL	HSB	480/277V PANEL	
P1205A	3/4"	3	#10	1	#10				480	HSB	480/277V PANEL	TX-LSB	480-120/208V 9KVA XFMR	
P1205B	3/4"	4	#8	1	#10				208	TX-LSB	480-120/208V XFMR	LSB	120/208V PANEL	
P1206	3/4"	2	#12	1	#12				120	LSB	120/208V PANEL	-	RECEPTACLES	
P1207	3/4"	2	#12	1	#12				120	LSB	120/208V PANEL	-	LIGHTS-PUMP AREA	
P1208	3/4"	2	#12	1	#12				120	LSB	120/208V PANEL	-	EMERGENCY LIGHTS	
P1209	3/4"	2	#12	1	#12				120	LSB	120/208V PANEL	-	LIGHTS-MEZZANINE	
P1210	3/4"	2	#12	1	#12				480	HSB	480/277V PANEL	EF-1	EXHAUST FAN #1	
P1211	1- 1/4"	3	#3	1	#3				480	HSB	480/277V PANEL	AHU-1	AIR HANDLING UNIT #1	VIA DISCONNECT SWITCH
P1213	3/4"	3	#12	1	#12				480	HSB	480/277V PANEL	T1 XFMR	480-120/208V STEP DOWN XFMR	
P1214	3/4"	3	#12	1	#12				480	HSB	480/277V PANEL	-	HOIST	
P1215	1"	3	#8	1	#8				480	LSB	480/277V PANEL	CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	
P1216	1"	3	#8	1	#8				480	HSB	480/277V PANEL	-	A/C VFD NO. 1	
P1217	1"	3	#8	1	#8				480	HSB	480/277V PANEL	-	A/C VFD NO. 2	
C1201	1"			1	#14	12	#14			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	GPP 1	GRINDER PUMP PANEL 1	LOCAL CONTROL PANEL
C1202	1"			1	#14	12	#14			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	GPP 2	GRINDER PUMP PANEL 2	LOCAL CONTROL PANEL

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
AREA 82: SOLIDS PROCESSING BUILDING														
C1203	1"			1	#14	16	#14			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	82P3602	BFP FEED PUMP NO.1 VFD	TO VFD
C1203A	1"			1	#14	4	#14			82P3602	BFP FEED PUMP NO.1 VFD		TERMINAL BOX	
C1203B	1"			1	#14	2	#14				TERMINAL BOX		PSH 3602	
C1203C	1"			1	#14	2	#14				TERMINAL BOX		PSL 3602	
C1204	1"			1	#14	16	#14			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	82P3604	BFP FEED PUMP NO.2 VFD	TO VFD
C1204A	1"			1	#14	4	#14			82P3604	BFP FEED PUMP NO.2 VFD		TERMINAL BOX	
C1204B	1"			1	#14	2	#14				TERMINAL BOX		PSH 3604	
C1204C	1"			1	#14	2	#14				TERMINAL BOX		PSL 3604	
C1205	1"			1	#14	2	#14			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	EF-1	EF-1 MAGNETIC STARTER PANEL	
C1205A	1"			1	#14	2	#14			EF-1	EF-1 MAGNETIC STARTER PANEL	AHU-1	AIR HANDLING UNIT #1	
C1207	1"			1	#14	2	#14			82P3602	BFP FEED PUMP NO.1 VFD	GPP 1	GRINDER PUMP PANEL 1	LOCAL CONTROL PANEL
C1208	1"			1	#14	2	#14			82P3604	BFP FEED PUMP NO.2 VFD	GPP 2	GRINDER PUMP PANEL 2	LOCAL CONTROL PANEL
C1209	1"			1	#14	4	#14 2 TSP			T-1	ROOM THERMOSTAT	AHU-1	AIR HANDLING UNIT #1	
S1201	1"			1	#14		3 TSP			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	82P3602	BFP FEED PUMP NO.1 VFD	TO VFD
S1202	1"			1	#14		3 TSP			CP-BFP-RIO	BELT FILTER PRESS REMOTE IO CONTROL PANEL	82P3604	BFP FEED PUMP NO.2 VFD	TO VFD

TAG	CONDUIT	CABLE								EQUIPMENT FROM		EQUIPMENT TO		REMARKS
		POWER		GROUND		CONTROL		INSTR.	VOLTAGE	TAG NUMBER	NAME	TAG NUMBER	NAME	
	SIZE (IN)	QTY	SIZE	QTY	SIZE	QTY	SIZE							
AREA 96: SLUDGE PUMP STATION - CONTINUATION SEE SHEET E-040														
C6210	1"			1	#14	X	#14		480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	SLUDGE COLLECTOR #1 PUMP
C6211	1"			1	#14	X	#14		480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	SLUDGE COLLECTOR #2 PUMP
C6212	1"			1	#14	X	#14		480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	SLUDGE COLLECTOR #3 PUMP
C6213	1"			1	#14	X	#14		480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	SLUDGE COLLECTOR #4 PUMP
P6208	1"			1	#14	X	#14		480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	
P6209	1"		MSC								TERMINAL BOX		SLUDGE COLLECTOR #1 PUMP	
P6210	1"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	
P6211	1"		MSC								TERMINAL BOX		SLUDGE COLLECTOR #2 PUMP	
P6212	1"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	
P6213	1"		MSC								TERMINAL BOX		SLUDGE COLLECTOR #3 PUMP	
P6214	1"	3	#10	1	#10				480	MCC-SP	MOTOR CONTROL CENTER		TERMINAL BOX	
P6215	1"		MSC								TERMINAL BOX		SLUDGE COLLECTOR #4 PUMP	

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0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE047046 PROFESSIONAL ENGINEER THOMAS H. POWELL

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CONDUIT SCHEDULE NO. 4

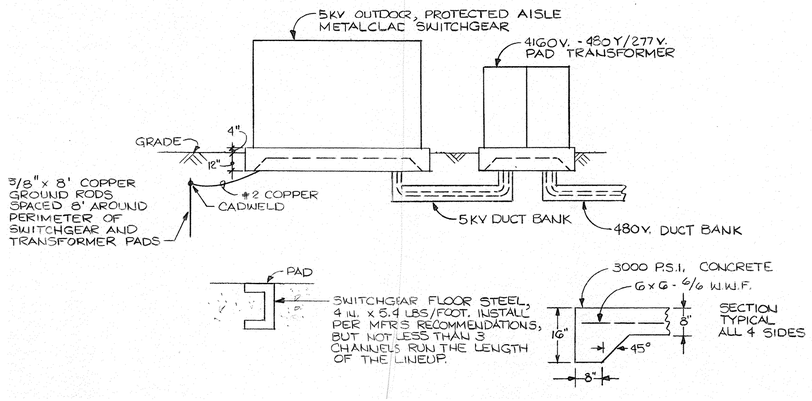
DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: X" = XX'

E-042

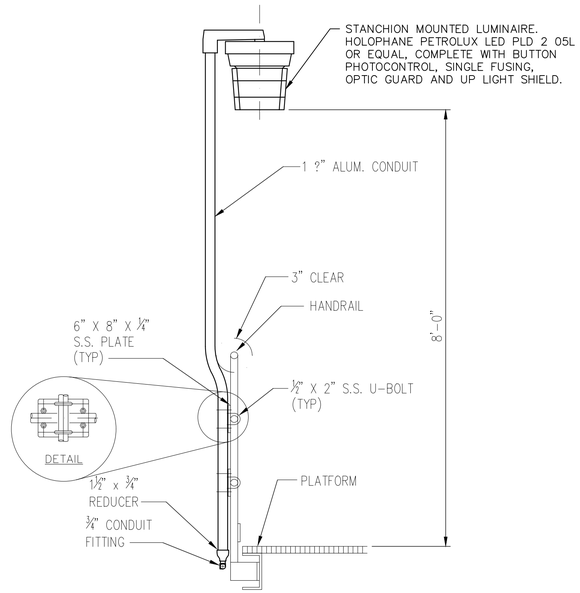
SHEET 122 OF 150

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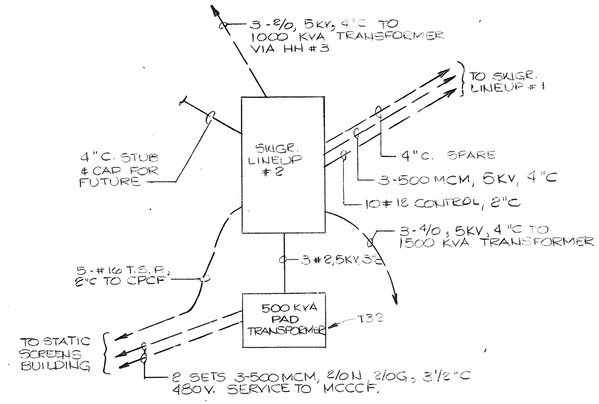
SWITCHGEAR AND PAD TRANSFORMER FOUNDATIONS

SCALE: N.T.S.



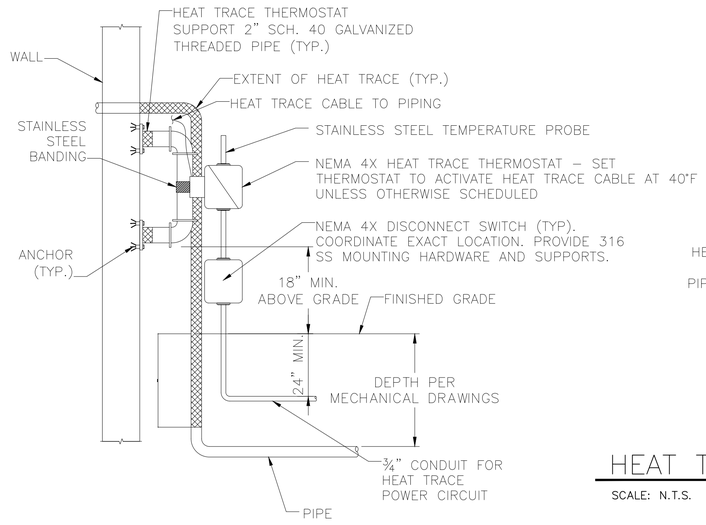
TYPICAL STANCHION MOUNTED LUMINAIRE DETAIL

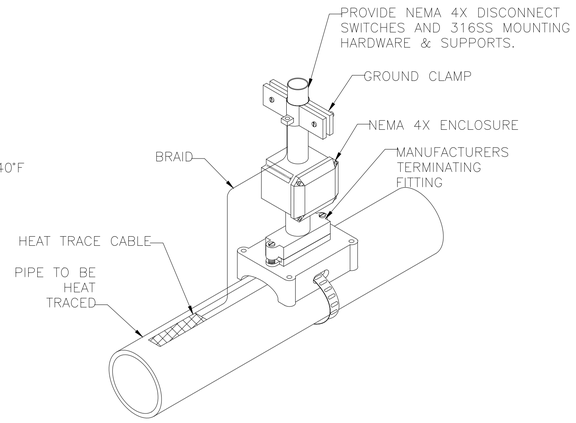
SCALE: NTS



4160V. SWITCHGEAR LINEUP #2 DUCT BANK SCHEDULE

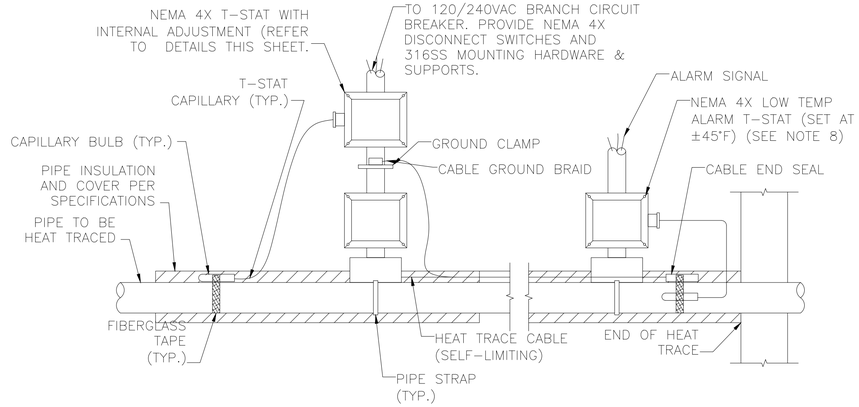
SCALE: N.T.S.





HEAT TRACE EQUIPMENT MOUNTING DETAIL (TYP.)

SCALE: N.T.S.



TYPICAL HEAT TRACE INSTALLATION DETAIL

SCALE: N.T.S.

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-043.DWG Scale:1:1 SavedDate:2/26/2019 Time:20:36 Plot Date: Seabrun, Kuron: 7/8/2022; 13:51 ; Layout:123

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/8/22 No. PE042108 PROFESSIONAL ENGINEER THOMAS H. POWELL

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www.arcadis-us.com

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

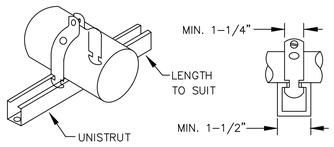
ELECTRICAL DETAILS 1

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: S. PATEL
DRAWN BY: J. BROWN
CHECKED BY: I. GONZALEZ

SCALE: NONE

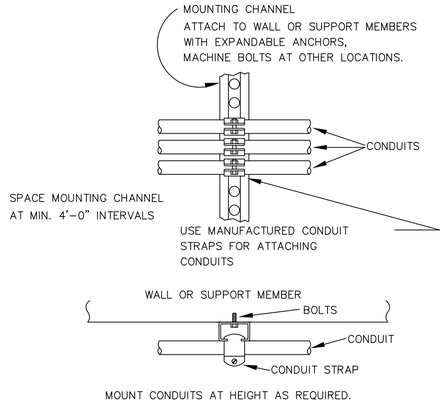
E-043

SHEET 123 OF 150



CONDUIT SUPPORT DETAIL

SCALE: NTS

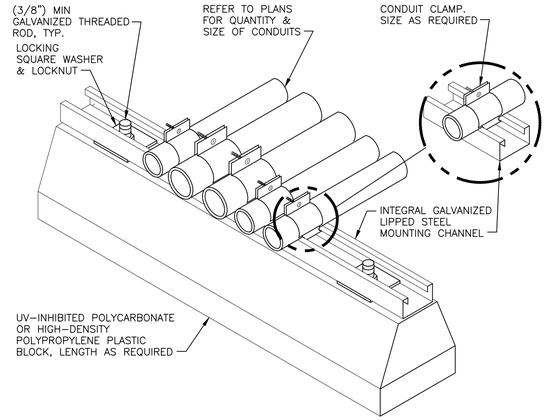


MOUNT CONDUITS AT HEIGHT AS REQUIRED.

CONDUIT MOUNTING DETAIL

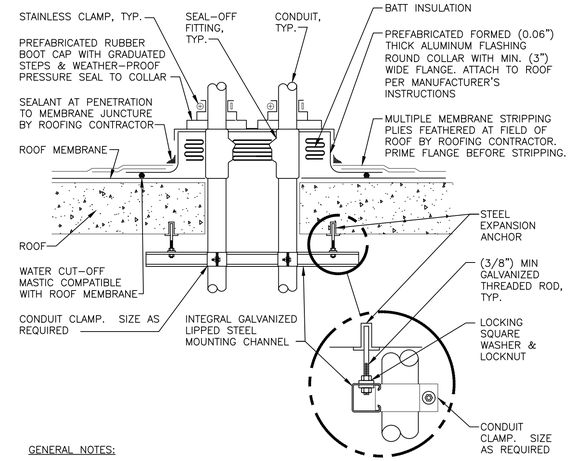
USE FOR TWO OR MORE CONDUITS RUN PARALLEL

SCALE: NTS



ROOF CONDUIT SUPPORT DETAIL

SCALE: NTS

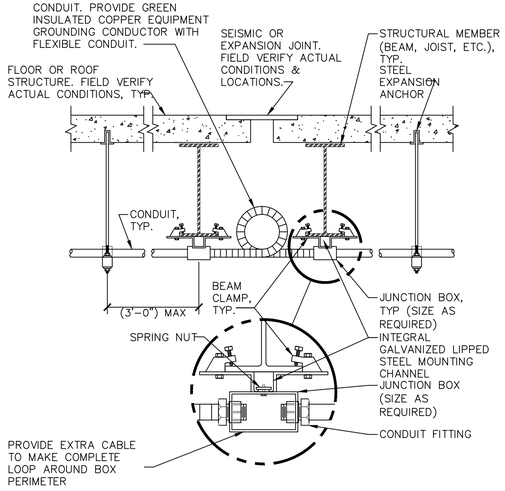


GENERAL NOTES:

1. MAINTAIN A MINIMUM CLEARANCE OF (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

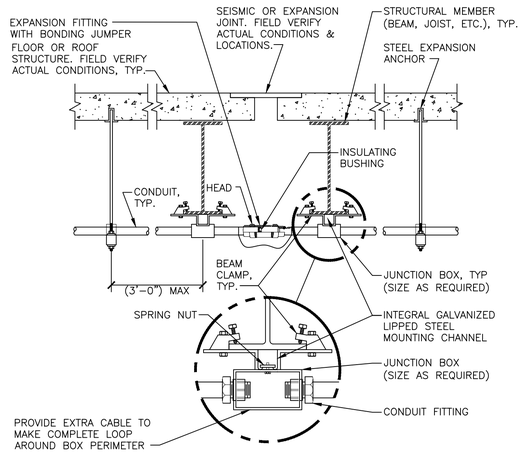
CONDUIT ROOF PENETRATION DETAIL

SCALE: NTS



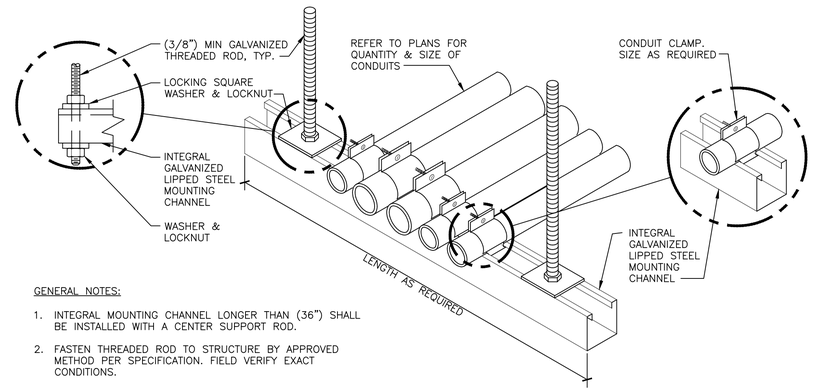
CONDUIT EXPANSION JOINT CROSSING DETAIL FLEXIBLE CONDUIT

SCALE: NTS



CONDUIT EXPANSION JOINT CROSSING DETAIL EXPANSION FITTING

SCALE: NTS



GENERAL NOTES:

1. INTEGRAL MOUNTING CHANNEL LONGER THAN (36") SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION. FIELD VERIFY EXACT CONDITIONS.

CONDUIT TRAPEZE MOUNTING DETAIL

SCALE: NTS

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 9/16/22 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

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www.arcadis-us.com

RESURGENS 1847 ATLANTA, GA. 1961

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL DETAILS 2

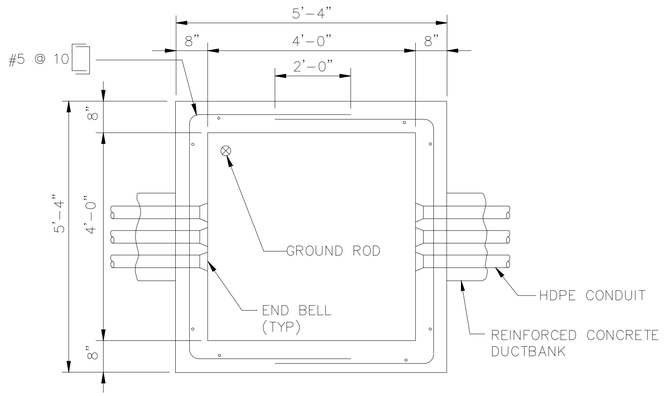
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-044

SHEET 124 OF 150

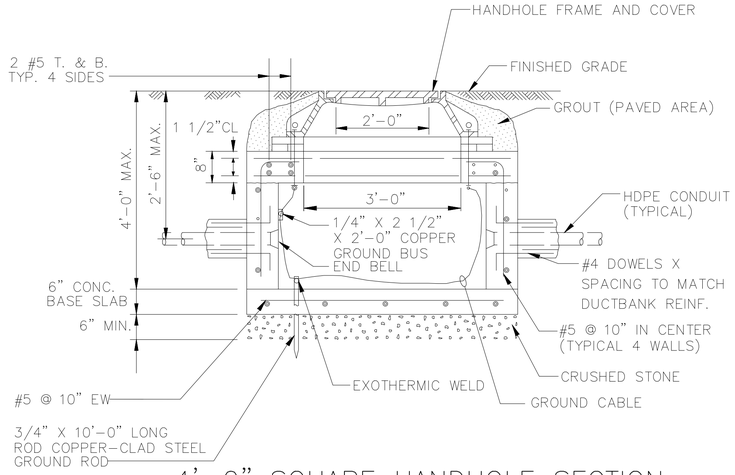
User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-044.DWG Scale:1:1 SavedDate:2/26/2019 Time:20:38 Plot Date: Seabrun, Kuron: 7/8/2022; 13:53 ; Layout:124



4'-0" SQUARE HANDHOLE DETAIL

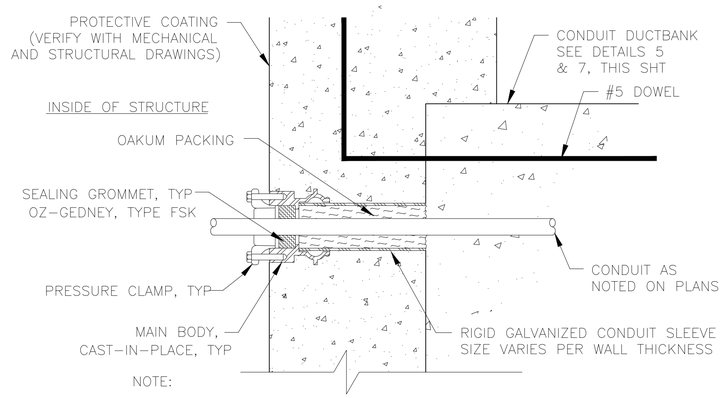
SCALE: NTS

NOTE:
ALL MANHOLES AND HANDHOLES LOCATED IN (CAR AND TRUCK) TRAFFIC AREAS SHALL HAVE COVERS RATED FOR HS 20 LOADING.



4'-0" SQUARE HANDHOLE SECTION

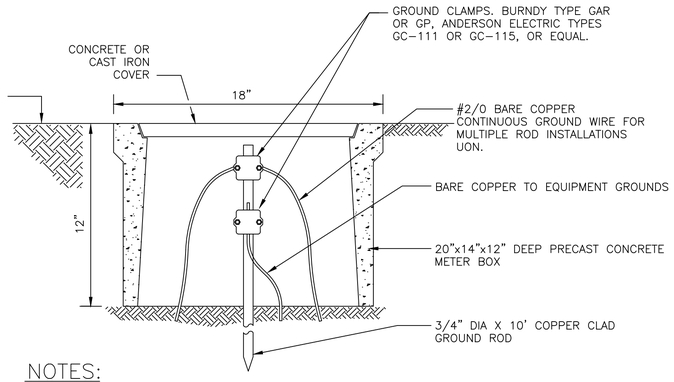
SCALE: NTS



SINGLE ENDED TYPE CONDUIT SEAL DETAIL

SCALE: NTS

(FOR USE WHERE CONDUIT OUTSIDE THE STRUCTURE IS ENCASED IN CONCRETE)

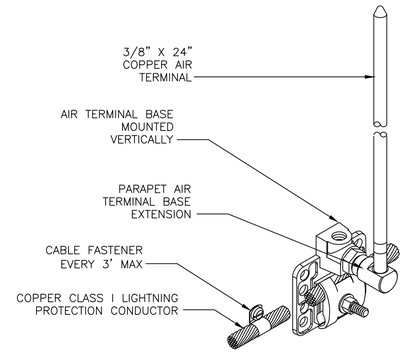


NOTES:

1. COVER SHALL BE INSCRIBED WITH THE WORD "GROUND" IN LETTERS.
2. DIMENSIONS ARE IN INCHES.

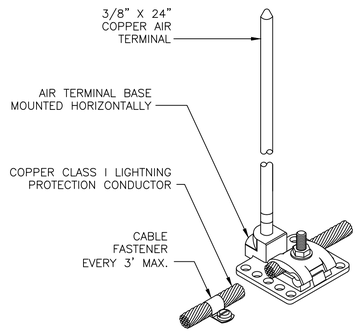
GROUND ROD AND WELL

SCALE: NTS



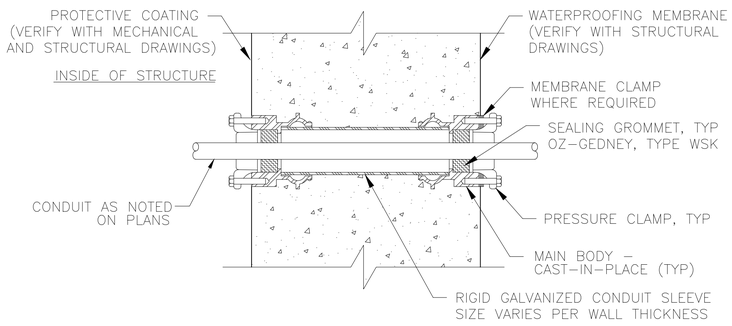
TYPE 'A' AIR TERMINAL BASE DETAIL

SCALE: NTS



TYPE 'B' AIR TERMINAL BASE DETAIL

SCALE: NTS



DOUBLE ENDED TYPE CONDUIT SEAL DETAIL

SCALE: NTS

(FOR USE WHERE CONDUIT OUTSIDE THE STRUCTURE IS NOT ENCASED IN CONCRETE)

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-045.DWG Scale:1:1 SavedDate:2/26/2019 Time:20:38 Plot Date: Seabrun, Kuron: 7/8/2022; 13:54 ; Layout:125

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2022

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED 7/26/19 No. PE024381 PROFESSIONAL ENGINEER THOMAS H. POWELL

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RESURGENS 1967 ATLANTA,GA 1901

ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

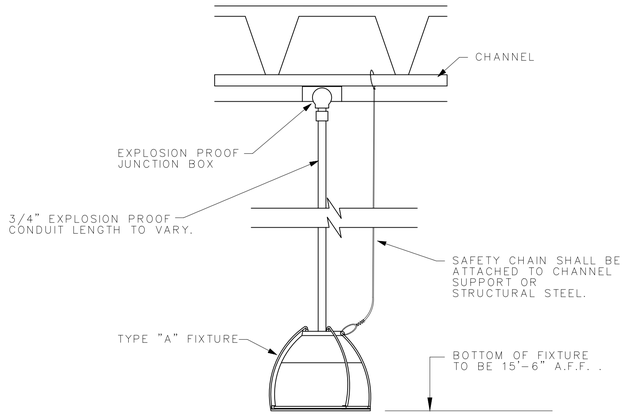
ELECTRICAL DETAILS 3

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

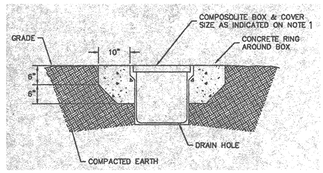
E-045

SHEET 125 OF 150



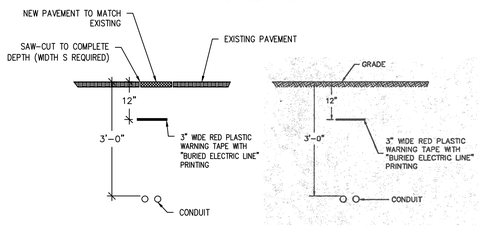
TYPICAL PENDANT MOUNTED LUMINAIRE DETAIL

SCALE: NTS



PULL BOX INSTALLATION IN COMPACTED EARTH

SCALE: NTS

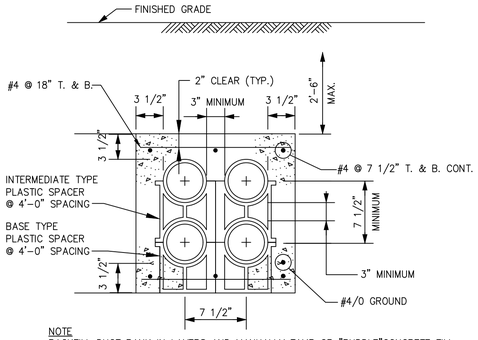


SECTION BURIED CONDUIT

SCALE: NTS

NOTES:

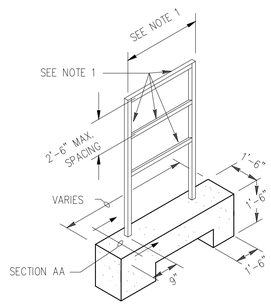
1. FURNISH AND INSTALL UNDERGROUND PULLBOXES APPROXIMATELY EVERY 500 FEET FROM CSCF TO FIELD INSTRUMENTS. PULL BOXES SHALL BE COMPOSOLITE WITH BASE AS MANUFACTURED BY "QUAZITE" OR APPROVED EQUAL. BOXES AND COVERS SHALL BE CONCRETE GRAY AND SUSTAIN A LOAD OF 1500 POUNDS OVER A 10" SQUARE. BOX SIZE SHALL BE 12"Wx18"Lx18"D WITH GASKETED HEAVY-DUTY COVER. STAINLESS STEEL SCREWS AND "ELECTRIC" LOGO ON COVER; CATALOG NUMBER PC 1118DG18 DRILL 3/4" DRAIN HOLE IN BOX BASE.



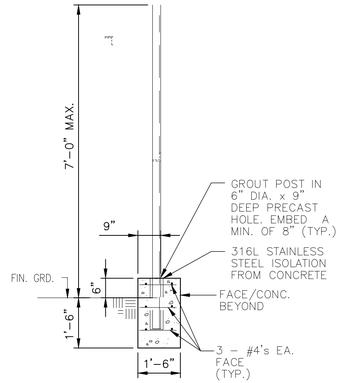
NOTE
BACKFILL DUCT BANK IN LAYERS AND MANUALLY TAMP OR "PUDDLE"CONCRETE FILL. PROVIDE YELLOW DUCT BANK MARKER TAPES, READING "CAUTION – ELECTRICAL LINES BELOW", OVER ENTIRE LENGTH OF DUCTLINE. LOCATE TAPES 12 INCHES BELOW GRADE. PROVIDE A TAPE FOR EVERY 12 INCHES OF WIDTH OF DUCTLINE.

DUCTBANK SECTION

SCALE: NTS



ISOMETRIC



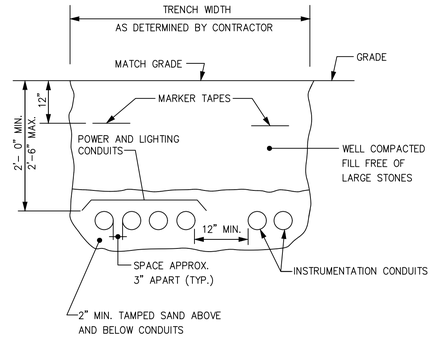
SECTION AA

NOTES FOR ELECTRICAL EQUIPMENT RACK:

1. COORDINATE W/SHOP DWGS. OF EQUIP. USED. MAX. HORIZ. SPAN SHALL BE 5'-0" WITHOUT ADDITIONAL VERT. SUPPORTS.
2. FABRICATE FROM ALUMINUM WELDED CONSTRUCTION.

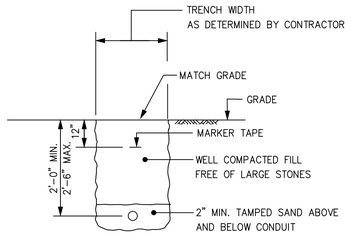
EQUIPMENT RACK DETAIL

SCALE: NTS



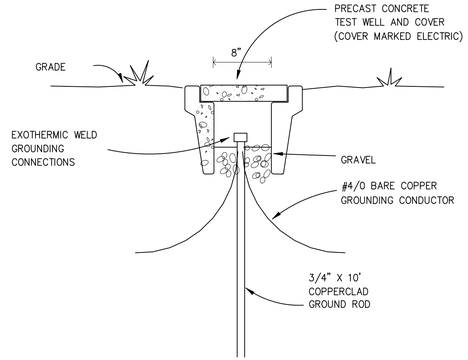
UNDERGROUND CONDUIT TRENCH FOR MULTIPLE CONDUITS

SCALE: NTS



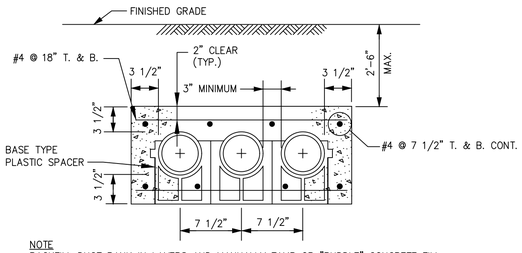
UNDERGROUND CONDUIT TRENCH FOR SINGLE CONDUITS

SCALE: NTS



GROUND TEST WELL

SCALE: NTS



NOTE
BACKFILL DUCT BANK IN LAYERS AND MANUALLY TAMP OR "PUDDLE" CONCRETE FILL. PROVIDE YELLOW DUCT BANK MARKER TAPES, READING "CAUTION – ELECTRICAL LINES BELOW", OVER ENTIRE LENGTH OF DUCTLINE. LOCATE TAPES 12 INCHES BELOW GRADE. PROVIDE A TAPE FOR EVERY 12 INCHES OF WIDTH OF DUCTLINE.

SINGLE LAYER DUCTBANK SECTION

SCALE: NTS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

ELECTRICAL DETAILS 4

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	S. PATEL
DRAWN BY:	J. BROWN
CHECKED BY:	I. GONZALEZ

SCALE: NONE

E-046

SHEET 126 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\ELECTRICAL\E-046.DWG Scale:1:1 SavedDate:2/26/2019 Time:20:37 Plot Date: Seabrun, Kuron; 7/8/2022; 13:56 ; Layout:126

Lakeshore Engineering
1259 Ellsworth Dr NW
Atlanta, Georgia 30318
P: +1 4043553976
F: +1 404 355 2429

Project: 21091 21091-East Area WQCF Improvements
1510 Key Road
atlanta, Georgia 30318
P: 404-355-3976

RFI #8: Electrical Switchgear in Filter Building

Status	Open		
To	**Steve Scarlett - CMG/COA**	**From**	Brandon Dow (Lakeshore Engineering)
Date Initiated	Aug 16, 2022	**Due Date**	Aug 23, 2022
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	TBD
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

RFI-08

Activity

Question

Question from Brandon Dow Lakeshore Engineering *on Tuesday, Aug 16, 2022 at 11:41 AM EDT*

The documents call for the electrical switchgear to be replaced in the Filter Building. Please advise if the current gear can be left as is or if needs modifications are needed (main- tie -main).

Awaiting an Official Response

Response:

RESPONSE FROM TOM POWELL ARCADIS *ON MONDAY, SEPTEMBER 26, 2022*

TEXT OF PROPOSED FIELD ORDER IS ATTACHED. UPDATED DRAWINGS AND SPECIFICATIONS WILL BE PROVIDED UPON REVIEW AND APPROVAL OF SCOPE.

RFI-08

Field Order

No. 4-001

Date of Issuance: 09/26/2022 Effective Date: 09/26/2022

Project:	Owner:	Owner's Contract No.:
East Area Water Quality Control Facility Improvements	City of Atlanta	FC-1190042
Contract: East Area Water Quality Control Facility Improvements		Date of Contract: July, 2022
Contractor: Lakeshore Engineering		Engineer's Project No.: GABPA134

Attention:
Contractor is hereby directed to promptly execute this Field Order issued in accordance with the General Conditions, for minor changes in the Work. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer.

Reference: 01010, 16100, 17500 (Specification Section(s)); E-009, E-011, E-014, E-015, E-020, I-023 (Drawing(s) / Detail(s))

Description:

In response to RFI-008, the following revisions to the work are identified.

1. Electrical sheet E-009:
   a. Motor Control Center for the Filter Building (MCC-FB) to remain. The MCC-FB will not be removed as part of this contract.
   b. Revise electrical sheet to eliminate removal or dispose of requirements for MCC-FB. Motor Control Center MCC-FB is to remain.
   c. Delete from the electrical drawing the requirement to lift and identify field wiring existing on MCC-FB to the branch feeder connections for energized equipment. Delete requirement to identify and lift all field wiring to DCS.
   d. Retain existing conduit and power wiring from TX FB to MCC FB and from TX CF-2
   e. Revise plan drawing E-009 to reflect the comments under 1a, 1b, 1c and 1d.
2. Electrical sheet E-011:
   a. Motor Control Center MCC-FB to remain including all associated wiring from and to MCC-FB to remain energized.
   b. Delete the requirement to install new Motor Control Center MCC-FB.
   c. Delete the requirement to reinstall field wiring from DCS to MCC-FB
   d. Delete the requirement to install and test field wiring.

DRAFT

RFI-08

e. Delete the requirement to test new Motor Control Center MCC-FB after installation.

f. Revise drawing E-011 to reflect the comments under 2a, 2b, 2c and 2d.

3. Electrical sheet E-014:

   a. Drawing E-014 will be revised to reflect Motor Control Center MCC-FB is existing and not a new assembly.

4. Electrical sheet E-015:

   a. Revise Drawing E-015 reflect Motor Control Center MCC-FB will not be removed as indicated in the plan set. Motor Control Center MCC-FB will remain.

5. Electrical Sheet E-020:

   a. For Filter building plan, remove the word 'NEW from MCC in the Electrical Room.

6. Instrument Sheet I-023:

   a. Replacement and retrofitting of panels for DCS per specification 17500.

   b. Contractor is advised the work requires the Contractor to: disconnect and label field wiring, demolish and remove existing panels, install new panel, reconnect field wiring, and assist Foxboro during startup and testing.

   c. Work noted on E-021 and E-022.

Attachments: E-009, E-011, E-014, E-015, E-020

Engineer: Hamilton Giles, PE

Receipt Acknowledged by Contractor:	Date:

DRAFT

MEANINGS OF IDENTIFICATION LETTERS

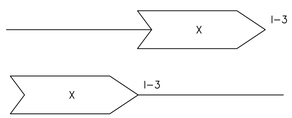
THIS TABLE APPLIES ONLY TO THE FUNCTIONAL IDENTIFICATION OF INSTRUMENTS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS	ANALOG	ALARM		
B	BURNER FLAME		USER'S CHOICE	CLOSE, STOP, OR DEC.	USER'S CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL OR DIGITAL		OPEN, START OR INC.	
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			FAIL
G	GATE		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH OR OPENED
I	CURRENT (ELECTRICAL)		INDICATE OR INPUT		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW OR CLOSED
M	MOTOR, MOTION				MIDDLE OR INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	ON OR OPERATE
O	POSITION		ORIFICE (RESTRICTION)		OVERLOAD
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY	RELIEF	RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VALVE, DAMPER OR LOUVER			VALVE, DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	COMPUTER			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

THE FOLLOWING DESIGNATIONS ARE USED TO BETTER IDENTIFY AN INSTRUMENT CONTROL FUNCTION

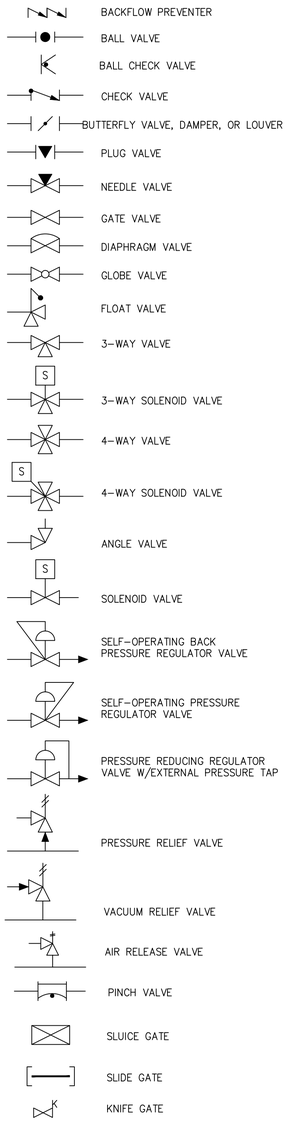
I/P	CURRENT TO PNEUMATIC CONVERTER	pH	HYDROGEN ION CONCENTRATION
E/I	VOLTAGE TO CURRENT CONVERTER	LCP	LOCAL CONTROL PANEL
I/I	CURRENT TO CURRENT CONVERTER	(I)	FURNISHED BY INSTRUMENTATION
DO	DISSOLVED OXYGEN	(M)	FURNISHED BY MECHANICAL
CL	CHLORINE RESIDUAL	(E)	FURNISHED BY ELECTRICAL
		(O)	FURNISHED BY OTHERS

INTERFACE SYMBOLS

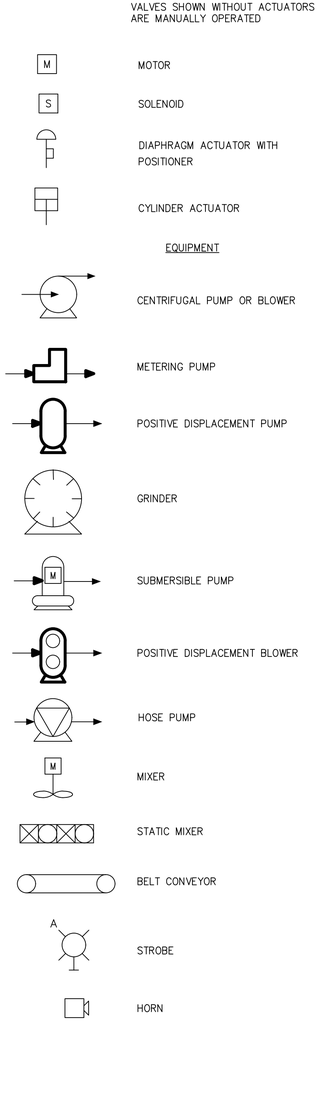


SYMBOLS

VALVES

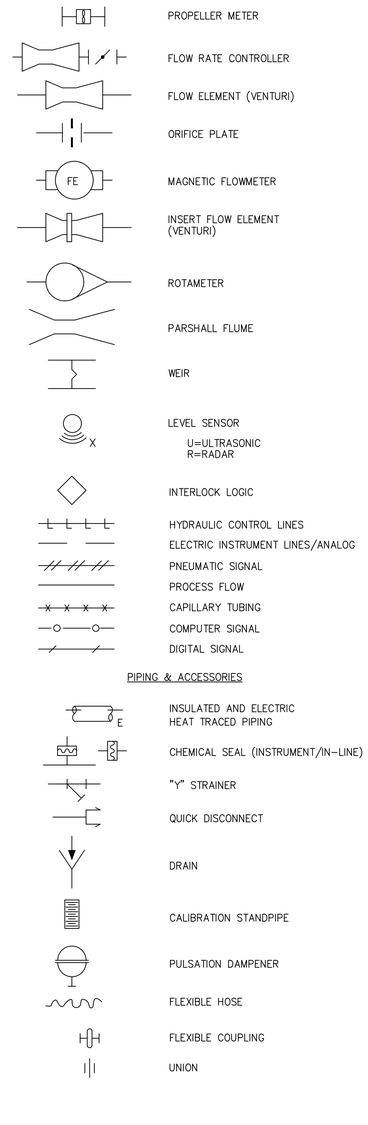


ACTUATORS



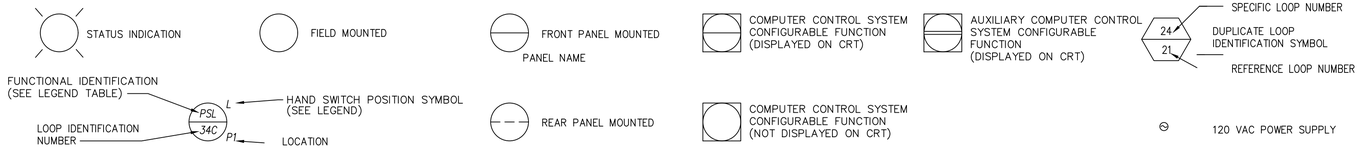
EQUIPMENT

INSTRUMENTS



PIPING & ACCESSORIES

INSTRUMENT SYMBOLS



PIPING ABBREVIATIONS

BA	BACKWASH AIR
CMD	CHEMICAL DRAIN
CLS	CHLORINE SOLUTION
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE
CSO	CSO INFLUENT
CW	COLD WATER
DR	DRAIN
DTO	DETRITUS TANK OVERFLOW
FCL	FERRIC CHLORIDE
FEFF	FINAL EFFLUENT
GR	GRIT
HYD	HYDRAULIC FLUID
HW	HOT WATER
NaOCL	SODIUM HYPOCHLORITE
NBS	SODIUM BISULFITE
OF	OVERFLOW
PD	PUMPED DRAINAGE
PS	PRESSURE SWITCH
POL	POLYMER
REC	RECIRCULATION
SAN	SANITARY SEWER
SBE	SEDIMENTATION BASIN EFFLUENT
SFW	SOFTENED WATER
SG	SIGHT GLASS
SL	SLUDGE
SW	SEAL WATER
TS	THICKENED SLUDGE
VAC	VACUUM
VT	VENT
W1	WATER (POTABLE)
W2	WATER (POTABLE-BACKFLOW PREVENTED)
W3	WATER (NON-POTABLE PLANT WATER)
WWW	WASTE WASHWATER

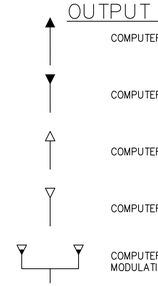
PIPE MATERIALS

CP	COPPER
DI	DUCTILE IRON
PE	POLYETHELENE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE
SS	304 STAINLESS STEEL
STL	CARBON STEEL
TR	TROUGH

GENERAL NOTES

1. COMPONENTS AND PANELS SHOWN WITH A ( ) ARE SPECIFIED UNDER SECTION INSTRUMENTATION CONTROL AND MONITORING SYSTEM.
2. COMPONENTS AND PANELS SHOWN WITH A DOUBLE ASTERISK (**) ARE PART OF A PACKAGE SYSTEM; SEE EQUIPMENT SPECIFICATIONS.
3. THIS LEGEND IS PROJECT SPECIFIC. HOWEVER NOT ALL SYMBOLS MAY BE USED.
4. NOT ALL VALVES AND PIPING ARE SHOWN. REFER TO MECHANICAL DRAWINGS TO SEE COMPLETE PROCESS.

COMPUTER INPUT/ OUTPUT SYMBOLS



HAND SWITCH POSITION & SIGNAL SYMBOLS

(UNLABELLED SWITCHES ARE TO BE ON-OFF)

A	AUTOMATIC
C	CLOSE
CMD	COMMAND
F	FAST OR FORWARD
F/B	FEEDBACK
H	HAND
J	JOG
L	LOCAL
M	MANUAL
O	OPEN OR OFF
O/L	OVERLOAD
R	REMOTE OR REVERSE
E/S	EMERGENCY STOP
S/S	START/STOP
S	SLOW OR START

THESE SYMBOLS MAY BE COMBINED TO INDICATE MULTIPLE POSITION SELECTOR SWITCHES. E.G. L/O/R IS A LOCAL/OFF/REMOTE SELECTOR SWITCH.

EQUIPMENT LETTER PREFIX

G	GRINDER
P	PUMP
FLT	FILTER
MX	AGITATOR/MIXER
VS	VORTEX SEPARATOR
T	TANK
B	BLOWER
CON	CONVEYOR/CLASSIFIER
VFD	VARIABLE FREQUENCY DRIVE
LCS	LOCAL CONTRAL SYSTEM
BFP	BELT FILTER PRESS
POLY	POLYMER SYSTEM

PLANT AREA DESIGNATION

81	SLUDGE HOLDING TANK
82	SOLIDS PROCESSING PUMP STATION
83	DEWATERING BUILDING
93	TUNNEL PUMPING STATION
94	CHEMICAL BUILDING
95	VORTEX SEPARATOR
96	GRIT SETTLING BASIN & SEDIMENTATION BASIN
97	HIGH RATE FILTER
98	POST TREATMENT CHEMICALS

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

INSTRUMENTATION AND CONTROLS LEGEND AND GENERAL NOTES

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-001

SHEET 127 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-001.DWG Scale:1:1 SavedDate:5/31/2019 Time:14:29 Plot Date: Seabrun, Kuron, 7/11/2022, 13:41 ; Layout:127

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-002.DWG Scale:1:1/2 SavedDate:7/23/2019 Time:16:56 Plot Date: Seabrun, Kuron; 7/11/2022; 13:44 ; Layout:128

(NOTE 3)

EXIST. LEVEL SIGNAL TO CUSTER DIVERSION GATE

INFLUENT FLOW SIGNAL

(NOTE 1)

(NOTE 1)

CLOSED ZL 31102 | OPEN ZH 31102 | READY IN AUTO IL 31102 | HS 31102 | ALARM AL 0004 | READY IN AUTO IL 0004 | ON/OFF HS 0004 | RUN IL 0004 | LAG PUMP RUN (NOTE 2) | ALT. HS 0041 | LIC 0041 | FAIL AL 0041 | ALT. HS 0041 | RUN IL 0003 | ON/OFF HS 0003 | READY IN AUTO IL 0003 | AL 0003

LOCAL CONTROL PANEL (LCP)

HS 0004 HOA | OFF IL 0004 | ON IL 0004 | ETM KQI 0004 | LI 0041 | IT 0041 I/(M)

ETM KQI 0003 | ON IL 0003 | OFF IL 0003 | HS 0003 HOA | MCC 2

UI 0004 MAS MCC (M) | IY 0004 MAS MCC (M) | MCC 1 | MC 0004 MCC (E)

UI 0003 MAS MCC (M) | MC 0003 MCC (E) | MCC 1 | IY 0003 MAS MCC (M)

FQY 0013 (NOTE 8) | FQC 0013 | READY IN AUTO IL 0013 | ZC 0013 | OPEN ZH 0013 | CLOSED ZL 0013 | ZI 0013

CLOSED IL 0013 | OPEN IL 0013

FIT 0013

HS 0013 L/R | HS 0013 O/S/C

EXISTING LINE TO OUTFALL STRUCTURE TO BE DEMOLISHED (SEE CIVIL DRAWINGS)

FINAL EFF. TO INTRENCHMENT CREEK

CLOSED IL 31102 | OPEN IL 31102 | HS 31102 L/S/R | HS 31102 O/C

FCV 31093

FV 31102 | FV 31102 | FV 31102 | M

EXIST. 24" SED. BASIN RECYCLE LINE I-4

FCV 31102

VORTEX SEPARATOR DRAIN I-3 6D(DI)

DETRITUS TANK NO. 2 DRAIN I-5 4D(DI)

DETRITUS TANK NO. 2 OVERFLOW I-5 12DTO(DI)

WASTE CHEMICAL SUMP DRAIN I-16 8CMD(DI)

DETRITUS TANK NO. 1 OVERFLOW I-4 12DTO(DI)

DETRITUS TANK NO. 1 DRAIN I-4 4D(DI)

STORM WATER RUN OFF C-18

WWW PUMPING STATION OVERFLOW I-9 24OF(DI)

SAMPLING POINT NO.1 I-003

PLANT DRAIN I-017 I-019

CUSTER AVE. DIVERSION STRUC.

24DR(DI)

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0014 0013 | FE 0014 | 8CSO(DI)

0015 0013 | FE 0015 | 8CSO(DI)

NEW VALVE AND METER VAULT

0040 0041 | LIT 0040

LIT 0041

TE 0004 A,B,C,D (NOTE 7) | TS 0004 | MS 0004B | MS 0004A

0005 0004

VIBRATION XS 0003 | TE 0003 A,B,C,D (NOTE 7) | TS 0003 | MS 0003B | MS 0003A

93P0004 | 93P0005

SLURRY PUMPS

93P0003 | 93P0002 | 93P0001

CSO PUMPS

TUNNEL PUMPING STATION

FCV 0020 | 0020 0013 | 8CSO(DI) | HEAD BOX I-3

10CSO(DI)

0011 0013 | 0012 0013 | FCV 0013 | ZSH 0013 | ZSL 0013 | ZT 0013

18CSO(DI) | FE 0013 | 18CSO(DI) | 20CSO(DI) | HEAD BOX I-3

FCV 0012 | 0012 0013 | 18CSO(DI) | FE 0012 | 18CSO(DI) | 20CSO(DI) | HEAD BOX I-3

FCV 0011 | 0011 0013 | 18CSO(DI) | FE 0011 | 18CSO(DI) | 20CSO(DI) | HEAD BOX I-3

20CSO(DI) | 10CSO(DI)

20CSO(DI) | 10CSO(DI)

20CSO(DI) | 10CSO(DI)

0021 0013 | M | FCV 0021 | 10CSO(DI) | 18CSO(DI) | BYPASS TO WRC HEADWORKS I-6

NOTES:

1. SUBMERSIBLE PUMP 93P0005 OR 93P0004 STARTS WHEN THE WATER LEVEL IS AT ELEV. 702.00 AND STOPS AT ELEV. 699.00. SUBMERSIBLE PUMPS 93P0005 AND 93P0004 SHALL ALTERNATE ON SHUTDOWN OR DAILY TO DISTRIBUTE OPERATING TIME EVENLY.
2. SUBMERSIBLE PUMP 93P0001, 93P0002 OR 93P0003 STARTS WHEN THE WATER LEVEL RISES ABOVE ELEV. 710.00 AND STOPS AT ELEV. 704.00. FIRST ON IS LEAD PUMP. NEXT ON IS THE LAG PUMP. THE LAG PUMP STARTS WHEN THE LEVEL RISES ABOVE ELEV. 715.00 AND STOPS AT ELEV. 704.00. START THE LAG-LAG PUMP ONLY IF THE LEAD OR LAG PUMP IS FAULTED AND THE LEVEL CONTINUES TO RISE. PUMPS SHALL BE ALTERNATED TO DISTRIBUTE OPERATING TIME EVENLY.
3. GATE AT CUSTER AVE. DIVERSION STRUCTURE CLOSES AT ELEV. 765.00 AND OPENS AT ELEV. 750.00.
4. PLANT OPERATORS SHALL HAVE THE ABILITY TO SEND FLOW TO THE HEAD BOX, OR TO THE WRC HEADWORKS BY DESIGNATING THE ACTIVE CONTROL VALVE. MODULATE VALVES 93FCV0020 OR 93FCV0021 TO MAINTAIN A MAXIMUM FLOW RATE OF 2.0 MGD FROM PUMP 93P0004 OR 93P0005.
5. MODULATE PUMP DISCHARGE VALVE (93FCV0011, 93FCV0012, OR 93FCV0013) TO MAINTAIN A MAXIMUM FLOW RATE OF 14 MGD FROM PUMPS 93P0001, 93P0002, OR 93P0003.
6. NOT USED.
7. RTD A, B, AND C IMBEDDED IN PUMP STATOR WINDINGS. RTD D LOCATED AT PUMP MAIN BEARING.
8. THE INFLUENT FLOW SIGNAL IS CALCULATED BY SUMMING FLOWS MEASURED BY EACH PUMP DISCHARGE FLOW METER.
9. SURGE SUPRESSOR REQUIRED AT ALL OUTDOOR INSTRUMENTS.

INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING. STOP PUMP UPON MOISTURE INTRUSION AND REQUIRE MANUAL RESET.
2. PUMP SHALL NOT RE-START AFTER SHUTTING DOWN DUE TO POWER FAILURE, OR NORMAL STOP PRIOR TO TIMING OUT OF A HARDWIRED TIME DELAY TIMER LOCATED AT THE MOTOR CONTROL CENTER.

GENERAL NOTE:

SHORT-HAND TAG NUMERS ARE SHOWN. COMPLETE TAG NUMBER INCLUDES AREA DESIGNATION. FOR EXAMPLE: 93FIT0013. TYPICAL FOR ALL TAG NUMBERS.

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NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

GEORGIA REGISTERED No PE026674 PROFESSIONAL ENGINEER Hernando Guillermo Arango Hernandez

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TUNNEL PUMP STATION DEWATERING P&ID

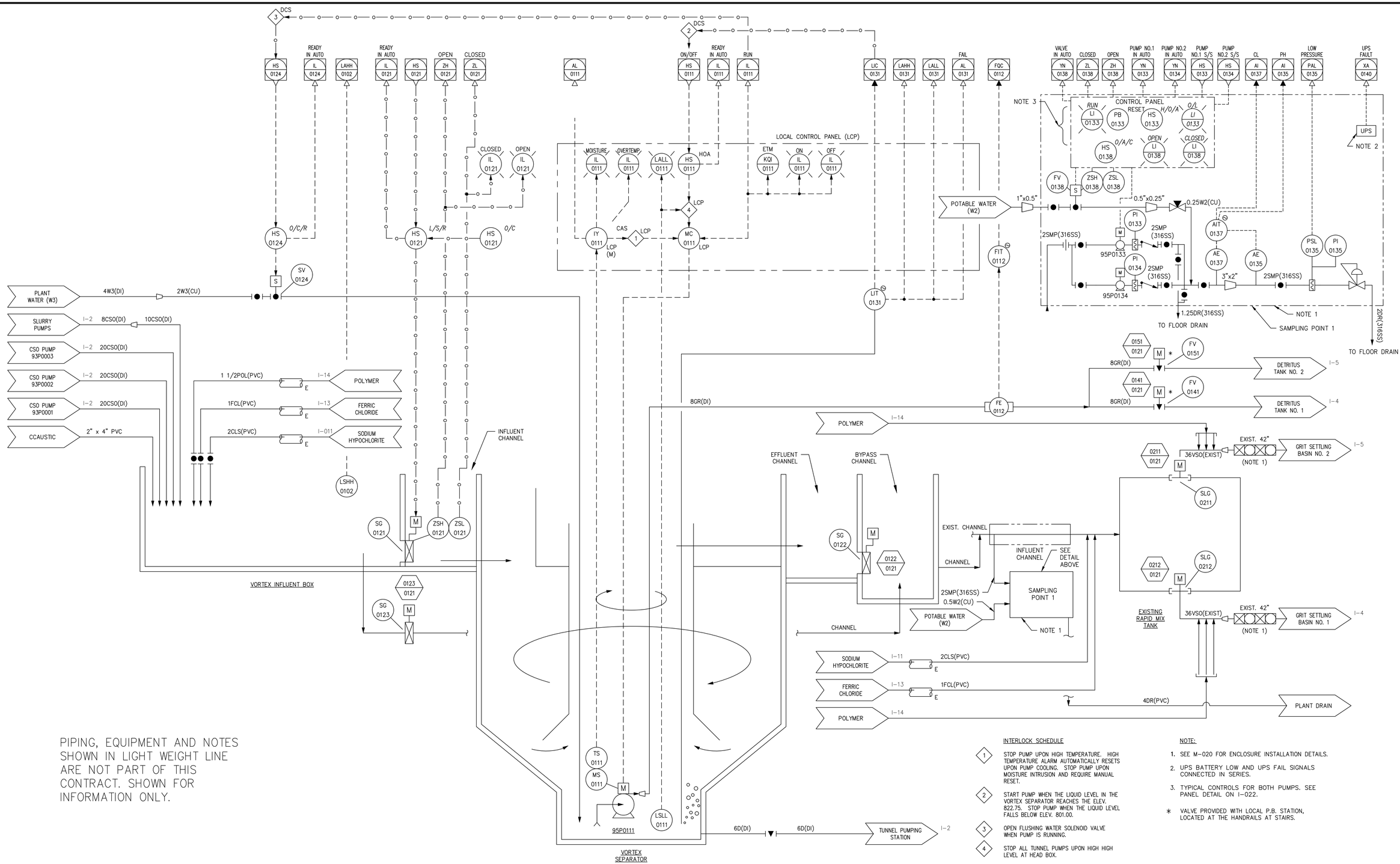
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-002

SHEET 128 OF 150

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-003.DWG Scale:1:1/2 SavedDate:12/8/2020 Time:11:26 Plot Date: Seabrun, Kuron; 7/11/2022; 13:49 ; Layout:I-29



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INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING. STOP PUMP UPON MOISTURE INTRUSION AND REQUIRE MANUAL RESET.
2. START PUMP WHEN THE LIQUID LEVEL IN THE VORTEX SEPARATOR REACHES THE ELEV. 822.75. STOP PUMP WHEN THE LIQUID LEVEL FALLS BELOW ELEV. 801.00.
3. OPEN FLUSHING WATER SOLENOID VALVE WHEN PUMP IS RUNNING.
4. STOP ALL TUNNEL PUMPS UPON HIGH HIGH LEVEL AT HEAD BOX.

NOTE:

1. SEE M-020 FOR ENCLOSURE INSTALLATION DETAILS.
2. UPS BATTERY LOW AND UPS FAIL SIGNALS CONNECTED IN SERIES.
3. TYPICAL CONTROLS FOR BOTH PUMPS. SEE PANEL DETAIL ON I-022.

* VALVE PROVIDED WITH LOCAL P.B. STATION, LOCATED AT THE HANDRAILS AT STAIRS.

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

VORTEX SEPARATOR P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-003

SHEET 129 OF 150

User:KSEARBRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-004.DWG Scale:1:1/2 SavedDate:7/8/2022 Time:12:47 Plot Date: Seabrun, Kuron: 7/11/2022; 13:52 ; Layout:I30

IN-REMOTE YN 3431 | HS 3431 | OPEN ZH 3431 | CLOSED ZL 3431
CLOSED IL 3431 | OPEN IL 3431 | HS 3431 L/S/R O/C

ON YN 3481 | HIGH TORQUE WA 3481 | RUN MN 3481 | FAULT XA 3481
ON LI 3481 MCC | HIGH TORQUE LI 3481 MCC | PB 3481B S/S MCC | PB 3481 RESET MCC
MC 3481 MCC (E) | HS 3481 L/O/R MCC | PB 3481A S/S LCS

LIT 3401 | SI 3422 | IN-REMOTE YN 3422 | FAULT XA 3422 | START /STOP MC 3422 | SC 3422 | RUN MN 3422
VFD PANEL
FAULT LI 3422 | HS 3422 L/R | ON LI 3422
SI 3422 | XS 3422 | SC 3422 VFD | HS 3422 A/M SPEED | PB 3422 S/S | PB 3422 RESET
HIGH MOISTURE LI 3422 | E-STOP LI 3422
HIGH TEMP. LI 3422 | 1 VFD | 2 VFD | 3 VFD | HS 3422 E-STOP
LIT 3401

INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING.
2. STOP PUMP UPON MOISTURE INTRUSION. REQUIRES MANUAL RESET.
3. STOP PUMP UPON OPERATION OF THE EMERGENCY STOP PUSHBUTTON.

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READY IN AUTO FI 3461 | FI 3462 | ZSI 31073 | HS 31073 | ZSI 31073 | ZSI 31073
CLOSED IL 31073 | OPEN IL 31073 | HS 31073 L/S/R O/C
FIT 3461 | FIT 3462

PLANT WATER (W3) 4W3(DI) | FV 0251 | M | M | 96P0311
VACUUM PUMP ONE PER PASS
RAPID MIX TANK I-3 42VSO(DI) | LSH 0315 ONE PER PASS
PLANT WATER W3 | FV 3431 | ZSH 3431 | ZSL 3431 | M

SODIUM HYPOCHLORITE I-11 2CLS(PVC) E

GRIT SETTLING BASIN NO. 1
FLOW THROUGH EXISTING PERFORATED BAFFLE WALL
SEDIMENTATION BASIN NO. 1
BASIN FLUSHING SYSTEM

LE 3401 U
3482 3481 WSH 3482 M
WSH 3481 M
SLUDGE COLLECTOR #1 96COL3213
SLUDGE COLLECTOR #2 96COL3214

MSH 3422 | TSH 3422 | 3423 3422 | MSH 3423 | TSH 3423
MSH 3424 | TSH 3424 | 3424 3422 | MSH 3425 | TSH 3425 | 3425 3422
SLUDGE PUMP 96P3422 | SLUDGE PUMP 96P3423 | SLUDGE PUMP 96P3424 | SLUDGE PUMP 96P3425

3SL(DI) | PI 3422 | PI 3423 | PI 3424 | PI 3425
3SL(316SS)
3"x4" RED.
FE 3462 | FE 3461
6SL(DI) SEDIMENTATION BASIN 2 I-005
4"x6" RED.
42SBE(DI)
4W3(DI)
ZSH 31073 | ZSL 31073 | FV 31073 | M | 18DR(DI)

1.25W3(316SS) | FI 3422 | FI 3423 | FI 3424 | FI 3425
24GR(DI)
FLUIDIZING FLOWMETER PANEL (DETAIL SHOWN ON I-022)
4W3(DI)

42SBE(DI) | 42REC(DI) | 24REC(DI) | RECIRCULATION TO CSO TUNNEL I-2
GRIT PUMP STATION 1 I-6
SED BASIN NO. 2 EFFLUENT I-5 | 42SBE(DI) | 42SBE(DI) | HIGH RATE FILTERS I-7
PLANT WATER W3 4W3(DI)
6SL(DI) | SLUDGE PUMPS I-6
6SL(DI) | SLUDGE PUMPS I-6

NOTES:

1. SINGLE CONTROL PANEL FOR THE DETRITUS TANK RAKE MECHANISM AND CENTER DRIVE MECHANISM.
2. SEE SHEET I-15 FOR GRIT SETTLING TANK FLUSHING SYSTEM DETAILS.

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

GRIT SETTLING AND SEDIMENTATION BASIN 1 P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-004

SHEET 130 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-005.DWG Scale:1:1/2 Saved:Date:7/8/2022 Time:12:22 Plot Date: Seabrun, Kurson; 7/11/2022; 13:58 ; Layout:I31

READY IN AUTO YN 3441 | HS 3441 | OPEN ZH 3441 | CLOSED ZL 3441

CLOSED IL 3441 | OPEN IL 3441 | HS 3441 L/S/R | HS 3441 O/C

ON YN 3491 | HIGH TORQUE WA 3491 | RUN MN 3491 | FAULT XA 3491

ON LI 3491 MCC | HIGH TORQUE LI 3491 MCC | PB 3491 S/S MCC | PB 3491 RESET MCC | MC 3491 MCC (E) | HS 3491 L/O/R MCC

LIT 3411 | SI 3432 | IN-REMOTE YN 3432 | FAULT XA 3432 | START /STOP MC 3432 | SC 3432 | RUN MN 3432

VFD PANEL

FAULT LI 3432 | ON LI 3432 | HS 3432 L/R | SI 3432 | XS 3432 | SC 3432 VFD | HS 3432 A/M SPEED | PB 3432 S/S | PB 3432 RESET | HIGH MOISTURE LI 3432 | E-STOP LI 3432 | HIGH TEMP. LI 3432 | 1 VFD | 2 VFD | 3 VFD | HS 3432 E-STOP

LIT 3411

INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING.
2. STOP PUMP UPON MOISTURE INTRUSION. REQUIRES MANUAL RESET.
3. STOP PUMP UPON OPERATION OF THE EMERGENCY STOP PUSHBUTTON.

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READY IN AUTO FI 3471 | FI 3472 | ZSI 31083 | HS 31083 | OPEN ZSI 31083 | CLOSED ZSI 31083

FIT 3471 | FIT 3472 | CLOSED IL 31083 | OPEN IL 31083 | HS 31083 L/S/R | HS 31083 O/C

SEDIMENTATION BASIN 1 — I-004

PLANT WATER (W3) — 4W3(DI) — FV 0261 — M — 96P0321

VACUUM PUMP — ONE PER PASS

RAPID MIX TANK — I-3 — 42VSO(DI) — LSH 0325 — ONE PER PASS

SODIUM HYPOCHLORITE — I-11 — 2CLS(PVC) — E

6SL(DI) — 8SL(HDPE) — SLUDGE HOLDING TANK — I-017

3SL(DI) — FE 3472 — FE 3471 — 6SL(DI)

PI 3432 | PI 3433 | PI 3434 | PI 3435

3SL(DI) — 3SL(316SS) — 3433 3432 — 3434 3432 — 3435 3432

MSH 3432 TSH 3432 | MSH 3433 TSH 3433 | MSH 3434 TSH 3434 | MSH 3435 TSH 3435

GRIT SETTLING BASIN NO. 2

SEDIMENTATION BASIN NO. 2

FLOW THROUGH EXISTING PERFORATED BAFFLE WALL

LE 3411 — U

3492 3491 | WSH 3491 | WSH 3492

BASIN FLUSHING SYSTEM

SLUDGE COLLECTOR #3 96COL3219 | SLUDGE COLLECTOR #4 96COL3220

SLUDGE PUMP 96P3432 | SLUDGE PUMP 96P3433 | SLUDGE PUMP 96P3434 | SLUDGE PUMP 96P3435

SEDIMENTATION BASIN NO. 2

42SBE(DI) — 6W3(DI)

ZSH 31083 | ZSL 31083 | FV 31083 | 18DR(DI)

42SBE(DI) — 42REC(DI) — 24REC(DI) — RECIRCULATION TO CSO TUNNEL — I-2

SED BASIN NO. 2 EFFLUENT — I-5 — 42SBE(DI) — HIGH RATE FILTERS — I-7

GRIT PUMP STATION 2 — I-6

24GR(DI)

FLUIDIZING FLOWMETER PANEL (DETAIL SHOWN ON I-022)

1.25W3(316SS) — FI 3432 | FI 3433 | FI 3434 | FI 3435

FV 3441 | ZSH 3441 | ZSL 3441

PLANT WATER W3 — 4W3(DI)

PLANT WATER W3 — 6W3(DI)

6SL(DI) — SLUDGE PUMPS — I-6

6SL(DI) — SLUDGE PUMPS — I-6

NOTES:

1. SINGLE CONTROL PANEL FOR THE DETRITUS TANK RAKE MECHANISM AND CENTER DRIVE MECHANISM.
2. SEE SHEET I-15 FOR GRIT SETTLING TANK FLUSHING SYSTEM DETAILS.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

GRIT SETTLING AND SEDIMENTATION BASIN 2 P&ID

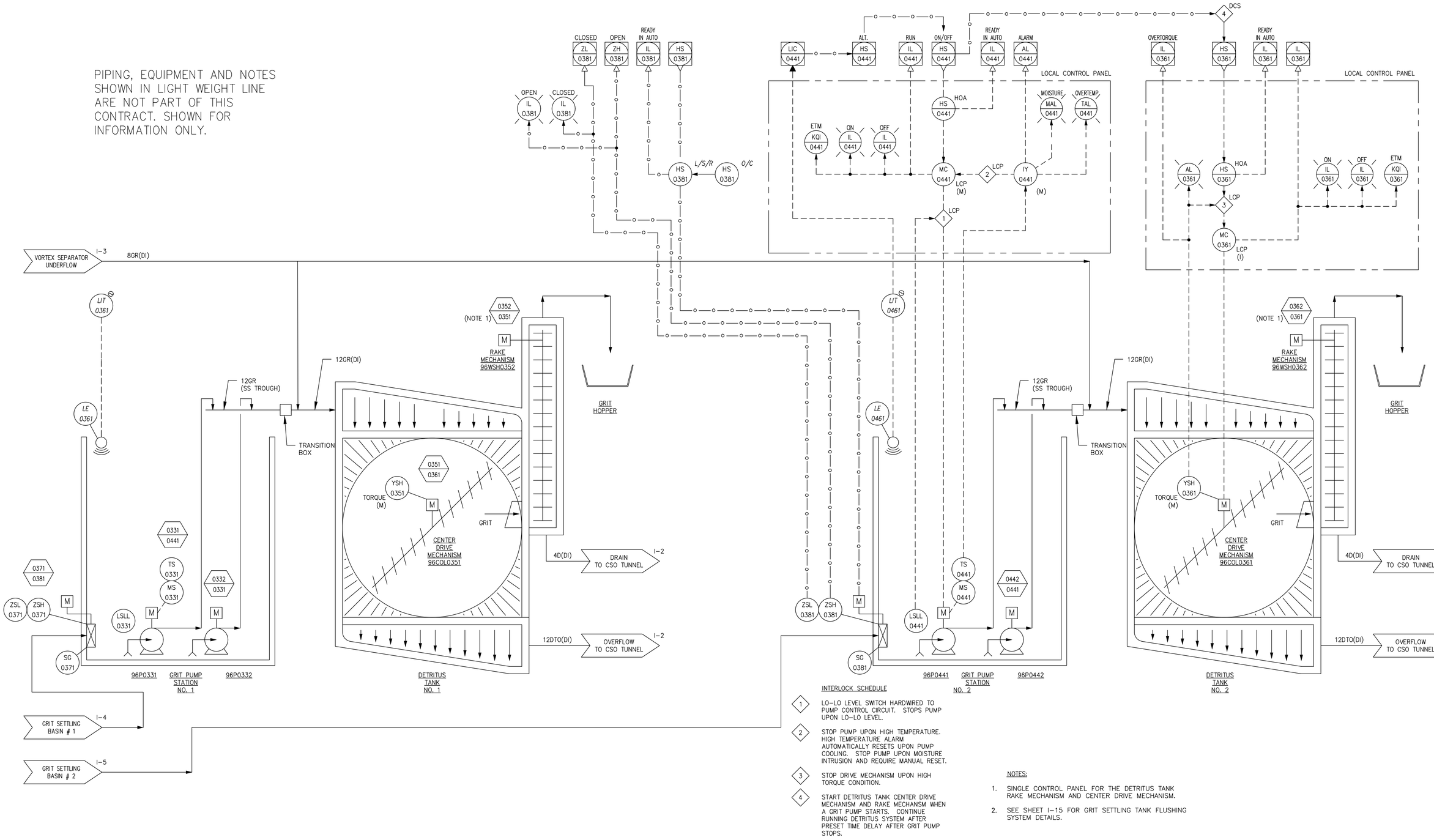
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-005

SHEET 131 OF 150

PIPING, EQUIPMENT AND NOTES SHOWN IN LIGHT WEIGHT LINE ARE NOT PART OF THIS CONTRACT. SHOWN FOR INFORMATION ONLY.



INTERLOCK SCHEDULE

1. LO-LO LEVEL SWITCH HARDWIRED TO PUMP CONTROL CIRCUIT. STOPS PUMP UPON LO-LO LEVEL.
2. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING. STOP PUMP UPON MOISTURE INTRUSION AND REQUIRE MANUAL RESET.
3. STOP DRIVE MECHANISM UPON HIGH TORQUE CONDITION.
4. START DETRITUS TANK CENTER DRIVE MECHANISM AND RAKE MECHANSM WHEN A GRIT PUMP STARTS. CONTINUE RUNNING DETRITUS SYSTEM AFTER PRESET TIME DELAY AFTER GRIT PUMP STOPS.

NOTES:

1. SINGLE CONTROL PANEL FOR THE DETRITUS TANK RAKE MECHANISM AND CENTER DRIVE MECHANISM.
2. SEE SHEET I-15 FOR GRIT SETTLING TANK FLUSHING SYSTEM DETAILS.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

GRIT PUMP STATION AND DETRITUS TANK P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-006

SHEET 133 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-006.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:17 Plot Date: Seabrun, Kuron: 7/11/2022: 14:00 : Layout:133

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TUNNEL PUMPING STATION I–2 18CSO(DI)

WRC HEADWORKS

CSO SLUDGE HOLDING TANK

WASTE WASHWATER PUMPING STATION

SEAL WATER ARRANGEMENT (TYPICAL FOR SIX SLUDGE PUMPS)

PLANT WATER (W3)

SED. BASIN NO. 2 SUMP FAR I–4 6SL(DI)

SED. BASIN NO. 2 SUMP NEAR I–4 6SL(DI)

SED. BASIN NO. 1 SUMP FAR I–5 6SL(DI)

SED. BASIN NO. 1 SUMP NEAR I–5 6SL(DI)

INTERLOCK SCHEDULE

1. OPEN SEAL WATER SOLENOID VALVE UPON INITIATING PUMP RUN COMMAND. START PUMP AFTER HARDWIRED TIME DELAY.
2. SHUT DOWN PUMP UPON LOW SEAL WATER FLOW OR MOTOR OVERLOAD.

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE PUMPING PROPOSED P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: F. ARANGO
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

SCALE: NONE

I–006D

SHEET 132 OF 150

User:KSEABRUN Spec:AUS–NCSMOD File:C:\USERS\KSEABRUN\ONEDRIVE – ARCADIS\DOCUMENTS\TASK FILES\BP2_KS_COPY\CADD\C DRAWINGS\CADD\I–006D.DWG Scale:1:1/2 Saved Date:5/31/2019 Time:14:24 Plot Date: Seabrun, Kuron; 7/12/2022; 06:32 ; Layout:132

User:KSEABRUN Spec:AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-007.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:24 Plot Date: Seabrun, Kuron; 7/11/2022; 14:14 ; Layout:I-34

READY IN AUTO IL 0912 | HS 0912 | OPEN ZSI 0912 | CLOSED ZSI 0912

OPEN IL 0912 | CLOSED IL 0912

HS 0912 L/S/R

HS 0912 O/C

FV 0912 | ZSH 0912 | ZSL 0912

SODIUM HYPOCHLORITE I-11

SEDIMENTATION BASIN EFFLUENT I-4 — 42SBE(DI)

PLANT WATER (W3) — 6W3(DIP) — 0914 0912

EXISTING — FV 31052

COMBINATION AIR RELEASE/VACUUM RELIEF VALVE — 18WWW(DI) — FV 0106

AIR RELEASE VALVE — 18WWW(DI) — FV 0306

AIR RELEASE VALVE — 18WWW(DI) — FV 0506

AIR RELEASE VALVE — 18WWW(DI) — FV 0706

AIR RELEASE VALVE — 18WWW(DI) — FV 0906

AIR RELEASE VALVE — 18WWW(DI) — FV 1106

18WWW(DI) — 24WWW(DI) — WASTE WASHWATER PUMP STATION I-9

12WWW(DI) — 36FEFF(DI)

OC 0103 | OC 0303 | OC 0503 | OC 0703 | OC 0903 | OC 1103

FV 0104 8BA(SS) FV 0105 | FV 0304 8BA(SS) FV 0305 | FV 0504 8BA(SS) FV 0505 | FV 0704 8BA(SS) FV 0705 | FV 0904 8BA(SS) FV 0905 | FV 1104 8BA(SS) FV 1105

12BA(SS) — 12BA(SS) — WASHWATER AIR FROM BLOWERS

SLG 0301 | SLG 1301 | SLG 1302

SLG 0101 | SLG 0102 | LIT 0107 — SLG 0301 | SLG 0302 | LIT 0307 — SLG 0501 | SLG 0502 | LIT 0507 — SLG 0701 | SLG 0702 | LIT 0707 — SLG 0901 | SLG 0902 | LIT 0907 — SLG 1101 | SLG 1102 | LIT 1107

SLG 0201 | SLG 0202 | LIT 0207 — SLG 0401 | SLG 0402 | LIT 0407 — SLG 0601 | SLG 0602 | LIT 0607 — SLG 0801 | SLG 0802 | LIT 0807 — SLG 1001 | SLG 1002 | LIT 1007 — SLG 1201 | SLG 1202 | LIT 1207

300F(DI)

SLG 1401 | SLG 1402

12BA(SS) — WASHWATER AIR FROM BLOWERS

FV 0204 8BA(SS) FV 0205 | FV 0404 8BA(SS) FV 0405 | FV 0604 8BA(SS) FV 0605 | FV 0804 8BA(SS) FV 0805 | FV 1004 8BA(SS) FV 1005 | FV 1204 8BA(SS) FV 1205

OC 0203 | OC 0403 | OC 0603 | OC 0803 | OC 1003 | OC 1203

18WWW(DI) — 36FEFF(DI)

12WWW(DI) — 30FEFF(DI)

FV 0206 | FV 0406 | FV 0606 | FV 0806 | FV 1006 | FV 1206

18WWW(DI)

COMBINATION AIR RELEASE/VACUUM RELIEF VALVE — AIR RELEASE VALVE — AIR RELEASE VALVE — AIR RELEASE VALVE — AIR RELEASE VALVE — AIR RELEASE VALVE

42FEFF(DI) — SODIUM BISULFITE INJECTION VAULT I-8

42SBE(DI) — WRC TRICKLING FILTERS

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NOTES:

1. ALL MOTOR OPERATED VALVES ARE TYPICAL TO LOOP 0912.

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

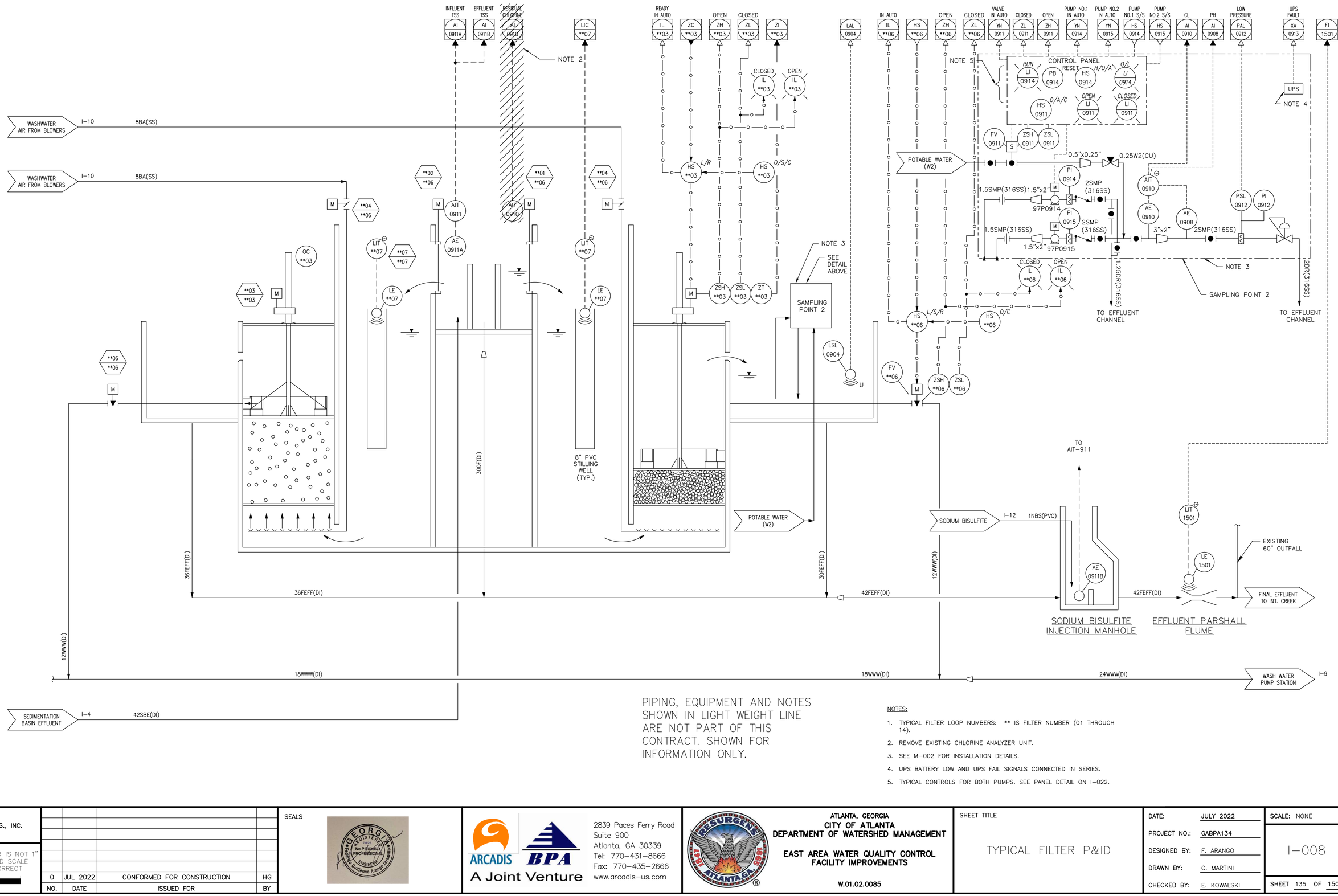
FILTER SYSTEM P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-007

SHEET 134 OF 150



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NOTES:

1. TYPICAL FILTER LOOP NUMBERS: ** IS FILTER NUMBER (01 THROUGH 14).
2. REMOVE EXISTING CHLORINE ANALYZER UNIT.
3. SEE M-002 FOR INSTALLATION DETAILS.
4. UPS BATTERY LOW AND UPS FAIL SIGNALS CONNECTED IN SERIES.
5. TYPICAL CONTROLS FOR BOTH PUMPS. SEE PANEL DETAIL ON I-022.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

TYPICAL FILTER P&ID

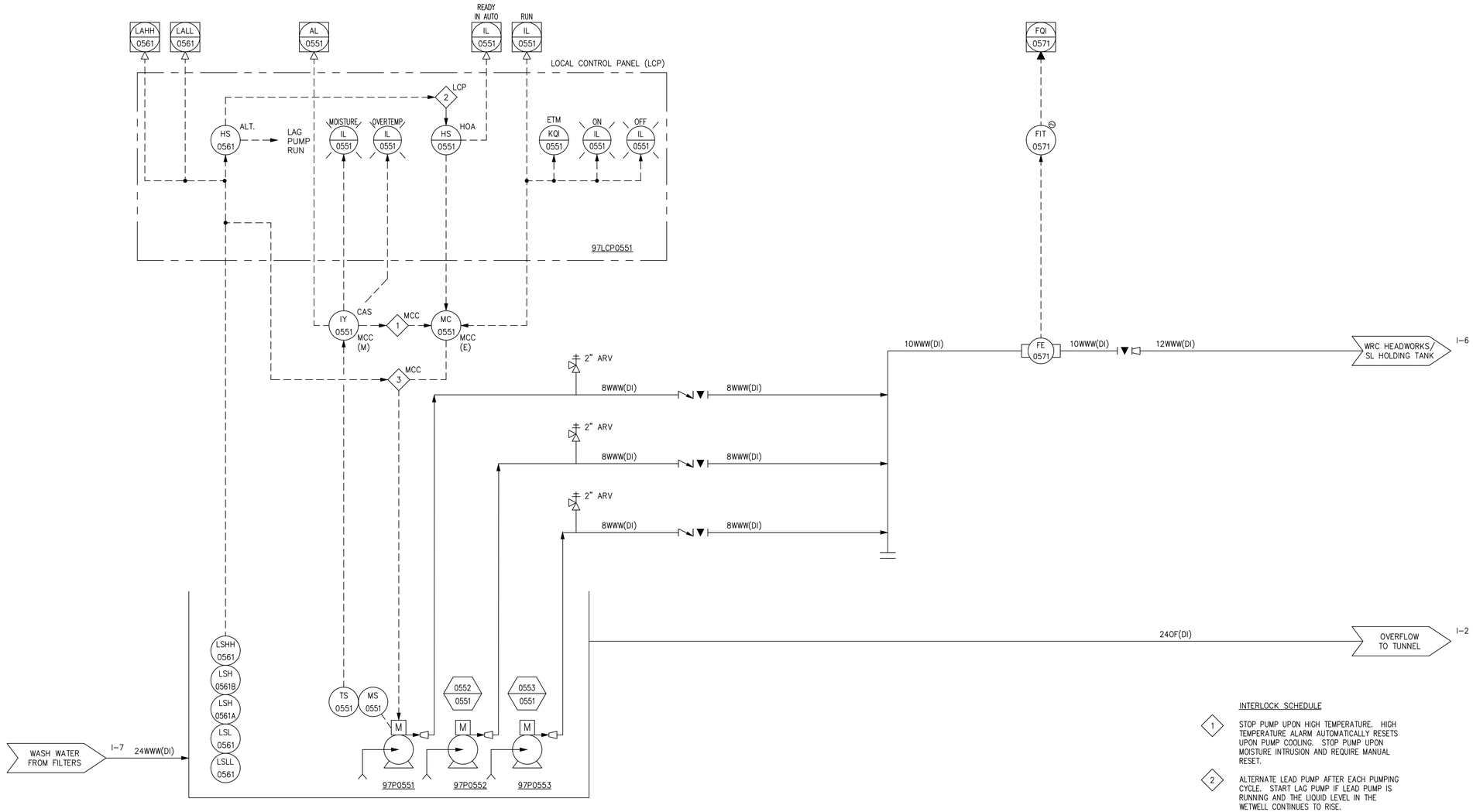
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-008

SHEET 135 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACADVPROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-008.DWG Scale:1:1/2 SavedDate:12/8/2020 Time:11:26 Plot Date: Seabrun, Kuron; 7/11/2022; 14:17 : Layout:135



WASTE WASHWATER PUMPING STATION

INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING. STOP PUMP UPON MOISTURE INTRUSION AND REQUIRE MANUAL RESET.
2. ALTERNATE LEAD PUMP AFTER EACH PUMPING CYCLE. START LAG PUMP IF LEAD PUMP IS RUNNING AND THE LIQUID LEVEL IN THE WETWELL CONTINUES TO RISE.
3. DISABLE ALL PUMPS ON LOW LOW LEVEL.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

WASTE WASHWATER PUMPING STATION P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: F. ARANGO
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

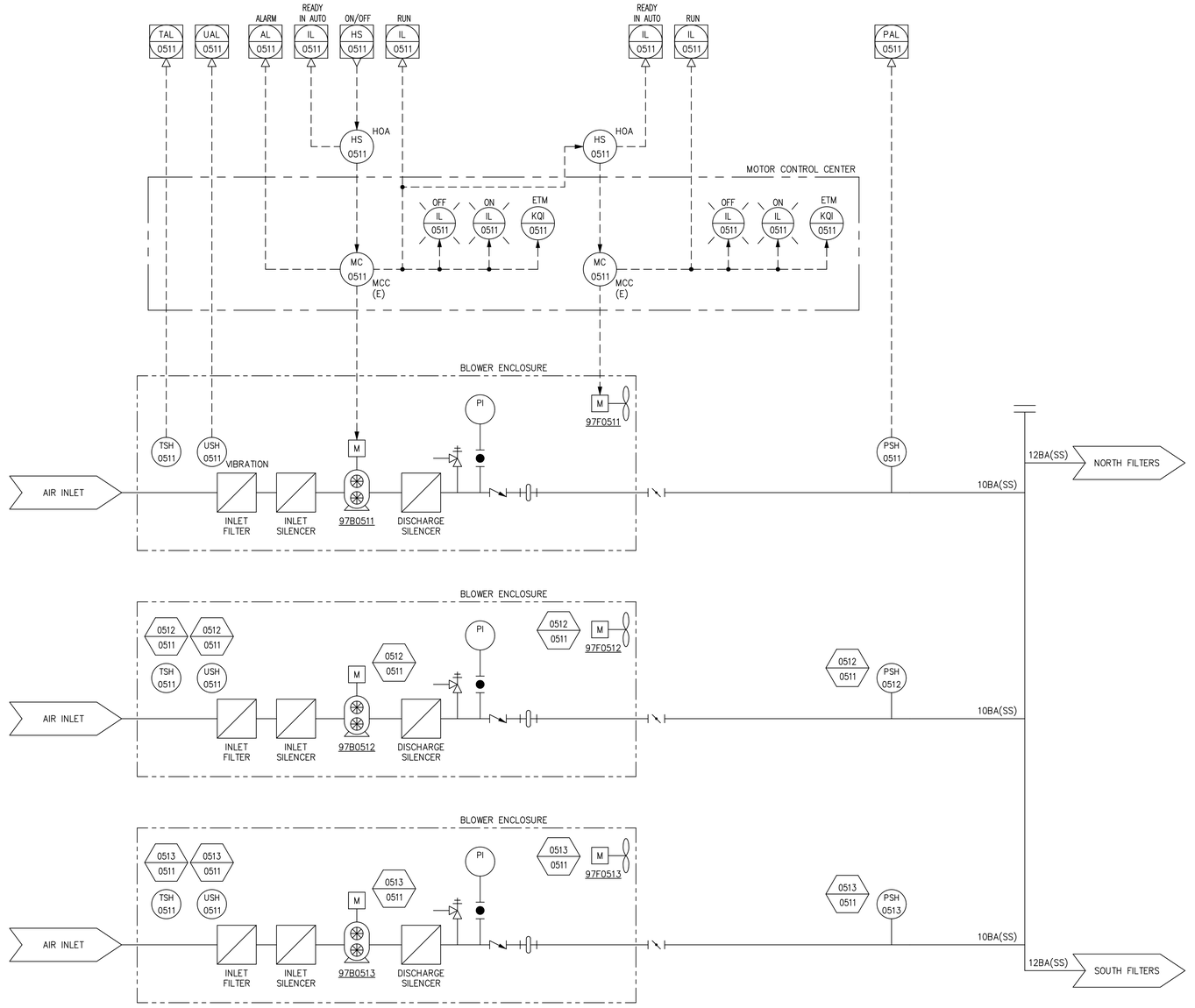
SCALE: NONE

I-009

SHEET 136 OF 150

User:KSEABRUN Spec:AUS-NOSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-009.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:25 Plot Date: Seabrun, Kuron, 7/11/2022, 14:22 ; Layout:136

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA020ATA\AUTOCAD\ACAD\PRO\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-010.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:26 Plot Date: Seabrun, Kuron: 7/11/2022: 14:29 : Layout:137



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W.01.02.0085

SHEET TITLE

WASTE WASHWATER BLOWERS
P&ID

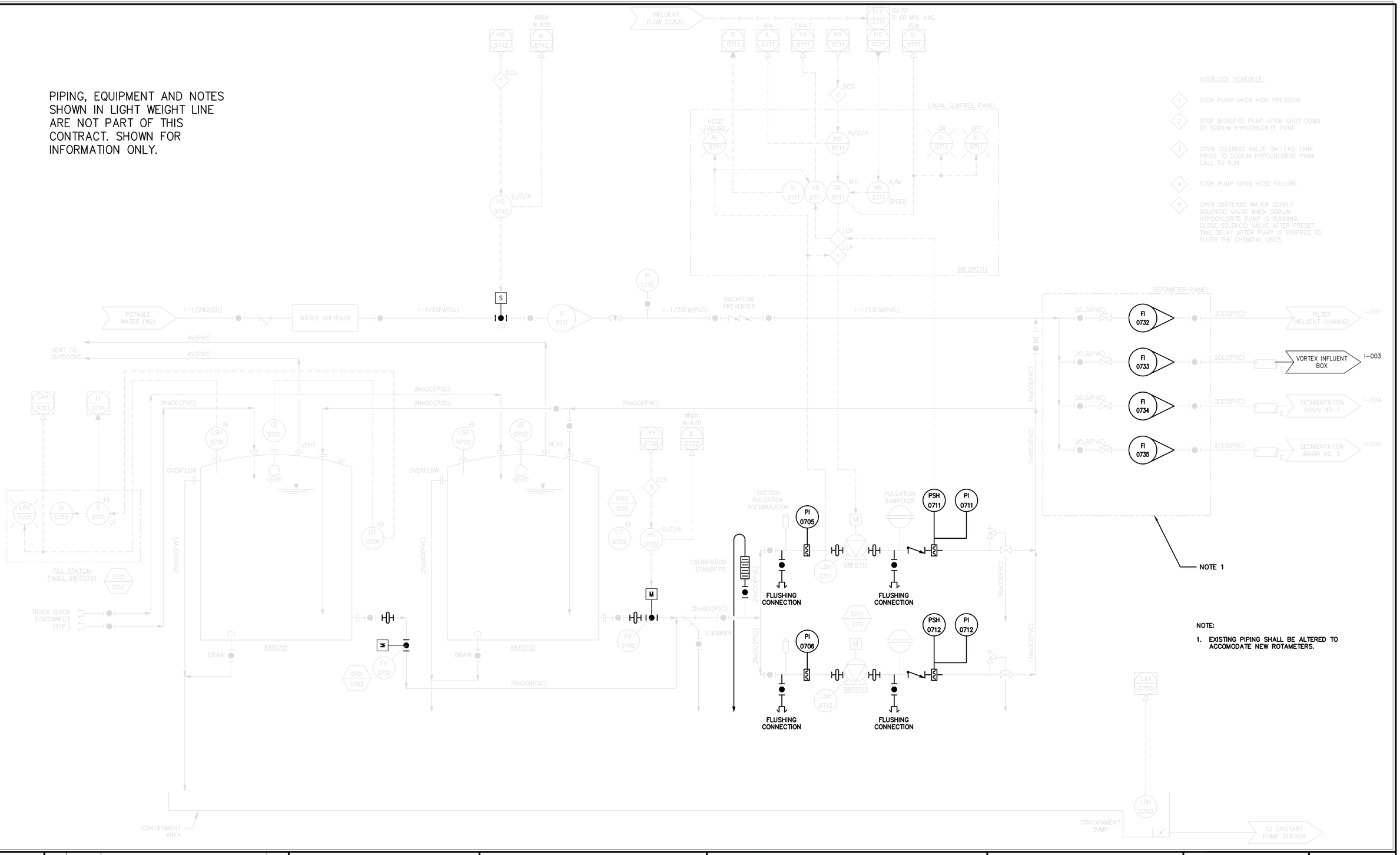
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-010

SHEET 137 OF 150

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INTERLOCK SCHEDULE:

1. STOP PUMP UPON HIGH PRESSURE
2. STOP BISULFITE PUMP UPON SHUT DOWN OF SODIUM HYPOCHLORITE PUMP
3. OPEN SOLENOID VALVE ON LEAD TANK PRIOR TO SODIUM HYPOCHLORITE PUMP CALL TO RUN
4. STOP PUMP UPON HOSE FAILURE.
5. OPEN SOFTENED WATER SUPPLY SOLENOID VALVE WHEN SODIUM HYPOCHLORITE PUMP IS RUNNING. CLOSE SOLENOID VALVE AFTER PRESET TIME DELAY AFTER PUMP IS STOPPED TO FLUSH THE CHEMICAL LINES.

NOTE:

1. EXISTING PIPING SHALL BE ALTERED TO ACCOMODATE NEW ROTAMETERS.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

EA WQCF SODIUM HYPOCHLORITE SYSTEM P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	H. GIACOMIN
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

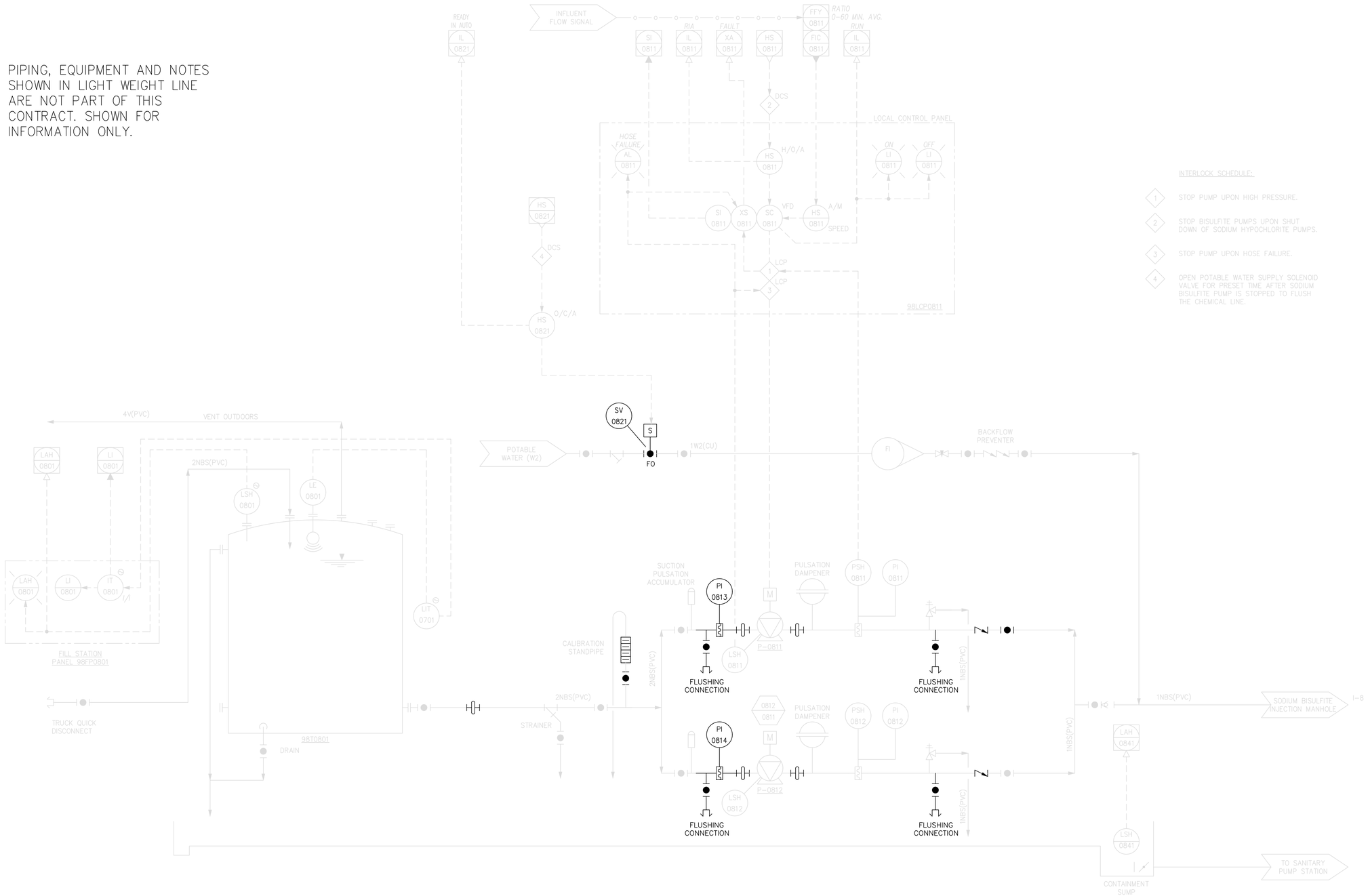
SCALE: NONE

I-011

SHEET 138 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:C:\USERS\KSEABRUN\ONEDRIVE - ARCADIS\DOCUMENTS\TASK FILES\BP2_AS_COPY\CADD\C DRAWINGS\CAD\I-011.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:26 Plot Date: Seabrun, Kuron, 7/12/2022, 11:45 ; Layout:I38

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W.01.02.0085

SHEET TITLE

EA WQCF SODIUM BISULFITE SYSTEM P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: H. GIACOMIN
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

SCALE: NONE

I-012

SHEET 139 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:C:\USERS\KSEABRUN\ONEDRIVE - ARCADIS\DOCUMENTS\TASK FILES\BP2_KS_COPY\CADD\C_DRAWINGS\CAD\C-012.DWG Scale:1:1 Scale:1:1/2 SavedDate:7/31/2019 Time:17:43 Plot Date: Seabrun, Kuron; 7/12/2022; 11:52 ; Layout:139

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INFLUENT FLOW SIGNAL

FFY 0211 RATIO 0-60 MIN. AVG.

FIC 0211 RUN

SI 0211 RIA

IL 0211 FAULT

XA 0211

HS 0211

IL 0211

LAH 3102

LI 3102

HS 3102

READY IN AUTO IL 3102

READY IN AUTO IL 0220

HS 0220

DCS 2

LOCAL CONTROL PANEL

HOSE FAILURE AL 0211

H/O/A HS 0211

ON LI 0211

OFF LI 0211

SI 0211

XS 0211

SC 0211 VFD

HS 0211 A/M

SPEED

DCS 4

O/C/A HS 0220

LCP 1

LCP 4

98LCP0211

SEE E-38 FOR WIRING DIAGRAMS

INTERLOCK SCHEDULE:

1. STOP PUMP UPON HIGH PRESSURE
2. OPEN SOLENOID VALVE ON LEAD TANK PRIOR TO FERRIC CHLORIDE PUMP CALL TO RUN.
3. STOP PUMP UPON HOSE FAILURE.
4. OPEN POTABLE WATER SUPPLY SOLENOID VALVE FOR PRESET TIME DELAY AFTER FERRIC CHLORIDE PUMP IS STOPPED TO FLUSH THE CHEMICAL LINE.

DCS 2

VENT

VENT

2FCL(PVC)

2FCL(PVC)

LSH 3102

LE 3102

POTABLE WATER (W2)

1W2(CU) FO

S

SV 0220

FI

BACKFLOW PREVENTER

WYE CHECK VALVE

LAH 3102

LI 3102

IT 3102 I/I

FILL STATION PANEL 98FP0701

3102 3107

TRUCK QUICK DISCONNECT (TYP.)

EXISTING 94T3102

HS 3102 O/C/A

LIT 3102

EXISTING BALL VALVE TO STAY

SV 3102

S

S

2FCL(PVC)

EXISTING BALL VALVE TO STAY

SV 3107

LSH 3107

LE 3107

LIT 3107

EXISTING 94T3107

2FCL(PVC)

CALIBRATION STANDPIPE

2FCL(PVC)

STRAINER

SUCTION PULSATION ACCUMULATOR

M

94P0211

LSH 0211

PULSATION DAMPENER

PSH 0711

PI 0711

1FCL(PVC)

0212 0211

M

94P0212

LSH 0211

PULSATION DAMPENER

PSH 0712

PI 0712

1FCL(PVC)

1FCL(PVC)

E

1FCL(PVC)

E

RAPID MIX TANK I-3

1FCL(PVC)

E

HEAD BOX I-3

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GEORGIA REGISTERED 1905 No P 022961 PROFESSIONAL ENGINEER Ramiro Guillermo Arango Jaramillo

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

FERRIC CHLORIDE SYSTEM P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: F. ARANGO
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

SCALE: NONE

I-013

SHEET 140 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-013.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:27 Plot Date: Seabrun, Kuron: 7/11/2022: 14:43 : Layout:140

User:KSEABRUN Spec:AIS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-014.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:27 Plot Date: Seabrun, Kuron: 7/11/2022: 14:47 : Layout:141

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INTERLOCK SCHEDULE:

1. STOP PUMP UPON HIGH PRESSURE
2. STOP PUMP UPON HOSE FAILURE.
3. STOP BATCH IF EITHER OVERFLOW FLOAT SWITCH OR ULTRASONIC LSHH CONTACT IS ACTIVATED.

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

POLYMER SYSTEM P&ID

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-014

SHEET 141 OF 150

User:KSEABRUN Spec: AUS-NCSM00 File: \\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-015.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:14:28 Plot Date: Seabrun, Kuron: 7/11/2022: 14:53 : Layout:142

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OPEN ZL 0252 · CLOSED ZH 0252 · READY IN AUTO IL 0252 · HS 0252 · OPEN IL 0371 · CLOSED IL 0252 · L/S/R · O/C

LSH 0316 · HS 0312 · READY IN AUTO IL 0312 · RUN IL 0312 · READY IL 0316 · HOA · ON IL 0312 · OFF IL 0312 · ETM KQI 0312 · MC 0312 · LCP (M)

INITIATE FLUSH IL 0312A · READY IN AUTO IL 0312A · HS 0312A PB · HS 0312A O/C/R · OPEN ZH 0312A · OPEN IL 0312A · LOCAL CONTROL PANEL

ZSH 0252 · ZSL 0252 · FV 0252 · M

PLANT WATER (W3) — 3W3(DI)

3/4VAC(PVC) · 96P0312 · 1/2VAC(PVC) · 0312B 0312A · FV 0312B · 0312C 0312A · ZSH 0312A · FV 0312A · LSH 0316 · FV 0312C · DIAPHRAGM VACUUM BLADDER (TYP.)

0311B 0312A · FV 0311B · 0311C 0312A · 0311A 0312A · FV 0311A · 0315 0316 · LSH 0315 · FV 0311C

FLUSHING LANE "B"

FLUSHING LANE "A"

GRIT SETTLING BASIN NO. 1

PLANT WATER (W3) — 3W3(DI) · 0251 0252 · FV 0251

24GR(DI) — GRIT PUMPING STATION

GRIT SETTLING TANK NO. 2 LOOP NUMBERS:

LANE A:	VACUUM SYSTEM LOOP NUMBER:	0321
	FILL VALVE LOOP NUMBER:	0261
	LEVEL SWITCH LOOP NUMBER:	0325
LANE B:	VACUUM SYSTEM LOOP NUMBER:	0322
	FILL VALVE LOOP NUMBER:	0262
	LEVEL SWITCH LOOP NUMBER:	0326

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

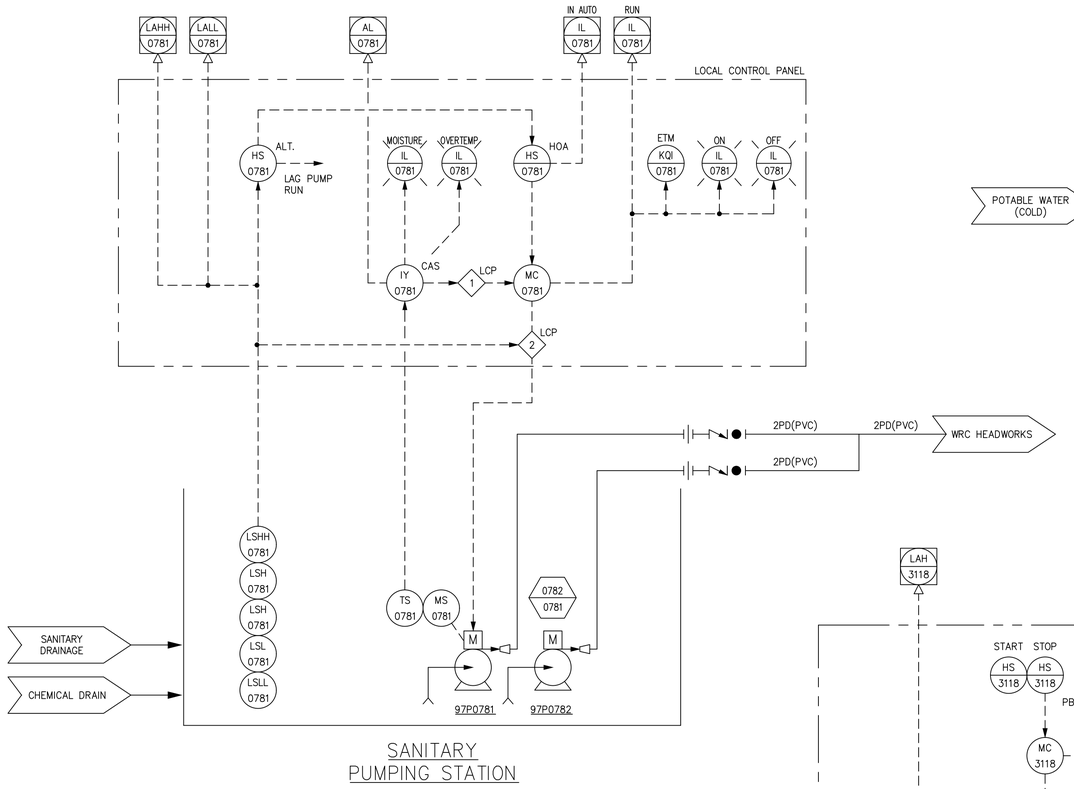
GRIT SETTLING TANK FLUSHING SYSTEM P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: F. ARANGO
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

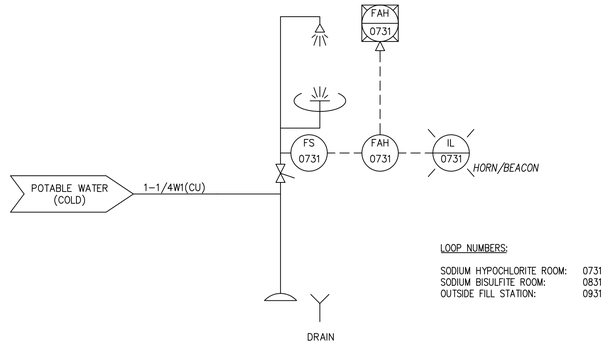
SCALE: NONE

I-015

SHEET 142 OF 150



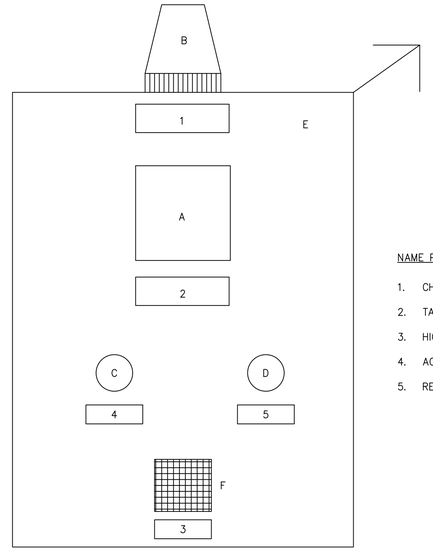
SANITARY
PUMPING STATION



SAFETY SHOWER AND
EYE WASH STATION

LOOP NUMBERS:

SODIUM HYPOCHLORITE ROOM: 0731
SODIUM BISULFITE ROOM: 0831
OUTSIDE FILL STATION: 0931



NAME PLATE LEGEND:

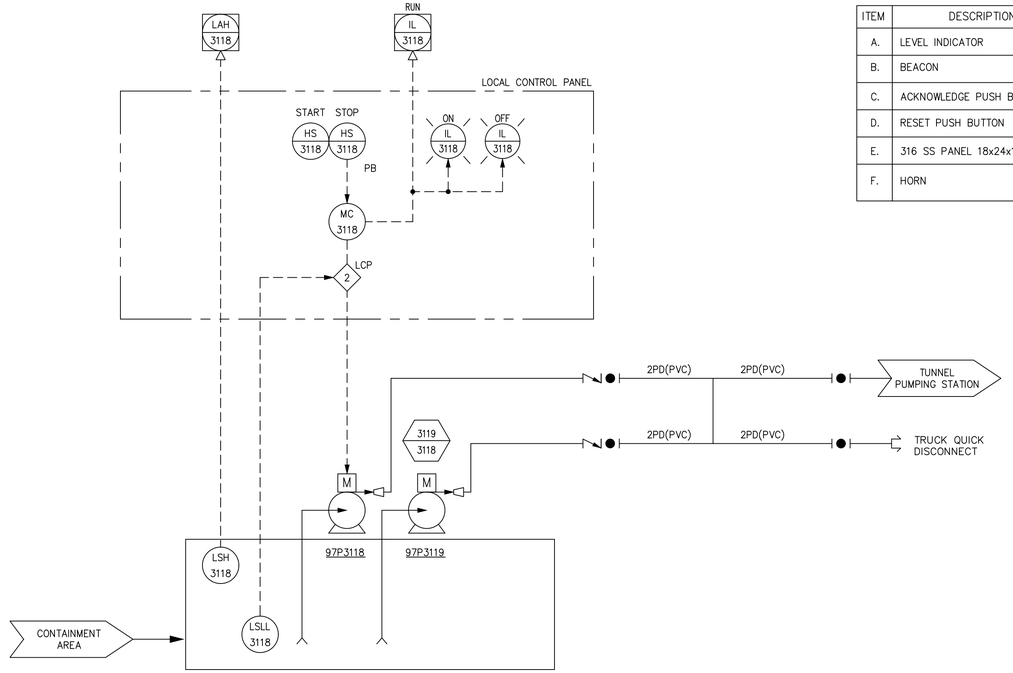
1. CHEMICAL FILL PANEL
2. TANK LEVEL
3. HIGH ALARM
4. ACKNOWLEDGE
5. RESET

ITEM	DESCRIPTION	MANUFACTURER	MODEL
A.	LEVEL INDICATOR	PRECISION DIGITAL	PD655-46 (WITH 4~20MA OUTPUT)
B.	BEACON	EDWARDS SIGNALING	104ST SERIES ADAPTABEACON STROBES NEMA 4X
C.	ACKNOWLEDGE PUSH BUTTON	ALLEN BRADLEY	800T SERIES 30.5MM NEMA TYPE
D.	RESET PUSH BUTTON	ALLEN BRADLEY	800T SERIES 30.5MM NEMA TYPE
E.	316 SS PANEL 18x24x12 MINIMUM		18x24x12 316SS
F.	HORN	EDWARDS SIGNALING	ADAPTAHORN VIBRATION HORN 876 & 877 SERIES NEMA 4X

CHEMICAL FILL STATION

INTERLOCK SCHEDULE

1. STOP PUMP UPON HIGH TEMPERATURE. HIGH TEMPERATURE ALARM AUTOMATICALLY RESETS UPON PUMP COOLING. STOP PUMP UPON MOISTURE INTRUSION AND REQUIRE MANUAL RESET.
2. SHUT DOWN ALL PUMP UPON LOW LOW LEVEL IN THE WETWELL OR SUMP.



CHEMICAL BUILDING
WASTE CHEMICAL
PUMPS

PIPING, EQUIPMENT AND NOTES SHOWN IN LIGHT WEIGHT LINE ARE NOT PART OF THIS CONTRACT. SHOWN FOR INFORMATION ONLY.

User:KSEABRUN Spec:AUS-NCSMOD File:C:\USERS\KSEABRUN\ONEDRIVE - ARCADIS\DOCUMENTS\TASK FILES\BP2_KS_COPY\CADD\C DRAWINGS\CAD\I-016.DWG Scale:1:1/2 SavedDate:5/31/2019 Time:13:27 Plot Date: Seabrun, Kuron; 7/12/2022; 06:40 ; Layout:143

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CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

MISCELLANEOUS P&ID DETAILS

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-016

SHEET 143 OF 150

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-017.DWG Scale:1:1 SavedDate:7/8/2022 Time:12:29 Plot Date: Seabrun, Kuron 7/11/2022 15:46 : Layout:144

INTERLOCK SCHEDULE

1. STOP DRIVE UPON OPERATION OF THE EMERGENCY STOP PUSHBUTTON.
2. STOP DRIVE UPON HIGH-HIGH TORQUE. REQUIRES MANUAL RESET.
3. HIGH TORQUE WARNING
4. STOP DRIVE UPON HIGH MOTOR WINDING TEMPERATURE. REQUIRES MANUAL RESET.

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SPEED COMMAND SC 3501 | DRIVE S/S HS 3501 | SPEED FEEDBACK SI 3501 | O/L IA 3501 | E-STOP YN 3501B | VFD FAIL XA 3501B | IN-REMOTE YN 3501 | RUN MN 3501 | TORQUE WARNING XA 3501C | TORQUE ALARM XA 3501D | HIGH MOTOR WINDING TEMPERATURE XA 3501E | SLUDGE TANK LEVEL LI 3502

I-018 TO FOXBORO DISPLAYS

A

LOCAL CONTROL STATION

ON LI 3501 | HIGH-WINDING TEMP. LI 3501 | HIGH TORQUE LI 3501 | HIGH-HIGH TORQUE LI 3501

O/L IA 3501 | VFD FAIL UA 3501 | RESET PB 3501 | E-STOP HS 3501

SPEED SI 3501 | S/S PB 3501 | SPEED SC 3501 | L/O/R HS 3501

VFD PANEL

VFD 1 | VFD 2 | VFD 3 | VFD 4

BELT FILTER PRESS CONTROL PANEL CP-BFP

SUPPLIED UNDER SECTION 11521

CONTINUED ON I-018

LIT 3502

WSHH 3501 | WSH 3501 | TSH 3501

M

I-005 SEDIMENTATION BASIN SLUDGE PUMPS

8SL(HDPE) 8SL(DI)

LE 3502

U

100F(DI)

SLUDGE HOLDING TANK 81T3501

10DR(DI) 8DR(DI)

8TS(HDPE) 8TS(DI) I-018 BFP FEED PUMP

8TS(DI)

I-019 BELT FILTER PRESS

10DR(DI)

I-002 PLANT DRAIN

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SEALS

GEORGIA REGISTERED No P 036674 PROFESSIONAL ENGINEER Federico Guillermo Aranda Manfredini 12/22

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE THICKENING P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: J. BROWN
CHECKED BY: E. KOWALSKI

SCALE: NONE

I-017

SHEET 144 OF 150

User:KSEABRUN; Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA0220ATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-018.DWG Scale:1:1 SavedDate:12/8/2020 Time:14:30 Plot Date: Seabrun, Kuron; 7/11/2022, 15:18 ; Layout:145

IN-REMOTE YN 3612 | O/L UA 3612A | JAMMED UA 3612B | RUN MN 3612

HIGH PRESSURE PAH 3602 | SPEED F/B SI 3602 | E-STOP UA 3602A | O/L UA 3602B | VFD FAIL UA 3602C | IN-REMOTE YN 3602 | RUN MN 3602 | LOW PRESSURE PAL 3602

FROM FOXBORO DISPLAYS — I-017

TO FOXBORO DISPLAYS — I-019

BELT FILTER PRESS REMOTE IO CONTROL PANEL
CP-BFP-RIO

BELT FILTER PRESS CONTROL PANEL
CP-BFP

CONTINUED ON I-017

CONTINUED ON I-019

IL 3701
POWER ON

SUPPLIED UNDER SECTION 11521 (NOTE 1)

REMOTE I/O ETHERNET NETWORK

SUPPLIED UNDER SECTION 11521 (NOTE 1)

INTERLOCK SCHEDULE:

1. STOP PUMP UPON OPERATION OF THE EMERGENCY STOP PUSHBUTTON.
2. STOP PUMP UPON LOW SUCTION PRESSURE. REQUIRES MANUAL RESET.
3. STOP PUMP UPON HIGH DISCHARGE PRESSURE. REQUIRES MANUAL RESET.
4. START GRINDER WHEN PUMP IS CALLED TO RUN. GRINDER SHOULD BE HARDWIRED INTERLOCKED WITH THE PUMP. BOTH SHOULD RUN SIMULTANEOUSLY.

SUPPLIED UNDER SECTION 11134

GRINDER CONTROL PANEL

HS 3612A L/O/R | XS 3612 | MC 3612 | HS 3612B F/O/J

POWER ON IA 3612A | RUN IA 3612B | O/L IA 3612C | JAMMED IA 3612D

VFD

SI 3602 | XS 3602 | MC 3602 VFD

4 VFD | 2 VFD | 1 VFD | 3 VFD

ON LI 3602 | LOW PRESS. LI 3602 | HIGH PRESS. LI 3602 | O/L IA 3602 | VFD FAIL LI 3602 | PB 3602 RESET | HS 3602 E-STOP

SI 3602 SPEED F/B | PB 3602 S/S | SC 3602 SPEED CMD | HS 3602 L/O/R

EXISTING 8TS(DI) PIPE

I-017 SLUDGE THICKENER — 8TS(DI) — 6TS(DI)

M — 82G3612 GRINDER NO. 1

PSL 3602 | PI 3602 | PSH 3602 | PI 3602 | M — 82P3602 PUMP NO. 1

6TS(DI) — 3/4" — I-019 BELT FILTER PRESS

3614 3612

M — 82G3614 GRINDER NO. 2

3604 3602

PSL 3604 | PI 3604 | PSH 3604 | PI 3604 | M — 82P3604 PUMP NO. 2

6TS(DI) — 3/4" — I-019 BELT FILTER PRESS

6TS(DI) — 4W3(DI) — 4W3(DI)

NOTES:

1. SLUDGE FEED PUMPS AND GRINDER DISPLAY SIGNAL REQUIREMENTS AND SIGNALS SENT TO DCS SYSTEM ARE NOT SHOWN. SEE SPECIFICATION SECTION 11521 AND 17100 FOR COMPLETE DISPLAY CONFIGURATION AND LIST OF SIGNALS SHARED WITH THE FOXBORO DCS.

PLANT WATER (W3) — 3W3(DI) — 4W3(DI) — 4W3(DI) — PI 3605 — 4W3(DI)

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SEALS

GEORGIA REGISTERED 1922 No. PE026671 PROFESSIONAL ENGINEER Patrick Guillermo Arango Jaramillo

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SOLIDS PROCESSING BUILDING
P&ID

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: M. BRONSTEIN
DRAWN BY: J. BROWN
CHECKED BY: E. KOWALSKI

SCALE: NONE

I-018

SHEET 145 OF 150

User:KSEARBRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-019.DWG Scale:1:1 SavedDate:12/8/2020 Time:14:32 Plot Date: Seabrun, Kuron; 7/11/2022; 15:13 ; Layout:146

POLYMER SYSTEM RUN MN 3701
POLYMER SYSTEM FAIL XA 3701
POLYMER SYSTEM SPEED FEEDBACK SI 3701
POLYMER SYSTEM IN REMOTE YA 3701
POLYMER SYSTEM FLOW FI 3701
SLUDGE FEED FLOW FI 3710
MIS-ALIGNMENT UA 3730
ZERO SPEED SI 3730
E-STOP YA 3730
RUN MN 3730
IN REMOTE YN 3730
OL XA 3730
PULL CORD YA 3730B

FROM FOXBORO DISPLAYS I-018

ETHERNET IP

INTERLOCK SCHEDULE

1. ACTIVATION OF ZERO MOTION SHALL SHUT DOWN CONVEYOR AFTER A TIME DELAY. ZERO MOTION MUST BE RESET AT THE BCP.
2. BELT ALIGNMENT SHALL SHUTDOWN CONVEYOR. BELT MISALIGNMENT MUST BE RESET AT THE BCP.
3. ACTIVATION OF PULL CORD OR E-STOP SHALL SHUTDOWN CONVEYOR. PULL CORD MUST BE RESET AT THE SWITCH AND THEN AT THE BCP.

NOTES:

1. POLYMER SYSTEM SHALL BE CONTROLLED AND MONITORED BY BFP. SEE SPECIFICATION SECTION 11521 FOR IO REQUIREMENTS.
2. BELT CONVEYOR SHALL BE CONTROLLED AND MONITORED BY BFP CONTROL PANEL. SEE SPECIFICATION SECTION 11521 FOR IO REQUIREMENTS.
3. BFP DISPLAY SIGNAL REQUIREMENTS AND SIGNALS SENT TO DCS SYSTEM ARE NOT SHOWN. SEE SPECIFICATION SECTION 11521 AND 17100 FOR COMPLETE DISPLAY CONFIGURATION AND LIST OF SIGNALS SHARED WITH THE FOXBORO DCS.
4. BLIND FLANGE FOR FUTURE PLANT WATER CONNECTION.

CONTINUED ON I-018

IL 3701 POWER ON
HS 3701 ON/OFF
OIT
PB 3701 RESET
PB 3701 E-STOP
PB 3701 ALARM ACK.

BELT FILTER PRESS CONTROL PANEL CP-BFP
SUPPLIED UNDER SECTION 11521

BELT CONVEYOR PANEL CP-BCP
HS 3730 L/O/R
PB 3730 RESET
PB 3730 S/S
PB 3730 ESTOP
IL 3730 PULL CORD
IL 3730 OVERLOAD
IL 3730 RUN
IL 3730 ZERO SPEED
IL 3730 MISALIGNMENT

NOTE 1
NOTE 3
NOTE 2
SUPPLIED UNDER SECTION 14620

BCP 3
BCP 2
BCP 1

PLANT WATER (W2)
3W2(CU)
1.5W2(CU)
3"x1.5"
PI 3438
SUPPLIED UNDER SECTION 11358

MIXER M
HS
POLYMER TOTE TANK
1POL(PVC)
POLYMER SYSTEM 83POLY3701
PI 3709
1.5POL(PVC)
SAMPLE TAP
1DR(PVC)
FIT 3710
FE 3710
SUPPLIED UNDER SECTION 11521

SOLID PROCESSING PUMPS I-018
6TS(DI)
4TS(HDPE)
4TS(HDPE)
4TS(DI)
SOLID PROCESSING PUMPS I-018
6TS(DI)
4TS(HDPE)
4TS(HDPE)
PLANT WATER (W2)
3W2(CU)

POLYMER MIXER
4TS(DI)
6TS(DI)
PI 3721
BOOSTER PUMP 83P3720
2.5W3(CU)
HYDRAULIC PUMP
PI 3722
WSH 3725
BELT FILTER PRESS 83BFP3720
HSS 3730
ZS 3730
ST 3730
SE 3730
LOADOUT ROLL-OFF CONTAINER
8DR(DI)
NOTE 4
4W3(HDPE)
3W3(HDPE)
3W3(CU)
BELT CONVEYOR 83CON3730
TO PLANT DRAIN I-017

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DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

SLUDGE DEWATERING & POLYMER SYSTEM P&ID

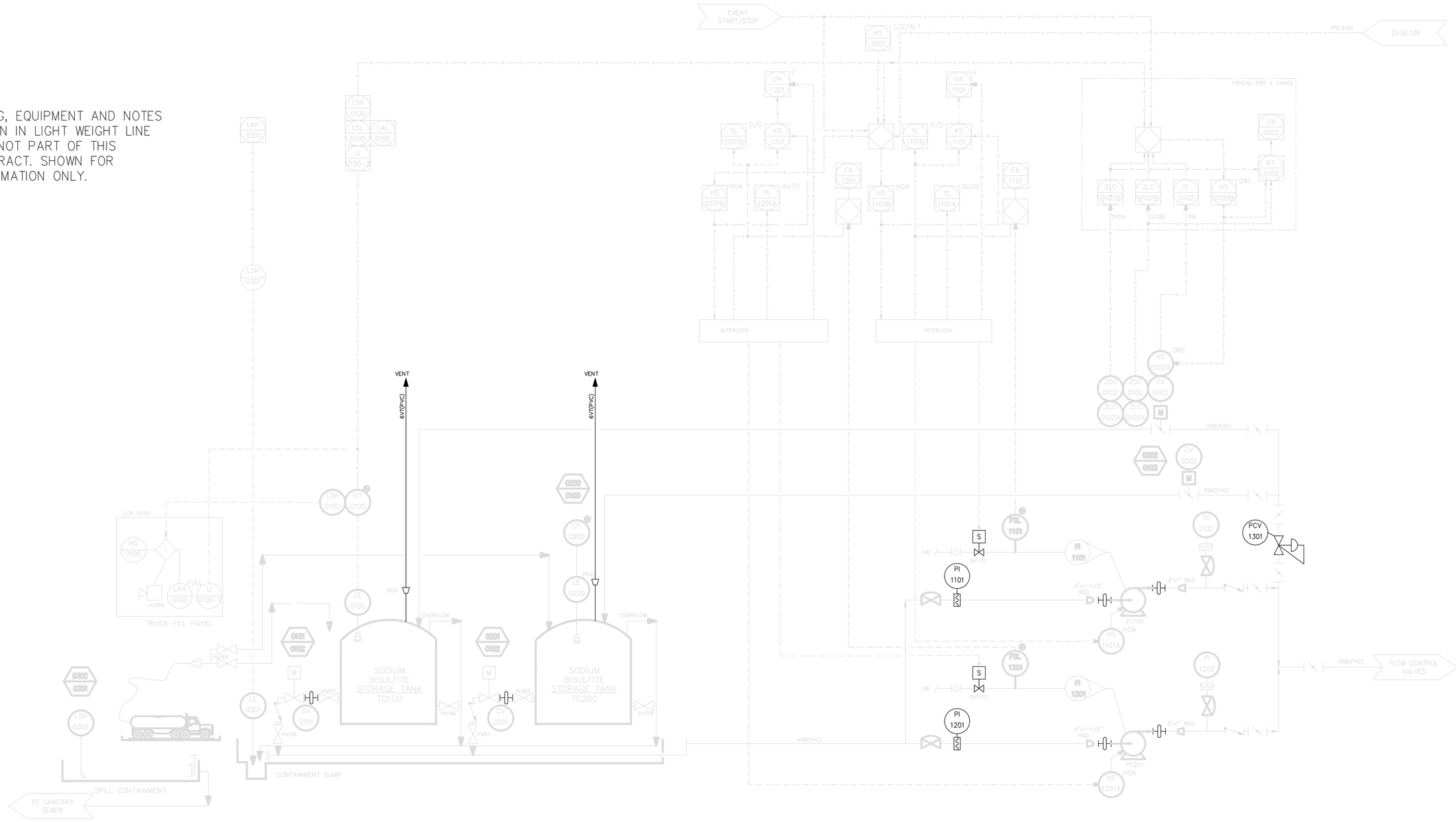
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-019

SHEET 146 OF 150

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

CUSTER AVENUE – SODIUM BISULFITE AND DOSING FACILITIES P&ID

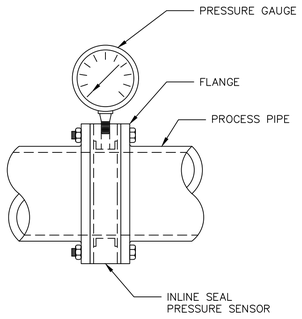
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	H. GIACOMIN
DRAWN BY:	J. BROWN
CHECKED BY:	A. SHARP

SCALE: NONE

I-020

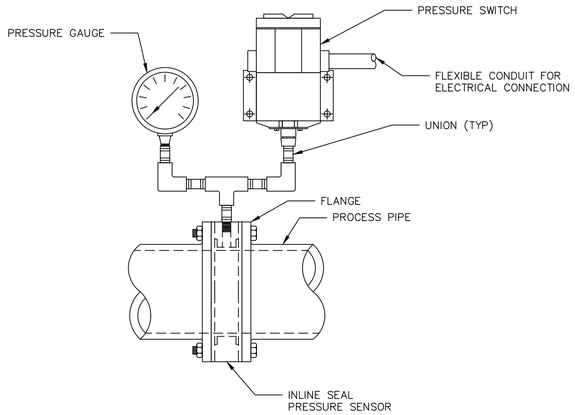
SHEET 147 OF 150

User:KSCARBRUN Spec:AUS-NCSMOD File:C:\USERS\KSCARBRUN\ONEDRIVE - ARCADIS\DOCUMENTS\TASK FILES\GP2_KS_COPY\CADD\C DRAWINGS\CADD\C-020.DWG Scale:1:1 SavedDate:3/28/2019 Time:16:04 Plot Date: Sedbrun, Kuron: 7/12/2022, 12:04 ; Layout:147



1 IN-LINE SEAL AND PRESSURE GAUGE INSTALLATION DETAIL

NOT TO SCALE

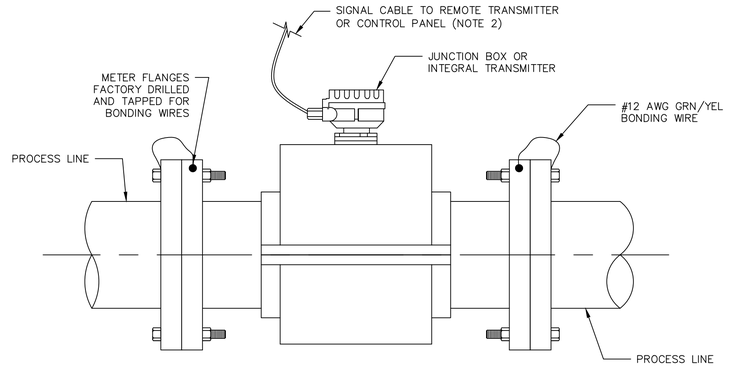


GENERAL NOTES:

A. PRESSURE GAUGE AND SWITCH ASSEMBLY SHALL BE FULLY SUPPORTED.

2 IN-LINE SEAL WITH PRESSURE GAUGE AND PRESSURE SWITCH INSTALLATION DETAIL

NOT TO SCALE



GENERAL NOTES:

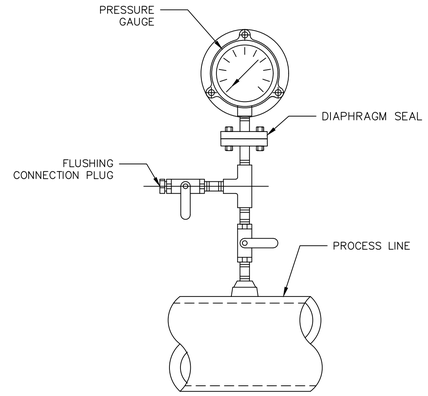
A. FLOW METER DETAIL SHOWN SHALL BE USED FOR BOTH ELECTRICALLY NON-CONDUCTIVE AND CONDUCTIVE TYPE PIPELINES.
B. BOND MAGNETIC FLOW METER TO ONE OF THE FOLLOWING ACCEPTABLE GROUNDS:
   a. METALLIC WATER PIPE IF BURIED PORTION IS MORE THAN 10 FEET.
   b. STRUCTURAL STEEL
C. REMOTE TRANSMITTER SHALL BE LOCATED IN A SUITABLE LOCATION AND TRANSMITTER SHALL BE PEDESTAL MOUNTED OR WALL MOUNTED AS REQUIRED.

NOTES:

1. GROUND WIRE SHALL BE NO. 12AWG INSULATED. IF LENGTH OF GROUND WIRE IS MORE THAN 6 FEET, INSTALL CONDUCTOR IN 3/4" CONDUIT.
2. SIGNAL CABLE SHALL BE INSTALLED IN CONDUIT. CONDUIT NOT SHOWN.
3. PROVIDE POWER TO TRANSMITTER. POWER WIRING AND CONDUIT NOT SHOWN.

3 MAGNETIC FLOW METER INSTALLATION

NOT TO SCALE



NOTE:

1. PROVIDE REDUCING BUSHINGS IN CONNECTION TO EXISTING AS NECESSARY.
2. DIAPHRAGM SEAL NOT REQUIRED FOR W1 AND W2

4 PRESSURE GAUGE INSTALLATION DETAIL

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EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

INSTRUMENT INSTALLATION DETAILS NO. 1

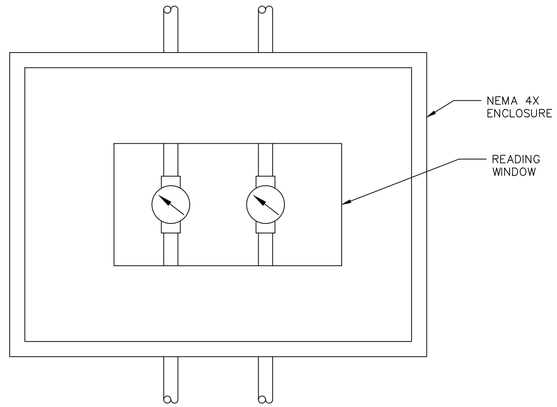
DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	C. MARTINI
CHECKED BY:	E. KOWALSKI

SCALE: NONE

I-021

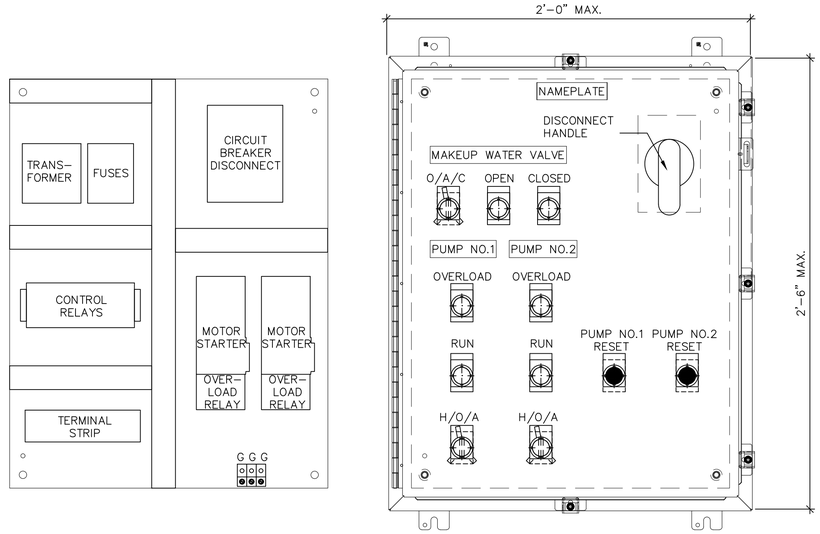
SHEET 148 OF 150

User:KSEABRUN Spec: AUS-NCSM00 File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-021.DWG Scale:1:1 SavedDate:12/8/2020 Time:13:44 Plot Date: Seabrun, Kuron; 7/11/2022; 15:25 ; Layout:148



1 – FLUIDIZING FLOW METER PANEL

NOT TO SCALE

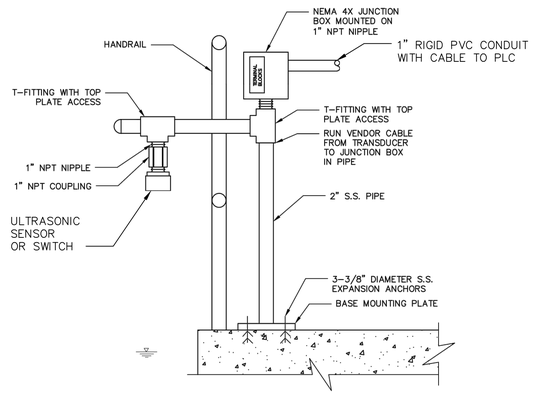


NOTE:

1. WHEN MAKEUP WATER VALVE IS IN AUTO, VALVE SHALL ENERGIZE (TO CLOSE VALVE) WHEN EITHER PUMP IS IN OPERATION AND THE VALVE SHALL DE–ENERGIZE (TO OPEN THE VALVE) WHEN NONE OF THE PUMPS ARE IN OPERATION.

2 – SAMPLING POINT CONTROL PANEL

NOT TO SCALE



GENERAL NOTES:

A. POSTION LEVEL SWITCH 1 FOOT ABOVE MAXIMUM WATER SURFACE LEVEL.

3 – ULTRASONIC LEVEL ELEMENT MOUNTING DETAIL

NOT TO SCALE

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ATLANTA, GEORGIA
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

EAST AREA WATER QUALITY CONTROL FACILITY IMPROVEMENTS

W.01.02.0085

SHEET TITLE

INSTRUMENT INSTALLATION DETAILS 2

DATE: JULY 2022
PROJECT NO.: GABPA134
DESIGNED BY: F. ARANGO
DRAWN BY: C. MARTINI
CHECKED BY: E. KOWALSKI

SCALE: NONE

I–022

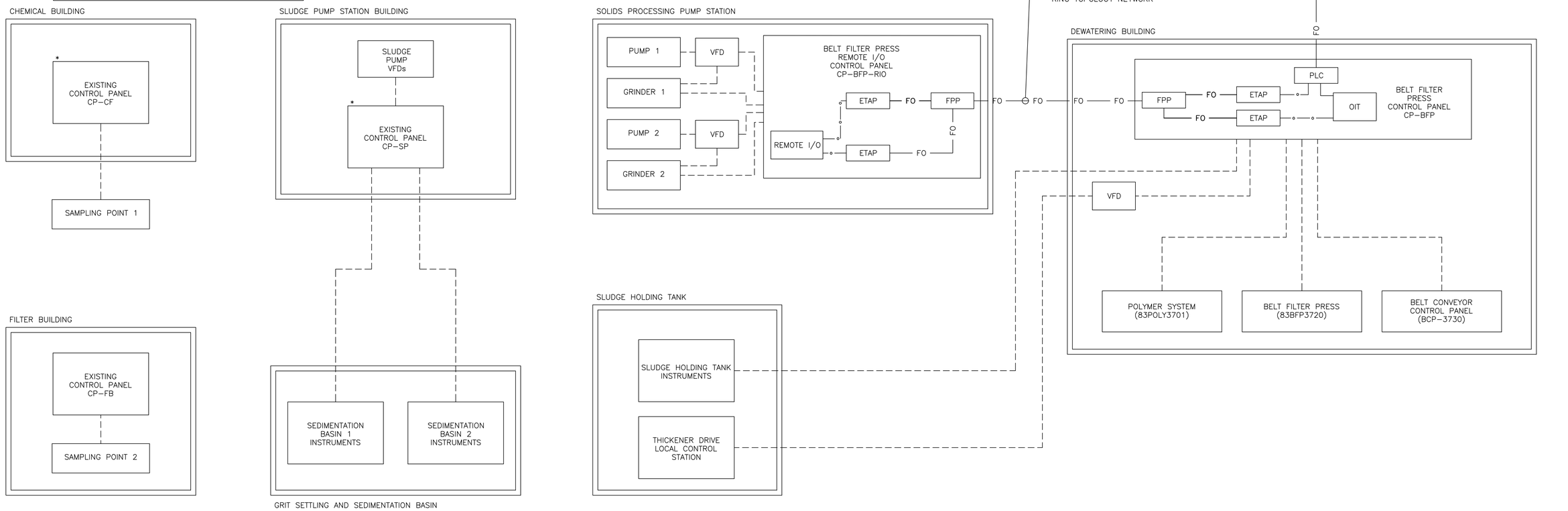
SHEET 149 OF 150

User:KSEABRUN Spec:AUS–NOSMOD File:\\ARCADIS–US.COM\OFFICEDATA\ATLANTA–GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 – CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I–022.DWG Scale:1:1 SavedDate:12/8/2020 Time:11:26 Plot Date: Seabrun, Kuron; 7/11/2022; 15:28 ; Layout:149

User:KSEABRUN Spec:AUS-NCSMOD File:\\ARCADIS-US.COM\OFFICEDATA\ATLANTA-GA\GA02DATA\AUTOCAD\ACAD\PROJ\GABPA134 - CSO GROUP 1\BID PACKAGE 2\SHEETS\INSTRUMENTATION\I-023.DWG Scale:1:1 SavedDate:7/29/2019 Time:10:35 Plot Date: Seabrun, Kuron; 7/11/2022; 15:33 ; Layout:150

LEGEND

- Electrical Hardwired Signals
- ETHERNET/COPPER CAT6 CABLE
- FO — FO — FIBER OPTIC (FO) CABLE OR PATCH CORD
- PANEL LIMITS
- FACILITY/LOCATION LIMITS
- ETH — ETHERNET SWITCH
- FPP — FIBER OPTIC PATCH PANEL
- PLC — PROGRAMMABLE LOGIC CONTROLLER
- OIT — OPERATOR INTERFACE TERMINAL
- VFD — VARIABLE FREQUENCY DRIVE
- ETAP — ETHERNET/IP TAP



NOTES:

* PANELS TO BE RETROFIT BY SECTION 17500.

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IF THIS BAR IS NOT 1" INDICATED SCALE IS INCORRECT

NO.	DATE	ISSUED FOR	BY
0	JUL 2022	CONFORMED FOR CONSTRUCTION	HG

SEALS

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BPA
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SHEET TITLE

CONTROL SYSTEM BLOCK DIAGRAM

DATE:	JULY 2022
PROJECT NO.:	GABPA134
DESIGNED BY:	F. ARANGO
DRAWN BY:	Z. AMIN
CHECKED BY:	E. KOWALSKI

SCALE: X" = XX'

I-023

SHEET 150 OF 150